COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

NOTICE OF AVAILABILITY
AND
PUBLIC MEETINGS
LAC+USC MEDICAL CENTER CAMPUS MASTER PLAN
DRAFT ENVIRONMENTAL IMPACT REPORT

To: State Clearinghouse, Responsible and Trustee Agencies, and Interested Individuals

Subject: Notice of Availability of the Draft Environmental Impact Report for the LAC+USC Medical Center Campus Master Plan Project

Project Title: LAC+USC Medical Center Campus Master Plan

Lead Agency: County of Los Angeles

The County of Los Angeles (County), as the lead agency, has completed the Draft Environmental Impact Report (Draft EIR) for the LAC+USC Medical Center Campus Master Plan. The Draft EIR is available for a 45-day public review and comment period starting **September 5, 2014**, and ending **October 20, 2014**.

The Draft EIR can be reviewed on the County's website (http://ceo.lacounty.gov/pdf/NOA_08-26-2014_final.pdf) and copies of the Draft EIR will be available for public review at the following locations:

Chinatown Branch Library 639 N. Hill Street Los Angeles, CA 90012 (213) 620-0925	Lincoln Heights Library 2530 Workman Street Los Angeles, CA 90031 (323) 226-1692	El Sereno Branch 5226 Huntington Drive Los Angeles, CA 90032 (323) 225-9201
Malabar Branch Library 2801 Wabash Avenue Los Angeles, CA 90033 (323) 263-1497	Benjamin Franklin Library 2200 East 1st Street Los Angeles, CA 90033 (323) 263-6901	Anthony Quinn Library 3965 East Cesar Chavez Avenue Los Angeles, CA 90063 (323) 264-7715
City Terrace Library 4025 East City Terrace Drive Los Angeles, CA 90063 (323) 261-0295	LAC+USC Medical Center Inpatient Tower and Outpatient Clinic – Information Desks 2051 Marengo Street Los Angeles, CA 90033 (323) 409-1000	

The proposed LAC+USC Medical Center Campus Master Plan Project (proposed project) consists of a master plan that is envisioned over a period of approximately 25 years, that would be used to guide future development of the LAC+USC Medical Center campus and would influence the delivery of health care services and health related community programs. The goals of the Master Plan are to:

1. Achieve a community-friendly campus
2. Promote healthy lifestyles and wellness
3. Maximize access to the Medical Center by the community
4. Provide opportunities for appropriate education and job training
5. Incorporate on-campus business opportunities
6. Plan for future program development

The Draft EIR has identified potentially significant impacts that may result from the proposed project related to biological resources, geology and soils, hazards/hazardous materials, hydrology/water quality, public services, and utilities. Mitigation measures have been identified that could reduce many of these impacts to less than significant. However, unavoidable significant impacts would occur as a result of the proposed LAC+USC Medical Center Campus Master Plan in the following areas: air quality, cultural resources, transportation/traffic, greenhouse gas emissions, and noise and vibration.

Interested parties may submit their comments on the Draft EIR to:

Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 S. Fremont Ave.
Alhambra, CA 91803-1331
E-mail: cnash@dpw.lacounty.gov

Due to the time limits mandated by California law, comments on the Draft EIR must be sent at the earliest possible date but not later than **5:00 p.m.** on **Monday, October 20, 2014**.

Questions regarding this notice should be directed to Ms.Nash at (626) 300-2363 or at the e-mail shown above Monday through Thursday, between 7:30 a.m. and 6:00 p.m.

Public meetings will be held on **Saturday, September 20, 2014, from 10:00 am to 12:00 pm** and on **Tuesday, September 23, 2014, from 5:30 pm to 7:30 pm**, to solicit comments from interested parties on the Draft EIR's analysis of the proposed project. The public meetings will be held at the following location:

LAC+USC Medical Center
Inpatient Tower, Conference Room D
2051 Marengo Street
Los Angeles, CA 90033

Please note that all visitors are subject to routine screening.

Each meeting will be identical in terms of content and format.

Free Parking in Lot 9D on Marengo Street, enter from Brittania Street.
Served by Metro Lines 70, 71, 605, 751, and
Boyle Heights and Lincoln Heights DASH.

FAMILIES AND CHILDREN WELCOME!
Refreshments will be served.

Spanish and Chinese translation will be provided.

Si necesita asistencia con la traducción al español, por favor comuníquese con el representante del departamento de Obras Públicas del Condado de Los Ángeles, Sr. Anaya al (213) 312-1772.

Upon 72 hours' notice, Public Works can provide program information and publications in alternate formats or make other accommodations for people with disabilities. In addition, program documents are available at our main office in Alhambra (900 S. Fremont Ave.), which is accessible to individuals with disabilities. To request accommodations ONLY or for more Americans with Disabilities Act information, please contact our departmental Americans with Disabilities Act Coordinator at (626) 458-4081 or by TDD (626) 282-7829, Monday through Thursday, from 7:00 a.m. to 5:30 p.m.

DRAFT ENVIRONMENTAL IMPACT REPORT

SCH# 2014051061

LAC+USC MEDICAL CENTER
CAMPUS MASTER PLAN

PREPARED FOR:

County of Los Angeles
900 South Fremont Avenue
Alhambra, California 91803

PREPARED BY:

ICF INTERNATIONAL

September 2014

ICF International. 2014. Draft EIR. LAC+USC Medical Center Campus Master Plan. September. (ICF 00127.14.) Los Angeles, CA. Prepared for the County of Los Angeles Department of Public Works, Alhambra, CA.

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Acronyms and Abbreviations

°F	degrees Fahrenheit
AAQS	ambient air quality standards
AB	Assembly Bill
ACA	Affordable Care Act
ACMs	asbestos-containing materials
ACWM	asbestos-containing waste materials
ADT	average daily traffic
ALS	Advanced Life Support
AQMPs	air quality management plans
ARB	California Air Resources Board
ASCE	American Society of Civil Engineers
ASFs	age sensitivity factors
ASTs	aboveground storage tanks
ATCS	Adaptive Traffic Control System
ATSAC	Automated Traffic Surveillance and Control
B.P.	Before Present
Basin	South Coast Air Basin
Basin Plan	Water Quality Control Plan, Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BAU	business as usual
BMPs	best management practices
BNSF	Burlington Northern Santa Fe
Board	Los Angeles County Board of Supervisors
BOS	City of Los Angeles Bureau of Sanitation
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal ARP	California Accidental Release Prevention
Cal/EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery

Caltrans	California Department of Transportation
CBC	California Building Code
CBSC	California Building Standards Code
CCA	California Coastal Act
CCAA	California Clean Air Act
CCAP	Community Climate Action Plan
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CH_4	methane
City	City of Los Angeles
CIWMP	County Integrated Waste Management Plan
CMA	Critical Movement Analysis
CMAQ	Congestion Mitigation and Air Quality
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Commission	California Building Standards Commission
County	County of Los Angeles
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSE	Countywide Siting Element
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted sound level
DOGGR	Division of Oil, Gas, and Geothermal Resources

DPM	diesel particulate matter
DPR	Department of Pesticide Regulation
DPW	Department of Public Works
DTSC	Department of Toxic Substances Control
du	dwelling unit
EDR	Environmental Data Resources
EG	electric generation
EIR	environmental impact report
EMS	emergency medical services
EO	Executive Order
EOR	enhanced oil recovery
EPA	U.S. Environmental Protection Agency
EPD	Environmental Programs Division
ESA	Endangered Species Act
EV	electric vehicle
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
HABS/HAER	Historic American Buildings Survey/Historic American Engineering Record
HCFCs	halogenated chlorofluorocarbons
HCMs	Historic-Cultural Monuments
HFCs	hydrofluorocarbons
HMA	hazardous materials assessment
HMMP	Hazardous Materials Management Plan
HOT	high-occupancy/toll
HRA	health risk assessment
HSC	Health and Safety Code
HTP	Hyperion Treatment Plant
HVAC	heating, ventilation, and air-conditioning
HWCL	Hazardous Waste Control Law
Hz	Frequency
I	interstate

I-10	San Bernardino Freeway
I-5	Golden State Freeway
in/s	inches per second
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resources Plan
IRWMP	Integrated Regional Water Management Plan
ITE	Institute of Transportation Engineers
kHz	kilohertz
ksf	thousand square feet
LAC+USC	Los Angeles County University of Southern California
LACFCD	Los Angeles County Flood Control District
LACM	Natural History Museum of Los Angeles County
LACOE	Los Angeles County Office of Education
LADOT	Los Angeles Department of Transportation
LADPH	Los Angeles Department of Public Health
LADRP	Los Angeles Department of Recreation and Parks
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department
LAMC	Los Angeles Municipal Code
LAPD	Los Angeles Police Department
LAPL	Los Angeles Public Library
LARWQCB	Los Angeles Regional Water Quality Control Board
LASD	Los Angeles County Sheriff's Department
LAUSD	Los Angeles Unified School District
LBP	lead-based paint
LCFS	low-carbon fuel standard
L_{dn}	day-night average sound level
LED	light-emitting diode
L_{eq}	equivalent noise level
LID	low-impact development
L_{max}	maximum sound level
L_{min}	minimum sound level
LOS	level of service
LQG	large-quantity generator

LST	localized significance threshold
LUST	leaking underground storage tank
master plan	LAC+USC Medical Center Master Plan
MATES III	Multiple Air Toxics Exposure Study III
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
mg/m^3	milligrams per cubic meter
mgd	million gallons per day
MMRP	mitigation, monitoring, and reporting plan
MMT	million metric tons
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
mpg	miles per gallon
MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MT	metric tons
MWD	Metropolitan Water District
MWh	megawatt hours
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCPA	Natural Community Conservation Planning Act
NCP	National Contingency Plan
NEIS	North East Interceptor Sewer
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List

NPPA	Native Plant Protection Act
NRC	noise reduction coefficient
NRHP	National Register of Historic Places
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OITC	outdoor-indoor transmission class
OPD	Outpatient Department
OSHA	Occupational Safety and Health Administration
Pb	lead
PECs	potential environmental concerns
PFCs	perfluorocarbons
PFYC	Potential Fossil Yield Classification
PG&E	Pacific Gas and Electric
PIRP	Power Integrated Resource Plan
PM	particulate matter
PM10	particulate matter less than 10 microns in diameter
PM2.5	particulate matter 2.5 microns or less in diameter
Porter-Cologne or the Act	Porter-Cologne Water Quality Control Act
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
PPV	peak particle velocity
PRC	Public Resources Code
proposed project	LAC+USC Medical Center Project
RCNM	Roadway Construction Noise Model
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act of 1976
RENEW LA	Recovering Energy, Natural Resources, and Economic Benefit from Waste for Los Angeles Plan
RES	Renewable Energy Standard
RMP	Risk Management Plan
RMPP	Risk Management and Prevention Program
ROGs	reactive organic gases
RPS	Renewable Portfolio Standard

RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RTPs	regional transportation plans
RWQCB	Regional Water Quality Control Board
SAR	Second Assessment Report
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal information Center
SCE	Southern California Edison
SDG&E	San Diego Gas & Electric
SDWA	Safe Drinking Water Act
SEAs	Significant Ecological Areas
SF_6	sulfur hexafluoride
SFM	State Fire Marshal
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SQG	small-quantity generator
SRA	Source Receptor Area
SSO	Sheriff's Security Officer
ST	short term
STC	sound transmission class
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
Summary Plan	Integrated Waste Management Summary Plan
SUSMP	Standard Urban Stormwater Mitigation Plan
SWIRP	Solid Waste Integrated Resources Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis

TMDL	Total Maximum Daily Load
TMN	Traffic Noise Model
TPD	tons per day
TPH	total petroleum hydrocarbons
TSI	thermal system insulation
TSPs	total suspended particulates
U.S.C.	United States Code
UBC	Uniform Building Code
UNFCCC	United Nations Framework Convention on Climate Change
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC HSC	USC Health Sciences Campus
USFWS	U.S. Fish and Wildlife Service
USTs	underground storage tanks
UWMP	Urban Water Management Plan
V/C	volume to capacity
VMT	vehicle miles traveled
WCI	Western Climate Initiative
WDRs	waste discharge requirements
WRCC	Western Regional Climate Center
WSA	Water Supply Assessment
$\mu g/m^3$	micrograms per cubic meter
µPa	micropascals

Introduction and Background

This draft program environmental impact report (EIR) evaluates potential environmental impacts that could result from the implementation of the proposed LAC+USC Medical Center Campus Master Plan Project (proposed project) in the City of Los Angeles, California. The proposed master plan will guide development for a series of improvements to the medical center campus over the coming decades.

The 600-bed Los Angeles County - University of Southern California (LAC+USC) Medical Center is one of the largest public hospitals in the country. It has played an active and integral role in the health of Los Angeles County since the mid-1800s, increasing its presence and services as the need for quality health care grew with the County's population.

The introduction of the Affordable Care Act (ACA) is expected to influence services and operational priorities at the LAC+USC Medical Center in upcoming years. The expansion of health insurance to some 34 million persons is expected by 2019. The resulting challenges facing the LAC+USC Medical Center, as well as other County hospitals, will be even greater than private sector hospitals because of the medical center's role as a safety-net hospital.

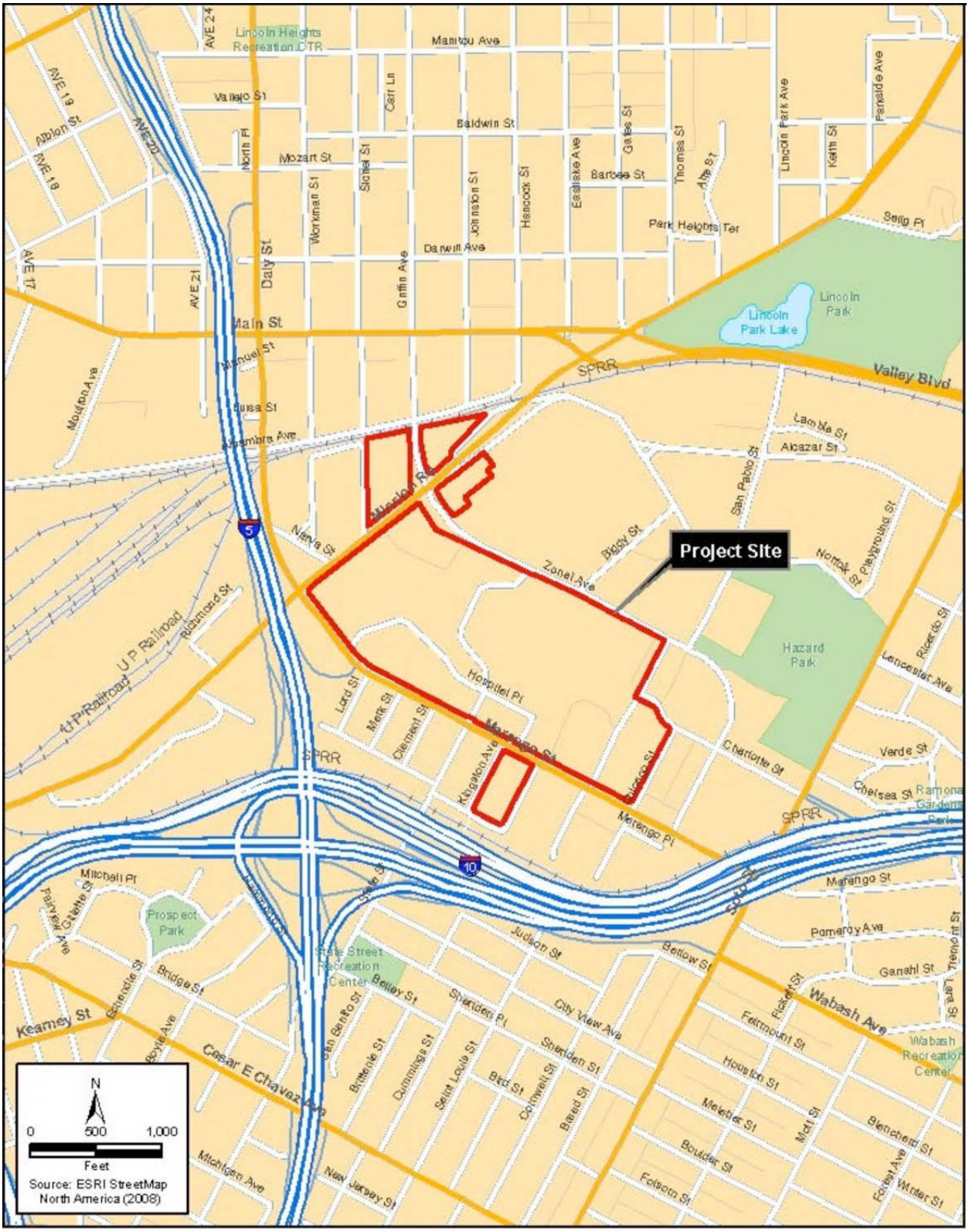
In October 2013, the County of Los Angeles (County) prepared the *LAC+USC Medical Center Campus Master Plan Report*, which summarized the research, findings, observations, and proposals for master planning options at the LAC+USC Medical Center Campus and identified seven master planning principles to determine the quality and effectiveness of the different options. Four master plan options were developed, which were based on an evaluation of the existing site, understanding of proposed program development, input from stakeholders, contributios from community residents and businesses, and vision for the site. A preferred master plan option (the proposed project) was subsequently selected.

Proposed Project Summary

Project Location

The LAC+USC Medical Center is located at 2051 Marengo Street, on several parcels of land owned by the County of Los Angeles. The proposed LAC+USC Medical Center Campus Master Plan (master plan) addresses issues concerning the entire LAC+USC Medical Center campus; therefore, the entire campus is considered the project site. The LAC+USC Medical Center Campus is surrounded by the Boyle Heights and Lincoln Heights neighborhoods of the City of Los Angeles, in Los Angeles County. Specifically, the main campus site is generally bounded by Zonal Avenue, Mission Road, Marengo Street, and Chicago Street. State Street bisects the project site. In addition, the project site extends to parcels on each side of Mission Road north of Zonal Avenue and on both sides of Griffin Avenue west of Mission Road. The site is located immediately northeast of Interstate (I) 5 (Golden State Freeway) and north of I-10 (San Bernardino Freeway). The project vicinity and master plan boundaries are shown in Figure S-1.

Figure S-1: Project Vicinity Map



Source: ICF International, 2014.

Proposed Project

The proposed LAC+USC Medical Center Campus Master Plan Project consists of a master plan, which is envisioned for a period of approximately 25 years, that would be used to guide future development of the campus and influence the delivery of health care services and health-related community programs.

The objectives of the master plan are to:

1. Achieve a community-friendly campus
2. Promote healthy lifestyles and wellness
3. Maximize access to the medical center by the community
4. Provide opportunities for appropriate education and job training
5. Incorporate on-campus business opportunities
6. Plan for future program development

Development under the master plan would include construction of new and renovated medically related office, retail, open space, and parking uses and demolition of existing buildings and structures to accommodate new development. Full build out of the master plan could result in a total of approximately 1,725,000 square feet of development throughout the campus.

The main elements of the proposed master plan are listed below:

- Inpatient Facilities
- Outpatient Facilities
- Medical Center Offices
- Central Utility Expansion
- Pedestrian Circulation and Access
- Biotech Research and On-campus Housing
- Parking Facilities
- Community Open Space and Landscape Conceptual Elements

These are represented visually in Figure S-2 and are described in further detail in Chapter 2 of this environmental impact report (EIR).

Alternatives Considered

The following alternatives to the proposed project were considered and are evaluated in Chapter 5 of this EIR:

Alternative A – No-Project Alternative: California Environmental Quality Act (CEQA) Guidelines Section 15126.6(e) require that a No-Project Alternative be evaluated in an EIR. Under the No-Project Alternative, the proposed master plan would not be implemented.

Figure S-2: Preferred Master Plan

1 – Parking Structure
2 – Biotech Research
3 – Adaptive Reuse
4 – Workforce Housing
5 – Parking Structure
6 – Biotech Research
7 – Bike Depot Pocket Park
8 – Biotech Research
9 – Entry Plaza
10 – Existing Thrift Shop & Coroner's Buildings to Stay
11 – Artist Meadows
12 – Biotech Research
13 – Existing Pharmacy Building to Stay
14 – Adventure Courtyard
15 – Biotech Research
16 – Community Gardens
17 – Market Plaza & Pedestrian Mall
18 – Community & Office Space Building
19 – Event Space & Central Plaza
20 – BioMed Research Buildings
21 – Underground Parking Structure
22 – The Hill Open Space
23 – New Overlook & Wellness Plaza
24 – New Parking Structure with Rooftop Farm
25 – New Outpatient & Office Building
26 – New Hospital Entry & Plaza
27 – New Outpatient & Office Building
28 – Existing Historic General Hospital – No Changes
29 – Parking Structure
30 – 3 New, 150-Bed Inpatient Towers
31 – Existing Medical Center – No Changes
32 – Existing Medical Center – No Changes
33 – Existing Central Utility Plant – No Changes
34 – Existing Parking Structure – No Changes

Source: LBL, Inc., 2014; ICF International, 2014.

Alternative B – Reduced Development Alternative: Alternative B would be a reduced-development alternative to the proposed master plan and would include the following exceptions:

Alternative B would only include one of the proposed three new inpatient towers in the area now occupied by the Outpatient Department and Interns and Residents buildings.

Alternative B would only include the development of 1/3 of the Biotech Research or workforce housing buildings proposed for the west campus. This would result in approximately 211,667 square feet, as opposed to 635,000 square feet of biotech research development under the proposed master plan.

Alternative C – Individual Development Zone Construction Alternative: Alternative C identifies distinct development zones as part of the master plan that would be constructed individually, rather than developing elements of the master plan on multiple zones concurrently. While this alternative would include the same elements as the proposed master plan, the elements would be constructed one zone at a time. By limiting construction activity to one development zone at a time, this alternative would reduce the potentially significant construction-related impacts of the master plan. The development zones consist of the Main Campus West, North of Mission Road, and Future Inpatient Bed Expansion zones (see Figures 5-1 through 5-3 in Chapter 5 of this EIR for depictions of these zones).

Issues to Be Resolved

The primary issue to be resolved is the lack of specificity regarding the projects that would be developed under the proposed master plan. As described in Chapter 2, the proposed master plan would be implemented over a period of approximately 25 years (2015–2040). The proposed master plan would guide future development on the campus and influence the delivery of health care services and health-related community programs over that timeframe. Development under the master plan would include the construction of new or renovation of existing office space for medical uses; development would also include new retail space, open space, and parking uses. The proposed master plan provides a framework for future development and conceptual plan for the campus; however, it does not include final and specific details on individual development projects such as proposed building locations and footprints, sizes, designs and architectural details, and construction schedules. Additionally, identification of funding for the individual projects that may be implemented under the master plan has not yet been determined.

Areas of Controversy

No significant areas of controversy were raised during the public scoping meeting held on June 4, 2014, or in response to the Notice of Preparation (NOP). However, concerns raised during the June 4, 2014, scoping meeting and in letters submitted to the County in response to the NOP include the following:

- Design of proposed structures and the possible obstruction of views due to their proposed heights (e.g., obstruction of views of downtown Los Angeles from the Clinic Tower building)
- Access for special-needs individuals
- Sewer availability and capacity concerns

- Impacts on historic resources
- Increased traffic congestion and resulting safety hazards
- Pedestrian hazards.

Please see the public responses to the NOP provided in Appendix A to this EIR for additional information on these and other issues raised by the public during the scoping period.

Table ES-1: Summary of Environmental Impacts of the Proposed Project

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Aesthetics			
Impact AES-1: *Would the Proposed Project Have a Substantial Adverse Effect on Scenic Vistas?* No designated scenic highways, corridors, or parkways have been identified within the project viewshed, and no recognized scenic vistas were identified within the community. Thus, no impact on a scenic vista would occur during construction and operation.	No impact	None	No impact
Impact AES-2: *Would the Proposed Project Substantially Damage Scenic Resources, Including, but not Limited to, Trees, Rock Outcroppings, and Historic Buildings within a State Scenic Highway*? The Women's and Children's Hospital, which is a historic resource and aesthetically noteworthy because of its architectural design, would be demolished to accommodate future master plan development. This visual impact would be significant and unavoidable.	Significant	See mitigation measure MM-CR-3 under Cultural Resources, below.	Significant and unavoidable
Impact AES-3: *Would the Proposed Project Substantially Degrade the Existing Visual Character or Quality of the Site and Its Surroundings?* During construction, the temporary presence of construction-related vehicles, equipment, barricading and	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
cranes, etc., and construction-related excavation and grading, would not result in significant changes to visual character, nor would these result in an overall significant reduction in visual quality. Because the project design elements would be appropriate to the setting in scale and design, no significant change in visual character or overall reduction in visual quality are anticipated to occur with implementation of the master plan.			
Impact AES-4: *Would the Proposed Project Create a New Source of Substantial Light or Glare that Would Adversely Affect Day or Nighttime Views in the Area?* The net contribution of project construction and operation activities, when considered in addition to existing urban sources of light and glare, would be negligible.	No impact (construction) Less than significant (operation)	None	No impact/less than significant
Air Quality			
Impact AQ-1: *Would the Proposed Project Conflict or Obstruct Implementation of the Applicable Air Quality Plan?* No significant impacts would occur, as the project would be consistent with the City of Los Angeles' General Plan and regional planning documents and thus consistent with the region's air quality plan.	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact AQ-2: *Would the Proposed Project Violate an Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation?* During construction, estimated daily criteria pollutant emissions could exceed South Coast Air Quality Management District (SCAQMD) regional construction-period thresholds for volatile organic compounds (VOCs) and nitrogen oxides (NOx). However, mitigation to reduce construction-related emissions would eliminate this impact. Operational emissions with implementation of the master plan would be below thresholds.	Potentially significant (construction) Less than significant (operation)	**MM-AQ-1**: To reduce VOC emissions during construction, the County (or its contractors) shall use low-VOC coatings that go beyond the requirements of SCAQMD Rule 1113 and have a VOC content of 10 g/L or less during construction. **MM-AQ-2:** To reduce NO_X emissions during construction, the County (or its contractors) shall ensure that all off-road diesel-powered equipment used during construction will be equipped with an EPA Tier 4 Interim engine, except for specialized construction equipment in which an EPA Tier 4 Interim engine is not available. The use of Tier 4 Interim engines will also act to reduce ROG and PM emissions from construction equipment. **MM-AQ-3:** To reduce NO_X and PM emissions during construction, the County (or its contractors) shall implement the following measures during construction. • Haul and delivery truck idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to less than 3 minutes (beyond that required by the California airborne toxics control measure, 13 California Code of Regulations [CCR] 2485). Clear signage shall be provided for construction workers and construction vehicles at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • A traffic control plan shall be prepared.	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• A carpool program for construction workers, including incentivizing carpooling as well as providing bus service for crew members, shall be implemented. • Truck deliveries shall be consolidated when possible.	
Impact AQ-3: *Would the Proposed Project Result in a Cumulatively Considerable Net Increase in a Criteria Pollutant for which the Project Region Is a Nonattainment Area for an Applicable Federal or State Ambient Air Quality Standard (Including Releasing Emissions that Exceed Quantitative Thresholds for Ozone Precursors)?* Construction emissions could exceed thresholds for precursors to a nonattainment pollutant; however, mitigation to reduce construction-related emissions would eliminate this impact. No impacts would occur during operations because emissions would be below thresholds.	Potentially significant (construction) Less than significant (operation)	See MM-AQ-1 through MM-AQ-3, above.	Less than significant
Impact AQ-4: *Would the Proposed Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?* Construction activities could expose nearby sensitive land uses to substantial pollutant concentrations. NOx, PM10, and PM2.5 emissions could exceed thresholds. Mitigation to reduce fugitive dust and exhaust emissions would reduce but not eliminate this impact.	Potentially significant (construction) Less than significant (operation)	See MM-AQ-1 through MM-AQ-3, above.	Significant and unavoidable (construction) Less than significant (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
No significant impacts would occur with respects to health risk or operational pollutant concentrations.			
Impact AQ-5: *Would the Proposed Project Create Objectionable Odors that Would Affect a Substantial Number of People?* No significant impacts would occur, as the project would not create objectionable odors affecting nearby receptor locations.	Less than significant	None	Less than significant
Biological Resources			
Impact BIO-1: *Would Implementation of the Proposed Project Have a Substantial Adverse Effect, either Directly or through Habitat Modifications, on Any Species Identified as a Candidate, Sensitive, or Special-status Species in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS?* As discussed in Section 3.3.4.3 of this EIR, there are no candidate, sensitive, or special-status animal or plant species on-site, with the exception of two California black walnut trees. Construction of the proposed project could affect these two trees. However, the two black walnut trees do not represent a regionally significant population. The proposed project could require the removal of palm trees or other potential roost sites for Western yellow bats.	Significant	**MM-BIO-1:** To avoid impacts on roosting bats, preconstruction surveys shall be conducted prior to the on-set of work within the vicinity of vacant buildings and prior to tree removal. During surveys, biologists shall avoid unnecessary disturbance of potentially occupied roosts. Full-spectrum acoustic detectors shall be used during emergence surveys to assist in species identification. If it is determined that trees or structures in the project area are being used by bats as roost sites, the following protective measures shall be implemented: • Disturbance of maternity roosting structures or trees (e.g., structure removal, construction equipment operation near roosts, tree trimming or removal) shall not occur during the maternity period (April 15 to September 15) to avoid impacts on reproductively active females and active maternity roosts (whether colonial or solitary). The maternity roost shall remain undisturbed from the time it is located until the following September 15 or until a qualified biologist has determined the roost	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		is no longer active. No construction work shall occur at the roost or within a 100-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) until September 15. • Exclusion devices may be installed outside of the maternity period (September 16 to April 14) to preclude bats from occupying buildings during, or prior to the on-set of, construction. Exclusionary devices shall be installed only by or under the supervision of an experienced bat biologist. Eviction of bats roosting in trees outside the maternity season shall be done in favorable weather under the supervision of a qualified bat biologist and adhering to the following two-step removal process: o On Day 1, for trees with cavities, crevices, and exfoliating bark, and that are found to support roosting bats, Step 1 would be the removal of branches and limbs with no cavities. These limbs shall be removed by hand (e.g., using chainsaws). This will create a disturbance (noise and vibration) and physically alter the tree. Bats roosting in the tree, which may not have been detected during the preconstruction survey, will either abandon the roost immediately (rarely) or, after emergence, will avoid returning to the roost. For foliage roosting bats, Step 1 would be to remove adjacent, smaller, or non-habitat trees to create noise and vibration disturbance that would cause abandonment. On Day 2, under the	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		supervision of a qualified biological monitor familiar with the life history of subject bat species, the tree may be removed. o Qualified biologists should search all downed roost trees for dead and injured bats. The presence of dead or injured bats that are species of special concern shall be reported to CDFW. Non-maternity roost trees should ideally be removed or trimmed in the fall between September 16 and October 31. If the removal of non-maternity roost trees cannot be timed to occur within this period, tree trimming and removal of non-maternity roost trees shall be timed to avoid periods of inclement or unseasonably cold weather to avoid impacts on bats in torpor (a period of seasonal inactivity). In all circumstances, qualified biologists shall monitor non-maternity tree removal.	
Impact BIO-2: *Would Implementation of the Proposed Project Have a Substantial Adverse Effect on Federally Protected Wetlands, as Defined by Section 404 of the CWA, through Direct Removal, Filling, Hydrological Interruption, or Other Means?* No federally protected wetlands, as defined under Sections 401 and 404 of the Clean Water Act (CWA) or the California Coastal Act (CCA), are located within or immediately adjacent to the project site. Stormwater best management practices (BMPs) would be required to control erosion, minimize sedimentation, and control	No impact	None	No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
stormwater runoff water quality during construction activities. Additional source-control BMPs would also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-stormwater discharges. Therefore, construction and operation of the proposed project would not affect federally protected wetlands.			
Impact BIO-3: *Would Implementation of the Proposed Project Result in Substantial Interference with the Movement of any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors or Impede the Use of Native Wildlife Nursery Sites?* Bird species that are protected under the MBTA have the potential to nest in the existing ornamental vegetation on the project site. Some bird species that are protected by the MBTA may also nest on existing buildings. Removal of vegetation and the demolition of buildings during construction could result in direct impacts on nests that are protected under the MBTA. Also, high noise levels and dust from construction activity could cause indirect impacts on nests and cause failure. The destruction of an occupied nest would be a significant impact and a violation of the MBTA and the California Fish and Game Code. Therefore, this impact could be	Potentially significant	**MM-BIO-2:** The County shall avoid the nesting season for birds or conduct preconstruction nesting bird surveys if construction activities are carried out during the nesting season. To ensure compliance with the MBTA and similar provisions under Sections 1600–1616 of the California Fish and Game Code, the County of Los Angeles, through the general contractor, shall conduct all vegetation removal during the non-breeding season, between September 1 and February 14, or implement the following: • If the removal of vegetation, demolition of buildings, or noise-generating construction activities are scheduled between February 15 and August 31, the County of Los Angeles Department of Public Works or the construction contractor shall retain a qualified biologist (i.e., experienced with conducting nesting bird surveys) who shall conduct a focused nesting bird survey prior to the start of vegetation removal, building demolition, or noise-generating activities within any potential nesting habitat (i.e., all vegetation, buildings, eaves on buildings, etc.). The size of the nesting bird survey area shall be determined by a qualified biologist at the time of the survey and include the entire limits of disturbance. It may	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
significant.		also include a buffer area if deemed necessary by the biologist. The preconstruction nesting bird surveys shall be conducted no more than 7 days prior to initiation of vegetation removal, building demolition, or noise-generating construction activities. If no active nests are detected during these surveys, no restrictions on project activities shall be necessary. • If active nests are found, a qualified biologist shall identify and flag an appropriate buffer around the nest, and no construction activities shall occur within the buffer until the qualified biologist has determined that the young have fledged or the nest is no longer active. The specific buffer width shall be determined by a qualified biologist at the time of discovery and vary according to the bird species, site conditions, and the type of work activities to be conducted. • The survey results shall be submitted to County of Los Angeles Department of Public Works for review and approval of the recommended nest buffer areas, if any, prior to the commencement of any vegetation removal, building demolition, or noise-generating construction activities on the project site.	
Impact BIO-4: *Would Implementation of the Proposed Project Conflict with Any Local Policies or Ordinances to Protect Biological Resources, such as a Tree Preservation Policy or Ordinance?* Construction of proposed master plan facilities and structures could result in damage to or removal of vegetation on the project site, including native oak trees that have been planted in	Potentially significant	**MM BIO-3:** Prior to the removal of any trees, a qualified arborist shall inventory native oak trees on the project site to support the application regarding the impacts on oak trees. Oak tree permit requests require a property owner to file an application with the Department of Regional Planning and provide a filing fee, an oak tree report, site plans for the property, and maps of the surrounding area. The oak tree report shall include information about the protection of oak	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
ornamental areas. These trees are protected under the Los Angeles County Oak Tree Ordinance. Protected trees include native oaks that measure 8 inches or more in diameter or oaks with multiple trunks, with a combined diameter of 12 inches or more for the largest two trunks measured 4.5 feet above the natural grade. Potential damage to or removal of oak trees that are protected by the Los Angeles County Oak Tree Ordinance would be a significant impact.		trees that may be adjacent to construction activities that are to remain. The oak tree report shall also include the proposed replanting plan, in accordance with the required replacement ratio, for any oak trees that are to be removed.	
Cultural Resources			
Impact CR-1: *Would the Proposed Project Cause a Substantial Adverse Change in the Significance of a Historical Resource, as Defined in Section 15064.5 of the State CEQA Guidelines?* Significant impacts on historical resources would occur when the resources are demolished or when the characteristics that convey the resources' historical significance are materially altered. Proposed demolition of the Women's and Children's Hospital, which has been determined eligible for listing in the California Register of Historical Resources, would be a significant impact. Alterations to or demolition of contributing features of the General Hospital setting also has the potential to cause an adverse change in the significance of that resource.	Significant (construction) No impact (operation)	**MM-CR-1:** Prior to the removal of or alterations to the 1933 retaining walls or the overall setting of State Street, which are considered character-defining features of the General Hospital/Acute Unit setting, documentation of these features of the General Hospital setting in a manner that meets Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) standards shall be prepared. This shall include photographs and drawings of the current conditions, including State Street, the retaining walls, the forecourt, and the ancillary buildings. Preservation of the character-defining features shall be attempted. **MM-CR-2:** Prior to demolition of the Women's and Children's Hospital, documentation of this property to HABS/HAER standards shall be prepared. Character-defining features shall be called out, and a historic context for this building shall be prepared. **MM-CR-3:** A protection plan for the viaduct/tunnel shall be prepared prior to the construction of any master plan project that	Significant (construction – if the Women's and Children's Hospital, associated gatehouse, or other historic resources on the campus are demolished) No impact (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Operation of proposed master plan facilities would not have an adverse effect on historical resources.		would occur in the immediate vicinity of the viaduct/tunnel. This protection plan shall be prepared by a qualified historic preservation specialist who shall document the current condition of this structure before any construction begins and monitor the structure during construction. **MM-CR-4:** A historic structures report shall be prepared that identifies the character-defining features of the old Administration Building and the Pharmacy/Service Building, which will provide the basis for preparation of a protection and preservation plan for these buildings. The preservation and protection plan shall be prepared by a qualified historic preservation consultant who will document the current condition of the buildings and monitor the condition of the buildings during any construction activities. **MM-CR-5:** The County shall consult with a qualified historic preservation consultant to determine appropriate street and walkway lighting that both enhances the historic setting of General Hospital and provides sufficient illumination. All new material, such as streetlights, benches, bollards, and other street/landscape furniture, shall be chosen in consultation with the historic preservation expert and meet the Secretary of the Interior's Standards. **MM-CR-6:** Prior to proceeding with construction of individual development projects that could adversely affect properties 50 years of age or older on the medical center campus, the County shall evaluate those properties to determine their eligibility for the CRHR and/or NRHP.	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		MM-CR-7: An updated State of California Department of Parks and Recreation (DPR) 523 form shall be prepared by a qualified architectural historian, historian, or historical architect for General Hospital and its setting that specifically identifies the contributing and non-contributing features of the historic General Hospital and its setting. The DPR 523 form shall be prepared prior to undertaking of any work within the setting of General Hospital that could adversely affect this historic resource.	
Impact CR-2: *Would the Proposed Project Cause a Substantial Adverse Change in the Significance of an Archaeological Resource, as Defined in Section 15064.5 of the State CEQA Guidelines?* Given surface disturbances on the project site over the past 130 years, there is a low likelihood of encountering prehistoric and historic archaeological resources. Nonetheless, construction could affect and possibly disturb or destroy unknown archaeological resources, a potentially significant impact. Construction impacts would vary, depending on final plans, and would need to be analyzed in detail to determine what level of monitoring, if any, would be required. Operation of the LAC+USC Medical Center campus under the proposed master plan would not affect archaeological resources.	Potentially significant (construction) No impact (operation)	**MM-CR-8:** Prior to any demolition, grading, or excavation related to the construction of facilities or improvements under the master plan, a qualified archaeologist shall be retained by the County or construction contractor to determine which areas shall require cultural resources monitoring during initial ground disturbance. The location of construction activities that are likely to encounter subsurface sediments with archaeological sensitivity shall be determined by the qualified archaeologist upon review of project excavation and grading plans. If determined necessary, monitoring by a qualified archaeologist shall be conducted in the project area during all initial ground-disturbing activities. If, during cultural resources monitoring, the archaeologist determines that the sediments being excavated have been previously disturbed and are unlikely to contain significant cultural materials, the archaeologist shall request that monitoring be reduced or eliminated. Spot-check monitoring shall occur during all construction, on a schedule determined by the project archaeologist.	Less than significant (construction) No impact (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		If buried cultural resources such as trash deposits, building foundations, privy pits, flaked or ground stone, or human remains are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find. Treatment measures for items that are not associated with human remains typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.	
Impact CR-3: *Would the Proposed Project Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature?* Structural demolition and grading and excavation for new foundations and access routes, as well as excavation for parking structures, have the potential to destroy paleontological resources. Operation of the LAC+USC Medical Center campus under the proposed master plan would not affect paleontological resources.	Potentially significant (construction) No impact (operation)	**MM-CR-9:** Prior to any excavation related to the construction of facilities or improvements proposed under the master plan, a qualified vertebrate paleontologist with a graduate degree and more than 10 years of experience shall be retained by the County or construction contractor to determine areas that shall require paleontological monitoring during initial ground disturbance. The locations for construction activities, especially excavation for the proposed parking garages, which is likely to encounter subsurface sediments with high paleontological sensitivity, shall be determined by the qualified paleontologist upon review of project excavation and grading plans. Very shallow surficial excavations (i.e., less than 5 feet in depth) within areas of previous disturbance or areas of Quaternary younger alluvial deposits shall be monitored on a part-time basis to ensure that underlying sensitive units (i.e., Quaternary older alluvium) are not adversely affected. Areas consisting of artificial fill materials shall not require monitoring. If excavations for the project take place in Quaternary older alluvial deposits or within Fernando or Puente Formation bedrock, such	Less than significant (construction) No impact (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		excavations shall be monitored on a full-time basis by a qualified paleontological monitor and under the supervision of the qualified paleontologist. The paleontological resource monitoring shall include inspection of exposed rock units during active excavations within the geologically sensitive sediments. Monitoring may be reduced if some of the potentially fossiliferous units described herein are, upon exposure and examination by qualified paleontologic personnel, determined to have a low potential for containing fossil resources. The paleontologic monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall have authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules shall be made. To prevent construction delays, paleontological monitors shall be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment shall include handheld global positioning system receivers, digital cameras, and cell phones as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Fossils collected, if any, shall be transported to a paleontological laboratory for processing where	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		they shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility (such as LACM). Following analysis, a Report of Findings with an appended itemized inventory of specimens shall be prepared. The report and inventory, when submitted to the appropriate lead agency along with confirmation of the curation of recovered specimens into an established, accredited museum repository, shall signify completion of the program to mitigate impacts on paleontological resources.	
Impact CR-4: *Would the Proposed Project Disturb Any Human Remains, Including Those Interred Outside of Formal Cemeteries?* Ground-disturbing activities have the potential to unearth human remains. Implementation of the master plan and operation of proposed facilities would not affect buried human remains.	Potentially significant (construction) No impact (operation)	**MM-CR-10:** In the event that human remains are uncovered, construction plans shall specify that construction shall halt in the area of discovery, the area shall be protected, and no further disturbance shall occur, as specified by State Health and Safety Code Section 7050.5. The County coroner shall determine the origin and disposition of the human remains pursuant to PRC Section 5097.98. If the coroner recognizes the remains to be Native American, he or she shall contact the NAHC within 24 hours. For remains of Native American origin, no further excavation or disturbance shall take place until the most likely descendant of the deceased Native American(s) has made a recommendation to the landowner or the person responsible for the excavation work regarding the means for treating or disposing of the human remains and any associated grave goods, with appropriate dignity, as provided by PRC Section 5097.9. In consultation with the most likely descendant, the project archaeologist and the project proponent shall determine a course of action regarding preservation or excavation of	Less than significant (construction No impact (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		Native American human remains, and this recommendation shall be implemented expeditiously. If the NAHC is unable to identify a most likely descendant or the descendant fails to make a recommendation within 48 hours after being notified by the commission, the project archaeologist and the project proponent shall determine a course of action regarding preservation or excavation of Native American human remains, which shall be submitted to the NAHC for review prior to implementation.	
Geology/Soils			
Impact GEO-1: *Would the Proposed Project Expose People or Structures to Potential Substantial Adverse Effects, including the Risk of Loss, Injury, or Death, Involving Earthquake Fault Rupture, Seismic Shaking, Ground Failure, or Landslides?* The campus is not located within the vicinity of any known active or potentially active earthquake faults, but lurching or cracking of the ground surface during seismic events could occur. The western portion of the project site is located within an area that is considered susceptible to liquefaction and could result in differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of pavement. The potential for landslides or mudflows in the vicinity of the project site is low.	Potentially significant	**MM-GEO-1:** All recommendations included in the preliminary geotechnical evaluation prepared for the proposed project (see Appendix D) shall be followed. A detailed subsurface geotechnical evaluation shall be performed to address site-specific conditions at the locations of the planned improvements and provide detailed recommendations for design and construction. The geotechnical evaluation shall include the following measures to mitigate potential fault rupture, seismic ground shaking, and liquefaction hazards identified under Impacts GEO-1 and GEO-2. • *Seismicity*: Structural elements of future improvements shall be designed to resist or accommodate appropriate site-specific ground motions and conform to the current seismic design standards. • *Liquefaction*: An assessment of the liquefaction potential shall be made prior to detailed design and construction of project improvements. Structural design and mitigation techniques, such as in situ ground modification or supporting foundations with piles at depths designed specifically for liquefaction, shall be included.	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		To evaluate the potential for liquefaction, subsurface evaluation may be performed. Site-specific geotechnical evaluations that assess the liquefaction and dynamic settlement characteristics of the on-site soils shall include the drilling of exploratory borings, evaluation of groundwater depths, and laboratory testing of soils. Methods for construction in areas with a potential liquefaction hazard may include in situ ground modification, removal of liquefiable layers and replacement with compacted fill, or support of project improvements on piles at depths designed specifically for liquefaction. Pile foundations can be designed for a liquefaction hazard by supporting the piles on dense soil or bedrock located below the liquefiable zone or employing other appropriate methods, as evaluated during the site-specific evaluation. Additional recommendations for mitigation pertaining to liquefaction may include densification by installation of stone columns, vibration, deep dynamic compaction, and/or compaction grouting. The geotechnical evaluation shall include the following measures to mitigate unstable soil impacts identified under Impact GEO-3. • *Groundwater*: Excavations for foundations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and provide access for construction. All recommendations included in the preliminary geotechnical evaluation pertaining to groundwater shall be followed. Excavations for underground structures will	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		need to be performed with care to reduce the potential for lateral deflection of excavation sidewalls and/or shoring, which may also cause differential movement of structures located near the excavation. Further study, including subsurface exploration, shall be performed during the detailed design phase of future improvements to evaluate the presence of groundwater, seepage, and/or perched groundwater at the site and the potential impacts on design and construction of project improvements. An assessment of the potential for shallow groundwater shall be made during the design phase of the project, and mitigation techniques shall be developed as necessary. • Collapsible Soils/Settlement: An assessment of the potential for soils that are prone to settlement shall be made prior to detailed design and construction of project improvements, and mitigation techniques shall be developed, as appropriate, to reduce impacts related to settlement to low levels. During the detailed design phase of the project, surface reconnaissance and site-specific geotechnical evaluations shall be performed to assess the settlement potential of the on-site natural soils and undocumented fill. This may include detailed surface reconnaissance to evaluate site conditions, drilling of exploratory borings or test pits, and laboratory testing of soils, where appropriate, to evaluate site conditions. Prescribed mitigation measures for soils with the potential for settlement shall include either removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		construction of improvements, allowing for a settlement period after or during construction with new fills, or a specialized foundation design, including the use of deep foundation systems to support structures. Varieties of in situ soil improvement techniques are also available, such as dynamic compaction (heavy tamping) or compaction grouting. The geotechnical evaluation shall include the following measures to mitigate the expansive and corrosive soils hazards identified under Impact GEO-4. *Expansive Soils*: Mitigation techniques to reduce expansive soil potential shall be included as necessary. Techniques shall include overexcavation and replacement with non-expansive soil, soil treatment, moisture management, and/or a specific structural design for expansive soil conditions developed during the design phase. • *Corrosive Soils*: An assessment of the potential for corrosive soils shall be made during the detailed design phase of the project through soil testing procedures. Mitigation techniques shall be developed, as appropriate, to reduce impacts related to corrosive soils to low levels. Subsurface evaluation, including laboratory testing, shall be performed. Evaluation of the corrosive soil potential shall be accomplished through testing and analysis of soils at foundation design depths. The laboratory tests conducted on the soils prior to construction and improvement plan preparation shall include corrosivity tests. Review of these data by a corrosion engineer will result in corrosion protection measures that will be suitable to the project elements. Evaluation of the potential corrosive soils hazard shall be	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		performed prior to detailed design and construction so that, in the event the hazard exists, mitigation techniques may be implemented. To avoid site-specific subsurface evaluation, corrosion protection measures may be included in the initial design for the proposed project improvements. Mitigation for corrosive soil conditions may involve the use of concrete that is resistant to sulfate exposure. Corrosion protection for metals may be needed for underground foundations or structures in areas where corrosive groundwater or soil could cause deterioration. Typical mitigation techniques include epoxy and metallic protective coatings, the use of alternative (corrosion-resistant) materials, and selection of the appropriate type of cement and water/cement ratio.	
Impact GEO-2: *Would the Proposed Project Result in Substantial Soil Erosion or the Loss of Topsoil?* During the construction period, excavation, grading, and trenching would occur, creating the potential for erosion. Implementation of a Stormwater Pollution Prevention Plan (SWPPP) that incorporates BMPs in compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements would ensure that sediment would be confined to the construction area. During operation of proposed developments, improvements at the project site and incorporation of BMPs would ensure that on-site soil erosion would be minimized.	Less than significant	**MM-GEO-2:** All earthwork and grading shall be performed in accordance with the recommendations in the SWPPP and the Construction Activities Stormwater General Permit. Additionally, BMPs related to ongoing drainage design and maintenance practices shall be included in the SWPPP and implemented to reduce soil erosion during operation of the proposed project. The BMPs shall include design procedures such as a surface drainage design for roadways and facilities to provide for positive surface runoff and reduce concentrated runoff conditions. Other examples of BMPs include the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices.	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact GEO-3: *Would the Proposed Project Be Located on a Geologic Unit or Soil that Is Unstable or that Would Become Unstable, Potentially Resulting in an On-site or Off-site Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse?* For both construction and operation, the potential for subsidence on the project site is relatively low. However, groundwater may be encountered during excavation activities, which could cause soil instability. In addition, compressible/collapsible soils at the site would result in differential settlement and may contribute to soil instability.	Potentially significant	See MM-GEO-1, above.	Less than significant
Impact GEO-4: *Would the Proposed Project Be Located on Expansive Soil, as Defined in Table 18-1-B of the UBC (1994), or Corrosive Soils, Creating Substantial Risk to Life or Property?* Although not observed during the preliminary geotechnical evaluation, clayey soils may be present on the site, which could result in impacts related to expansive soils. Corrosive soils may also be present on the site, which could result in premature deterioration of underground structures or foundations.	Potentially significant	See MM-GEO-1, above.	Less than significant
Greenhouse Gas Emissions			
Impact GHG-1: *Would the Proposed Project Generate GHG Emissions, Either Directly or Indirectly, that May Have a Significant Impact on the Environment?*	Significant	**MM-GHG-1.** To reduce GHG emissions during operations, the County shall incorporate the following mitigation measures into the design of each new element, as practicable.	Significant and unavoidable

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
The projected level of development that could occur under the master plan could result in an estimated 37,281 metric tons (MT) of annual GHG emissions, which would exceed the 3,000 MT CO_2e threshold. Implementation of the project-related design features described in Chapter 2 of this draft EIR, as well as statewide measures associated with implementing AB 32, would reduce GHG emissions. However, construction- and operations-related GHG emissions would be considered a significant and unavoidable cumulative impact.		• Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on the building roofs and/or on the Project site to generate solar energy for the facility. The project applicant should commit to applying to the local utility to install the maximum number of solar panels possible. • Require all lighting fixtures, including signage, to be state-of-the art and energy efficient, and require that new traffic signals have light-emitting diode (LED) bulbs and require that light fixtures be energy efficient compact fluorescent and/or LED light bulbs. Where feasible use solar powered lighting. • Maximize the planting of trees in landscaping and parking lots. • Use passive heating, natural cooling, solar hot water systems, and reduced pavement. • Utilize only Energy Star heating, cooling, and lighting devices, and appliances. • Install light colored "cool" roofs and cool pavements. • Limit the use of outdoor lighting to only that needed for safety and security purposes. • Require use of electric lawn mowers and leaf blowers. • Require use of electric or alternatively fueled sweepers with HEPA filters. • Use of water-based or low VOC cleaning products. • Install Electric Vehicle (EV) Charging Stations on at-least 5% of all vehicle parking spaces, consistent with City of Los Angeles requirements for all new projects.	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact GHG-2: *Would the Proposed Project Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing Emissions of GHGs?* As discussed in Impact GHG-1, proposed project-related GHG emissions are expected to exceed the threshold of 3,000 MT of CO_2e. However, by adopting all feasible project design and mitigation measures to reduce GHG emissions, the proposed project would be consistent with and not frustrate any AB 32 Scoping Plan measures, nor be inconsistent in any way with the AB 32 goal of reducing state-wide GHG emissions to 1990 levels by year 2020.	Less than significant	See MM-GHG-1.	Less than significant
Hazards and Hazardous Materials			
Impact HAZ-1: *Would the Proposed Project Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials?* During the construction period, routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and caulking would occur, which would not pose a significant hazard. Asbestos-containing materials (ACM), lead-based paints (LBP), soils contaminated with hydrocarbons, and underground storage tanks may be encountered during construction, a potentially significant impact.	Potentially significant (construction) Less than significant (operation)	**MM-HAZ-1:** In order to minimize exposure, prior to demolition activities, asbestos-containing materials and lead-based paint surveys and evaluations shall be conducted in buildings that are to be demolished or renovated. Abatement measures shall be implemented in accordance with the recommendations of these evaluations. Asbestos surveys shall be conducted in accordance with SCAQMD Rule 1403, which specifies that all surveys are to be carried out by a Cal/OSHA-certified asbestos consultant and will follow established survey protocols, notification, and work practice requirements. Lead-based paint surveys shall be carried out by California Department of Public Health(CDPH)-certified inspector/assessor. If necessary, a lead abatement plan would be prepared by the CDPH-	Less than significant (construction and operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Operation would involve the use and occasional transport of non-acutely hazardous chemicals for maintenance and cleaning, as well as the disposal of biomedical wastes.		certified project monitor or supervisor, and demolition activities would be performed by CDPH-certified workers. **MM-HAZ-2:** Prior to start of construction, an additional investigation of the leaking underground storage tank site at 1200 North State Street (according to SWRCB's GeoTracker website, groundwater is currently being monitored at the address) shall be conducted to determine its potential impact on project site development. In the event that environmental concerns are discovered, a certified geologist or industrial hygienist will specify an appropriate course of action, which may involve removal and disposal of contaminated materials, and remediation of the area of concern. **MM-HAZ-3:** As part of a Phase II Environmental Site Assessment, prior to construction, additional investigations at the former suspected locations of USTs (both abandoned in place and those where no records of removal have been found) and the former boilers and powerhouse. In the event that environmental concerns are discovered, a certified geologist or industrial hygienist will specify an appropriate course of action, which may involve removal, disposal, and remediation of the area of concern.	
Impact HAZ-2: *Would the Proposed Project Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment?* During the construction period, workers may encounter ACM, LBP,	Potentially significant (construction) Less than significant (operation)	See MM-HAZ-1 through MM-HAZ-3, above.	Less than significant (construction and operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
and other hazardous materials, which could be accidentally released into the environment, a potentially significant impact. Operation of future facilities and buildings on the campus would entail the use of solvents, cleaning agents, paints, pesticides, diesel, petroleum fuels, batteries, and the disposal of biomedical wastes.			
Impact HAZ-3: *Would the Proposed Project Emit Hazardous Emissions or Involve Handling Hazardous or Acutely Hazardous Materials, Substances, or Waste within 0.25 Mile of an Existing or Proposed School?* The boundary of the campus is within 0.25 mile of Bravo Medical Magnet High School. The LAC+USC Children's Center is located on the western edge of the medical center campus. Demolition activities involving ACM and LBP or excavation activities in the vicinity of potential environmental conditions (PECs) may result in the release of hazardous materials, but such releases, if they occur, would be generally limited to the project site. Operation of facilities would entail the use of solvents, cleaning agents, paints, pesticides, diesel, petroleum fuels, and batteries, but in quantities that would not be considered hazardous.	Less than significant	See MM-HAZ-1 through MM-HAZ-3, above.	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact HAZ-4: *Would the Proposed Project Be Located on a Site that Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, Create a Significant Hazard to the Public or the Environment?* Several underground storage tanks, an active oil well, petroleum tanks, and pumps are all PECs within the vicinity of the site and could potentially be disturbed by construction activities, a potentially significant impact. Operation of future campus facilities would not pose a risk of disturbing PECs.	Potentially significant (construction) Less than significant (operation)	See MM-HAZ-1 through MM-HAZ-3, above.	Less than significant
Impact HAZ-5: *Would the Proposed Project Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan?* Construction activities could temporarily impair and/or interfere with emergency response access in the vicinity of the project site because of possible lane closures, detours, and construction-related traffic. Operation of future campus facilities would allow for adequate access within and around the project site.	Potentially significant (construction) No impact (operation)	See mitigation measures MM-PS-1 in Section 3.12, Public Services, and MM-TRAF-1 in Section 3.14, Transportation/Traffic.	Less than significant (construction) No impact (operation)
Hydrology and Water Quality			
Impact HYD-1*: Would the Proposed Project Violate Any Water Quality Standards or Waste Discharge Requirements?*	Less than significant	To ensure that potential impacts would remain less than significant, the following measures are proposed:	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
During construction, site grading activities and exposed soil could temporarily increase the amount of suspended solids (sediment) in sheet flow or runoff, which would enter the existing storm drain system. Similar to existing conditions, runoff during operation would be typical of urbanized areas and would include pollutants such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. However, a Standard Urban Stormwater Management Plan (SUSMP), BMPs, and low-impact development (LID) features would be implemented to minimize water quality impacts.		**MM-HYD-1**: Construction activity (clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement) resulting in a land disturbance of one or more acre, or less than one acre but part of the larger master plan for the campus must obtain the Construction Activities Storm Water General Permit. Prior to beginning any construction activity, the County shall require the contractor(s) to develop the SWPPP, Construction Activities Storm Water General Permit, erosion/sediment control plan, and submit these plans for approval by the governing regulatory agency. The contractor(s) shall then perform all construction activity in accordance with the recommendations in the SWPPP, the Construction Activities Storm Water General Permit, and erosion/sediment control plan. The contractor's erosion control plan must comply with the California Stormwater Best Management Practices Handbook and meet the requirements of the statewide Construction General Permit. **MM-HYD-2:** LID features shall be designed to improve water quality and minimize the leaching of nutrients from growing media. Best design practices based on the latest monitoring and research recommendations shall be incorporated. In addition to avoiding the use of growing media, mulch, and compost containing animal products, which may leach nutrients, design modifications may include incorporation of an internal storage zone. With an internal storage zone, the underdrain is elevated and anaerobic conditions are created, causing denitrification to occur, provided that a carbon food source is provided for the denitrifying bacteria. Additionally, due to	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		the large area of proposed landscaping, phosphorous is a likely pollutant in stormwater runoff from the site. s Phosphorous can be minimized through organic maintenance methods, Integrated Pest Management, and avoiding products containing animal manure or other animal products.Although these practices apply specifically to bioretention, they should also be considered for other landscape-based LID features that could be included in the final design. If phosphorous is added to the 303(d) list for the Los Angeles River Reach 2 or the Tier 3 Pollutants of Concern for the Los Angeles River Watershed Management Area, then it becomes a pollutant of concern for the receiving water body and the specialized design measures shall be incorporated at the landscape-based LID features proposed for the site.	
Impact HYD-2: *Would the Proposed Project Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge?* Construction activities could involve excavation below normal or seasonally high groundwater levels and seepage may be encountered. Construction would not deplete groundwater nor would it interfere with groundwater recharge. Operation of future facilities would increase water demand, but would also increase the amount of pervious surfaces that allow for groundwater recharge. The site would be planted with drought-tolerant species and would use reclaimed water or other	Less than significant	To ensure that impacts would remain less than significant, the following measures are proposed: **MM-HYD-3:** Where groundwater seepage is expected, permanent monitoring wells shall be installed during construction within and around the perimeter of each building to monitor the groundwater level and evaluate the performance of the dewatering system. Before starting dewatering operations, a baseline conditions survey shall be made of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures. All signs of existing distress shall be recorded. **MM-HYD-4:** Irrigation water demands above existing irrigation demands shall be met by alternative supply sources to the maximum extent technically feasible. The use of alternative water supply sources for irrigation shall be maximized to reduce the use of potable water for	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
alternative water source for irrigation.		irrigation and approximate existing irrigation demands. Alternative water supply sources include, but are not limited to, reclaimed water, gray water, harvested rainwater (stormwater), and air-conditioning condensate (although not specifically mentioned in the master plan, this could represent a significant source of clean irrigation water).	
Impact HYD-3: *Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, in a Manner that Would Result in Substantial Erosion or Siltation On- or Off-Site?* Grading and excavation would be required for building foundations, which could affect drainage on the project site, but standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance. During operation, structural BMPs that may be used as part of the master plan include filtration, runoff-minimizing landscaping for common areas, energy dissipaters, inlet trash racks, and water quality inlets such that substantial erosion or siltation would not occur.	Less than significant	See MM-HYD-1, above.	Less than significant
Impact HYD-4: *Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or*	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Amount of Surface Runoff in a Manner that Would Result in Flooding On- or Off-Site? Although grading would occur throughout the site during the construction period, the resultant ground disturbance would be spread over the site and would not alter the overall topography and the rate or amount of surface runoff resulting from project construction activities would be similar to the amount under existing conditions. Operation would entail increased amounts of pervious (landscaped) areas and the use of LID features; the amount of stormwater runoff from surface sheet flow and the storm drain system is anticipated to decrease as a result of the project.			
Impact HYD-5: *Would the Proposed Project Create or Contribute Runoff Water that Would Exceed the Capacity of Existing or Planned Stormwater Drainage Systems or Provide Substantial Additional Sources of Polluted Runoff?* Peak flow rates and runoff volumes from the campus would be the same or lower than existing rates/volumes and would not affect the capacity or hydraulic integrity of the existing public storm drain system.	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact HYD-6: *Would the Proposed Project Otherwise Substantially Degrade Water Quality?* See Impacts HYD-1 and HYD-5, above, for a discussion of potential impacts associated with degradation of water quality during construction and operation. There are no other methods by which water quality could be substantially degraded as a result of construction or operations on the project site.	Less than significant	To ensure that impacts would remain less than significant, the following measures are proposed: **MM-HYD-5:** During and after construction, positive drainage shall be provided to direct water away from buildings and foundations. Where positive drainage is not provided, area drains shall be used to drain depressions or low spots that are not part of the designed LID features. Area drains shall not be placed next to buildings or in contact with buildings. All area drains and LID features shall be located, at a minimum, 8 feet away from building foundations or as directed in the International Building Code or other regulatory requirements. Roof drainage shall be controlled and directed to proper drainage devices in an acceptable manner or to LID features. **MM-HYD-6:** An Operations and Maintenance Plan shall be developed for LID features at the site during the design of the initial development projects and expanded as development progresses and different LID features are added. The plan shall consider impacts on water quality and address issues related to Integrated Pest Management or organic maintenance practices, including those for hand weeding. The use of fertilizers, pesticides, herbicides, and products containing animal manure or animal products shall be avoided within any LID features at the project site. Outside of the LID features, Integrated Pest Management and organic maintenance practices shall be used.	Less than significant
Impact HYD-7: *Would the Proposed Project Contribute to Inundation by Seiche, Tsunami, or Mudflow?* The project site is not located within a potential inundation area resulting from a dam failure. Additionally, the	No impact	None	No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
project site is approximately 19 miles inland from the Pacific Ocean. It is not within a potential tsunami inundation area or seiche or landslide/mudslide hazard zone. No impact would occur during construction or operation.			
Land Use/Planning			
Impact LU-1: *Would the Proposed Project Physically Divide an Established Community?* No new structures are proposed that would result in the demolition of residential uses in the surrounding neighborhood or divide an established neighborhood. Temporary land use construction impacts would be less than significant.	Less than significant	None	Less than significant
Impact LU-2: *Would the Proposed Project Conflict with any Applicable Land Use Plan, Policy, or Regulation of an Agency with Jurisdiction over the Project Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect?* The proposed project would be supportive of, or consistent with, the goals of the Regional Transportation Plan/Sustainable Communities Strategy and most of the relevant policies and objectives included in the Northeast Los Angeles Community Plan. Although most historical resources on the campus would be preserved, demolition of the historic Women's and Children's Hospital building would conflict with the	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Northeast Los Angeles Community Plan's Objective 14-1 to preserve, protect, and/or enhance the area's significant cultural and historical resources. The project's significant operational traffic impacts would also conflict with the relevant goals of the Northeast Los Angeles Community Plan. However, because the master plan would be consistent with most local land use plan policies and the because the medical center campus is not subject to the city's land use regulations, the proposed master plan would not result in significant impact due to conflicts with any applicable land use plans and policies.			
Noise			
Impact NOI-1: *Would the Proposed Project Expose Persons to or Generate Noise Levels in Excess of Standards Established in a Local General Plan or Noise Ordinance or Applicable Standards of Other Agencies?* Maximum construction noise levels would exceed the thresholds established for the project at on-site medical center buildings that house patients and at off-site residential properties. Proposed on-site non-residential buildings would be exposed to potentially significant exterior noise levels that would require exterior-to-interior noise mitigation per the California Green Building Standards Code (CALGreen).	Significant (construction and operation)	**MM-NOI-1: Reduce Construction Noise to the Extent Possible**. The County shall implement the following noise reduction measures during construction: • Construction activities should be limited to between the hours of 7 a.m. to 7 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays, and should not occur at any time on Sundays or legal holidays. Construction personnel should not be permitted on the job site, and material or equipment deliveries and collections should not be permitted outside of these hours. • To the fullest extent practicable, the quietest available type of construction equipment should be used. Newer equipment is generally quieter than older equipment. The use of electric powered equipment is	Significant and unavoidable (construction) Less than significant (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Proposed on-site residential buildings would be exposed to potentially significant exterior noise levels that would require exterior-to-interior noise mitigation per the County of Los Angeles Building Code. Mechanical equipment at the project site (HVAC, ventilation fans, central plant, etc.) has the potential to exceed the applicable City of Los Angeles noise standards at off-site sensitive receptors. Large organized outdoor events at the project site have the potential to exceed the applicable City of Los Angeles noise standards at off-site sensitive receptors.		typically quieter than diesel or gasoline powered equipment, and hydraulic powered equipment is typically quieter than pneumatic power. • Where possible, impact pile driving should be replaced with other piling techniques, such as vibratory pile driving or drilled and poured-in-place piles. • All mobile and fixed noise-producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of project activity. • All construction equipment should be properly maintained. Poor maintenance of equipment typically causes excessive noise levels. • All construction equipment, stationary and mobile, should be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment. • All noisy equipment should be operated only when necessary, and should be switched off when not in use. • The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. • To the extent practicable, temporary barriers should be employed around the project site and/or around noisy construction equipment.	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		For barriers to be effective they should break the line-of site between the equipment and any noise-sensitive receiver. These barriers may be constructed as follows: o From commercially available acoustical panels lined with sound absorbing material (the sound absorptive faces of the panels should face the construction equipment). o From common construction materials such as plywood and lined with sound absorptive material (the sound absorptive material should face the construction equipment). o From acoustical blankets hung over or from a supporting frame. The blankets should provide a minimum sound transmission class (STC) rating of 28 and a minimum noise reduction coefficient (NRC) of 0.80 and should be firmly secured to the framework with the sound absorptive side of the blankets oriented towards the construction equipment. The blankets should be overlapped by at least 6 inches at seams and taped so that no gaps exist. The largest blankets available should be used in order to minimize the number of seams. The blankets shall be draped to the ground to eliminate any gaps at the base of the barrier. • Construction employees shall be trained in the proper operation and use of the equipment. Careless or improper operation or inappropriate use of equipment can increase noise and vibration levels. Poor loading, unloading, excavation, and hauling techniques are examples of how a lack of adequate guidance and training may lead to increased noise and vibration levels.	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• Storage, staging, parking, and maintenance areas shall be located away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies should be positioned in a manner that will function as a noise barrier to the closest sensitive receivers. • Stationary noise sources such as generators and compressors should be positioned as far away as possible from noise sensitive areas. • Construction equipment shall be stored on the project site while in use. This will eliminate noise associated with repeated transportation of the equipment to and from the site. • To the extent possible, haul roads should not be designated through noise-sensitive areas **MM-NOI-2: Design Non-Residential Project Buildings to Comply with CALGreen Exterior-to-Interior Noise Control Standards**. During the architectural and engineering design phase of each new non-residential building that would be located within the 65 dB CNEL contour of any of the surrounding roadways (i.e., within 129 feet of Marengo Street, 172 feet of Mission Road, 46 feet of Zonal Avenue, 590 feet of I-5, or 482 feet of I-10), and prior to the issuance of any building permits for the building, the County shall retain an acoustical consultant to evaluate the design and provided recommendations, as necessary, to comply with the State of California Green Building Standards Code. Such mitigation measures may include, but are not limited to: installation of sound-rated windows or upgrades to façade wall elements. It is noted that this mitigation measure does not apply to "buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings." **MM-NOI-3: Design Residential Project Buildings to Comply with the County of Los Angeles Building Code's Interior Noise Standards**. During the architectural and engineering design phase of each new residential building to be developed as part of the project, and prior to the issuance of any building permits for the building, the County shall retain an acoustical consultant to evaluate the design and provided recommendations, as necessary, to comply with the County of Los Angeles Building Code's interior noise standard of 45 dB L_{dn} or CNEL. Such mitigation measures may include, but are not limited to: installation of sound-rated windows or upgrades to façade wall elements. **MM-NOI-4: Design Project Facilities to Ensure All Mechanical Equipment Complies with Chapter XI of the City of Los Angeles Municipal Code.** During the architectural and engineering design phase of each new facility (building, central plant, parking structure, etc.) that would introduce new mechanical equipment to the project site, and prior to the issuance of any building permits for the facility, the County shall retain an acoustical consultant to evaluate the design and provided recommendations, as necessary, to ensure that the mechanical equipment complies with Chapter XI of the City of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: changes in equipment locations, upgrades to central plant buildings, rooftop parapet walls, acoustical louvers or screens, or intake and exhaust silencers.	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		MM-NOI-5: Design and Manage Outdoor Use Areas to Ensure Organized Outdoor Events Comply with Chapter XI of the City of Los Angeles Municipal Code. Prior to the issuance of any building permits for outdoor use areas that are anticipated to host organized events such as outdoor markets, farmers markets, summer concerts and health marches, etc. the County shall retain an acoustical consultant to evaluate the design (event layout, sound system design, etc.) and operational event details (crowd sizes, times of operation, etc.) to ensure that such events will comply with Chapter XI of the City of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: controls on crowd sizes and event times, and limits on sound system power levels.	
Impact NOI-2: *Would the Proposed Project Expose Persons to or Generate Excessive Groundborne Vibration or Groundborne Noise Levels?* Construction vibration levels would exceed the threshold established for the project at both on-site medical center buildings that house patients and at off-site residential properties. Activities associated with operation of proposed master plan facilities are not expected to expose sensitive receptors to excessive groundborne vibration or noise.	Significant (construction) Less than significant (operation)	**MM-NOI-6: Reduce Construction-Generated Groundborne Vibration to the Extent Possible.** The County shall implement the following vibration reduction measures during construction: • Where possible, impact pile driving should be replaced with other piling techniques, such as vibratory pile driving or drilled and poured-in-place piles. • To the extent possible, heavy construction equipment should not be operated within 111 feet of on-site or off-site sensitive receptors.	Significant and unavoidable (construction) Less than significant (operation)
Impact NOI-3: *Would the Proposed Project Result in a Substantial Permanent Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project?*	Potentially significant	See mitigation measure MM NOI-4, above.	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
New on-site mechanical equipment has the potential to produce a substantial permanent increase in ambient noise levels at nearby off-site noise-sensitive receptors.			
Impact NOI-4: *Would the Proposed Project Result in a Substantial Temporary or Periodic Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project?* Project construction could cause a temporary substantial increase in ambient noise levels at nearby off-site sensitive receptors. Large organized outdoor events at the project site have the potential to cause a periodic substantial increase in ambient noise levels at nearby off-site sensitive receptors.	Potentially significant (construction and operation)	See mitigation measures MM-NOI-1 and MM-NOI-5, above.	Potentially significant and unavoidable (construction) Less than significant (operation)
Impact NV-5: *Would the Proposed Project be Located in the Vicinity of a Private Airstrip and Expose People Residing or Working in the Project Area to Excessive Noise Levels?* Aircraft operations associated with the two on-site helipads are not expected to change significantly as a result of the project and noise impacts would be less-than-significant.	Less than significant	None	Less than significant
Population/Housing			
Impact POP-1: *Would the Proposed Project Induce Substantial Population Growth in an Area, either Directly (e.g., by Proposing New Homes and Businesses) or Indirectly (e.g., through the Extension of*	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Roads or Other Infrastructure)? Because of the highly specialized nature of most construction projects, workers are likely to be employed on the job site only for as long as their skills are needed to complete a particular phase of the construction process. Additionally, the County has a large pool of construction labor from which to draw within commuting distance of the project site. Therefore, most construction workers would not relocate their households to work on proposed master plan development and improvement projects. The potential level of new development under the master plan could result in a net increase of 2,416 employees on the campus, which represents a relatively small percentage of the employment growth has projected in its regional and city forecasts. Additionally, development of on-campus housing may occur under the proposed master plan. However, the proposed project does not include the extension of roads or other infrastructure improvements outside the boundaries of the campus that would induce growth in the surrounding area.			
Impact POP-2: *Would the Proposed Project Displace Substantial Numbers of Existing Housing Units, Necessitating the Construction of Replacement Housing Elsewhere?*	No impact	None	No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Although development proposed under the master plan may include a small parcel dedicated to housing, there are currently no permanent housing units on campus. Thus, no displacement of existing housing as a result of implementation of the master plan would occur.			
Impact POP-3: *Would the Proposed Project Displace Substantial Numbers of People, Necessitating the Construction of Replacement Housing Elsewhere?* All development and facilities proposed under the master plan would be constructed within the existing boundaries of the medical center campus. No displacement of existing housing would occur; therefore, no persons would be displaced as a result of the proposed project.	No impact	None	No impact
Public Services			
Impact PS-1: *Would the Proposed Project Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Government Facilities, Need for New or Physical Altered Government Facilities, the Construction of Which Could Cause Significant Environmental Impacts, in Order to Maintain Acceptable Services Ratios, Response Times or Other Performance Objectives for Any of the Public Services?* Emergency access to the project site could be affected by master plan construction activities. Temporary	Potentially significant (construction) Less than significant (operation)	**MM-PS-1:** The Los Angeles County project manager and construction contractor shall regularly notify and coordinate with the LAFD, LASD and LAPD on project construction design, activities, and scheduling, including any on and off campus street or lane closures related to the proposed developments before construction begins.	Less than significant (construction and operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
lane closures and construction related-traffic could delay or obstruct the movement of emergency vehicles, a potentially significant impact. New development under the master plan would increase the number of campus employees and visitors. These increases are not expected to substantially increase the demand for public services that would require construction of new or altered facilities to maintain acceptable service ratios.			
Recreation			
Impact REC-1: *Would the Proposed Master Plan Increase the Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities such that Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated?* Given the limited opportunities for workers to use nearby recreational facilities during their break times, it is not expected that local park and recreational facilities would experience a substantial increase in use or physical deterioration as a result of the construction of projects under the proposed master plan. Additionally, it is not expected that growth in on-campus patient, visitor, or employee populations would result in a significant increase in the use of existing local parks or substantial physical deterioration of park facilities.	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact REC-2: *Would the Proposed Master Plan Include Recreational Facilities or Require the Construction or Expansion of Recreational Facilities that Would Have a Substantial Adverse Physical Effect on the Environment?* Construction of new landscaped open space areas on the medical center campus, as proposed under the master plan, would be limited to the project site. Staging for construction equipment and activities would not occur within any off-campus parkland or recreational facility. However, construction activities could result in noise and air quality impacts on nearby sensitive receptors, including local residents, hospital patrons, or possibly users of local park and recreational facilities. (See Air Quality, Noise discussions.) It is not expected that routine daily use of these open space areas by the community would result in significant operational impacts on the environment. However, the use of outdoor passive recreational spaces for special events that would attract a "large" number of attendees may result in intermittent, short-term traffic, noise, or air quality impacts. The noise generated by outdoor events could exceed applicable standards.	Potentially significant (construction and operation)	See air quality and noise mitigation measures identified above.	Significant and unavoidable (construction) Less than significant (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Transportation/Traffic			
Impact TRAF-1: *Would the Proposed Project Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System, Taking into Account All Modes of Transportation, Including Mass Transit and Non-motorized Travel, and Relevant Components of the Circulation System, Including Intersections, Streets, Highways and Freeways, Pedestrian and Bicycle Paths, and Mass Transit?* The extent of lane and sidewalk closures will not be known until individual development projects are proposed and project plans are developed. Nonetheless, to ensure construction transportation impacts due to projects proposed under the master plan would be minimized and reduced to a less-than-significant level, construction traffic control measures would be developed and implemented. Buildout of the master plan would result in significant impacts on the level of service at four intersections under the existing baseline plus-project scenario (study intersections 1, 9, 13, and 19) and cumulative year (2040) plus-project scenario (study intersections 9, 13, 19, and 20).	Potentially significant (construction) Significant (operation)	**MM-TRAF-1:** The County shall develop and implement traffic control measures for master plan projects that would result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic control during construction shall meet the requirements of the California Manual on Traffic Control Devices (CA-MUTCD). Daytime closures shall be covered by the applications shown in Chapter 6 of the manual. Overnight closures, long-term closures, and detours shall require a Traffic Control Plan, which shall be prepared as part of the project design package according to CA-MUTCD requirements. The Traffic Control Plan may include, but is not limited to, the elements listed below. Note that some of these elements may not be feasible or appropriate in all circumstances. The project-level environmental analysis shall identify the appropriate measures for each project. • Provide a roadway layout that shows the locations of construction activity and surrounding roadways to be used as detour routes, including special signage. • Establish detour routes in coordination with the City of Los Angeles to minimize disturbances to local traffic conditions; review potential detour routes to make sure adequate capacity is available. • Avoid creating additional delay at intersections that are currently operating under congested conditions either by choosing haul routes that avoid these locations (such as choosing haul routes that avoid the State Street/Marengo Street and State Street/Cesar Chavez Avenue	Less than significant (construction) Significant and unavoidable under the existing baseline plus-project scenario (intersections 1, 9, and 19) and cumulative year (2040) plus-project scenario (intersections 9, 19, and 20); if LADOT does not approve proposed mitigation measures at intersection 13, then the impacts at that intersection would also be significant and unavoidable under both scenarios.

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		intersections) or constructing during non-peak times of day (peak periods are generally 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m., Monday through Friday). • Maintain access to existing residences at all times. • Work with LADOT, LASD, LAFD, and LAPD to coordinate all construction-related plans and minimize disturbances to local EMS providers; ensure that alternative evacuation and emergency routes are designed to maintain response times during construction. • Provide adequate off-street parking areas at designated staging areas for construction-related vehicles. • Work with local and regional transit providers to maintain access and circulation routes to existing stops and stations during construction phases and identify appropriate detours to provide traffic rerouting during construction while minimizing disturbance to bus services. • Work with the City of Los Angeles to maintain continuity and operation of existing pedestrian and bicycle facilities during construction. **MM-TRAF-2:** To mitigate the significant traffic impact at the intersection of State Street and Marengo Street (study intersection #13) during the AM and PM peak hours, the southbound approach on State Street (within the LAC+USC Medical Center) shall be widened and reconfigured to provide one left-turn lane, one through lane, and one shared through/right-turn lane. Traffic signal enhancements, such as additional closed-circuit television cameras, should also be considered. In addition, the	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		existing westbound bus stop at this intersection on Marengo Street shall be relocated eastward to allow for the introduction of a separate westbound right-turn lane. The County shall consult with affected transit providers as well as LADOT to coordinate relocation of this bus stop. All elements of this mitigation measure need to be implemented to mitigate the significant impact. **MM-TRAF-3:** The County shall explore implementation of the following TDM measures to further reduce vehicle trips: • provide bicycle parking for new development that exceeds the County's code requirement; • provide other bicycle-supportive amenities such as bicycle lockers; • locate a station of a bicycle-sharing system on-site; • expand the County-operated Wellness Center Shuttle to include more stops on or near the site; and, • work cooperatively with other transit providers (Metro, LADOT, Metrolink, Foothill Transit, USC) to establish new transit stops or stations or to upgrade existing transit stops adjacent to the Medical Center or in the local area.	
Impact TRAF-2: *Would the Proposed Project Conflict with an Applicable Congestion Management Program, Including LOS and Travel Demand Measures, or Other Standards Established by the County Congestion Management Agency for Designated Roads or Highways?*	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Construction may require temporary road or lane closures, which, in turn, would result in a decrease in roadway capacity and increased congestion. However, the affected roadways would be located immediately adjacent to or in close proximity to the campus. No CMP arterials or freeway mainlines would be significantly affected by project construction activities. Because incremental project-related traffic in any direction during either peak hour is projected to be less than the criterion of 50 trips on CMP arterials and 150 trips in either direction during either the AM or PM peak hours, no further CMP arterial or freeway analysis is required, and the impacts are considered to be less than significant.			
Impact TRAF-3: *Would the Proposed Project Result in a Change in Air Traffic Patterns, Including either an Increase in Traffic Levels or Change in Location that Would Result in Substantial Safety Risks?* The proposed project would not result in a change in air traffic patterns or the location of the helipad. Helicopters would use the same routes they use now when landing on top of the new hospital emergency room.	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact TRAF-4*: Would the Proposed Project Substantially Increase Hazards Due to a Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)?* The impact of construction-generated traffic on safety could be significant for projects that would require roadways restrictions, lane closures, and similar actions. During operation of the proposed project, upgrades to the campus would improve design features for campus visitors and employees. These upgrades would include improved sidewalks and safe, pleasant pedestrian walking paths throughout the campus. Project improvements to access, wayfinding, and the general orientation of campus facilities would also improve safety for motorists, pedestrians, and bicyclists as they travel to and around the campus.	Potentially significant (construction) No impact (operation)	See mitigation measure MM-TRAF-1, above.	Less than significant (construction) No impact (operation)
Impact TRAF-5: *Would the Proposed Project Result in Inadequate Emergency Access?* Construction could require temporary road or lane closures. This, in turn, would result in a decrease in roadway capacity and increased congestion. However, coordination with EMS providers that serve the campus and surrounding communities, as described in mitigation measure MM-TRAF-1, would ensure that impacts on	Potentially significant (construction) No impact (operation)	See mitigation measure MM-TRAF-1, above.	Less than significant (construction) No impact (operation)

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
emergency access during construction would be less than significant. Operation of proposed facilities under the master plan would not affect emergency access to the campus.			
Impact TRAF-6: *Would the Proposed Project Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle Facilities, or Pedestrian Facilities or Otherwise Decrease the Performance or Safety of Such Facilities?* Construction of the proposed project could involve intermittent lane and sidewalk closures. These closures would occur for limited periods of time during construction of individual projects proposed under the master plan. Given the frequency and density of existing bus transit service in proximity to the project site, the incremental increase in the number of transit riders (on average, 3 or fewer passengers per bus) resulting from the project is not anticipated to result in a significant impact on the transit lines that serve the area.	Significant (construction) Less than significant (operation)	See mitigation measure MM-TRAF-1, above.	Less than significant (construction and operation)
Impact TRAF-7: *Would the Proposed Project Result in Inadequate Parking Capacity?* Construction workers could increase parking demand in the project vicinity; such demand could exceed the available parking supply. However, because development of the proposed master plan would result in	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
a net increase in the number of parking spaces compared with what is currently available on the campus and the removal of existing parking would be phased with corresponding development of new parking, the impact on parking demand on the campus during construction would be minimized. The provision of additional parking at the key locations identified above would minimize the project's operational parking impacts.			
Utilities and Service Systems			
Impact UTL-1: *Would the Proposed Project Exceed Wastewater Treatment Requirements of the Applicable Regional Water Quality Control Board?* Wastewater generated by construction workers would be relatively small and substantially less than the 501,393 gallons per day of wastewater generated by existing uses on the campus. Wastewater generated by future campus uses would be conveyed via sewer lines to the Hyperion Treatment Plant for treatment to full secondary standards. The treated wastewater, which is discharged via a 5-mile ocean outfall into Santa Monica Bay, is subject to state waste discharge requirements and federal NPDES permit requirements.	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact UTL-2: *Would the Proposed Project Require or Result in the Construction of New Water or Wastewater Treatment Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Impacts?* Although new on-campus sewer lines may have to be constructed or existing campus sewer lines relocated to accommodate future master plan projects, no new or expanded offsite water or wastewater treatment facilities would be required as result of development under the master plan and therefore, impacts would be less than significant. Increased water consumption and wastewater generation as a result of new uses that would be developed under the master plan would not require new water or wastewater treatment facilities.	Less than significant	None	Less than significant
Impact UTL-3: *Would the Proposed Project Require or Result in the Construction of New Stormwater Drainage Facilities or the Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects?* New grading required to construct proposed projects under the master plan would closely follow existing contours and direct stormwater runoff toward the center of the west campus.	Less than significant	None	Less than significant

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Operation would not require or result in the construction of new off-campus stormwater drainage facilities or the expansion of existing facilities.			
Impact UTL-4: *Would Sufficient Water Supplies be Available to Serve the Proposed Project from Existing Entitlements and Resources, or Require New or Expanded Entitlements?* Construction under the proposed project would not require new or expanded entitlements to ensure the availability of sufficient water supplies. The potential increase in consumption due to development under the master plan would be consistent with the Los Angeles Department of Water and Power's Urban Water Management Plan (UWMP). No new entitlements are anticipated through 2035, which is the horizon year for the UMWP's water demand forecasts. For master plan projects proposed beyond the year 2035, it's not known whether sufficient water supplies and entitlements would accommodate those projects' water demands..	Significant if it's determined that water supplies will not be sufficient to meet future projects' demands.	**MM-UTL-1:** In conjunction with preparation of a subsequent CEQA environmental document for any future development project under the master plan that is defined as a "water-demand project" in Section 15155 of the CEQA Guidelines, the County shall request, pursuant to Section 15155, that the water provider determine whether the projected water demand associated with the project was included in the most recently adopted urban water management plan. If required pursuant to Section 15155 and SB 610, the County shall request that LADWP prepare a water assessment for the proposed project. The County shall determine, pursuant to Section 15155, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.	Significant if it's determined that water supplies will not be sufficient to meet future projects' demands.
Impact UTL-5: *Would the Proposed Project Result in a Determination by the Wastewater Treatment Provider that Serves or May Serve the Project that it Does Not Have Adequate Capacity to Serve the Project's Projected Demand in Addition to the Provider's Existing Commitments?* Construction workers	Less than significant if BOS conducts further gauging and evaluation and identifies a sewer connection point with sufficient capacity.	**MM-UTL-2:** Prior to issuance of a building permit for any future development project under the master plan that could result in an increase in wastewater generation, the County shall coordinate with the City of Los Angeles Bureau of Sanitation to conduct further detailed gauging and evaluation to identify a specific sewer connection point with sufficient capacity. If the	Since the County cannot compel another public entity, in this case BOS, to conduct further gauging and evaluation, for the purposes of this EIR, the impacts on local sewer lines are considered to be

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
on the project site could generate a minor incremental increase in wastewater flows to the city's wastewater system. This increase would be insignificant and could readily be accommodated by the city's existing wastewater treatment system. All wastewater generated on the campus would ultimately be conveyed to the Hyperion Treatment Plant, which has sufficient capacity to accommodate the project as well as existing commitments.[1] Consequently, significant impacts on the city's wastewater treatment system are not anticipated. Additionally, the local sewer system may have sufficient capacity to accommodate wastewater flows from master plan development. However, if the City of Los Angeles Bureau of Sanitation (BOS) determines that there is insufficient capacity in local sewer lines to accommodate project flows, the impact would be significant.		public sewer has insufficient capacity, then the County shall be required to build a sewer line to a point in the sewer system with sufficient capacity.	significant and unavoidable.
Impact UTL-6: *Would the Proposed Project be Served by a Landfill that has Sufficient Permitted Capacity to Accommodate the Project's Solid Waste Disposal Needs?* Solid waste generated by construction activities and operation of new facilities proposed under the master plan can be served by a landfill that	Less than significant	None	Less than significant

[1] A. Poosti, Los Angeles Bureau of Sanitation, personal communication, July 16, 2014.

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
has sufficient permitted capacity to accommodate the project's solid waste disposal needs. Therefore, impacts would be less than significant.			
Impact UTL-7: *Would the Proposed Project Fail to Comply with Federal, State, and Local Statutes and Regulations Related to Solid Waste?* Development under the LAC+USC Medical Center Campus Master Plan would be subject to and comply with AB 939 and other solid waste regulations such as the Industrial Waste Control Ordinance of the Los Angeles Municipal Code, the City of Los Angeles Sewer Allocation (Ordinance No. 166060), and the California Solid Waste Reuse and Recycling Access Act, which governs building permits that oversee the transfer, receipt, storage, and loading of recyclable materials.	Less than significant	None	Less than significant
Impact UTL-8: *Would the proposed project result in a substantial increase in energy demand that would affect local or regional energy supplies and require additional capacity to meet the increased demand?* Construction activities would not result in a permanent increase in demand for energy resources. Therefore, construction of projects under the master plan would not require additional energy capacity to meet the increased demand. The impacts would be less than significant.	Impacts on natural gas supplies are considered to be potentially significant for master plan projects developed beyond the year 2030. Other energy impacts would be less than significant	No mitigation measures are required for energy impacts that would be less than significant. No feasible mitigation measures have been identified to address long-term impacts on natural gas supplies due to master plan projects developed after 2030.	Impacts on natural gas supplies are considered to be potentially significant for master plan projects developed beyond the year 2030. Other energy impacts would be less than significant.

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
The proposed master plan includes energy-efficient project design features and outlines plans to construct and implement sources of solar electric power, solar thermal and hot water, as well as ground-source heating for various facilities. These efforts, combined with compliance with Title 24's energy conservation standards for new construction would help to offset any additional energy consumption as a result of the proposed project. SoCalGas has projected natural gas supplies through the year 2030 and estimates that available capacity will exceed demand by 48%. Given projected natural gas supply and consumption trends, it is likely that there will be sufficient supply beyond 2030, however, SoCalGas has not made projections beyond that year. Therefore, for the purposes of this EIR, the impacts on natural gas supplies due to master plan projects constructed after 2030 are considered to be potentially significant. The net increase in the consumption of transportation fuels would represent an insignificant percentage of the anticipated amount of fuel that would be consumed statewide in the future (year 2030).			
Source: ICF International, 2014.			

Chapter 1
Introduction

This draft environmental impact report (EIR) evaluates potential environmental impacts that could result from the implementation of the proposed LAC+USC Medical Center Campus Master Plan Project (proposed project) in the City of Los Angeles, California. The proposed master plan would guide development and a series of improvements to the medical center campus over the coming decades.

1.1 Background

The 600-bed Los Angeles County - University of Southern California (LAC+USC) Medical Center is one of the largest public hospitals in the country. It has played an active and integral role in the health of Los Angeles County since the mid-1800s, increasing its presence and services as the need for quality health care grew with the County's population.

In 1998, the County of Los Angeles (County) embarked on a replacement for the General Hospital, which called for a 600-bed facility and associated modifications. Changes in medical delivery and technology, infrastructure demands, code and fire life/safety requirements, and changing patient expectations were some of the factors driving the need for a replacement facility. A significant amount of funding for the replacement facility came from the Federal Emergency Management Agency (FEMA) after General Hospital suffered building damage during the 1994 Northridge earthquake. Completed in 2008, the new LAC+USC Medical Center provides trauma, inpatient, and primary and specialty outpatient care services. Specifically, the replacement medical center project resulted in a new 600-bed Inpatient Tower, Clinic Tower, Diagnostic and Treatment Building, Central Plant, and Parking Structure (Marengo Structure, PS #9).

The introduction of the Affordable Care Act (ACA) is expected to influence services and operational priorities at LAC+USC Medical Center in upcoming years. The expansion of health insurance to some 34 million persons is expected by 2019. The resulting challenges facing LAC+USC Medical Center, as well as other County hospitals, will be even greater than private sector hospitals because of the medical center's role as a safety-net hospital.

In October 2013, the Countybegan preparing the LAC+USC Medical Center Campus Master Plan Report. One of the goals of campus master planning was to develop a community-friendly campus to promote healthy lifestyles that meld the needs of the surrounding communities, constituents served, and existing operations. The report summarized the research, findings, observations, and proposals for master planning options at the LAC+USC Medical Center Campus and identified seven master planning principles to determine the quality and effectiveness of the different plan options.

The principles include the following:

- Principle 1: Optimize the Value of the Campus.
- Principle 2: Strengthen LAC+USC's Image, Place, and Presence in the Community.
- Principle 3: Promote Wellness Activities and Culture.
- Principle 4: Enhance the Campus Experience for Visitors, Patients, and Professionals.

- Principle 5: Restore LAC+USC Campus as a Vibrant Destination.
- Principle 6: Demonstrate Sustainable Development.
- Principle 7: Create a Coherent Campus at Every Phase.

Four master plan options were developed that were based on an evaluation of the existing site, understanding of proposed program development, input from stakeholders, contributions from community residents and businesses, and a vision for the site. The four options were presented at community outreach meetings and a preferred master plan option (proposed project) was subsequently selected (see Chapter 2 for a description of the preferred master plan).

1.2 Overview of the CEQA EIR Process

The California Environmental Quality Act (CEQA) was adopted in 1970 so that the significant environmental effects of proposed actions would be disclosed to decision-makers and the public. CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies. Approval of the proposed project is a discretionary act by a public agency, in this case the Los Angeles County Board of Supervisors, acting on behalf of the County of Los Angeles as the lead agency for the project. Therefore, compliance with CEQA is required. The informational document that was prepared in compliance with CEQA to describe the proposed project's significant environmental effects, measures to mitigate those significant effects, and alternatives to avoid or minimize the significant environmental effects, is an EIR. The lead agency under CEQA for this EIR for the proposed master plan is the County of Los Angeles. The major steps that have been and will be taken by the County in preparing and processing the EIR in compliance with CEQA regulations are described below.

1.2.1 Notice of Preparation and Scoping Period

The County, in accordance with CEQA, prepared a Notice of Preparation (NOP), which was released to the public and filed with the State Clearinghouse (SCH No. 2014051061) in the Office of Planning and Research on May 19, 2014. The NOP provided notice to the public and public agencies that an EIR would be prepared, described the proposed project that would be evaluated in detail in the EIR, listed the probable environmental effects of the proposed project, and identified the date, time, and location for a scoping meeting, which was held on June 4, 2014, at the LAC+USC Medical Center.

The NOP was distributed to involved public agencies and interested parties for a 30-day public review period, which began on May 19, 2014, and ended on June 18, 2014.

A copy of the NOP is included in Appendix A of this EIR, along with comments provided by the public and public agencies in response to the NOP. Comments received in response to the NOP during the scoping period were considered in preparing this EIR.

1.2.2 Draft EIR Public Review and Comment Period

This draft EIR is now being distributed to the public and interested or affected agencies for review. Release of the draft EIR to the public begins a 45-day comment period, extending from September 5 to October 20, 2014. During that time frame, members of the public and public agencies are asked to review the draft EIR and provide comments on the document as well as the adequacy of the impact analyses.

The Draft EIR can be reviewed on the County's website (http://ceo.lacounty.gov/pdf/NOA_08-26-2014.pdf) and copies of the draft EIR have been made available for general public review at the following locations:

Chinatown Branch Library 639 N. Hill Street Los Angeles, CA 90012 (213) 620-0925	Lincoln Heights Library 2530 Workman Street Los Angeles, CA 90031 (323) 226-1692	El Sereno Branch 5226 Huntington Drive Los Angeles, CA 90032 (323) 225-9201
Malabar Branch Library 2801 Wabash Avenue Los Angeles, CA 90033 (323) 263-1497	Benjamin Franklin Library 2200 East 1st Street Los Angeles, CA 90033 (323) 263-6901	Anthony Quinn Library 3965 East Cesar Chavez Avenue Los Angeles, CA 90063 (323) 264-7715
City Terrace Library 4025 East City Terrace Drive Los Angeles, CA 90063 (323) 261-0295	LAC+USC Medical Center Inpatient Tower and Outpatient Clinic – Information Desks 2051 Marengo Street Los Angeles, CA 90033 (323) 409-1000	

Any individuals or parties may provide written comments on the Draft EIR. Written comments on the Draft EIR must be postmarked by October 20, 2014, and should be addressed to:

Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 S. Fremont Ave.
Alhambra, CA 91803-1331
E-mail: cnash@dpw.lacounty.gov

Public notice of the availability of the draft EIR was provided in the following publications:

- *Boyle Heights Beat/El Pulso de Boyle Heights*
- *Eastsider LA*
- *Downtown News*
- *Sing Tao.*

1.2.3 Preparation of the Final EIR and Project Approval

Upon completion of the 45-day draft EIR public review period, a final EIR will be prepared. The final EIR will include the comments on the draft EIR received during the formal public review period as well as written responses to those comments. The final EIR will also contain corrections to the text of the draft EIR, if needed. This draft EIR and the final EIR will make up the EIR for the proposed project.

If the decision-making body of the lead agency (here, the Los Angeles County Board of Supervisors [Board]) approves the proposed project, CEQA requires the Board adopt "findings" with respect to each significant effect identified in the EIR (Public Resources Code Section 21081; State CEQA Guidelines Section 15091). For each significant effect, CEQA requires the approving agency to make one or more of the following findings:

- Changes or alterations have been required for, or incorporated into, the project that avoid or substantially lessen the significant environmental effect, as identified in the final EIR.
- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

In the event that the County, as the lead agency, concludes that the proposed project will result in significant effects that would not be substantially lessened or avoided by feasible mitigation measures and alternatives, the County must adopt a "statement of overriding considerations" (Public Resources Code Section 21081, subd. (b); State CEQA Guidelines Section 15093). Under CEQA, such statements are intended to provide a written means by which the lead agency balances the benefits of the proposed project and the significant and unavoidable environmental impacts. Where the lead agency concludes that the economic, legal, social, technological, or other benefits outweigh the unavoidable significant environmental impacts, the lead agency may find such impacts "acceptable" and approve the project. In addition, pursuant to Section 21081.6 of the Public Resources Code, public agencies, when approving a project, must also adopt a program for monitoring or reporting the changes that were incorporated into the project or made a condition of project approval to mitigate or avoid significant effects on the environment. The purpose of the monitoring and reporting program is to ensure mitigation measures and project revisions identified in the EIR are implemented. The program, which will be referred to as the Mitigation Monitoring and Reporting Plan (MMRP) for the proposed project, will be recommended for adoption by the Los Angeles County Board of Supervisors at the time project approval is considered by the Board.

1.3 About This EIR

1.3.1 Program EIR

This EIR for the proposed project is a program EIR. A program EIR is described in Section 15168 of the State CEQA Guidelines as an EIR that "may be prepared on a series of actions that can be characterized as one large project and are related either geographically, as logical parts in the chain of contemplated actions, [or] in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program…" Because the proposed project consists of a master plan with components that would be implemented over a period of years, the County determined that a program EIR would be the appropriate document for the proposed project.

According to the State CEQA Guidelines, a program EIR can provide the following advantages:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
- Ensure consideration of cumulative impacts that may be slighted on a case-by-case basis;
- Avoid duplicative reconsideration of basic policy considerations;

- Allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts; and
- Allow a reduction in paperwork.

Subsequent activities (or projects) in the program or plan requiring further discretionary approvals would be examined in light of the program EIR to determine whether an additional environmental document should be prepared, as well as the appropriate format for the documentation. If the lead agency finds that the subsequent activity or project would not result in new effects or require new mitigation measures, the lead agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. If an EIR is required for a subsequent activity, the subsequent EIR can focus solely on new effects that were not considered in the program EIR.

1.3.2 Organization and Content of This EIR

This draft EIR conforms to the content requirements of the State CEQA Guidelines. A list of the chapters and a brief description of their content is provided here to assist the reader in locating information.

Executive Summary: The Executive Summary provides a brief description of the proposed project, including an overview of the impact analysis, recommended mitigation measures, and net residual impact. Summary information regarding the proposed project and key conclusions is also provided.

Chapter 1: Introduction: The Introduction provides a general orientation regarding the purpose of CEQA, as well as this draft EIR, and includes information on the CEQA EIR process.

Chapter 2. Project Description: This chapter presents a statement of the proposed project objectives, a description of the location and setting for the project, a detailed description of the proposed project's components, and related information regarding implementation.

Chapter 3. CEQA Environmental Impact Analysis: This chapter analyzes potential impacts under CEQA that could occur as result of approval and implementation of the proposed project. The impact discussion is organized into topical issues that have the potential to result in impacts on the environment.

Chapter 4. Other Analysis Required by CEQA: This chapter includes a discussion of other topics required by CEQA, including a listing of impacts found not to be significant, growth-inducing impacts, and irreversible changes that might occur as a result of the project.

Chapter 5. Alternatives Analysis: This chapter includes a discussion of the proposed alternatives to the proposed project and discusses the comparative merits of each, in accordance with State CEQA Guidelines Section 15126.6. The chapter also discusses alternatives that were considered but rejected as infeasible and identifies the environmentally superior alternative.

Chapter 6. List of Preparers This chapter lists persons who contributed directly to the preparation of this EIR.

Chapter 7. References: This chapter lists the sources of information that were referenced for the analyses contained within this EIR.

This draft EIR also includes a number of appendices, including a copy of the NOP/IS and public responses to the NOP, and technical analyses, which were the basis for the evaluation of project impacts presented in Chapter 3 of this draft EIR.

Chapter 2
Project Description

2.1 Introduction

This chapter describes the proposed LAC+USC Medical Center Campus Master Plan Project (proposed project). It includes a description of the project location and an overview of the existing environmental setting and discusses the project objectives, project elements, and construction schedule. A list of related projects is also provided.

2.2 Project Location and Environmental Setting Overview

The LAC+USC Medical Center campus is located at 2051 Marengo Street, on several parcels of land owned by the County of Los Angeles. The LAC+USC Medical Center campus is surrounded by the Boyle Heights and Lincoln Heights neighborhoods of the City of Los Angeles, in Los Angeles County. Specifically, the main campus site is generally bounded by Zonal Avenue, Mission Road, Marengo Street, and Chicago Street. State Street bisects the project site. In addition, the project site extends to parcels on each side of Mission Road north of Zonal Avenue and on both sides of Griffin Avenue west of Mission Road.

The site is located immediately northeast of Interstate (I) 5 (Golden State Freeway) and north of I-10 (San Bernardino Freeway). Figure 2-1 depicts the regional location of the proposed project, and Figure 2-2 depicts the boundaries of the master plan.

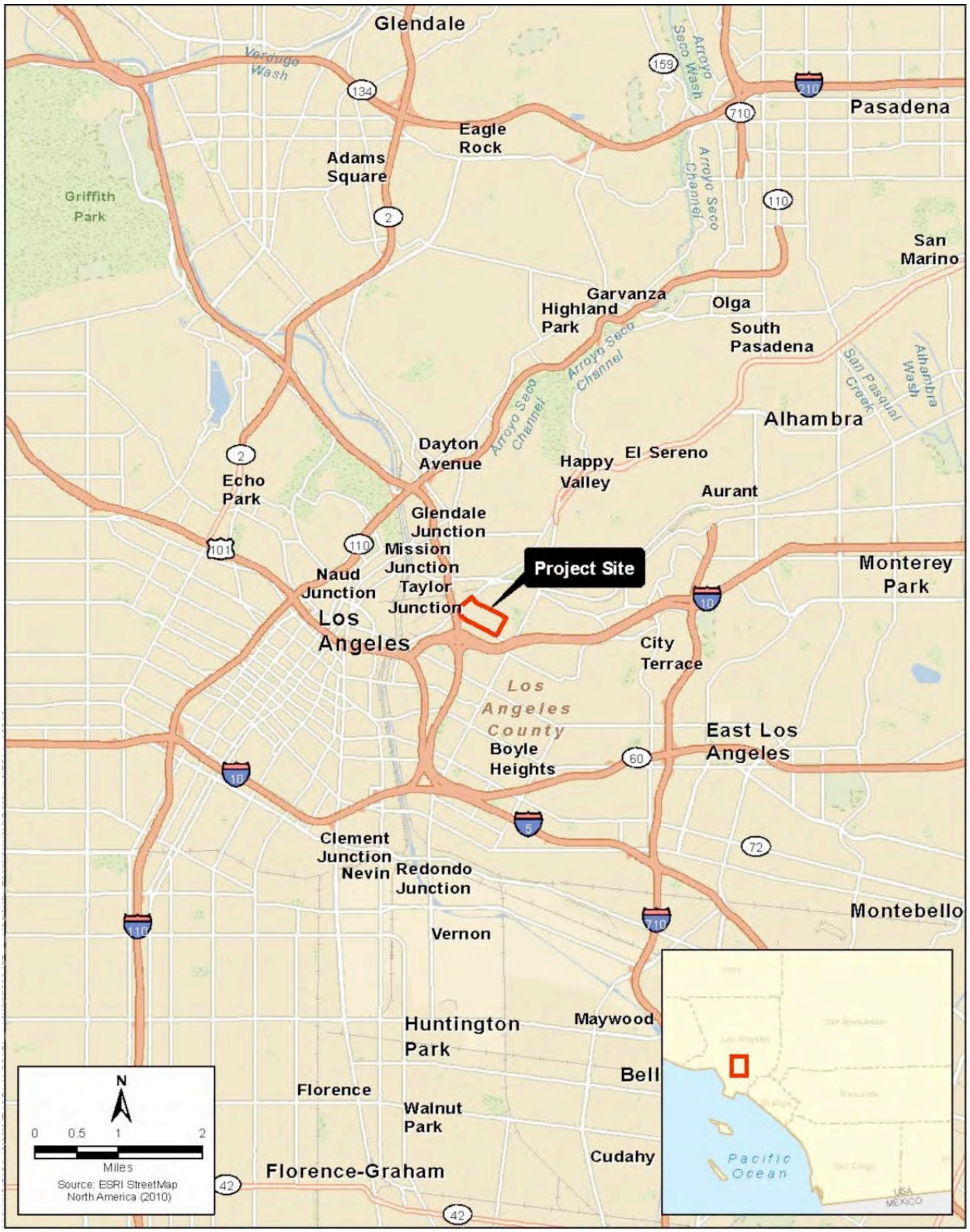
2.2.1 Surrounding Land Uses

The project site encompasses 76 acres owned by Los Angeles County in a completely developed area that supports a variety of land uses. Specifically, land uses located in the area surrounding the project site include County/public, residential, commercial, medical, and institutional uses. Residential neighborhoods are located to the east along Chicago Street and north of Alhambra Avenue. The USC Health Sciences Campus (USC HSC), which includes the Keck School of Medicine, USC School of Pharmacy, Keck Hospital, and the USC Norris Comprehensive Cancer Center, is located north of the project site, across Zonal Avenue. Hazard Park, and reservoir, is located 0.6 mile to the northeast. Francisco Bravo Medical Magnet High School is also located in the surrounding area, at the southwest corner of Zonal Avenue and Cornwell Street. Several County-operated services are located in the immediate area. Commercial uses are located west of the project site. Regional access to the project site is provided by I-5 and I-10.

2.2.2 Existing General Plan and Zoning

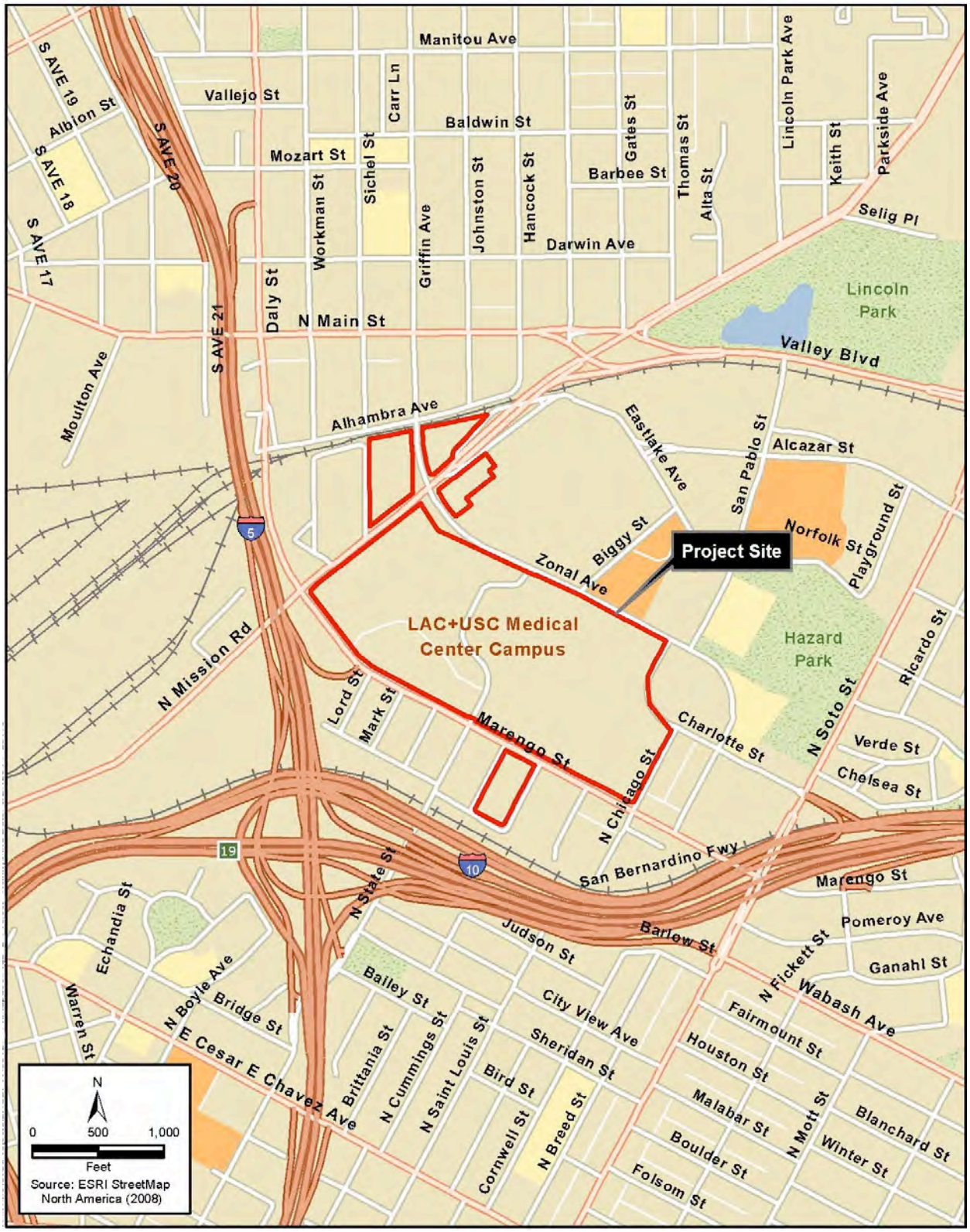
The properties that compose the LAC+USC Medical Center campus are zoned for public facilities (PF-1) by the City of Los Angeles. The area around the LAC+USC Medical Center campus is further defined by the City of Los Angeles as being part of a Community Center land use area.

Figure 2-1: Regional Location Map



Source: ICF International, 2014.

Figure 2-2: Project Vicinity Map



Source: ICF International, 2014.

2.3 Overview of Existing Campus Facilities

2.3.1 Site Attributes, Existing Buildings, and Current Utilization

The main campus (bounded by N. Mission Road on the west, Marengo Street on the south, North Chicago Street on the east, and Zonal Avenue on the north) is effectively divided into two distinct areas: the East Campus (east of State Street) and West Campus (west of State Street). State Street is the only street for vehicular traffic that crosses the main part of the campus. It bisects the campus between Zonal Avenue on the north and Marengo Street on the south and provides bus, shuttle, and private auto access to the existing plaza at General Hospital. It also provides a drop-off area for patients and visitors when going to the Clinic Tower building.

2.3.1.1 East Campus

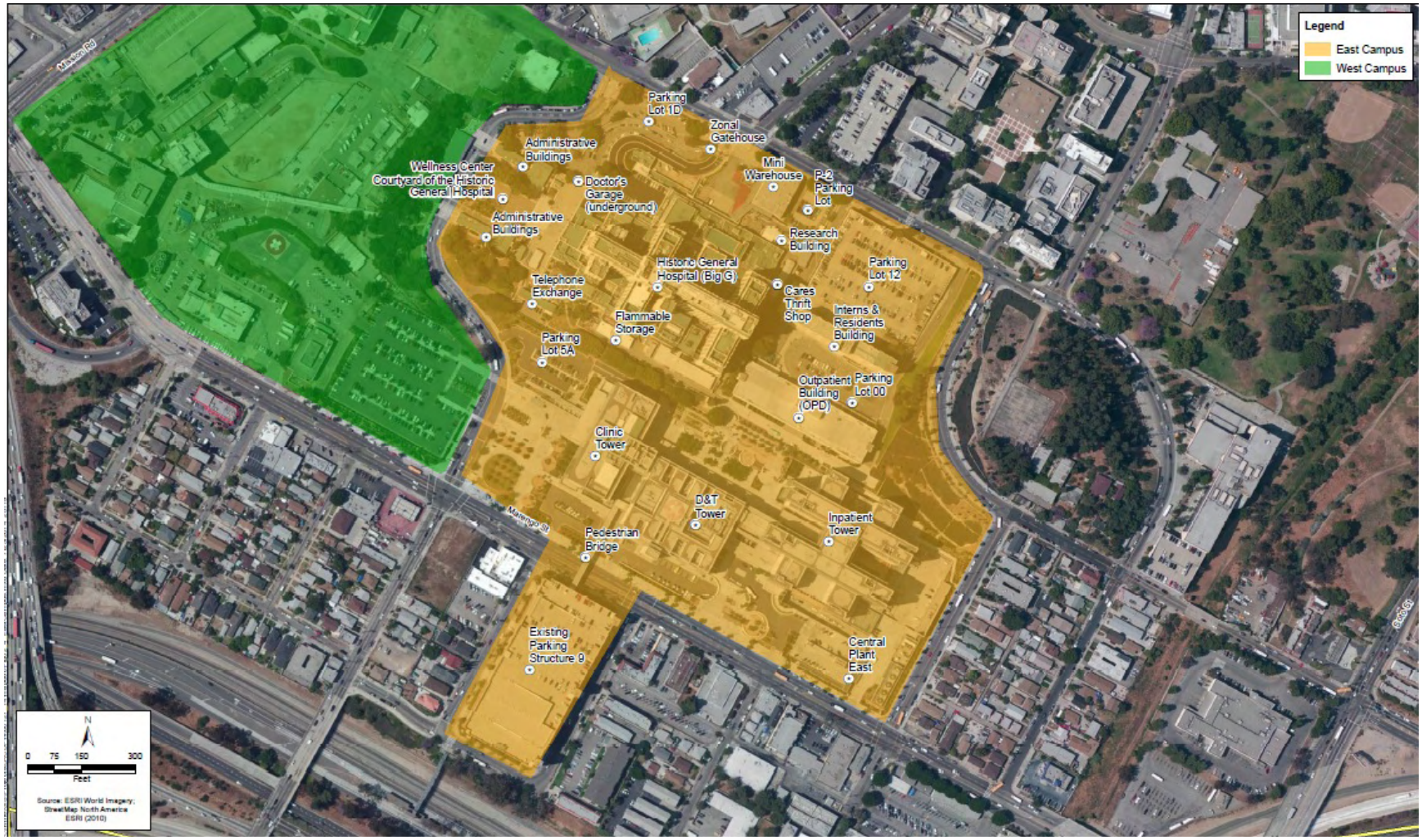
The area east of State Street contains the majority of the active clinical (both inpatient and outpatient) services on the campus. Figure 2-3 shows the existing configuration of the East Campus. This area contains the LAC+USC Replacement Hospital and Central Plant, the older Outpatient Department (OPD) building, and the new Clinic Tower (built in 2008). The Replacement Hospital buildings are connected to Parking Structure 9 by a pedestrian bridge that crosses over Marengo Street. This area is the primary public-facing portion of the LAC+USC Medical Center, representing the new "front door" of the LAC+USC Medical Center campus to the community.

Also located east of State Street is the former Interns and Residents building, currently used for hospital administration; several parking lots and Parking Structure 12 are also located east of State Street. However, the former General Hospital is the dominant building on this side of the campus because of its height and presence on a crest within the campus. General Hospital, a designated historic resource, was built in 1933 and will remain on the site at its current location and with its current façade elements. Although the recently opened Wellness Center describes planned changes on the 1st and 2nd floors of General Hospital and the surrounding gardens, there are no plans to implement any physical alterations to the outside appearance of General Hospital as part of this master plan. General Hospital was built along with two administrative buildings, a gatehouse, and a utility tunnel and bridge. Several modular structures have been added at the historic entry plaza as well as north, east, and south of General Hospital.

2.3.1.2 West Campus

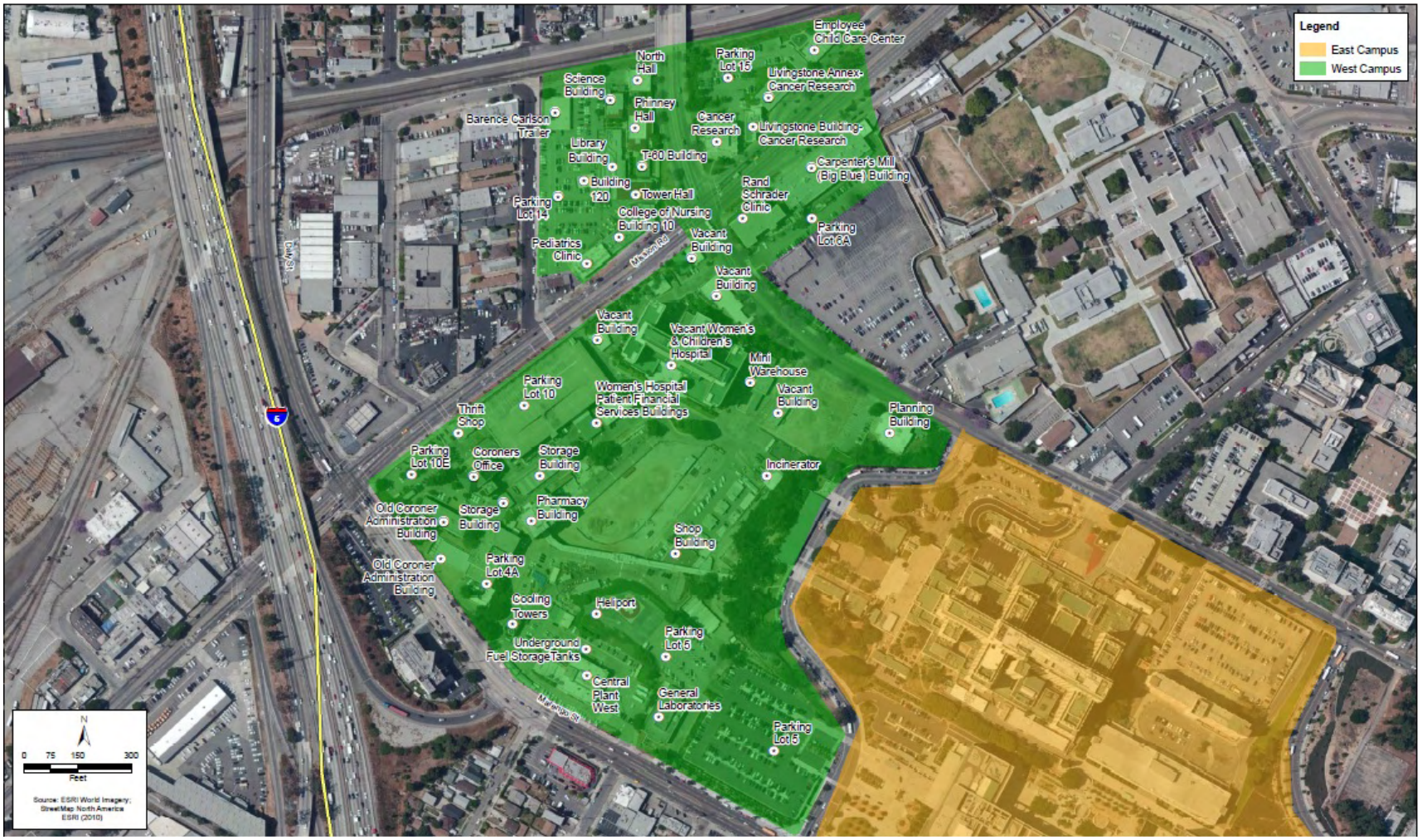
Most of the site west of State Street is under-utilized, and a large amount of open space is present. Figure 2-4 shows the existing configuration of the West Campus. The area west of State Street includes the Los Angeles County Coroner's facilities, on-grade and structural parking, and large under-utilized areas with a number of support buildings. Many of these buildings are one-story modular buildings and not in very good physical condition. Some are not fully functional; therefore, several campus programs are currently being housed in temporary buildings or trailers. During the building assessment analysis, many of the structures in this area were identified by the master plan team as candidates for eventual demolition or removal. Exceptions include the coroner's office, pharmacy building, and gatehouse, all of which are located on the southwest corner of the site. These three buildings have historic value and continue to be used for County functions.

Figure 2-3: East Campus



Source: ICF International, 2014.

Figure 2-4: West Campus



Source: ICF International, 2014.

At the southwest corner of Mission Road and Zonal Avenue is the decommissioned Women's and Children's Hospital. Directly across the street, to the northwest, a cluster of Spanish Colonial buildings houses facilities for administration, counseling, social work, facilities support, and clinical support. This area includes the College of Nursing and Allied Health as well as Parking Lot 14. At the southeast corner of Mission Road and Zonal Avenue is the Rand Schrader Clinic; the Carpenter's Mill building, known as "Big Blue"; and Parking Lot 6A. Across Mission Road, at the northeast corner of this intersection, several buildings are currently used for cancer research. Also on this corner are the Livingstone Annex, Parking Lot 15, and the employee childcare center.

The parcel on the northeast corner of Alhambra Avenue and Griffin Avenue is used for medical archive storage. It is also the site for Parking Lot 13. This parcel will not be included as part of the proposed master plan, and is thus not shown in the figures above. An additional parcel located between Valley Boulevard, Eastlake Avenue, and Alcazar Street is used as a storage and maintenance yard. This parcel is also not included as part of the proposed master plan, and is thus not shown in the figures above.

2.4 Proposed Project

The proposed LAC+USC Medical Center Campus Master Plan would be implemented over a period of approximately 25 years (2015–2040). The plan would guide future development on the campus and influence the delivery of health care services and health-related community programs. Development under the master plan would include the construction of new or renovation of existing office space for medical uses; development would also include retail space, open space, and parking uses. Demolition of some existing buildings and structures would be required to accommodate new development. Full buildout of the master plan could result in a total of approximately 1,725,000 square feet of development throughout the campus.

2.4.1 Master Plan Objectives

The objectives of the master plan are to:

1. Achieve a community-friendly campus
2. Promote healthy lifestyles and wellness
3. Maximize access to the medical center by the community
4. Provide opportunities for appropriate education and job training
5. Incorporate on-campus business opportunities
6. Plan for future program development

2.4.2 Elements of the Master Plan

The main elements of the proposed master plan are listed below. They are represented visually in Figure 2-5.

Figure 2-5: Preferred Master Plan

1 – Parking Structure
2 – Biotech Research
3 – Adaptive Reuse
4 – Potential Workforce Housing
5 – Parking Structure
6 – Biotech Research
7 – Bike Depot Pocket Park
8 – Biotech Research
9 – Entry Plaza
10 – Existing Thrift Shop & Coroner's Buildings to Stay
11 – Artist Meadows
12 – Biotech Research
13 – Existing Pharmacy Building to Stay
14 – Adventure Courtyard
15 – Biotech Research
16 – Community Gardens
17 – Market Plaza & Pedestrian Mall
18 – Community & Office Space Building
19 – Event Space & Central Plaza
20 – Biotech Research Buildings
21 – Underground Parking Structure
22 – The Hill Open Space
23 – New Overlook & Wellness Plaza
24 – New Parking Structure with Rooftop Farm
25 – New Outpatient & Office Building
26 – New Hospital Entry & Plaza
27 – New Outpatient & Office Building
28 – Existing Historic General Hospital – No Changes
29 – Parking Structure
30 – 3 New, 150-Bed Inpatient Towers
31 – Existing Medical Center – No Changes
32 – Existing Medical Center – No Changes
33 – Existing Central Utility Plant – No Changes
34 – Existing Parking Structure – No Changes

Source: LBL Inc., 2014; ICF International, 2014.

2.4.2.1 Inpatient Facilities

The master plan proposes up to three new inpatient towers with 150 beds each in the area now occupied by the OPD building, Interns and Residents building, and Parking Structure 12.

Figure 2-5, above, shows potential new connections and paths proposed as part of the master plan.

2.4.2.2 Outpatient Facilities and Medical Center Offices

The master plan addresses issues related to the medical center's ability to provide improved patient-centric services by planning for both the replacement of aging existing facilities (the OPD, for example) and the strategic expansion of outpatient clinic services in the future. New outpatient facilities proposed under the master plan would contain approximately 200,000 square feet of outpatient and clinic space. These outpatient buildings would be located on either side of State Street, in areas now occupied by Parking Lots 5 and 5A. In addition to providing much-needed administrative and office support space, the clinic space provided by the new buildings will allow for eventual replacement of the existing OPD and Interns and Residents buildings.

The master plan would include provisions to consolidate office space and improve current conditions by providing sufficient space for existing needs while providing for targeted growth. Specifically, the master plan would provide for approximately 265,000 square feet of new administrative office space, which would accommodate both existing needs as well as future needs with modest expansion. This office space would be located within the new outpatient facilities described above, which are envisioned for the space currently occupied by Parking Lots 5 and 5A.

2.4.2.3 Central Utility Expansion

Additional infrastructure would be provided to support future development proposed under the master plan. The existing central plant does not have sufficient capacity to support long-term planned growth on the campus.

Proposed improvements would include an increase in central plant capacity and additional space to support the central plant equipment required for full buildout of the master plan. The central plant would eventually be relocated to an area on the project site that is less visible to the public, an area that would total 40,000 square feet. Upon relocation, the central plant's current location would be used for future development of Market Park.

2.4.2.4 Pedestrian Circulation and Access

The existing topography of the LAC+USC Medical Center campus is difficult for pedestrians to navigate. This condition was frequently voiced by community residents during the public outreach effort at the community workshop sessions conducted as part of the master plan process. A critical component of the master plan is to alleviate these navigational challenges by specifically addressing the following:

- Create an "assisted grade transition" (with use of an escalator, for example) to improve accessibility between the existing courtyard of the LAC+USC Replacement Hospital and the upper OPD clinic building.
- Use elevators within the proposed parking structures west of State Street to provide an accessible route from Marengo Street to the Wellness Center at the historic General Hospital.

- Modify the slope of the hillside west of the historic General Hospital entry plaza and connect the proposed public-serving amenities at the base of the hill to the historic plaza with use of escalators.

2.4.2.5 Surrounding Streetscape, Vehicular Circulation, and Access

State Street

This is the only street that cuts through the center of the site. It is envisioned as a quiet street with limited vehicular access. Emergency and transit vehicles, as well as vehicles en route to the proposed parking areas, would have access but not the general public.

Proposed improvements along the street's extent would include sidewalks on both sides of the street, adequate lighting for pedestrian safety, an artistic canopied walk to connect the hospital's entry area to Wellness Center Park, and significant native canopy trees, such as California sycamores or coastal live oaks, to line the edges of the street.

Mission Road

The existing streetscape has little connection to the site because of walls and buildings, which block any physical or visual connection to the site. A priority will be to make the edge of the site more permeable. Some possible improvements could involve planting low-maintenance shrubs and groundcover in the parkways, supplementing the existing palm plantings with a flowering canopy tree, and adding site elements such as transit shelters, bike racks, pedestrian lights, and seating areas.

Marengo Street

Where feasible, the existing design in front of the Replacement Hospital, including the double row of trees, ample sidewalk widths, benches, and pedestrian lights, would be extended west of State Street to Mission Road. Additional streetscape amenities would be incorporated into the design, including a range of seating types, larger transit stations with ample seating, and navigational signage.

Zonal Avenue

Zonal Avenue is different from the previously described streets. It is quieter and less urban in character. Although a future bike path is planned for this street, instead of adding the bike path on the roadway portion of the street, the master plan proposes a new dedicated path within the campus property, inside the public sidewalk. The path would connect the proposed Bike Depot pocket park to the existing Hazard Park. Additional improvements would include flowering canopy trees along its extent, navigational signage, pedestrian lighting, and highlighted pedestrian crosswalks with decorative paving between the USC HSC and the project site.

Parking

Providing access to sufficient parking is a current challenge for the LAC+USC Medical Center. The proximity of parking to the campus is another issue. The master plan proposes additional parking in key locations by:

- Providing a new central drop-off location that would serve the existing hospital and future outpatient facilities, by expanding the current drop-off area on the east side of State Street, just north of Marengo Street.

- Providing additional parking in proximity to the new drop-off area.
- Providing parking for future outpatient, community, and office buildings.

2.4.2.6 Biotech Research and On-Campus Housing

The master plan would leverage the remaining underutilized areas in the northwest portion of the main campus by developing biotech research facilities. Under the proposed master plan, areas north of Mission Road and on either side of Griffin Avenue would include additional biotech research facilities, along with potential on-campus housing for members of the research and medical center community.

Additional community-serving functions along the north/south spine of the community could be combined with the new facilities for the College of Nursing and Allied Health. Although most of the proposed open space areas within the campus are intended to be open to the public, the biotech, research, and education courtyards are intended to be directly associated with the adjacent building uses. Public access would be determined by the building occupants.

It should be noted that the biotech research facilities and potential on-campus housing, because they are dependent on future market demand and funding availability, and would likely be developed in farther in the future, have not defined to the same extent as plans for other parts of the campus. The biotech research facilities and potential workforce housing in the northwest part of the campus are included for analysis at a more conceptual level to disclose to interested parties the current vision for development in the later years of the 25-year master plan. In particular, the potential workforce housing is undefined and the potential number of housing units have not been identified. However development of biotech research facilities is assumed to comprise 635,000 square feet for purposes of the analysis in this EIR. It is possible that the County may choose to revise the development vision for this portion of the campus at a later date, and in that case, the changes would be measured against the assumptions and analysis in this EIR to determine whether subsequent CEQA documents would need to be prepared to evaluate the environmental impacts of those changes.

2.4.2.7 The Adventure Courtyard

Using adjacent building façades, the Adventure Courtyard would provide an active and unique recreation space within the campus. Amenities would include an outdoor gym, a climbing wall, and an elevated rope course. This unique active recreation area on campus would be periodically open to the public. An ideal location would be within the courtyard space adjacent to The Commons near Mission Road.

2.4.2.8 Research Gardens

The proposed land use for this area would be related to education and research. Ideally, the gardens would be tied to the research that takes place within the buildings. Some ideas discussed as part of the master plan process include a medicinal plant garden, a pollinator garden, and a “water-wise” garden with both native and nonnative plant species that are appropriate for the area.

2.4.2.9 Community Open Space and Landscape Conceptual Elements

A total of 55,000 square feet of wellness-oriented meeting space and retail space as well as 50,000 square feet of community-serving education and office/recreation space would be located along a newly created north/south pedestrian circulation spine that would lead from Marengo Street to the corner of Zonal Avenue and Mission Road.

The Commons

The main public outdoor space proposed by the LAC+USC Medical Center Campus Master Plan would provide the campus with the following enhancements:

- A significant public outdoor space, linking the community and education facilities on Marengo Street with the Wellness Center at the historic General Hospital.
- Permanent administrative and office spaces for Department of Health Services functions, which are currently housed within General Hospital.
- Additional parking, both temporary surface parking as well as a new below-grade structure that would connect upper State Street with the lower Commons area.
- Expansion of the new central plant facility to support future development.

New Hospital Entry and Plaza Area at the State Street Entry

This area is intended to be an extension of the existing entry plaza on the east side of State Street. It would be designed to complement and build upon the style of the existing plaza. The new hospital entry and plaza area would become a "gateway" through the use of theme trees, colorful shrubs, and ground cover. The entry's design, complete with campus signage, would stand apart from the overall streetscape design.

Pedestrian Spines and Perimeter Landscaping

Improving pedestrian circulation on the grounds of the medical center would be provided through a series of pedestrian spines that would run north/south and connect access points along Marengo Street to access points along Zonal Avenue, thereby increasing the connectivity of the campus with respect to the adjacent community and the USC HSC to the north. These spines could be highlighted with improvements such as decorative paving, canopy trees, benches, signage, or lighting.

Overlook and Wellness Center Park at the Historic Plaza

Wellness Center Park would provide a variety of health-oriented amenities that would align with the master plan's open space vision. Maintaining the historical character and grand statement of the existing historic plaza would be a priority for the proposed improvements. However, providing shaded areas, a variety of gathering and seating options, a possible drop-off area, and accessible access to Wellness Center Park are other concerns.

The master plan proposes extending Wellness Center Park across State Street, with an overlook plaza that would provide views of the proposed Commons area. Key components of the plan include adequate shaded seating and a safe pedestrian crossing at State Street.

The Market Plaza

The proposed Market Plaza is envisioned as a major public pedestrian gateway to the campus and a significant public open space along Marengo Street. The plaza design would remain flexible to host a variety of community events and activities, such as outdoor markets with street vendors, organized weekly farmers markets, and other urban public events. Small-scale food kiosks and retail activities would also be part of the plaza. Canopy trees, public art, site lighting, seating areas, and shade canopies would all be incorporated into the plaza design. The Market Plaza would be located in the area between the existing central plant and Parking Lot 5.

The Community Garden

Located adjacent to the proposed Market Plaza and community buildings, a proposed community garden would provide accessible plots where residents of the adjacent community could maintain their own garden spaces. In addition to garden plots, the garden would have an outdoor classroom and gathering areas where local community groups could host meetings and other functions.

The Pedestrian Mall

The proposed Pedestrian Mall is envisioned as a vibrant pedestrian axis that would cut through the newly developed portion of the site, creating a public street that would be accessible to pedestrians and emergency vehicles only. The axis would be highlighted with a variety of shade trees, public art, navigational signage, lighting, and ample seating. The proposed Pedestrian Mall alignment would intersect an existing arched opening on an above-grade tunnel, thereby taking advantage of the historic site element and creating a gateway to the proposed community park, The Commons.

The Bike Depot Pocket Park

Although much smaller in scale than the proposed Market Plaza, the proposed Bike Depot would mark the northern terminus of the Pedestrian Mall. It is envisioned as a small pocket park at the intersection of Zonal Avenue and Mission Road. Both of these streets have future bike lanes/path improvements planned for them.

Improving access to the site and encouraging alternative modes of transportation are high priorities. The proposed Bike Depot would include bike storage options, a bike maintenance area, transportation information (e.g., maps, schedules), and a rest area. The area would also serve as a site gateway and a community pocket park, with shaded gathering areas, appropriate vegetation, signage, and public art.

Entry Plaza at the Historic Gate

The plaza is intended as a pedestrian gateway to the western edge of the campus, with the historic Los Angeles County Department of Coroner building in the foreground. Amenities would include social gathering areas, public art, and, if feasible, connections to existing transit stops.

Artist Meadows

The proposed Artist Meadow would provide both permanent and temporary exhibit space for local artisans within the setting of a native grassland landscape. The proposed meadow would be planted with native grasses and wildflower species and designed to create a habitat for urban pollinator species.

Treatment Wetlands

A large engineered wetland, a site-wide stormwater treatment best management practice, is proposed along the pedestrian spine at the lowest point on the site. The wetland would be an exemplary model of stormwater treatment strategies, demonstrating a variety of applications for the urban environment. In addition to being an environmental amenity, the wetland would be designed to be an accessible open space enhancement and an educational resource that would convey the importance of stormwater-related issues and the region's larger hydrological context.

Event Space and Central Plaza

At the center of the site, a large-scale event space is proposed. It is envisioned that Central Plaza would host community events, such as a summer concerts and health marches.

The Hill

One objective of The Commons is to help people navigate the site's topography. The Hill area of The Commons would extend the existing slope and create a less steep incline, which could be used to accommodate an accessible route across the site's change in elevation of approximately 40 feet. The Hill is envisioned as lightly programmed terrain with an urban forest, a gently sloping great lawn with views of the proposed event space, and a woodland walk with small informal gathering areas.

In an effort to encourage people to get outside and use the proposed open space amenities, three routes are proposed for going up The Hill: a gently graded path for universal access, a challenging staircase, and an exterior escalator. All of these routes would terminate at the proposed Overlook and Wellness Center Park at General Hospital.

The Hill area would be developed on top of a proposed subsurface parking structure. Adequate soil depths would be required to create the proposed urban forest on top of the parking structure.

The Rooftop Farm

In addition to the proposed community garden area, a community farm is proposed on top of the proposed parking structure that would be nestled in the existing site topography. The vision is for the area to be operated more like a farm rather than a community garden. The Rooftop Farm would provide fresh produce that could be used by the Food Services Department on campus.

The farm would be operated by Los Angeles County or leased out to a community organization, providing job opportunities and occupational training for the community. A combination of fields, orchards, and greenhouses would be incorporated into the design to ensure a year-round range of growing opportunities.

A summary of the proposed increases in building square footages and number of hospital beds is provided by land use category in Table 2-1 below. The analyses of the proposed master plan's environmental effects presented in this program EIR are based on the land uses and building square footages presented in Table 2-1.

Table 2-1: Summary of Proposed Master Plan Land Uses

Land Use	Existing Use to Be Removed (sf)	Proposed New Use (sf)
Wellness-Oriented Community Facilities	N/A	85,000 sf of wellness-oriented meeting space and community-serving space 20,000 sf of wellness-oriented community retail space
New Utility Plant and Facilities	31,000 sf of maintenance facilities 20,938 sf of utility plant and cooling towers	40,000 sf of new utility plant and maintenance facility
Outpatient Clinics/ Laboratories/ Medical Offices	457,727 sf of outpatient clinics/ laboratories/medical offices	200,000 sf of outpatient clinics/laboratories/medical offices
Professional/ Administrative Offices	197,288 sf of administrative office space	265,000 sf of professional and administrative offices
Research and Development	N/A	635,000 sf of research and development space
Hospital Addition (Inpatient)	N/A	450 new hospital beds in three new 150-bed towers*
Warehouse/Storage	15,756 sf of warehouse and storage trailers	N/A
Total	**722,709 sf**	**1,245,000 sf and 450-bed hospital addition**
Net Proposed: ~522,000 sf and 450-bed hospital addition		
* An estimate of the square footage for these towers is not yet available. Source: County of Los Angeles. 2014. LAC+USC Medical Center Campus Master Plan.		

2.5 Construction Scenario

Construction activities on the campus would occur over a 25-year period, from 2015 to 2040. Elements of the master plan, as described above, would be built as the funding for each element is appropriated. General construction activities would include the demolition of several structures, including the old utility and maintenance facility, OPD building, Interns and Residents building, Parking Structures 10 and 12, several modular buildings, and storage and warehouse buildings. Excavation would be required to lay the foundations for the new buildings. Finally, substantial grading would occur in the middle part of the campus. This would be for the parking structures as well as the community amenities, open space, and paths that have been proposed for this part of the campus. Staging areas for construction would be located within the campus. The staging locations would be determined by the construction contractor(s) in consultation with the County. In identifying potential staging locations, the contractor and the County will consider whether there is a sufficient buffer between the staging area and offsite sensitive land uses to ensure the impacts from construction staging on these uses would be minimized. Potential staging locations could include areas in the west campus, south of Zonal Avenue.

The timing of construction for individual project elements over the 25-year master plan timeframe (2015 to 2040) is not known, as they are dependent on securing necessary funding, among other factors. For the purposes of this program level EIR analysis, a conservative, worst-case scenario was assumed that envisions all of the project elements being constructed at once and overlapping, rather than individual master plan projects occurring sequentially.

2.6 Project Approvals

Implementation of the proposed project would require the following discretionary actions and permits from the County of Los Angeles Department of Public Works and other bodies and agencies:

- Regional Water Quality Control Board (National Pollutant Discharge Elimination System [NPDES] Construction General Permit).
- Haul Route Permit;
- Grading, excavation, and building permits;
- Approvals from the City of Los Angeles for off-site intersection improvements;
- Certification of the EIR and approval of the master plan by the County Board of Supervisors; and
- Any other permits or approvals that may be required.

2.7 Related Projects

A list of related projects has been developed. All projects that are proposed (i.e., with pending applications), recently approved, under construction, or reasonably foreseeable that could produce a cumulative impact on the local environment when considered in combination with the proposed project are included in an EIR. These projects can include, if necessary, projects outside of the control of the lead agency. Section 15130 of the State CEQA Guidelines stipulates that EIRs must consider the significant environmental effects of a proposed project as well as "cumulative impacts." A cumulative impact is defined as an impact that is created as a result of the project evaluated in the EIR combined with the impacts of other projects, thereby causing related impacts (State CEQA Guidelines Section 15355). As stated in the State CEQA Guidelines, Section 15130(a)(1), the cumulative impacts discussion in an EIR need not discuss impacts that do not result in part from the project evaluated in the EIR. Cumulative impacts may be analyzed by considering past, present, and probable future projects with related or cumulative impacts (State CEQA Guidelines Section 15130(b)(1)(A)).

In this draft EIR, cumulative impact analyses are provided for each environmental issue discussed in Chapter 3 (Environmental Analysis). The study areas for the cumulative impact analyses varies by impact. These can be found in each respective subsection (e.g., Air Quality, Transportation and Traffic, etc.). Table 2-2, Related Projects, lists the related projects that were considered in the cumulative impact analyses. The locations of the related projects are depicted in Figure 2-6, Related Projects Map.

Table 2-2: Related Projects

Map Reference No.	Status	Project Title	Project Type; Project Description/Scope	Environmental Document and Permits	Project Location/Limit
1	Ongoing master plan development	USC Health Sciences Campus Master Plan	Master plan with up to 99,800 sf of medical clinic facilities, 9,900 sf of non-clinical facilities, 238,500 sf of graduate student housing, a 250,000 sf hotel, and 256,000 sf of academic/medical research facilities	EIR Addendum	1510–1520 N. San Pablo Street (several parcels); bound by Zonal Avenue to the south, Mission Road to the west, Valley Boulevard to the north, and Playground Street and the Los Angeles County Department of Public Works yard to the east.
2	Seeking city approvals	1101 N. Main Condos	300 condominiums	EIR	1101 N. Main Street
3	Under construction	Los Angeles County Metropolitan Transportation Authority (Metro) Bus Facility	360,000 sf Metro bus maintenance and operations facility	MND	920 N. Vignes Street
4	Under construction	Marengo Ctr. Comm. Building – Mixed Use	27,235 sf Mixed-use development; retail, and commercial uses.	MND	1902 E. Marengo Street
5	Under construction	Medical Office Expansion	49,542 sf of Medical Office expansion	MND	1828 E. Cesar Chavez Street
6	Seeking city approvals	SPR – Medical Office and Retail	Development of 66,000 sf of medical office and retail space	MND	3303 N. Broadway
7	Seeking city approvals	Retail Pharmacy	Retail pharmacy development (15,112 sf)	MND	3617 E. Cesar E. Chavez Avenue
8	Seeking city approvals	Wyvernwood Garden Apartments Redevelopment	Redevelopment of an approximately 69-acre site into a mixed-use project containing retail, residential, office, and civic space amenities.	EIR	2901 E. Olympic Boulevard
9	Conceptual planning	Sears Building Adaptive Reuse	Redevelop the existing Sears building as an adaptive reuse mixed-use project consisting of apartments, retail, and office space; 562,000 sf and 1,000 dwelling units	MND or EIR	2650 E. Olympic Boulevard
Source: ICF, 2014.					

Figure 2-6: Related Projects

Source: ICF International, 2014

Chapter 3
Environmental Analysis

This chapter describes the existing environmental conditions in the project area, the thresholds used to determine the significance of potential impacts, the construction and operational impacts that could occur due to the projected level of development under the master plan, measures to mitigate impacts that are identified as significant, and potential cumulative impacts. The thresholds that have been identified to determine the significance of project impacts are generally based on the environmental checklist questions in Appendix G of the State CEQA Guidelines. Where agencies that have jurisdiction over resources that could be affected by the proposed project have established specific quantifiable thresholds, those thresholds have been used to determine the significance of project impacts. The initial study attached to the notice of preparation (NOP) (see Appendix A) and public responses to the NOP were used to identify those impacts requiring further analysis in this chapter. Please see Chapter 4 of this Draft EIR for a list of environmental categories where no impacts would occur, and therefore no further analysis was required.

3.1 Aesthetics

3.1.1 Introduction

This section describes the potential of the proposed LAC+USC Medical Center Campus Master Plan Project (proposed project) to affect aesthetics and visual resources within the project's visual setting.

The proposed project would entail the demolition of certain existing buildings; construction of new buildings; the reconfiguration of outdoor areas to create new usable park-like landscaped spaces for visitors and staff; parking facility enhancements and the establishment of new vehicular drop-off locations; relocation of the central utility plant; and the installation of miscellaneous short-term warehouse and trailer units at the LAC+USC Medical Center campus

Located in the Boyle Heights community in the City of Los Angeles, the LAC+USC Medical Center campus is located on property entirely owned by Los Angeles County. However, because the viewshed for evaluating aesthetics extends beyond the LAC+USC campus and includes areas within the adjoining neighborhood that fall under City of Los Angeles jurisdiction, the Regulatory Setting (Section 3.1.2) includes both County and City of Los Angeles aesthetics-related policies.

3.1.2 Regulatory Setting

3.1.2.1 Federal

There are no federal regulations pertaining to aesthetics and visual resources that are applicable to the proposed project.

3.1.2.2 State

California Environmental Quality Act

CEQA requires an evaluation of scenic resources when considering project effects on the environment. Such evaluations consider site-specific history, context, and area sensitivity, such as whether light and glare, demolition, and new development could potentially change visual character, and affect scenic views and natural and manmade visual resources.

California Scenic Highways Program

The California Department of Transportation (Caltrans) established and implemented the California Scenic Highway Program to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment (Streets and Highways Code, Section 260 et seq.).

Caltrans defines a State Scenic Highway as any freeway, highway, road, and other public right-of-way that "traverses an area of outstanding scenic quality, containing striking views, flora, geology, and other unique natural attributes" (Caltrans 2009).

Once a highway has been designated a state or national scenic highway, or a scenic corridor, special consideration must be made whenever a project proposes to develop the surrounding area.

No State Scenic Highways or Eligible/Officially Designated Scenic Routes have been identified in proximity to the project site. The closest such routes are SR-39 and SR-2 (Angeles Crest Highway) in the City of Azusa, approximately 17 miles to the northeast of the project site.[1]

3.1.2.3 Local

Los Angeles County General Plan

The current Los Angeles County General Plan and the Draft General Plan 2035 provide the policy framework for how and where unincorporated areas will grow, and establishes goals, policies, and programs to protect neighborhood character and promote aesthetically pleasing, sustainable development. Although the project site is owned by the County, it is located within the City of Los Angeles. The city's regulations and guidelines are discussed below.

Los Angeles Municipal Code

The Los Angeles Municipal Code (LAMC) sets forth regulations and standards regarding the allowable type, density, height, and design of new development projects. In particular, Chapter 1 of the LAMC, General Provisions and Zoning, provides development standards for the various zoning districts in the City of Los Angeles. In addition, the LAMC also sets forth the following specific regulations regarding lighting:

> Chapter 1, Article 2, Section 12.21 General Provisions, paragraph A, Section 5, Part (k) restricts light spill onto adjacent properties and provides minimum luminance levels for safety within and around parking facilities.

As part of the LAMC, the City of Los Angeles Planning and Zoning Code includes standards for different land uses and identifies which land uses are allowed in various zoning districts. The project site has a City of Los Angeles zoning designation of Public Facilities – PF (City of Los Angeles n.d.[b]). The PF zoning district allows public health facilities, including clinics and hospitals. PF-1 zoning does not have restrictions regarding the heights of buildings or any specific front-, side-, or rear-yard setbacks.

City of Los Angeles Walkability Checklist

The 2008 Walkability Checklist for Entitlement Review was developed by the City Planning Department's Urban Design Studio to encourage city planning staff, project proponents, and community stakeholders to pursue high quality urban design that provides enhanced pedestrian movement, access, comfort, and safety, both in the public right-of-way and on private properties. It specifies urban design guidelines that are generally applicable to all projects requiring discretionary approval for new construction. The Walkability Checklist consists of objectives, goals, and implementation strategies regarding various design elements that are intended to improve the pedestrian environment, protect neighborhood character, and promote high quality urban form. Such topics as sidewalks, crosswalks/street crossings, on-street parking, utilities, building

[1] Information provided at http://www.dot.ca.gov/hq/LandArch/Scenic/cahisys.htm.

orientation, off-street parking and driveways, on-site landscaping, building façades, and building signage and lighting are addressed and should be considered in the design of a project.

City of Los Angeles General Plan

The City of Los Angeles General Plan, approved by the City Planning Commission and the mayor and adopted by the City Council, is a comprehensive, long-range declaration of purposes, policies, and programs for the development of the City of Los Angeles.

The Transportation Element of the city's general plan (1999) also provides a list of scenic highways and streets. The closest of these are Monterey Road/Huntington Drive as they approach the City of South Pasadena; and Stadium Way, north from the 110 Freeway (near Los Angeles Dodgers Stadium), which are located 1.5 and 2 miles away, respectively.[2] Views of the project site cannot be acquired from either of these scenic highways/streets.

The city's general plan is comprised of a series of 35 community plans that provide more specific development policy guidance for each community. The Northeast Los Angeles Community Plan governs physical development policy in the project area.

Northeast Los Angeles Community Plan

The Northeast Los Angeles Community Plan area encompasses the hills and valleys east of the Los Angeles River and north of the Boyle Heights Community Plan area within the City of Los Angeles. The 15,000-acre area, with roughly 250,000 inhabitants in a diverse collection of communities and neighborhoods, serves as a transition area between the downtown center of Los Angeles and the neighboring cities of Glendale, Pasadena, South Pasadena, and Alhambra to the north and east. The general purpose of the plan is to preserve and enhance the character of northeast Los Angeles by strengthening the viability and identity of its neighborhoods and communities and improving the quality of life for all its residents (City of Los Angeles 1999).

Citywide General Plan Framework Element

The 2009 Los Angeles General Plan Framework provides a series of policies, objectives, and goals addressing urban design topics throughout the City of Los Angeles. As it relates to the evaluation of aesthetics and views, the Framework's Urban Form and Neighborhood Design chapter establishes a goal of creating a livable city for existing and future residents with interconnected, diverse neighborhoods (Goal 5A). Also within the General Plan Framework, the Open Space and Conservation chapter calls for the use of open space to enhance community and neighborhood character (Objective 6.2). The policies in this chapter recognize that there are communities where open space and recreational resources are currently in short supply and, therefore, suggests that pedestrian-oriented streets and small parks, where feasible, might serve as important resources for meeting the open space and recreation needs of residents (Policy 6.2.1).

Applicable objectives from the Urban Form and Neighborhood Design chapter and the Open Space and Conservation chapter address such issues as pedestrian activity and orientation, transitions in building height, landscaping and landscape buffers, ground floor uses, sidewalks and other streetscape elements, and open space.

[2] Information provided at http://www.lacity.org/cwd/gnlpln/trans-elt/TE/TEToC.htm.

3.1.3 Environmental Setting

The project area is characterized by a diverse range of land uses, and includes property for general commercial, medical office, institutional, light-industrial, heavy industrial, single-family residential and multi-family residential uses, and open space. These uses occur within a very urbanized, densely-developed neighborhood setting transected by two heavily-trafficked, closely adjoining freeways: the Golden State Freeway (I-5), which abuts on the west at Mission Road and Marengo Street, and the San Bernardino Freeway (I-10), located to the south (at a distance of approximately 1,500 feet away). I-10 has a partially below-grade (depressed) configuration; in contrast, I-5, occurs in an elevated configuration at Marengo Street/Mission Road as it nears the interchange with I-10 farther south. The closest (non-campus) residential uses border the campus on the east along Chicago and Charlotte Streets. Other nearby residences occur in the densely developed neighborhood south of the campus, located between Marengo Street and I-10, along N. State Street, Kingston Avenue, and Britannia Street. A massive nine-level parking garage and Metro bus station facility form one of the most dominant visual elements south of Marengo Street.

Three closely adjoining railroad alignments also traverse the project area's visual setting—the Union Pacific Railroad (UPRR), which occurs on the north along Valley Boulevard (approximately 1,000 to 2,000 feet to the northwest and west); a second railroad, which runs along a north-south alignment west of Soto Street; and a third railroad—the Burlington Northern Santa Fe (BNSF), which follows a generally east-west alignment along the northerly border of I-10 (approximately 1,500 feet away). The concretized Los Angeles River is located to the west of the medical center campus (at a distance of approximately 0.7 mile). Industrial development and railroad alignments flank the river on both sides.

Physical development character within the project area was shaped by the proximity of the Los Angeles River, topographic variation, as well the community's long-standing, well-developed transportation infrastructure. This infrastructure includes ready railroad access and public transit connections across the river to Downtown. During the nineteenth and early twentieth century, in order to access flat land, the local railroads were laid along the western and eastern banks of the Los Angeles River. This, in turn, attracted extensive light and heavy industrial development to the flat, low-lying areas of Boyle Heights bordering the river (known by area residents as "The Flats"). That industrial development extended east from the river to Mission Road, which today serves as a border, in visual terms, for the heavy industrial uses (auto wrecking yards, truck yard, factories, metal plating operations, automotive repair facilities) in the flatlands bordering the river. During the early twentieth century, industrial uses (manufacturing plants, municipal facilities yards) began to develop east across Mission Road along Valley Boulevard, continuing east into the City of Alhambra.

During the late nineteenth century, middle-class residential development first got underway along the north/south-trending bluffs overlooking the flatlands (e.g., Boyle Avenue), while more modest working-class and lower-middle class housing followed in the areas east of Boyle Avenue, extending north to Marengo Street. Small, neighborhood-scaled commercial and retail uses followed the residential development, extending along major east-west streets, such as Cesar Chavez Avenue, First Street, and Whittier Boulevard. However, only sporadic development occurred in the hilly terrain north of Marengo Street. That absence of development allowed for the establishment and continued expansion of public facilities on and abutting the campus (e.g., the early County Hospital complex, as well as the no-longer-extant Henry Hazard Reservoir located south of Zonal Avenue and east of Cummings Street). During the second and third quarters of the

twentieth century, later infill residential development of the hilly areas in Boyle Heights and the adjoining City Terrace neighborhood occurred. This was made possible as more area residents had access to automobiles.

The above-described land use patterns, a majority of which were established a century or more ago, continue to define the eclectic visual character of the project area.

Within the medical center campus, development dates both from the recent past (i.e., the 1970s and later; much of it from within the last 20 years), as well as from the early twentieth century, and includes a number of historic/architectural resources, such as the Old General Hospital Building (1933) and the Administration Building, Mission Road (1909). With the exception of the distinctive, visually unified landscape, hardscape, and architectural elements designed in conjunction with the Old General Hospital Building during the 1930s, design treatments, as measured by the choice of architectural style, building form/siting, and the design of parking areas, vary widely, appear to be typical of regional-scale medical facilities found across the Southern California region, and are not distinctive and/or unique to the campus setting in Boyle Heights. By contrast, the Old General Hospital Building and related landscape, hardscape and architectural features (concrete terrace walls, gate posts, perimeter walls, wrought iron, entry guard stations, as well as ornamental trees, shrubbery and grass turf areas) have a highly unified, visually distinctive, and vivid design character (Photos 1 through 4). Due to its massing, scale and height, and location atop high terrain, the Old General Hospital Building is one of the community's primary visual landmarks—one which can be readily seen in many north- and northeast-facing views from the east, south, and southwest (Photo 5).

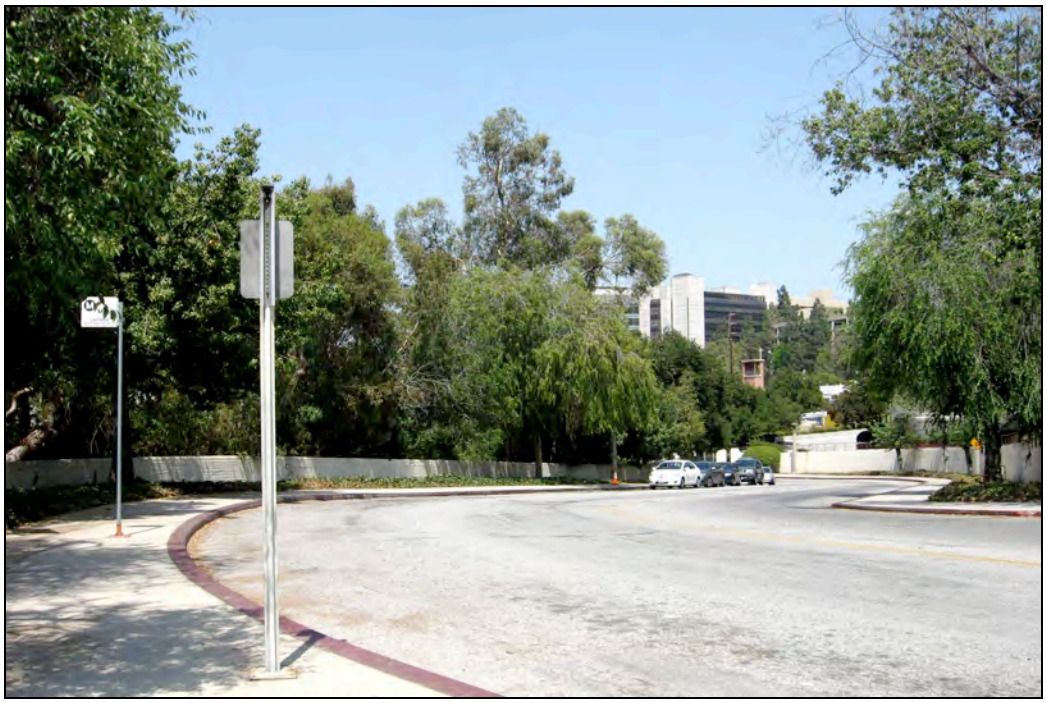
Photo 1: Old General Hospital; View Facing East from North State Street

Source: ICF International, 2014.

Photo 2: Old General Hospital; Zonal Avenue Staff Vehicle Entrance/Gatehouse

Source: ICF International, 2014.

Photo 3: North State Street; View Looking Northeast, 100 feet North of Old General Hospital



Source: ICF International, 2014.

Photo 4: North State Street; View Looking Southeast, 100 feet South of Old General Hospital

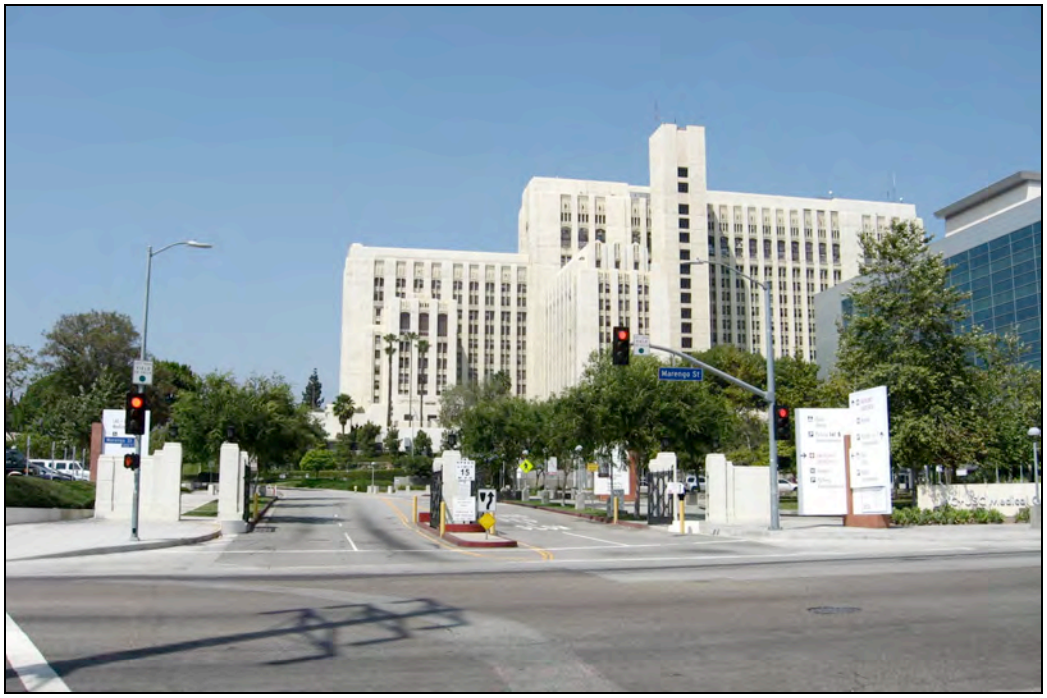
Source: ICF International, 2014.

Photo 5: LAC+USC Medical Center Campus; View North from North State Street and Pomeroy Avenue

Source: ICF International, 2014.

Overall, the design setting is marked by abrupt changes in design character and in uses as the viewer looks across the *viewshed* (i.e., all the surface areas visible from an observer's viewpoint). There is a sharp visual divide between campus built features and landscape components and the surrounding neighborhood design elements. Non-cohesive streetscape features, and low-rise buildings of utilitarian design, and of straightforward frame and stucco/brick construction, predominate along the major streets adjoining the LAC+USC Medical Center campus along Marengo Street (Photos 6 through 8). Along Mission Road, the mix of uses includes light industrial (automotive repair, manufacturing), gas stations, LAC+USC Medical Center parking garage (Lot 10), and LAC+USC medical offices of disparate design define its design character (Photos 9 and 10). Zonal Avenue defines the northern border of the campus, and serves as a line of demarcation between the LAC+USC Medical Center campus and the USC HSC (north). It has a quieter, less trafficked character than Mission Road and Marengo Street; and is defined, in visual terms, by the moderately-steep to rolling grade, the presence of tall, mature parkway trees (e.g., live oak, pines, sycamores, ficus, and jacaranda trees, which produce bright lavender-colored blossoms during spring), and its mix of hospital and non-health service-related uses. The campus boundaries are very strongly defined along Zonal Avenue by parking garage placements, topography, perimeter walls, fencing and the campus' perimeter landscape features (Photos 11 through 13)

Photo 6: LAC+USC Medical Center Campus; View North from North State Street at Marengo Avenue Entrance

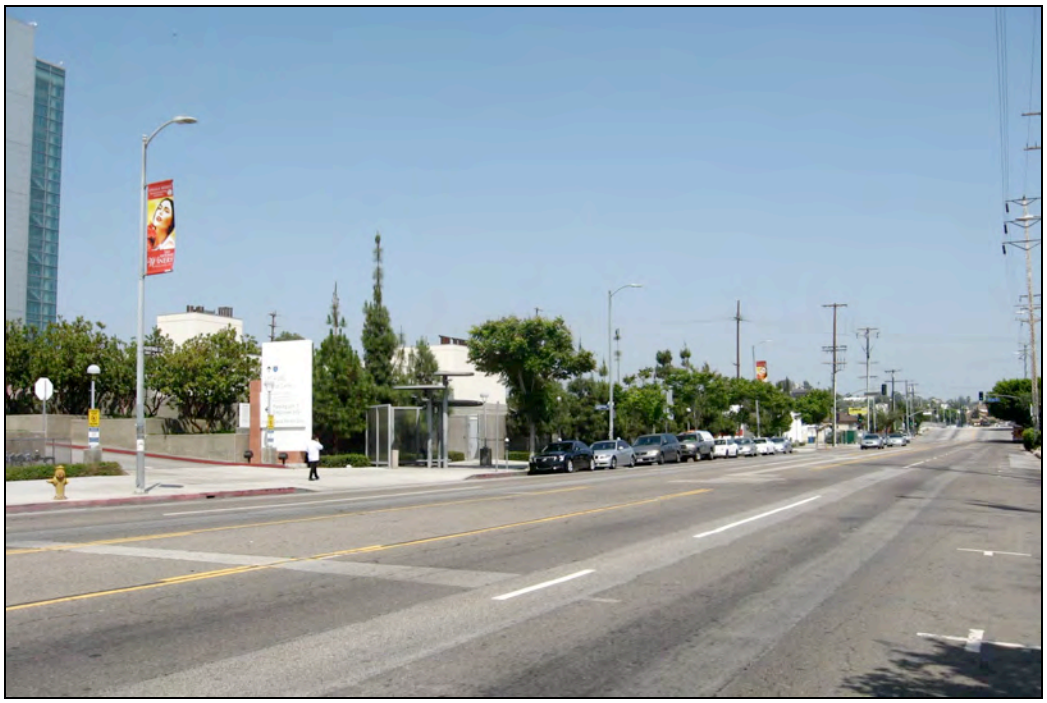


Source: ICF International, 2014.

Photo 7: LAC+USC Medical Center Campus; View Northwest from Marengo Street East of Britannia Street

Source: ICF International, 2014.

Photo 8: Southern Boundary of Campus, Looking Eastward along Marengo Street at Britannia Street



Source: ICF International, 2014.

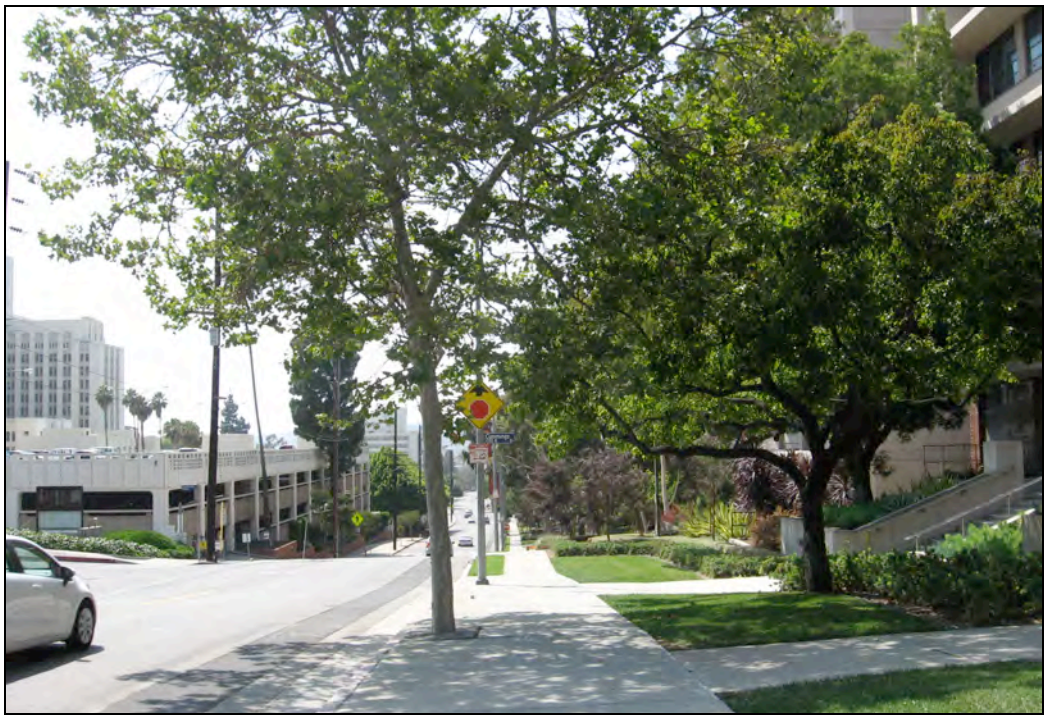
Photo 9: Mission Road at Sichel Street; View Looking Northeast

Source: ICF International, 2014.

Photo 10: Mission Road, Approaching Zonal Avenue/Griffin Avenue View South

Source: ICF International, 2014.

Photo 11: Zonal Avenue at Cummings Street, Looking West along Southern Border of the USC HSC (on the right in the view)



Source: ICF International, 2014.

Photo 12: Zonal Avenue at Biggy Street, Looking West near Old General Hospital, Zonal Avenue Staff Vehicle Entrance/Gatehouse

Source: ICF International, 2014.

Photo 13: Looking across LAC+USC Medical Center Campus from Zonal Avenue, 200 feet West of North State Street; View Looking Westward

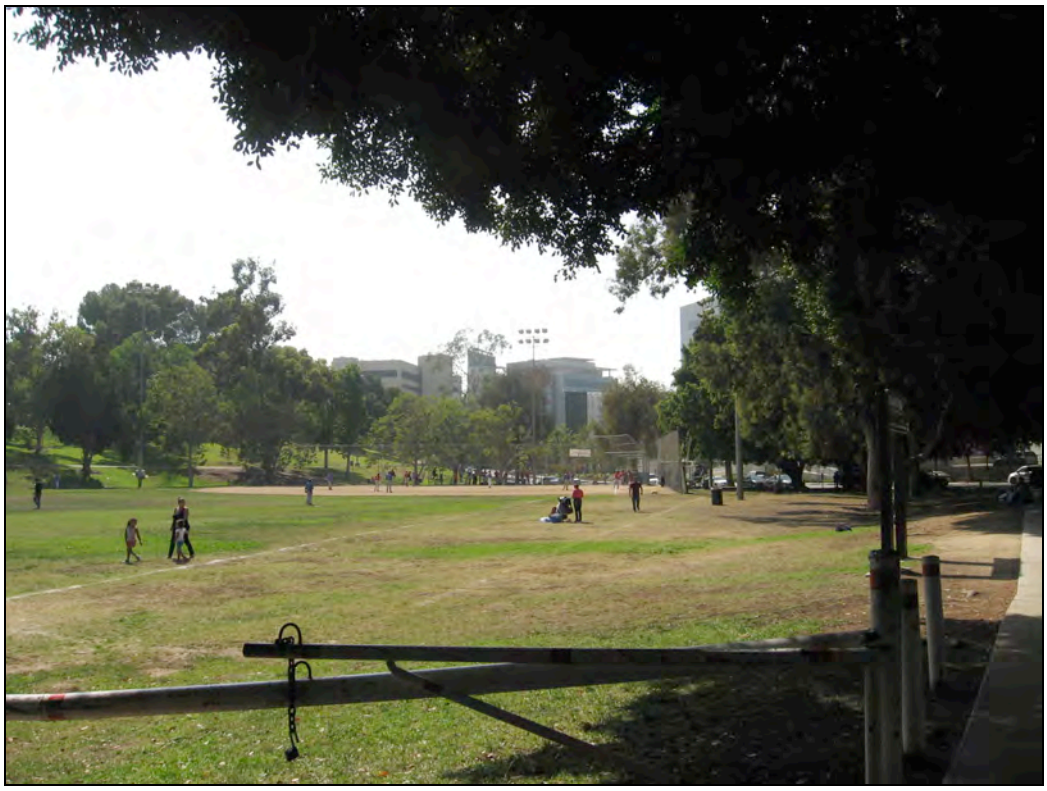
Source: ICF International, 2014.

Two public parks are located near the campus. Hazard Park, at San Pablo and Norfolk Streets, closely adjoins the campus on the northeast. The approximately 26-acre facility is actively used by area residents—particularly during early evening hours and on weekends—and contains a community center, baseball field, basketball courts, children's play area, barbeque grilles, and picnic tables. Due to the hilly terrain along the west and south borders of the park, off-site views in those directions are constrained.[3] On Zonal Avenue, east of San Pablo Street, the Raulston Medical Center, Elaine Stevely Hoffman Medical Research Center, and Stauffer Pharmaceutical Sciences Building office towers (ranging from five to eight stories tall) frame west-facing views from within the park. Views of the campus cannot be acquired from within the core portion (i.e., primary activity areas) of the park due to topography and off-site building placements (Photo 14).

Lincoln Park, which is located slightly less than one-half mile to the north, contains approximately 45 acres in which an 8-acre lake serves as the centerpiece for many park patrons and passing motorists along Valley Boulevard. The park, which sits on flat to nearly flat terrain, also contains a baseball field, children's play area, barbeque grilles, and picnic tables, as well as the renowned Plaza de la Raza Cultural Center, which serves as a gallery, small performing arts venue, and an assembly space for educational and cultural events. Views from the park looking west and south across Valley Boulevard and the UPRR tracks to the USC HSC and USC University Hospital are largely unobstructed but have a far-off character due to the intervening distances; views of the campus cannot be acquired from this location however (Photo 15).

[3] City of Los Angeles Department of Recreation and Parks. 2014. Descriptions of City Park Facilities

Photo 14: Hazard Park Ball Fields; View Looking West toward USC HSC (Along Zonal Avenue)



Source: ICF International, 2014.

Photo 15: View Looking South across Valley Boulevard from Lincoln Park's Southern Boundary

Source: ICF International, 2014.

3.1.3.1 Landforms and Topographic Character

Boyle Heights is located within the Los Angeles basin on the coastal plain, and falls within the Peninsular Ranges Geomorphic Province—a geomorphic unit that extends through Los Angeles south to the tip of Baja California.[4] A product of largely flat to gently-southeast sloping alluvial deposits, the basin is bounded by the San Gabriel Mountains and Elysian Hills on the north and northeast, Repetto Hills to the immediate south, and the Santa Ana Mountains and San Joaquin Hills to the far southeast and south, respectively, in Orange County.

Within this overall geomorphic setting, the project area occupies a range of flat to rolling and hilly terrain; the terrain ranging, on the west, from approximately 320 feet above mean sea level (msl), to approximately 440 feet above msl on the northeast where the campus borders Cornwell Street (i.e., at the Henry Hazard Reservoir site) (Photos 16 through 17).[5] Due to this topographic variation, views of portions of the campus can be acquired from a number of vantages in Boyle Heights. Similarly, the campus offers a number of vantages, at higher elevations and from the upper stories of the taller buildings, from which dramatic, informal (i.e., not officially recognized), off-site views from within the campus are also possible.

Although no officially recognized views were identified in Boyle Heights, dramatic, vivid informal west-facing views of the downtown Los Angeles skyline can be acquired from some higher-up vantages within the community, including upper-story locations within various multi-story buildings (e.g., USC HSC buildings, Old County General Hospital Building) and the residences atop the taller hills and foothill summits in Boyle Heights and the adjoining City Terrace neighborhood (East Los Angeles) (Photo 18).

[4] City of Los Angeles. 2011. Boyle Heights Mixed-Use Community Project EIR.

[5] Kimley-Horn and Associates, Inc. 2013. Phase I Environmental Site Assessment, LAC+USC Medical Center, 1744 Zonal Avenue.

Photo 16: View Showing Dramatic Topographic Contour Changes; View from North State Street Looking Westward toward Old Women's Hospital

Source: ICF International, 2014.

Photo 17: Representative View within the Essentially Flat Southwestern Portion of the Campus; View Looking Southwest

Source: ICF International, 2014.

Photo 18: Vivid Downtown Skyline View as Seen from a Terrace, Old General Hospital; View Looking Southwest

Source: ICF International, 2014.

East- and west-facing views across this landscape typically terminate at the horizon line where the flat to rolling terrain meets the skyline (Photo 18). Directly north-facing views within the core of the campus, or from its southern borders, are typically framed or obscured by campus medical buildings and the office towers comprising the USC HSC, as well as trees atop the varied topography within the campus. The northeast-facing views feature the slightly taller, more dramatic forms of the Elysian Hills, with the San Gabriel Mountains ridgelines forming a distant, moderately vivid backdrop element. Hillside colors range from the gray-green colored chaparral, and/or modest woodland and grassland vegetation that transforms from bright green to tan during the summer and fall seasons, to the more robust green colors of evergreen trees and shrubbery, sustained by irrigation, associated with private foothill residences.

3.1.4 Environmental Impact Analysis

3.1.4.1 Methods

This analysis uses a methodology that is based on the broad framework presented in the FHWA publication *Visual Impact Assessment for Highway Projects* (1981)—a methodology similar in many overall respects to that of BLM Visual Resource Management (VRM). This is a common methodology for conducting a visual assessment of this scope where project design is at a conceptual, program-level stage. The framework is applied to the State CEQA Guidelines Appendix G checklist questions. Together, these provide the analytical framework for guiding the visual impact assessment process for the proposed project. Although the FHWA guidelines were initially crafted to provide an analytical framework for transportation projects by identifying and assessing the qualitative changes to the visual environment a project could introduce, the methodology has become the industry standard for evaluating visual impacts associated with a host of other local and state non-transportation projects as well. The process, as outlined by the FHWA, includes the following basic steps:

a) Defining the project setting and viewshed.

b) Identifying the key view for visual assessment.

c) Assessing existing visual resources and viewer response.

d) Describing the visual appearance of the project alternatives.

e) Assessing the changes to visual resources while predicting viewer response to those changes.

f) Assessing the visual impacts of project alternatives.

g) Proposing methods to mitigate adverse visual impacts.

In a departure from a strict application of the FHWA and BLM methodologies, which typically rely upon geographical measures that subdivide the project area into a series of large outdoor rooms (e.g., spaces that exhibit distinct visual character apart from other portions of the project area), this analysis uses a series of representative views throughout key portions of the project area that would be seen by potential viewer groups, using those views to assess overall changes in visual character and quality that could occur as a result of the project. The analysis places a slightly greater emphasis on the proposed project's potential degree of contrast with the setting in which it is being proposed, similar to the VRM screening criteria (e.g., distance, the angle of observation, relative size or scale, spatial relationship). That approach is used in this analysis because of the conceptual nature of the master plan elements, and lack of specific architectural design information at this time (e.g., rough building dimensions, materials, colors, landscape plans), and the anticipated refinement and increased specificity of the master plan design components that would occur in the future.

The term *viewshed* is used throughout this analysis. A viewshed comprises all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views from the proposed project. It also includes the locations of viewers likely to experience the changes brought about by the proposed project. In a densely developed urban setting, viewsheds are typically constrained by topography, clusters of mature trees, building placements—particularly buildings greater than two-stories in height—as well as street alignments. Due to the difficulty of discerning smaller scale design features, such as low-to-the- ground streetscape and open space features (e.g., street furniture and park hardscape elements) in an urban setting, a half-mile limit is frequently a defensible viewshed boundary marker; whereas viewshed boundaries are set at greater distances when significant large-scaled visual resources are present or are being proposed (e.g., tall buildings; local mountains; large tree clusters or geological formations) because, depending on the vantage point, such elements can often be seen across distances of several miles.

Due to building placements, street alignments, topography, and adjacent freeways, most mid-frame or middle-distance, off-campus views of project site details are highly constrained: only limited far-off views of the campus' tallest buildings from a half-mile or more are available, along with close-in views from the south (e.g., Marengo Street south to I-10), and from the immediate east (Chicago and Charlotte Streets). Thus, the project viewshed boundaries are more close in (at a closer range) than would be the case where less encumbered views are possible. North Main Street and Valley Boulevard form the northern boundary for the viewshed; N. Indiana Street/Evergreen Avenue form the eastern boundary; Wabash Avenue and I-10 form the southern boundary; and I-5—which is in an elevated configuration adjoining the campus and, thus partially obscures views to and from the west—forms a logical western boundary of the project viewshed.

This analysis assesses the anticipated changes in visual character (e.g., descriptive, non-evaluative characteristics such as land use, topography, scale, form, and color) and visual quality (e.g., a overall subjective assessment of the aesthetics of a view based on the FHWA criteria of the vividness, intactness, and unity of the view), with respect to anticipated viewer response.

Representative Views of Project and Viewer Groups

Because it is not feasible to analyze all the views in which the proposed project can be seen, a series of representative viewpoints that would most clearly display the project's potential visual effects is used in this analysis. Such views represent the primary viewer groups that would be potentially affected by the proposed project. This analysis identified 18 viewpoints that took into account views considered to be most sensitive to viewers, as well as the most common public views that can be acquired from varied locations within the project area.

Viewers include thousands of residents who reside in both single-family and low-rise multi-family residential buildings of varying densities on the streets adjoining the project area on the east (e.g., east from Chicago Street and continuing east across Soto Street—the closest residences being approximately 100 feet away) and south of Marengo Street and the San Bernardino (I-10) Freeway (the closest residences being approximately 350 feet away). This setting includes substantial traffic noise and visual intrusions from adjacent freeways and because of existing 24 hours a day/seven days a week health services, activities on and adjoining the campus. The setting itself has undergone continuous expansion and growth, marked by major project construction that has occurred over decades of time. Residential properties near the campus reflect concerted efforts to create greater privacy and visual screening from the visual intrusions posed by adjoining traffic, commercial, and institutional uses (e.g., trees, shrubbery, enclosed front porches, fencing). These features imply a measure of insulation exists currently from traffic, the campus, and new development proposed there.

The primary visual resources within the project area are the informal views of the local mountain and foothill ridgelines and views of the downtown Los Angeles skyline and of Old General Hospital than can be acquired in some residential views.

The other large viewing group includes commuting motorists, a group consisting of the following viewer sub-groups:

- employees, clients, and visitors at LAC+USC Medical Center, USC University Hospital, and the USC HSC and other neighborhood businesses;
- commuters on the adjoining Golden State (I-5) and San Bernardino Freeways who can acquire fleeting views of some of the taller buildings on the LAC+USC Medical Center campus—including long distance employee commuters and truckers traveling through the Boyle Heights neighborhood to and en route to other regional destinations;
- students traveling to and en route to the adjacent Francisco Bravo Medical Magnet High School (Cornwell Street), as well as local universities and colleges (e.g., California State University Los Angeles—which is located approximately two miles east of the project site).

Bicyclists are also present in the project viewshed. The 2012 County Bicycle Master Plan identifies one bike route that borders the project site—Griffin Avenue (north from Mission Road). There is also an existing Class II bikeway along Mission Road. Zonal Avenue/Cromwell Street is designated as a potential bicycle route as well. The proposed master plan includes design features along the Zonal Avenue border and in the core of the campus to serve such bicyclists. This group of viewers has a moderately high level of sensitivity to changes in the visual setting because they are presumed to choose bicycle routes, in part, based on aesthetic considerations.

Other viewers include recreationists at local parks. Two public parks are located within less than one-half mile of the project site. As referenced previously, these include Hazard Park, which closely adjoins the campus on the northeast (San Pablo Street, between Zonal Avenue and Norfolk Street) and Lincoln Park, which is located to the north, along the north side of Valley Boulevard. Passive recreational users predominate within the southern portion of Lincoln Park bordering Valley Boulevard. These persons often come to the park to sit and look out over the lake, while supervising their small children at play; or to visit the Plaza de la Raza Cultural Center. The baseball field and more active sports programming areas within the park are located well to the north adjoining Selig Place, and these are effectively screened from the southern portion of the park by landscaping and topography. South-facing views from the lakeside portion of the park extend only as far as the USC HSC and USC hospital campus. The tall buildings in those locations block nearly all views of the project site, with the exception of the upper floors of Old General Hospital (Photo 15), Views of the project from Lincoln Park, therefore, would be highly obstructed. Views of the project site from the actively used core portions of Hazard Park would be similarly blocked by topography, landscaping, and buildings within the USC HSC (Photo 14).

Assessing Viewer Response

Viewer response is composed of two elements: *viewer sensitivity* and *viewer exposure*. These elements combine to form a method of predicting how the public might react to visual changes brought about by a project.

Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of their view, speed at which the viewer moves, and position of the viewer. High viewer exposure heightens the importance of early consideration of

design, art, and architecture and their roles in managing the visual resource effects of a project. Because objects in the foreground have more detail, views from nearby locations are more detailed compared to objects that are indistinguishable in the distance. Viewers would experience visibility of a proposed project to varying degrees in a particular viewshed, depending on distance or other intervening structures or obstacles.

Viewer sensitivity is defined both as the viewer's concern for scenic quality and the viewer's response to change in the visual resources that make up the view. Local values and goals may confer visual significance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. The sensitivity of viewers in their perception of visual quality, as well as their sensitivity to changes in visual quality, varies based on familiarity with the view, sense of ownership of the view, and the nature of one's activity while receiving the view. In turn, these considerations determine how much attention the receptor focuses on the view.

In an effort to describe the potential of the project to affect overall visual character and quality, a discussion of what is seen in the views at each of the 18 representative viewing locations (shown in Figure 3.1-1) follows.

The FHWA methodology uses the criteria of *vividness, intactness*, and *unity* to assess visual quality, and grants them equal weight in assessing visual quality of a landscape.

- Vividness ratings are based on the presence or absence of dramatic views of interesting natural landscape or man-made features, and the degree to which views of far-off mountain ridgelines—a key visual resource in this setting—can be readily acquired.
- Intactness ratings are based on the presence or absence of intrusive manmade structures in this otherwise largely natural setting.
- Unity ratings are based on the overall compositional harmony of the landscape and manmade structures present in it.

Views of high quality may have topographic relief, a variety of vegetation, rich colors, impressive scenery, and unique natural and/or built features. Views of medium quality may have interesting but minor landforms, some variety in vegetation and color, and/or moderate scenery. Views of low quality have uninteresting features, little variety in vegetation and color, uninteresting scenery, and/or common elements.

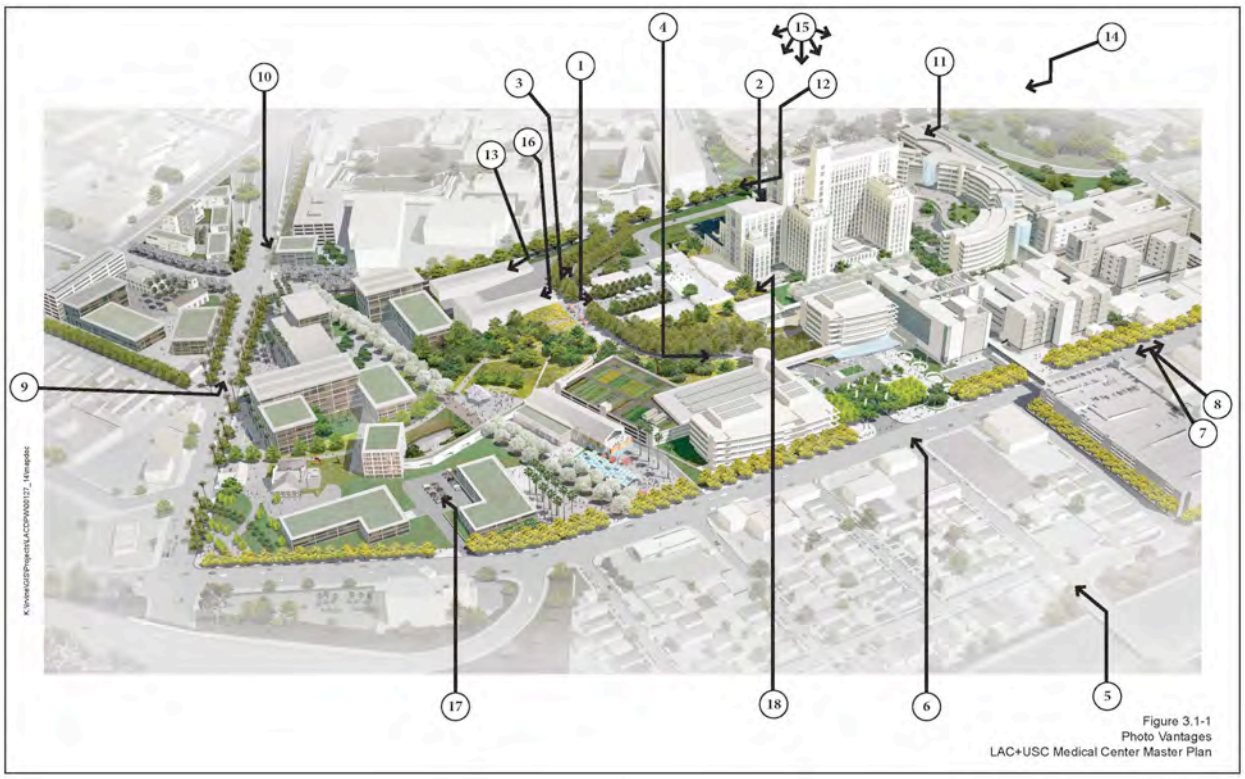


Figure 3.1-1
Photo Vantages
LAC+USC Medical Center Master Plan

The 18 representative views that were analyzed include the following:

- **Photo 1** – View of Old General Hospital Building, facing directly east from N. State Street. View possesses a high degree of vividness and unity due to the highly articulated architectural form of the building and the massing. The formality of the architectural design is echoed in the forecourt with its symmetrically arrayed rows mature evergreen trees (e.g., large Ficus trees, Italian cypresses, bottle trees) and flower/shrubbery beds (parterres). The general absence of intrusive manmade elements also gives the view a high degree of intactness. **Visual quality rating: High**.
- **Photo 2** – View of Old General Hospital, Zonal Avenue staff vehicle entrance/gatehouse. Although the delivery bays, mechanical equipment installations, and parking lot detract from the intactness of the view, the massing and architectural form of the hospital building possess great visual quality (vividness). The gatehouse and its elegant wrought metal gates and fencing also amplify the building's formal design qualities, carrying them out to the public right-of-way along Zonal Avenue. Visual unity is moderately high due to the strong architectural forms, hardscape features (perimeter concrete walls; wrought metal gates), landscape (hedges) and decorative elements present in the view. **Visual quality rating: Moderately high**.
- **Photo 3** - View of N. State Street, looking northeast. The view of the curving alignment of the roadway, the low concrete retaining walls, and the dense mature landscaping—much of which appears to date from the 1930s period when Old General Hospital was completed—carry the formality of the hospital building's architecture out into the landscape. This gives the view a moderately high level of vividness and unity. Few obtrusive manmade elements detract from the quality of the view (intactness). **Visual quality rating: Moderately high**.

- **Photo 4** – View of N. State Street, looking southeast. Similar to Photo 3, the image captures the curving alignment of N. State Street, which curves partly in response to the siting of Old General Hospital and its forecourt—which along with the dense mature landscaping/concrete retaining walls lend moderately high visual quality to the view (vividness and unity). Relatively few obtrusive manmade elements are present in the view, giving it a moderate level of intactness. **Visual quality rating: Moderately high**.
- **Photo 5** - View of campus from N. State Street at Pomeroy Avenue (adjoining I-10). The view shows the rather ordinary design setting within the neighborhood bordering the campus on the south—many of the buildings being one or two stories tall, and of divergent and rather commonplace architectural design. Old General Hospital building, due to its massing, height and articulation, is a commanding element in the view and gives the view moderate visual quality. The view is one of a number of such north-facing and east-facing views that can be acquired in the neighborhood and documents the fact that Old General Hospital is a prominent visual landmark in the community. **Visual quality rating: Moderately low**.
- **Photo 6** – View of campus from Marengo Street and North State Street, Facing north. The view possesses moderate visual quality due to the commanding presence of the old hospital, subtle topographic variation, and the many trees and groundcover plantings present in the foreground and mid-frame portions of the view. Landscaped berms and perimeter walls serve to screen parking areas from full view, while gate pylons and wrought metal fencing convey some of the formality of the old hospital out to the public right-of-way. Signage and streetlights detract somewhat from the intactness of the view. **Visual quality rating: Moderately high**.
- **Photo 7** – View of campus from Marengo Street near Britannia Street, looking northwest. Consistent parkway tree plantings, and the strongly defined perimeter elements (nearly continuous concrete retaining walls and groundcover plantings), in addition to the visually commanding massing and cleanly defined architectural forms of the outpatient care buildings, are vivid and lend the view a dynamic quality and a moderate degree of compositional unity and visual quality. The pedestrian overcrossing adds a further unifying element to the view. **Visual quality rating: Moderate**.
- **Photo 8** – View looking east along Marengo Street near Britannia Street. Although there are few significant design elements in the view, the slightly rolling terrain and parkway trees lend the view a moderate degree of vividness. The dominance of paving and the presence of telephone poles, streetlights, and signage detract from the view's level of intactness. The overall level of compositional unity is moderately low. **Visual quality rating: Moderately low**.
- **Photo 9** – View looking northeast along Mission Road at Sichel Street. Subtle topographic variation in the backdrop of the view—where portion of the Elysian Hills can be seen—parkway trees (notably the tall Mexican fan palms), along with strongly defined campus borders (perimeter walls, fencing landscaping) give the view a moderate visual quality. However, no noteworthy architectural elements are present in the view, and built elements are of disparate and commonplace design. Only a small number of obtrusive manmade features are present, however, resulting in a view with a moderate degree of intactness. **Visual quality rating: Moderate**.
- **Photo 10** – View looking south along Mission Road at Zonal Avenue/Griffin Avenue. The view has a dynamic quality due to the presence of bold architectural form/massing of the old Women and Children's (WAC) Hospital building, and the landscape elements present in the view, which serve to define the border of the campus at the intersection of Zonal Avenue and Mission Road in a

moderately powerful manner. The non-continuous character of the landscaping and the presence of obtrusive manmade elements (trailers, traffic lights and signs, and construction barricading) reduce the unity and intactness of the view. **Visual quality rating: Moderately low**.

- **Photo 11** – View looking west along Zonal Avenue at Cummings Street. The pleasant groundcover plantings and trees, combined with the parkway trees lend an appealing, moderately vivid character to the view along the USC HSC (right) side of the street. In addition, the border of the campus on the left (south) side of the view (between Cummings and Biggy Street) is strongly, though less appealingly, defined by the north wall of the parking garage, retaining walls and hospital auxiliary buildings. Clustered, dense landscaping—including Jacaranda trees that provide vivid springtime color—located near the Zonal Avenue staff vehicle entrance softens the boundary near Biggy Street (mid-frame in the view), adding a modestly vivid element to the view on the left; as do far-off views to Downtown. The parking garage and views of parked vehicles, telephone poles, street signage, and other obtrusive manmade elements detract from the intactness of the view. **Visual quality rating: Moderate**.
- **Photo 12** – View looking west along Zonal Avenue at Biggy Street. This view captures the strongly defined borders that characterize the campus due to the perimeter landscape elements, mature trees, walls and fencing around its edges (left side of view). The WAC Hospital building serves as a far-off focal point in the view, and the dense green landscaping adds an element of moderate visual quality (vividness). By contrast, off-campus commercial and institutional buildings are of disparate and commonplace design and lack vividness. Detracting obtrusive manmade elements (signage, telephone poles, overhead wires) reduce the level of intactness. **Visual quality rating: Moderately low**.
- **Photo 13** – View looking southwest across the campus approximately 200 feet west of N. State Street. View captures the jumble of trailer units, mechanical equipment, parking lots and disparate architectural forms occupying the westernmost portion of the campus. Campus borders are clearly defined, but, in this instance, with utilitarian chain-link fencing. Although Jacaranda parkway trees provide a vivid display of springtime color when in bloom, in general, landscape features in this portion of the viewshed are scattered and discontinuous, possessing little visual quality. **Visual quality rating: Low**
- **Photo 14** – View from within Hazard Park, looking west towards the USC HSC. The view across the playfield in the park is defined by the topography on the left (south) and far mid-frame (west). The buildings in the USC HSC frame the view. The landscape features, the rolling terrain and the architectural elements in the backdrop combine to create a view that is vivid and possesses a moderate degree of compositional unity. Obtrusive manmade elements (viz., field light poles, baseball chain-link fencing, gating) are somewhat intrusive. The view documents the fact that the campus project area cannot be seen from this vantage. **Visual quality rating: Moderate.**
- **Photo 15** – View from Valley Boulevard border of Lincoln Park, looking south towards LAC+USC. This view from the southern border of Lincoln Park looks south across Valley Boulevard, UPRR tracks, and vacant land to the USC HSC and USC hospital. The only building within the campus that can be seen in the view is old County General Hospital, which appears as one of a number of tall buildings of disparate design in the view. Although these far-off architectural forms possess a moderately vivid quality, detracting manmade elements in the foreground of the view (viz., graffiti on fencing, telephone poles and overhead wires, bare gravel) and the minimal presence of landscaping diminish visual quality. **Visual quality rating: Moderately low**.

- **Photo 16** – View looking westward from N. State Street down a stairway and across the service court located to the east of the WAC Hospital. View captures the disparate and sometimes disordered design character of the newer temporary built features in the service areas of the west campus. These features have a utilitarian nature, low visual appeal. Landscape features (including Jacaranda and Eucalyptus trees) and the strong massing of the WAC Hospital add a degree of vividness, and a focal point. Unity and intactness are low. **Visual quality rating: Low**.
- **Photo 17** –Representative view across the west campus area looking southwestward. The view again captures the disparate architectural forms and prevalence of paved parking areas within the western campus. Although architectural forms add a small degree of vividness, the dominance of paved surfaces and minimal landscaping give the view a low degree of vividness and unity. **Visual quality rating: Moderately low**.
- **Photo 18** – Panoramic downtown Los Angeles skyline view as seen from a terrace, Old County General Hospital. Despite some of the construction activities in the foreground, the view possesses a moderately high degree of visual power (i.e., the view's vividness or eye-catching character) due to the sweeping nature of the view, the landscaping elements, and that fact that far-off downtown buildings can be seen in the view. Obtrusive manmade elements are minimal and overall compositional harmony is moderate. **Visual quality rating: Moderately high**.

3.1.4.2 Thresholds of Significance

For the purposes of this analysis, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would result in a significant environmental impact if it would:

AES-1 Have a substantial adverse effect on a scenic vista.

AES-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

AES-3 Substantially degrade the existing visual character or quality of the site and its surroundings.

AES-4 Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.1.4.3 Impacts and Mitigation Measures

Impact AES-1: Would the Proposed Project Have a Substantial Adverse Effect on Scenic Vistas?

Construction

No designated scenic highways, corridors, or parkways have been identified within the project viewshed, and no recognized scenic vistas were identified within the community; only informal views were identified in which views of the Old General Hospital Building, the Downtown skyline, and local foothill and mountain ridgelines can be acquired. The closest officially recognized/designated local scenic highways include Stadium Way (north from I-110), which is approximately 2.0 miles to the northwest, and Monterey Road-Huntington Drive, which is approximately 1.5 miles to the northeast. Campus features are not visible from Monterey Road-Huntington Road due its intervening landforms and development; the campus would appear as a

far-off backdrop feature along some segments of Stadium Way due to intervening distances. Construction activities, which are of temporary duration, would include the presence of construction vehicles, cranes, and barricading, and would include extensive grading (western campus), excavation, hauling, and new landscape installation activities. Although views from some locations on the campus may be obstructed by construction of new buildings (e.g., views of downtown Los Angeles from the existing Clinic Tower would be obstructed by a potential new Outpatient Department Building) (see Figure 2-6), these are informal views (e.g., ordinary views that can be acquired from hundreds of vantages throughout the viewshed, and which do not merit official recognition) and no views of designated or recognized scenic vistas would be obstructed. Thus, no impact on a scenic vista would occur as a result of the project construction activities.

Operation

As discussed above, no designated scenic highways, corridors, or parkways have been identified within the project viewshed, and no recognized scenic vistas were identified within the community; only informal views were identified in which views of the Old General Hospital Building, the downtown skyline, and local foothill and mountain ridgelines can be acquired. As noted above, informal views from some locations on the campus may be obstructed by new buildings; however, no designated scenic vista or views would be obstructed or affected. New low-rise buildings would be added to the campus, consistent in scale and massing with existing buildings; new street trees, and extensive new park-like landscaped spaces would also be added in areas that are now paved and occupied by infrastructure. Thus, no impact on a scenic vista would occur as a result of the operation of the project.

Mitigation Measures

Because no substantial adverse effects on scenic vistas would occur as a result of the master plan, no mitigation measures are required.

Impact AES-2: Would Proposed Project Substantially Damage Scenic Resources, including but Not Limited to Trees, Rock Outcroppings, and Historic Buildings within a State Scenic Highway?

Construction and Operation

The master plan does not propose new development near a scenic highway or within natural open space. No rock outcroppings were identified in the project area. During the construction process, most of the mature trees and the architectural/historical resources on the campus would be preserved as part of the project. While the specific trees that may be removed have not yet been determined, the trees are not considered scenic resources. Scenic resources on the campus include architectural/aesthetic resources such as Old County General Hospital and Administration Building, as well as the Women's and Children's Hospital, and mature landscaping and hardscape features that were installed as part of the circa 1933 Allied Architects architectural and landscape plans for the property. However, the Women's and Children's Hospital, which is historic resource and aesthetically noteworthy because of its architectural design, would be demolished to accommodate future master plan development. This visual impact would be significant and unavoidable.

Mitigation Measures

Please see MM-CR-3 in Section 3.4.4.2, for measures to partially mitigate the visual impact due to demolition of the Women's and Children's Hospital.

Level of Significance after Mitigation

Mitigation measure MM-CR-3 would not mitigate project impacts to a less-than-significant level. The impacts would remain significant and unavoidable.

Impact AES-3: Would the Proposed Project Substantially Degrade the Existing Visual Character or Quality of the Site and Its Surroundings?

Construction

Project construction would occur in a fairly flexible, fully urbanized setting that has seen extensive development occur over long period of time, and where a highly varied range of architectural styles and land uses are in close proximity; also, the visual setting displays a range of visual quality from high (close-in views of Old General Hospital) to low visual quality (e.g., off-site views across the project viewshed; on-site views across west campus). Consequently, the temporary presence of construction-related vehicles, equipment, barricading and cranes, etc., and construction-related excavation and grading, would not result in significant changes to visual character, nor would these result in a significant overall reduction in visual quality; thus, a less-than-significant impact on visual character and quality would result from project construction.

Operation

As noted above, the visual setting is characterized by a range from low to high visual quality, providing an often flexible urban design context for new development features. Since it is anticipated that new buildings would be generally compatible in architectural form, finishes and scale with existing campus buildings and because the project would preserve most of the significant architectural/historical resources within the campus, while adding extensive new landscape elements to create an inviting park-like setting for campus staff and visitors, the proposed project would not substantially degrade the existing visual character of the site and its surroundings. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact AES-4: Would the Proposed Project Create a New Source of Substantial Light or Glare that Would Adversely Affect Day or Nighttime Views in the Area?

Construction

Construction activities are expected to occur during daylight hours, consistent with County and city regulations and are, therefore, unlikely to substantially alter ambient illumination light levels, or result in significant spill light impacts on surrounding land uses. The project is proposed in a fully urbanized setting in which there are numerous existing sources of light and glare. These include existing campus health services buildings and commercial buildings along adjoining streets.

In addition, although no shade-sensitive viewing groups are present within the campus or its immediate off-site perimeter, there is no potential for construction equipment and activities (e.g., cranes) to cast substantial shadow/shade. There is also little potential for construction activities to produce substantial glare.

The net contribution of project construction activities, when considered in addition to existing sources of light and glare, would be negligible; and no significant project construction impacts related to light, glare, and shadow would occur.

Operation

The project's buildings and parking areas and new shielded outdoor lighting features would not significantly alter ambient illumination light levels, or result in significant spill light impacts on surrounding land uses. The project is proposed in a fully urbanized setting in which there are numerous existing sources of light and glare. These include existing campus health services buildings and commercial buildings along adjoining streets. Vehicle headlights on the adjacent freeways, overhead street lighting, and vehicles headlights on streets also emit light at nighttime.

All project lighting features would be installed in accordance with applicable regulations designed to promote energy efficiency, avoid spill light and glare, and preserve nighttime sky viewing. In addition, project elements would be designed to be compatible with the design character of the setting in which they are being proposed, and would receive non-highly reflective finishes and colors. Therefore, it is not expected that the project would produce significant light or glare impacts. Although there is potential for buildings proposed as part of the project to cast new shadow/shade within the campus, no shade/shadow sensitive viewing groups are present within the campus or adjoining the perimeter of the campus who would be adversely affected. All shade-sensitive residential viewers are sufficient distances away from areas on the eastern and southern portions of the campus proposed for development that they are expected to be beyond the shadow impact zone.

Given all of the above, the project's net contribution, when considered in addition to existing sources of light and glare, would be negligible. Project impacts related to light, glare, and shadow would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

3.1.5 Cumulative Impacts

The study area for the cumulative impacts analysis is limited to locations that have clear sightlines to the built elements proposed as part of the project. The study area boundaries extend between 0.3 to 0.5 miles from the campus perimeter. Given the highly urbanized character of the cumulative impacts study area, and the hilly topography defining the north and northeastern border of the campus, and consistent with the overall project area viewshed, the boundaries for the cumulative impacts study area would extend out one-half mile to the east of the project site in recognition that sight lines are less obstructed by topography in that direction. I-10 /Wabash Avenue defines the cumulative impacts study area on the south (a distance of approximately 0.3 miles); I-5 in (which is an elevated configuration adjoining the campus and, thus, partially blocks east-west views of the project site is an appropriate boundary on the west, while N. Main Street/Valley Boulevard form an appropriate boundary on the north (at distances ranging from one-quarter to one-half mile).

A list of related projects (Chapter 2, Table 2-2) was reviewed as part of this cumulative impacts analysis; however, of the total list of nine projects, only one is within the project's cumulative viewshed—the ongoing USC HSC master plan development, which calls for extensive new medical clinical facilities, non-clinical facilities, graduate student housing, a 250,000-square-foot hotel, and a major academic/medical research facility expansion (256,000 square feet). The other eight projects do not have clear sightlines to the project due to topography, freeway and building placements, and range in distance from 0.6 to two miles away.

The USC HSC is currently developed with numerous buildings dating from the recent past that are typically five to eight stories in height. The buildings include multi-story parking garages along the campus' southern border, Zonal Avenue, serves as a visual screen that blocks most north-facing views from the LAC-USC Medical Center campus and south-facing views from the USC HSC from most locations north of Zonal Avenue. Only more sweeping, panoramic views from the upper stories of these buildings provide vantages across portions of the two already extensively developed campuses. Yet such views, due to their panoramic nature, tend to diminish the visual power of new development. Thus, the two campuses are essentially autonomous in visual terms and, despite their close proximity and additional development that is consistent with existing design elements in terms of scale, materials, color, and which integrate new sympathetic landscape features, is not expected to significantly nor negatively affect visual character and quality, nor result in effects that are potentially cumulatively significant.

As previously noted, with the exception of entirely informal views across the viewshed that capture Old General Hospital Building, the Downtown skyline and the local foothill and mountain ridgelines, no designated or formally recognized scenic vistas or scenic corridors have been identified within the project viewshed. Ordinary views within the viewshed, which do not capture the above-referenced visual resources, are generally of moderately low to moderate visual quality, would be mostly preserved. Building placements and, in some instances, freeway in elevated configurations serve to block many views across project area and serve to isolate views acquired in one portion of viewshed from other portions of project area. In addition, the diverse architectural and design treatments found within most portions of project area makes it a fairly forgiving and flexible urban design context in which to incorporate new architectural and landscape features proposed as part of the project. Furthermore, the project would be developed consistent with long-standing city and County urban design policies.

The history of the project area extends back to the beginning of the last quarter of the nineteenth century and includes extensive development, facilities expansion, and construction actions over more than a century that have thoroughly transformed the visual setting. Those changes have occurred not simply within the campus, but have transformed the adjoining neighborhood by drawing auxiliary facilities and health care service providers to the area (viz., Zonal Avenue; south side of Marengo Avenue east of State Street). As noted earlier, although individual features are present that possess high visual quality—the Old General Hospital Building and related landscape elements from the 1930s period; scattered architectural/historical resources - such as the Old Administration Building; informal community views of Old General Hospital, the Downtown skyline, and local foothill and mountain ridgelines—overall visual quality within the community is moderately low.

As previously noted, despite some potential for building placements to partially obscure informal views of the Old General Hospital Building in certain close-in locations on the south (e.g., Marengo Avenue and State Street) or views of downtown Los Angeles (e.g., from the existing Clinic Tower

Building) the proposed project would generally give the campus a more attractive physical presence in its neighborhood setting by making the campus more physically and visually accessible to the surrounding community, adding perimeter street trees, and creating new community-accessible park-like areas in the interior of the campus where none currently exist. In addition, in instances where proposed project buildings would be more visible in the viewshed, they would not substantially obscure views of visual resources on the campus. The project would also preserve most of the campus' unique architectural/historical resources, while complying with applicable city and County design and lighting guidelines that are intended to ensure that visual quality in the viewshed is not degraded. Therefore, in most respects, the proposed master plan would not result in or contribute to significant cumulative visual impacts.

As noted above under Impact AES-2, the Women's and Children's Hospital, which is historic resource and aesthetically noteworthy because of its architectural design, would be demolished to accommodate future master plan development. The loss of this visual resource would be a significant visual impact of the proposed project. However, since the USC Health Sciences Campus EIR Addendum found impacts to visual resources to be less than significant, and the USC Health Sciences Campus Master Plan project is the only one of the related projects located within the proposed project's cumulative viewshed, the proposed project would not contribute to significant cumulative visual impacts. MM-CR-3 in Section 3.4.4.2 describes measures to partially mitigate the project's visual impact due to demolition of the Women's and Children's Hospital.

3.2 Air Quality

3.2.1 Introduction

This section describes air quality–related impacts of the proposed project. It includes a discussion of existing regulatory requirements, the existing air quality setting within the project area, and impacts on air quality that would result from implementation of the proposed master plan.

3.2.2 Regulatory Setting

At the federal level, the U.S. Environmental Protection Agency (EPA) is responsible for implementation of the Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile-source and other requirements) are implemented directly by EPA. Other portions of the CAA (e.g., stationary-source requirements) are implemented by state and local agencies.

Responsibility for attaining and maintaining air quality in California is divided between the California Air Resources Board (ARB) and the regional air quality districts. Areas of control for the regional districts are set by ARB, which divides the state into air basins.

Plans, policies, and regulations at the federal, state, and local level relevant to the proposed project are discussed below.

3.2.2.1 Federal

The CAA was first enacted in 1963 but has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The CAA establishes the National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The CAA also mandates that the state submit and implement a State Implementation Plan (SIP) for local areas that fail to meet the standards. The plans must include pollution control measures that demonstrate how the standards will be met. The City of Los Angeles is within a basin that is designated as a nonattainment area for certain pollutants that are regulated under the CAA.

The 1990 amendments to the CAA identify specific emissions-reduction goals for areas that fail to meet the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the CAA that would most substantially affect development of the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. Table 3.2-1 shows the NAAQS that are currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and adopt a standard for PM2.5. The Los Angeles County portion of the basin fails to meet national standards for O_3, PM10, PM2.5, and Pb and therefore is considered a federal nonattainment area for those pollutants. Table 3.2-2 lists each criteria pollutant and its related attainment status.

Table 3.2-1: Federal and State Ambient Air Quality Standards

Pollutant	Symbol	Average Time	Standard (ppm)		Standard (µg/m³)		Violation Criteria	
			California	National	California	National	California	National
Ozone	O_3	1 hour	0.09	–	180	–	If exceeded	–
		8 hours	0.070	0.075	137	147	If exceeded	If fourth-highest 8-hour concentration in a year, averaged over 3 years, is exceeded at each monitor in an area
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
(Lake Tahoe only)		8 hours	6	–	7,000	–	If equaled or exceeded	–
Nitrogen dioxide	NO_2	Annual arithmetic mean	0.030	0.053	57	100	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.18	0.100	339	188	If exceeded	–
Sulfur dioxide	SO_2	24 hours	0.04	0.14[1]	105	3651	If exceeded	–
		1 hour	0.25	0.075	655	196	If exceeded	If exceeded on more than 1 day per year
		3 hours	–	0.5[a,b]	–	1,300[a,b]	–	–
		Annual arithmetic mean	–	0.030[a]	–	801	–	If exceeded on more than 1 day per year
Hydrogen sulfide	H_2S	1 hour	0.03	–	42	–	If equaled or exceeded	–
Vinyl chloride	C_2H_3Cl	24 hours	0.01	–	26	–	If equaled or exceeded	–
Inhalable particulate matter	PM10	Annual arithmetic mean	–	–	20	–	–	–
		24 hours	–	–	50	150	If exceeded	If exceeded on more than 1 day per year
	PM2.5	Annual arithmetic mean	–	–	12	12.0[c]	If exceeded	If 3-year average from single or multiple community-oriented monitors is exceeded
		24 hours	–	–	–	35	–	If 3-year average of 98th percentile at each population-oriented monitor in an area is exceeded
Sulfate particles	SO_4	24 hours	–	–	25	–	If equaled or exceeded	–
Lead particles	Pb	Calendar quarter	–	–	–	1.5	–	If exceeded no more than 1 day per year
		30-day average	–	–	1.5	–	If equaled or exceeded	–
		Rolling 3-month average	–	–	–	0.15	If equaled or exceeded	Averaged over a rolling 3-month period

Notes:
[a] The final 1-hour SO_2 rule was signed June 2, 2010. The annual and 24-hour SO_2 standards were revoked in that same rulemaking. However, these standards remain in effect until 1 year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.
[b] Secondary standard.
[c] EPA finalized the new PM2.5 annual arithmetic mean standard of 12.0 µg/m³ on December 14, 2012, which went into effect March 18, 2013. The previous 15 µg/m³ standard remained in effect until March 18, 2013, and remains in effect as the secondary standard.
ppm = parts per million; µg/m³ = micrograms per cubic meter.
Sources: ARB 2013a.

3.2.2.2 State

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with the California standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. Table 3.2-2 provides the Los Angeles County portion of the Basin's attainment status with respect to NAAQS and CAAQS.

Table 3.2-2: Federal and State Attainment Status for Los Angeles County Portion of the South Coast Air Basin

Pollutants	Federal Classification	State Classification
O_3 (1-hour standard)	—	Nonattainment
O_3 (8-hour standard)	Nonattainment, Extreme	Nonattainment
PM10	Attainment/Maintenance	Nonattainment
PM2.5	Nonattainment	Nonattainment
CO	Attainment/Maintenance	Attainment
NO_2	Attainment/Maintenance	Attainment
SO_2	Attainment	Attainment
Pb	Nonattainment	Attainment
Sources: ARB 2013b; EPA 2014a.		

3.2.2.3 Local

The project lies within the Los Angeles County portion of the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including all of Orange County; Los Angeles County, except for the Antelope Valley; the non-desert portion of western San Bernardino County; and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of SCAQMD's jurisdiction. Although air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system that allows no net increase in emissions from any new or modified (i.e., previously permitted) emissions sources, and transportation control measures. The most recent AQMP is the 2012 AQMP. The Final 2012 AQMP was adopted by the SCAQMD Governing Board on December 7, 2012. Control measure IND-01 was approved for adoption and inclusion in the Final 2012 AQMP at the February 1, 2013, Governing Board meeting. ARB approved the 2012 AQMP on January 25, 2013, and the AQMP has been submitted to EPA as a revision to the California SIP (ARB 2013c). The 2012 AQMP addresses CAA requirements and includes a 24-hour PM2.5 plan; additional 8-

hour O_3 measures, with a vehicle-miles-traveled (VMT) offset demonstration; and a 1-hour O_3 attainment demonstration with VMT offset demonstration. SCAQMD recently initiated development of the 2016 AQMP, which will be primarily focused on addressing the ozone standards.

SCAQMD published the *CEQA Air Quality Handbook* in November 1993[1] to help local governments analyze and mitigate project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses as part of CEQA documents prepared within SCAQMD's jurisdiction. In addition, SCAQMD has published two additional guidance documents, *Localized Significance Threshold Methodology for CEQA Evaluations* (2003, revised 2008) and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* (2006). These publications provide guidance for evaluating localized effects from mass emissions during construction. Both were used in the preparation of this analysis (SCAQMD 2006, 2008a).

Through the attainment planning process, SCAQMD develops rules and regulations to regulate sources of air pollution in the Basin (SCAQMD 2011a). Emissions sources associated with the proposed project are considered mostly mobile sources but also include SCAQMD stationary source rules, such as Regulation XIII (New Source Review), Rule 1401 (New Source Review of Toxic Air Contaminants), or Rule 431.2 (Sulfur Content of Liquid Fuels). The proposed project may be subject to the adopted SCAQMD rules and regulations listed below (as well as others).

SCAQMD Rule 402—Nuisance. This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403—Fugitive Dust. This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source. During construction of the project, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earthmoving and grading activities. These measures would include site pre-watering and re-watering as necessary to maintain sufficient soil moisture content. Additional requirements apply to construction projects on property with 50 or more acres of disturbed surface area or any earthmoving operation with a daily earthmoving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period. These requirements include submittal of a dust control plan, maintaining dust control records, and designating a SCAQMD-certified dust control supervisor.

SCAQMD Rule 1108—Cutback Asphalt. This rule specifies VOC content limits for cutback asphalt.

SCAQMD Rule 1146—Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters. The purpose of this rule is to set NO_X limits for exhaust from large external combustion equipment, such as commercial boilers, steam generators, and process heaters

SCAQMD Rule 1166—Volatile Organic Compound Emissions from Decontamination of Soil. The purpose of this rule is to require a mitigation plan for soil contaminated with VOCs.

[1] Section updates provided on the district's website: http://www.aqmd.gov/ceqa/hdbk.html

SCAQMD Rule 1113—Architectural Coatings. This rule limits the VOC content of architectural coatings used in the district. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use in the district must comply with the current VOC standards.

SCAQMD Rule 1402—Control of Toxic Air Contaminants from Existing Sources. The purpose of this rule is to sets action triggers based on facility-wide risks for public notification and mandatory risk reduction

SCAQMD Rule 1403—Asbestos Emissions from Demolition/Renovation Activities. The purpose of this rule is to limit emissions of asbestos, a TAC, from structural demolition/renovation activities. The rule requires people to notify the SCAQMD of proposed demolition/renovation activities and survey structures for the presence of asbestos-containing materials (ACMs). The rule also includes notification requirements for any intent to disturb ACM, emissions control measures, and ACM removal, handling, and disposal techniques. All proposed structural demolition activities associated with proposed construction would need to comply with the requirements of Rule 1403.

SCAQMD Rule 1472—Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines. The purpose of this rule is to reduce diesel particulate emissions from facilities with three or more stationary emergency stand-by diesel engines/generator.

3.2.2.4 Description of Relevant Air Pollutants

Criteria Pollutants

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants, which are known as criteria air pollutants, are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), VOCs, nitrogen oxides (NO_X), sulfur dioxide (SO_2), and most fine particulate matter (PM10, PM2.5), including lead (Pb) and fugitive dust, are primary air pollutants. Of these, CO, SO_2, PM10, and PM2.5 are criteria pollutants. VOC and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants. Presented below is a description of each of the primary and secondary criteria air pollutants and their known health effects (SCAQMD 2005).

Ozone

O_3, a colorless toxic gas, is found in two regions of the earth's atmosphere, at ground level and in the upper regions of the atmosphere. Both types of ozone have the same chemical composition (O_3). Although upper atmospheric O_3 protects the earth from the sun's harmful rays, ground level O_3 is the main component of smog (EPA 2012). It enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. It also damages vegetation by inhibiting growth. Although O_3 is not directly emitted, it forms in the atmosphere through a photochemical reaction between VOCs and NO_X in the presence of sunlight. O_3 is present in relatively high concentrations within the Basin, and the damaging effects of photochemical smog are generally related to the concentration of O_3. Meteorology and terrain play major roles in O_3 formation. Ideal smog conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies but can also occur during the winter months in high-

elevation areas in the western United States with high levels of local VOC and NO_X emissions when snow is on the ground and temperatures are near or below freezing (EPA 2012). The greatest source of smog-producing gases is the automobile (SCAQMD 2012a).

Organic Gases—Precursors to Ozone

There are several subsets of organic gases, including reactive organic gases (ROGs) and VOCs. Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. ROGs include all hydrocarbons except those exempted by ARB. Therefore, ROGs are a set of organic gases based on state rules and regulations. VOCs are similar to ROGs in that they include all organic gases except those exempted by federal law. Both VOCs and ROGs are emitted from incomplete combustion of hydrocarbons or other carbon-based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of hydrocarbons. Another source of hydrocarbons is evaporation from petroleum fuels, solvents, dry-cleaning solutions, and paint. Generally speaking, and in this analysis, ROGs and VOCs are used interchangeably to refer to the hydrocarbons that are a precursor to O_3 formation. However, because SCAQMD uses VOCs in the formulation of its thresholds, VOCs are presented herein.

The primary health effects of hydrocarbons result from the formation of O_3 and its related health effects. High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. There are no separate NAAQS or CAAQS for VOCs or ROGs (EPA 2012). Carcinogenic forms of VOCs and ROGs are considered to be toxic air contaminants (TACs), which are described below. An example is benzene, which is a carcinogen.

Carbon Monoxide

CO is a colorless and odorless gas that can interfere with the transfer of oxygen to the brain. It can cause dizziness and fatigue and impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. In urban areas, CO is emitted by motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhaust releases most of the CO in urban areas. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest CO concentrations measured in Los Angeles County are typically recorded during the winter (SCAQMD 2005).

Nitrogen Dioxide

NO_2 is a brownish gas that irritates the lungs. It can cause breathing difficulties at high concentrations. Similar to O_3, NO_2 is not directly emitted but is formed through a reaction between NO and atmospheric oxygen. Nitric oxide (NO) and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM10 (see discussion of PM10 below). At atmospheric concentrations, NO_2 is only potentially irritating. In high concentrations, the result is a brownish-red cast to the atmosphere and reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 to 3 years old) has also been observed at concentrations below 0.3 part per million (ppm) (SCAQMD 2005).

Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air. These can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM10 and PM2.5 represent fractions of particulate matter. PM10 refers to particulate matter less than 10 microns in diameter, about $1/7^{th}$ the thickness of a human hair. PM2.5 refers to particulate matter that is 2.5 microns or less in diameter, roughly $1/28^{th}$ the diameter of a human hair. Major sources of PM10 include motor vehicles; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. PM2.5 results from fuel combustion (from motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, PM10 and PM2.5 can be formed in the atmosphere from gases such as SO_2, NO_X, and VOCs.

PM10 and PM2.5 pose a greater health risk than larger size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM10 and PM2.5 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates, can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body; they can also transport absorbed gases such as chlorides or ammonium into the lungs and cause injury. Whereas particles measuring 2.5 to 10 microns in diameter tend to collect in the upper portion of the respiratory system, particles measuring 2.5 microns or less are so tiny that they can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle and contribute to haze and reduce regional visibility (SCAQMD 2005).

Secondary PM2.5 Formation

PM2.5 particles are both directly emitted into the atmosphere (i.e., primary particles) and formed through atmospheric chemical reactions from precursor gases (i.e., secondary particles). Primary PM2.5 includes diesel soot, combustion products, road dust, and other fine particles. Secondary PM2.5, which includes products such as sulfates, nitrates, and complex carbon compounds, are formed from reactions with directly emitted NO_X, SO_X, VOCs, and ammonia. Secondary formation of smaller particles can lead to elevated PM2.5 concentrations in the inland valley areas of the Basin (SCAQMD 2012a). The analysis herein focuses on the effects of direct PM2.5 emissions, consistent with the recommendations of the SCAQMD (SCAQMD 2006).

Sulfur Dioxide

SO_2 is a product of high-sulfur-fuel combustion. The main sources of SO_2 are coal and oil used in power stations, industries, and domestic heating. Industrial chemical manufacturing is another source of SO_2. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also cause plant leaves to turn yellow and erode iron and steel. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary-source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 concentrations have been reduced to levels well below the state and national standards, but further reductions are needed to attain compliance with standards for sulfates and PM10, for which SO_2 is a contributor (SCAQMD 2012a).

Lead

Pb is a natural constituent of air, water, and the biosphere and listed as both a criteria pollutant and a carcinogenic TAC. Pb is neither created nor destroyed in the environment, so it essentially persists forever. Pb was used several decades ago to increase the octane rating in automotive fuel. Because gasoline-powered automobile engines were a major source of airborne Pb through the use of leaded fuels and because the use of leaded fuel has been mostly phased out, the ambient concentrations of Pb have dropped dramatically. Short-term exposure to high levels of Pb can cause vomiting, diarrhea, convulsions, coma, or even death. However, even small amounts of Pb can be harmful, especially to infants, young children, and pregnant women. Symptoms of long-term exposure to lower Pb levels may be less noticeable but are still serious. Anemia is common, and damage to the nervous system may cause impaired mental function. Other symptoms are appetite loss, abdominal pain, constipation, fatigue, sleeplessness, irritability, and headache. Continued excessive exposure, as in an industrial setting, can affect the kidneys.

Emissions of Pb have dropped substantially over the past 40 years. However, sources of Pb emissions within the Basin remain, primarily the lead-acid battery recycling industry. Monitoring at two large battery recycling facilities is responsible for the Basin's recent nonattainment designation under the NAAQS for Pb for Los Angeles County (SCAQMD 2012b).

Toxic Air Contaminants

With respect to criteria pollutants, federal and/or state ambient air quality standards (AAQS) represent the exposure level (with an adequate margin of safety) deemed safe for humans. No AAQS exist for TACs because no exposure level has been deemed safe for humans. Pollutants are identified as TACs because of their potential to increase the risk of developing cancer or their acute or chronic health risks. For TACs that are known or suspected carcinogens, ARB has consistently found that there are no levels or thresholds below which exposure is risk free. Individual TACs vary greatly in the risk they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. For certain TACs, a unit risk factor can be developed to evaluate cancer risk. For acute and chronic health risks, a similar factor, called a Hazard Index, is used to evaluate risk. In the early 1980s, ARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Toxic Air Contaminant Identification and Control Act (Assembly Bill [AB] 1807) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks (ARB 2010). AB 2588 requires local air districts like SCAQMD to designate high, intermediate, and low priority categories and report on facilities that may pose a risk to the public.

To date, ARB has identified 21 TACs and adopted EPA's list of hazardous air pollutants as TACs. In August 1998, ARB identified diesel exhaust particulate matter (DPM) emissions as a TAC (ARB 1998). In September 2000, ARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan was to reduce DPM emissions and the associated health risk by 75 percent by 2010 and by 85 percent by 2020 (ARB 2000).

3.2.3 Environmental Setting

3.2.3.1 Regional Context

The project site is located within the Basin, an area covering approximately 6,745 square miles and bounded by the Pacific Ocean to the west and south and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills.

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography) as well as human-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The greatest air pollution impacts in the Basin occur from June through September. These are generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. This condition frequently reduces pollutant dispersion, thereby causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day. O_3 concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert.

SCAQMD completed an ambient air monitoring and evaluation study in the Basin (i.e., the Multiple Air Toxics Exposure Study III [MATES III]). MATES III was a follow-up to previous air toxics studies in the Basin and part of the SCAQMD Governing Board's Environmental Justice Initiative. The MATES III study concluded that the average carcinogenic risk throughout the Basin, which was attributed to TACs, is approximately 1,194 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) are the greatest contributors. About 83.6 percent of all risk is attributed to DPM emissions (SCAQMD 2008b).

SCAQMD has initiated its MATES IV study, which is currently holding Technical Advisory Group meetings.

Local Climate

Data from the closest climate monitoring station—Western Regional Climate Center's (WRCC's) Los Angeles Civic Center Station (COOPID 045115)—was used to characterize project vicinity climate conditions. Over the period of record (1906–2012), the average study area summer (August) high and low temperatures were 83.1°F and 63.8°F, respectively, while temperatures exceed 90°F an average of 8.5 times per year. The average winter (January) high and low temperatures were 66.4°F and 48.3°F, respectively, while temperatures rarely drop below 32°F. Rainfall varies widely from year to year, with an annual average of 14.77 inches with an average of 36 days with measureable rainfall (greater than or equal to 0.01 inches) (WRCC 2014).

The closest wind monitoring station, located approximately 1.5 miles northeast of the study area, is the Central Los Angeles wind monitoring station (1630 Main Street). Wind patterns in the project vicinity arise primarily from the west-southwest, with seasonal and diurnal variations resulting in northeast (during Santa Ana events) and southerly winds (before and during winter storms) (National Oceanic and Atmospheric Administration [NOAA] n.d.). Over the period of record (1/1/2006 to 12/31/2009), winds at the Central Los Angeles station averaged a speed of 2.23 meters per second (5.0 miles per hour), while calm wind conditions were present only 0.32 percent of the time (SCAQMD 2011b).

Local Air Quality

The SCAQMD has divided the Basin into air monitoring areas and maintains a network of air quality monitoring stations located throughout the Basin. The project site is located in the Central Los Angeles County Monitoring Area (Source Receptor Area [SRA] 1). The nearest monitoring station is the Los Angeles - North Main Street station (ARB 70087, 1630 North Main Street), located approximately 1 mile west-northwest of the project Site. Criteria pollutants monitored at the Los Angeles – North Main Street station include O_3, CO, NO_2, PM10, and PM2.5.

Information regarding concentrations of pollutants over the last 3 years (2011–2013) has been compiled from the stations' data (see Table 3.2-3). The monitoring data show the following trends for pollutant concentrations: The 1-hour CAAQS was not exceeded in any year; the 8-hour O_3 CAAQS and NAAQS were only exceeded in 2012; the 24-hour PM10 CAAQS was exceeded several times per year; the 24-hour PM10 NAAQS were not exceeded in any year; the PM2.5 24-hour NAAQS was exceeded each year; and the 1-hour NO_2 NAAQS was exceeded once in 2011. In addition, no violations of the CO CAAQS or NAAQS occurred, and no violations of the NO_2 CAAQS occurred.

Local Health Risk

According to SCAQMD inhalation cancer risk data (MATES III), the study area is within cancer risk zones of approximately 1,390 in one million.[2] For comparison, the average cancer risk in the Basin is approximately 1,200 in one million.

Sensitive Receptors and Locations

SCAQMD defines sensitive receptor locations as residential, commercial, and industrial land use areas as well as other locations where sensitive populations may be located. Other sensitive receptor locations include schools, hospitals, convalescent homes, day care centers, and other locations where children, chronically ill individuals, or other sensitive persons could be exposed (SCAQMD 2005).

The project site is surrounded by County/public, residential, commercial, industrial, medical, and institutional uses. Sensitive receptors within the project vicinity include the surrounding residences in all directions as well as patients and workers on the project site itself, as a hospital is considered a sensitive receptor. Figure 3.9-2 shows the land uses of the project site and the surrounding area.

[2] South Coast Air Quality Management District. 2008b. *Multiple Air Toxics Exposure Study III, Model Estimated Carcinogenic Risk*. Available: <http://www3.aqmd.gov/webappl/matesiii/>.

Table 3.2-3. Air Quality Data from Los Angeles – North Main Street Station (ARB 70087)

Pollutant and Standard	2011	2012	2013
Ozone (O_3)			
Maximum concentration 1-hour period	0.087	0.093	0.081
Maximum concentration 8-hour period	0.065	0.077	0.069
4th Highest concentration 8-hour period	0.060	0.068	0.060
Days state 1-hour standard exceeded *(0.09 ppm)*	0	0	0
Days state 8-hour standard exceeded *(0.070 ppm)*	0	2	0
Days national 8-hour standard exceeded *(0.075 ppm)*	0	1	0
Suspended Particulates (PM10)			
Maximum state 24-hour concentration	119.7	90.9	74.5
Maximum national 24-hour concentration	53.0	80.0	57.0
Annual average concentration	28.7	30.0	35.3
Days state standard exceeded (*50 µg/m³)*	9	43	20
Days national standard exceeded (expected) (*150 µg/m³)*	0.0	0.0	0.0
Suspended Particulates (PM2.5)			
Maximum 24-hour concentration	49.3	58.7	43.1
National 98th Percentile concentration	31.5	32.0	29.0
State annual average concentration	13.3	12.7	12.0
National annual average concentration	12.9	12.5	12.0
Days national standard exceeded (*35 µg/m³*)	4	4	1
Carbon Monoxide (CO)			
Maximum Concentration 8-hour Period	2.4	1.9	2.0
Maximum Concentration 1-hour Period	2.8	2.2	2.5
Days state 8-hour standard exceeded *(9.0 ppm)*	0	0	0
Days national 8-hour standard exceeded *(9 ppm)*	0	0	0
Days state 1-hour standard exceeded *(20 ppm)*	0	0	0
Days national 1-hour standard exceeded *(35 ppm)*	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration	109.6	77.3	90.3
Annual Average Concentration	NA	NA	NA
Days exceeding state standard (*0.18 ppm*)	0	0	0
Days exceeding national standard (*0.100 ppm*)	1	0	0
Lead (Pb)			
Maximum 24-hour Concentration	0.017	0.024	0.019
Rolling 3-month Average	NA	NA	NA

Source: ARB 2014, EPA 2014b. Compiled by ICF, July 2014.

Notes: ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; NA = data not available.

3.2.4 Environmental Impact Analysis

3.2.4.1 Methods

The methodology for identifying construction- and operations-related emissions is presented below.

Construction

Construction associated with of the project level of development under the master plan would result in the generation of criteria pollutant and TAC emissions. Construction of the master plan elements would occur over a period of approximately 25 years (2015–2040). While the master plan guides development, a specific construction schedule has not been determined and is unknown at this point. Mass daily combustion exhaust, fugitive dust (PM10 and PM2.5), and fugitive off-gassing (VOC) from paving and architectural coatings were estimated using SCAQMD's California Emissions Estimator Model (CalEEMod), version 2013.2.2 (SCAQMD 2013). Given that the specific construction timeline is unknown at this point, modeling defaults regarding construction phase types, phase lengths, equipment assumptions, and vehicle trip assumptions within CalEEMod were used to provide a reasonable yet conservative analysis based on projected master plan square footage (see Table 2-1 in Chapter 2 of this EIR). A summary of CalEEMod inputs (equipment assumptions, trips lengths, etc.) is presented in Appendix B. For purposes of analysis, it was assumed that construction would begin in January 2015 and all projects (medical uses, office uses, retail, etc.) and each construction phase for each project (demolition, building construction, etc.) would occur concurrently.

Regarding localized effects, SCAQMD's localized significance threshold (LST) methodology was developed to aid in the analysis of construction associated with land use development projects. It directs analyses to focus on emissions from mobile construction equipment (i.e., loaders, backhoes, forklifts, generators, etc.) and stationary sources (i.e., natural gas furnaces, emergency generators, etc.) and mobile equipment (i.e., forklifts) operating on-site. The LST methodology and lookup tables are not designed to evaluate localized impacts from mobile sources traveling over roadways. Therefore, the LST analysis only includes those emissions that would occur on-site, and does not include emissions from motor vehicles traveling on roadways.

For purposes of analysis, fugitive dust emissions assume compliance with SCAQMD Rule 403. According to SCAQMD guidance, Rule 403 would reduce fugitive dust emissions by 61 percent by watering three times per day. The exact dust-control methods used for construction will be specified in a dust-control plan that would be submitted to the SCAQMD per Rule 403 once construction begins.

Emissions are presented at the daily time scale and compared with the thresholds discussed in Section 3.2.4.2, below. All emissions calculation worksheets and air quality modeling output files are provided in Appendix B.

Operation

Existing uses at the project site currently result in a source of criteria pollutant and TAC emissions, including emissions associated with motor vehicle travel to and from the site, natural gas combustion for space and heating, and area sources associated with consumer products (cleaning supplies, kitchen aerosols, cosmetics, toiletries), architectural coatings, and landscaping. Buildout of the proposed master plan would result in a change in land uses on-site, as well as increased intensity of existing uses, and would thus result in emissions in different quantities than existing uses.

Criteria pollutant and TAC emissions associated with both existing and proposed uses were estimated using CalEEMod, utilizing motor vehicle trip generation data from the traffic impact analysis (Fehr & Peers 2014) and CalEEMod defaults for natural gas consumption and area sources for both existing and proposed land uses. It was assumed that the proposed master plan would be fully built out and operational by 2040. Note that the latest operational year in CalEEMod is 2035. Emissions are presented at the daily time scale and the net contribution of the proposed project (master plan buildout over existing uses) compared with the thresholds discussed in Section 3.2.4.2, below. In addition, the current LAC/USC Medical Center results in emissions from various permitted sources located on-site, including emergency generators, boilers, storage tanks, and other sources that emit both criteria pollutant and TAC emissions. Annual emissions from existing permitted sources was obtained from SCAQMD's FIND database for the most recent year data was available (year 2013), converted to daily emissions to represent average daily emissions, and scaled based on the change in square footage between the existing campus and buildout of the new master plan. Particulate emissions, reported as total suspended particulates (TSPs) in the AER, were converted to PM10 and PM2.5 based on the conservative assumption that PM10 and PM2.5 were the same as TSPs.

Regarding localized effects, SCAQMD's LST methodology was developed to aid in the analysis of operations associated with land use development projects. It directs analyses to focus on criteria pollutant emissions from stationary sources (i.e., natural gas furnaces, emergency generators, etc.) and mobile equipment (i.e., forklifts) operating on-site. The LST methodology and lookup tables are not designed to evaluate localized impacts from mobile sources traveling over roadways or to analyze the effects of TACs on nearby receptors. Therefore, the LST analysis only includes those criteria pollutant emission sources that would occur on-site, and does not include emissions from motor vehicles traveling on roadways.

With regards to the effects of TAC emissions, existing permitted equipment on-site (boilers, generators, etc.) generate TACs, and in 2007 SCAQMD performed a site-specific health risk assessment (HRA) to analyze the cancer and acute and chronic non-cancer effects that permitted source have on sensitive receptors in the area. Buildout of the master plan would inevitably increase TAC emissions by introducing new natural-gas boilers and emergency (most likely diesel) generators to support the expanded facilities on-site. The specifics regarding potential new sources, in terms of location, size, source parameters (fuel type, stack height, exhaust controls, etc.) is unknown at this point. However, for purposes of analysis, cancer and acute and chronic non-cancer shown in the 2007 HRA were scaled based on the change in square footage from existing conditions to conditions with the projected level of development that could occur under the master plan. This method is based on the assumption that 2007 and existing square footage is the same and that health effects are directly proportional to facility square footage.

Regarding CO hot spots, SCAQMD recommends a hot-spot evaluation of potential localized CO impacts when volume-to-capacity (V/C) ratios are increased by 2 percent or more at intersections with a level of service (LOS) of C or worse. The 21 intersection locations within the traffic impact analysis were screened using the above criteria. To simplify the CO hot-spot analysis, the analysis focuses on the three intersections that comprise the worse V/C ratios and highest volumes under both existing plus project and 2040 cumulative year with project conditions. CO hot-spot impacts were evaluated consistent with the California Department of Transportation (Caltrans) T*ransportation Project-Level Carbon Monoxide Protocol* (Garza et al. 1997) and SCAQMD's CO modeling protocol. CO hot spots were analyzed using the CALINE-4 line-source dispersion model developed by Caltrans, combined with ARB's EMFAC2011 emission factors, with all four corners of each intersection analyzed to determine whether project development would result in a CO concentration that exceeds federal or state CO standards.

All emissions calculation worksheets and air quality modeling output files are provided in Appendix B.

3.2.4.2 Thresholds of Significance

For the purposes of the analysis in this EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

AQ-1: Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

AQ-3: Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a nonattainment area with respect to the applicable federal or state ambient air quality standard (this includes releasing emissions that would exceed quantitative thresholds for ozone precursors).

AQ-4: Expose sensitive receptors to substantial pollutant concentrations.

AQ-5: Create objectionable odors that would affect a substantial number of people.

Appendix G, Section III, of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations regarding air quality impacts. Given SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies established by SCAQMD are relied upon to make determinations regarding air quality impacts.

Criteria Pollutants

The significance thresholds and analysis methodologies outlined in SCAQMD's *CEQA Air Quality Handbook*, *Localized Significance Threshold Methodology for CEQA Evaluations*, and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* guidance documents were used in evaluating project impacts. Specifically, the SCAQMD construction and operational regional mass emissions thresholds identified in Table 3.2-4 were used for the regional assessment of criteria pollutants herein.

With respect to localized emissions, SCAQMD has developed LSTs and mass rate look-up tables to help public agencies analyze the project-related effects of pollutants on nearby receptors. The LSTs are based on the size or total area of the emissions source, the ambient air quality in each SRA where the emissions sources are located, and the distance to nearby sensitive receptor locations. The project site encompasses 76 acres within the Central Los Angeles Monitoring Area (SRA 1). The proposed LAC+USC Medical Center Campus Master Plan addresses issues concerning the entire LAC+USC Medical Center campus; therefore, the entire campus is considered the project site. However, construction associated with the master plan would be implemented over a period of approximately 25 years (2015–2040) and construction of the various elements of the master plan would occur in small areas over the entire 86-acre project area over the 25-year time frame. Therefore, because LSTs are based on the potential area disturbed on any given day and in any portion of the site (i.e., at the edge of the site near adjacent receptors), the LST analysis for construction assumes one-acre is disturbed per day and the most conservative 25-meter receptor distance to receptors.

Table 3.2-4: SCAQMD Significance Thresholds (pounds per day)

	VOC	NO_X	CO	SO_2	PM10	PM2.5	Pb[a]
Construction							
Localized Significance Thresholds [b]	N/A	74	680	N/A	5	3	N/A
Regional Significance Thresholds	75	100	550	150	150	55	3
Operations							
Localized Significance Thresholds [c]	N/A	173	4,547	N/A	26	9	N/A
Regional Significance Thresholds	55	55	550	150	150	55	3

[a] The proposed project would result in no lead emissions during construction or operations. As such, lead emissions are not evaluated herein.
[b] Localized thresholds for construction based on a 1-acre construction site and 25-meter distance to receptors within SRA 1(Central LA). SCAQMD has not developed LSTs for VOC, SO_2, or Pb emissions.
[c] Localized thresholds for operations based on a 5-acre project site and 200-meter distance to receptors within SRA 1(Central LA). SCAQMD has not developed LSTs for VOC, SO_2, or Pb emissions.
Source: SCAQMD 2009, 2011c.

For operations, emissions from on-site sources (permitted sources, landscaping, etc.) would occur throughout the entire site. Therefore, the maximum allowed acreage within the LST methodology of five acres is utilized for the operational analysis. Further, because emissions would occur throughout the entire site, receptor distance was taken from the center of the project site, as opposed to the edges for the construction site. Therefore, a 200-meter receptor distance was utilized for the operational analysis herein.

Toxic Air Contaminants

Regarding sensitive receptors' exposure to substantial pollutant concentrations, SCAQMD states that the project would have a significant impact from TACs if:

- TACs increase the non-cancer health risk due to short-term (acute) or long-term (chronic) exposures. The screening risk assessment for those TACs must estimate the acute and/or chronic Hazard Index, as applicable. On-site stationary sources emit carcinogenic or TACs that individually or cumulatively exceed the maximum incremental cancer risk of 10 in 1 million (1.0×10^{-5}) or an acute or chronic Hazard Index of 1.0 (SCAQMD 2005, 2011c).
- Hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials, posing a threat to public health and safety (SCAQMD 1993).

Carbon Monoxide Hot Spots

Regarding carbon monoxide hot spots, SCAQMD states that a project impact is significant if it causes or contributes to an exceedance of the following attainment standards:

- 1-hour standards of 20 ppm (state) and 35 ppm (federal), and
- 8-hour standards of 9.0 ppm (state) and 9 ppm (federal).

Cumulative Impacts

Potential cumulative air quality impacts would result when other projects' pollutant emissions combine to degrade air quality conditions below acceptable levels. This could occur on a local level (e.g., increased vehicle emissions at congested intersections or concurrent construction activities at sensitive receptor locations), a regional level (e.g., potential O_3 impacts from multiple past, present, and reasonably foreseeable projects within the Basin), or globally (e.g., the potential impact of greenhouse gas [GHG] emissions on global climate change [GHGs are analyzed in Section 3.6, Greenhouse Gases]).

The Basin experiences chronic exceedances of the NAAQS and CAAQS and is currently in nonattainment status for various pollutants. These nonattainment conditions within the region are considered cumulatively significant. SCAQMD thresholds have been established to ensure attainment of the NAAQS and CAAQS; therefore, an exceedance of SCAQMD threshold levels must be considered a significant cumulative impact and an adverse cumulative consequence.

3.2.4.3 Impacts and Mitigation Measures

Impact AQ-1: Would the Proposed Project Conflict or Obstruct Implementation of the Applicable Air Quality Plan?

Construction and Operation

SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Basin is in nonattainment status. SCAQMD's most recent plan to achieve air quality standards is the 2012 AQMP, adopted by the SCAQMD Governing Board on December 7, 2012. The 2012 AQMP outlines a comprehensive control strategy to meet the requirement for expeditious progress toward attainment of the 24-hour PM2.5 NAAQS in 2014 through all feasible control measures. The 2012 AQMP also includes specific measures for implementing the O_3 strategy from the 2007 AQMP and attaining the 8-hour ozone standard by 2023 (SCAQMD 2012a). These strategies are based, in part, on regional population, housing, and employment projections prepared by the region's cities and counties and incorporated by SCAG. As such, projects that propose development that is consistent with the growth anticipated in the relevant land use plans used in the formulation of the AQMP are considered to be consistent with the AQMP. The governing land use document relevant to the project area is the City of Los Angeles General Plan. Therefore, projects that propose development consistent with the growth anticipated in the current City of Los Angeles General Plan are considered consistent with the AQMP.

As discussed in Section 3.9, Land Use/Planning, the project would be consistent with the city's general plan and the goals of SCAG's RTP/SCS and the RCP. The master plan would guide development over the next 25 years, envisioning a series of improvements that includes new or renovated buildings for medical facilities and offices, laboratories, retail, and outdoor space. Buildout of the master plan would increase development within the campus, which would increase motor vehicle travel to the site. The master plan would include sustainable design practices, including energy and water efficiency measures, implementation of LEED and CALGreen program goals, a pedestrian mall and bicycle depot to promote alternative forms of transportation, and would be situation near existing transit services. Therefore, because the project would be consistent with the land use designation and regional planning documents (SCAG RTP/SCS and RCP), the project is considered consistent with the governing land use document, which is the City of Los Angeles General Plan. Furthermore, pursuant to

SCAQMD guidelines, the proposed project is considered consistent with the region's AQMP. As such, project-related emissions are accounted for in the AQMP, which has been crafted to bring the Basin into attainment status for all nonattainment pollutants and precursors thereof. Accordingly, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This impact is considered less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact AQ-2: Would the Proposed Project Violate an Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation?

The project site is located within an area where state and federal air quality standards are often exceeded. SCAQMD has promulgated regional and localized significance thresholds to help the Basin attain federal and state air quality standards and protect public health. The proposed project would contribute to regional air pollutant emissions during short-term construction and long-term operations. An analysis of the construction- and operations-related effects of the proposed project is presented below.

Construction

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment, construction workers' vehicle trips, material deliveries, and trips by heavy-duty haul trucks. In addition, earthwork activities would result in fugitive dust emissions, and paving operations would release VOCs from off-gassing. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources. Fugitive PM10 and PM2.5 emissions estimates take into account compliance with SCAQMD Rule 403.

Construction-related emissions are shown in Table 3.2-5. To provide a worst-case scenario, the analysis herein assumes all phases of construction would overlap and occur concurrently (see methodology discussion in Section 3.2.4.1). The analysis also assumes that the construction of individual projects under the proposed master plan would also overlap. As shown in Table 3.2-5, maximum daily project-related criteria pollutant emissions would exceed SCAQMD regional construction-period thresholds for VOC and NO_X. Therefore, mitigation is proposed to reduce emissions.

Mitigation Measure AQ -1, which would require low-VOC coatings beyond SCAQMD requirements for non-residential uses, would reduce VOC emissions. Mitigation Measures AQ-2 and AQ-3, which would require a clean construction and diesel-reduction measures, would reduce NOx emissions from vehicle exhaust. As shown in Table 3.2-6, implementation of Mitigation Measures AQ -1 through AQ-3 would reduce emissions to below SCAQMD thresholds. Impacts are considered less than significant with mitigation incorporated.

Table 3.2-5: Estimate of Unmitigated Regional Construction Emissions associated with Buildout of the Master Plan (pounds per day)

	VOC	NO_X	CO	SO_2	PM10	PM2.5
Demolition	6	64	49	<1	8	3
Site Preparation	5	57	44	<1	10	7
Grading	7	79	52	<1	7	5
Building Construction	14	85	157	<1	18	7
Paving	1	14	15	<1	1	1
Architectural Coatings	884	3	11	<1	2	1
Maximum Daily Emissions	**917**	**301**	**329**	**1**	**46**	**23**
SCAQMD Regional Construction Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceed Significant Threshold?	**Yes**	**Yes**	No	No	No	No
Emissions may not add up because of rounding. Source: Emissions modeling by ICF 2014 (Appendix B).						

Table 3.2-6: Estimate of Mitigated Regional Construction Emissions associated with Buildout of the Master Plan (pounds per day)

	VOC	NO_X	CO	SO_2	PM10	PM2.5
Demolition	2	18	37	<1	5	1
Site Preparation	1	2	23	<1	7	4
Grading	1	3	36	<1	3	1
Building Construction	11	57	156	<1	16	5
Paving	0	1	18	<1	0	0
Architectural Coatings	36	1	11	<1	2	1
Maximum Daily Emissions	**50**	**82**	**280**	**1**	**34**	**12**
SCAQMD Regional Construction Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceed Significant Threshold?	No	No	No	No	No	No
Emissions may not add up because of rounding. Source: Emissions modeling by ICF 2014 (Appendix B).						

Operation

Existing and proposed uses would result in emissions from similar sources, but in different quantities. Emissions associated with motor vehicle trips; on-site consumption of natural gas for space and water heating; on-site use of solvents and consumer products; and emissions associated with landscaping were estimated using trip generation data from the traffic analysis as well as CalEEMod defaults regarding area and energy sources for the various land uses. Emissions associated with permitted sources were obtained from SCAQMD's FIND database and scaled based on the change in total square footage between existing and buildout conditions. See the detailed methodology in Section 3.2.4.1.

As shown in Table 3.2-7, maximum daily project-related criteria pollutant emissions over existing conditions are not expected to exceed SCAQMD operations-period thresholds for any pollutant. Similarly, maximum daily project-related criteria pollutant emissions over future no-project conditions are not expected to exceed SCAQMD operations-period thresholds for any pollutant. Consequently, the impact of operations-related emissions from the project is considered less than significant.

Table 3.2-7: Estimate of Unmitigated Regional Operational Emissions associated with Existing Uses and Buildout of the Master Plan (pounds per day)

	VOC	NO_X	CO	SO_X	PM10	PM2.5
Existing Uses (2014)						
Motor Vehicles	67	193	752	1	101	29
Natural Gas	<1	3	3	<1	<1	<1
Architectural Coatings	5	-	-	-	-	-
Consumer Products	14	-	-	-	-	-
Landscaping	<1	<1	<1	<1	<1	<1
Permitted Sources	48	20	84	1	28	28
Daily Existing Uses	*134*	*216*	*839*	*2*	*129*	*57*
Future No Project (2040)						
Motor Vehicles	29	76	332	1	100	28
Natural Gas	<1	3	3	<1	<1	<1
Architectural Coatings	5	-	-	-	-	-
Consumer Products	14	-	-	-	-	-
Landscaping	<1	<1	<1	<1	<1	<1
Permitted Sources	48	20	84	1	28	28
Daily No Project	*96*	*100*	*419*	*2*	*129*	*57*
Master Plan Buildout (2040)						
Motor Vehicles	37	93	408	2	119	34
Natural Gas	1	11	9	<1	1	1
Architectural Coatings	18	-	-	-	-	-
Consumer Products	31	-	-	-	-	-
Landscaping	<1	<1	<1	<1	<1	<1
Permitted Sources	59	25	104	1	35	35
Daily Master Plan Buildout	*146*	*128*	*521*	*3*	*155*	*69*
Net Daily Emissions – Master Plan over Existing Uses	**12**	**-88**	**-318**	**1**	**26**	**12**
SCAQMD Regional Operational Threshold	55	55	550	150	150	55
Exceed Significant Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Net Daily Emissions – Master Plan over Future No Project	**50**	**29**	**102**	**1**	**26**	**13**
SCAQMD Regional Operational Threshold	55	55	550	150	150	55
Exceed Significant Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Emissions may not add up because of rounding.
Source: Emissions modeling by ICF 2014 (Appendix B).

Mitigation Measures

The following measures are proposed to mitigate potential construction impacts (see AQ-2 above) that could occur under the master plan.

MM-AQ-1: To reduce VOC emissions during construction, the County (or its contractors) shall use low-VOC coatings that go beyond the requirements of SCAQMD Rule 1113, and have a VOC content of 10 g/L or less during construction.

MM-AQ-2: To reduce NO_X emissions during construction, the County (or its contractors) shall ensure that all off-road diesel-powered equipment used during construction will be equipped with an EPA Tier 4 Interim engine, except for specialized construction equipment in which an EPA Tier 4 Interim engine is not available. The use of Tier 4 Interim engines will also act to reduce ROG and PM emissions from construction equipment.

MM-AQ-3: To reduce NO_X and PM emissions during construction, the County (or its contractors) shall implement the following measures during construction.

- Haul and delivery truck idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to less than 3 minutes (beyond that required by the California airborne toxics control measure, 13 CCR 2485). Clear signage shall be provided for construction workers and construction vehicles at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A traffic control plan shall be prepared.
- A carpool program for construction workers, including incentivizing carpooling as well as providing bus service for crew members, shall be implemented.
- Truck deliveries shall be consolidated when possible.

Level of Significance after Mitigation

Impacts would be less than significant with mitigation during construction and less than significant before mitigation during operation.

Impact AQ-3: Would the Proposed Project Result in a Cumulatively Considerable Net Increase in a Criteria Pollutant for which the Project Region Is a Nonattainment Area for an Applicable Federal or State Ambient Air Quality Standard (Including Releasing Emissions that Exceed Quantitative Thresholds for Ozone Precursors)?

Construction and Operation

The Basin is currently in nonattainment status for O_3, PM2.5, and Pb under the NAAQS as well as O_3, PM10, and PM2.5 under the CAAQS. This is the result of past and present projects and will be further impeded by reasonably foreseeable future projects. As discussed in Section 3.2.4.2, SCAQMD has developed thresholds to ensure attainment of the NAAQS and CAAQS; therefore, exceedance of SCAQMD threshold levels must be considered a significant cumulative impact and adverse cumulative consequence. As discussed under Impact AQ-2 and shown in Tables 3.2-5 through 3.2-7,

criteria pollutant emissions are not expected to exceed SCAQMD regional thresholds during construction and operation of the proposed project after mitigation relative to both existing and future no project conditions. Therefore, because the proposed project would not exceed the thresholds for a nonattainment pollutant (in this case, an ozone precursor [VOC and NO_X], PM10, PM2.5, or Pb), the proposed project would not result in a net increase in pollutants (including ozone precursors) that would be cumulatively considerable. See Section 3.2-5, Cumulative Impacts, below, for a complete discussion on the proposed project's cumulative air quality impacts.

Mitigation Measures

Please see mitigation measures MM-AQ-1 through MM-AQ -3.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact AQ-4: Would the Proposed Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?

The proposed project would contribute to localized air pollutant emissions during construction (short term) and project operations (long term). The analysis of receptor pollutant exposure includes a discussion of short-term exposure to criteria pollutants (i.e., LSTs) and TACs (i.e., exposure to diesel exhaust), while the long-term analysis includes a discussion of criteria pollutants, TACs, as well as concentrations of CO (i.e., CO hot spots) due to increased congestion and degraded roadway conditions as a result of project implementation.

Construction

Project construction would emit localized pollutants through the on-site use of heavy-duty construction equipment as well as fugitive dust from ground-disturbing activities. These localized emissions could expose nearby sensitive receptors to substantial pollutant concentrations. SCAQMD has developed a set of localized mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from construction- and operations-period emissions. According to SCAQMD, only those emissions that occur on-site are to be considered in the LST analysis. Consistent with SCAQMD LST guidelines, emissions related to haul truck and employee commuting activity during construction are not considered in the evaluation of localized impacts.

As shown in Table 3.2-8, localized emissions during construction are expected to exceed the appropriate LSTs for NO_X, PM10, and PM2.5 before mitigation. Note that the localized analysis is inherently conservative in that it assumes maximum daily construction activities are concentrated in a one-acre area near offsite receptor locations.

Mitigation measure MM-AQ-2 would require clean diesel equipment and is expected to reduce maximum daily NOx emissions by approximately 95 percent. Reductions associated with Mitigation measure MM-AQ-3 were not quantified but the diesel reductions measures would reduce NO_X and PM emissions associated with diesel truck activity.

The primary source of PM10 and PM2.5 emissions after implementation of mitigation measures MM-AQ-2 and MM-AQ-3 is fugitive dust from on-site clearing and demolition. Unmitigated PM10 and PM2.5 emissions shown in Table 3.2-8 take into account watering three times daily, which results in a 61% reduction relative to uncontrolled conditions. As shown in Table 3.2-9, implementation of

Table 3.2-8: Estimate of Unmitigated Localized Construction Emissions associated with Buildout of the Master Plan (pounds per day)

	VOC	NO_X	CO	SO_X	PM10	PM2.5
Demolition	5	48	36	<1	6.4	2.9
Site Preparation	5	57	43	<1	10.1	6.7
Grading	7	79	51	<1	6.4	4.8
Building Construction	4	30	19	<1	2.1	2.0
Paving	1	14	14	<1	0.7	0.7
Architectural Coatings	883	2	2	<1	0.1	0.1
Maximum Daily Emissions	**905**	**230**	**164**	**<1**	**25.9**	**17.2**
SCAQMD Localized Significance Threshold	N/A	74	680	N/A	5.0	3.0
Exceed Significant Threshold?	N/A	**Yes**	No	N/A	**Yes**	**Yes**
Emissions may not add up because of rounding. Source: Emissions modeling by ICF 2014 (Appendix B).						

Table 3.2-9: Estimate of Mitigated Localized Construction Emissions associated with Buildout of the Master Plan (pounds per day)

	VOC	NOX	CO	SOX	PM10	PM2.5
Demolition	0	2	24	<1	4.0	0.7
Site Preparation	0	2	21	<1	7.1	3.9
Grading	1	3	35	<1	2.7	1.4
Building Construction	0	2	17	<1	0.0	0.0
Paving	0	1	17	<1	0.0	0.0
Architectural Coatings	35	0	2	<1	0.0	0.0
Maximum Daily Emissions	**38**	**11**	**116**	**<1**	**13.9**	**6.1**
SCAQMD Localized Significance Threshold	N/A	74	680	N/A	5.0	3.0
Exceed Significant Threshold?	N/A	No	No	N/A	**Yes**	**Yes**
Emissions may not add up because of rounding. Source: Emissions modeling by ICF 2014 (Appendix B).						

mitigation measures MM-AQ-1 and MM-AQ-2 would reduce emissions, but PM10 and PM2.5 levels would remain in excess of SCAQMD thresholds. Compliance with Rule 403 would reduce PM emissions, but not to a level below thresholds. Therefore, this impact is considered significant and unavoidable.

With respect to TACs, the closest sensitive land uses are the residential areas surrounding the project site. Construction would be sporadic in both duration and location, with actual construction taking place during a few years over the 25-year master plan timeframe, which is much shorter than the assumed 70-year exposure period used to estimate lifetime cancer risks. Furthermore, SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue because of the short-term nature of construction activities. Construction activities

associated with the proposed project would be sporadic, transitory (i.e., occurring over the entire LAC/USC property), and short term in nature at any given location on-site. As such, construction of the proposed project alone is not anticipated to result in an elevated health risk to exposed persons because of the short-term nature of construction-related diesel exposure.

Operation

Once constructed, project operations would emit localized pollutants. SCAQMD's LST methodology was developed to aid operational analysis of land use development projects. It directs analyses to focus on emissions from stationary sources (i.e., natural gas furnaces, emergency generators, etc.) and mobile equipment (i.e., landscaping equipment) operating on-site. Consistent with SCAQMD's LST guidelines, emissions related to vehicle travel are not considered in the evaluation of localized impacts. Note that the LST analysis only analyzes the concentrations of criteria pollutants at nearby receptors.

As shown in Table 3.2-10, localized emissions during operations would not exceed LSTs for the project area relative to both existing and future no project conditions. Impacts would be less than significant. Therefore, no mitigation is proposed.

With respect to TACs, long-term operations would increase building square footage, which would increase the use of existing or introduction of new permitted sources on-site. As briefly mentioned in the master plan, new natural-gas boilers and emergency (most likely diesel) generators are likely to be added in the future to support the expanded facilities. The increase in on-site activity and fuel combustion would increase TACs and subsequent health risk to the surrounding community.

As shown in Table 3.2-11, health risk associated with master plan buildout is expected to remain below SCAQMD thresholds. Therefore, impacts related to potential project-generated exposure to TACs on surrounding land uses would be less than significant.

It should be noted that cancer risk would be directly proportional to facility square footage, and a more refined analysis would take into account source specifics (emission rates, location of emission sources, etc.) and technological advances and SCAQMD rule changes that could reduce emission rates in the future. Also note that the HRA methodology has changed since the time of the 2007 HRA, as health effects values (e.g., reference exposure levels) exposure pathway variants (e.g., breathing rates) have been updated, and age sensitivity factors (ASFs) introduced, by the Office of Environmental Health Hazard Assessment (OEHHA), the state agency tasked with developing HRA guidelines. These changes, if applied to an individual HRA, may result in a different cancer risk determination.

With respect to CO hot spots at nearby intersections, the project would not substantially increase congestion. According to the traffic impact analysis (Fehr & Peers 2014), implementation of the proposed project would create congested conditions at various intersections near the project site. As discussed in Section 3.2.4.1, the CO hot-spot analysis focuses on the three intersections that comprise the worse V/C ratios and highest volumes under both existing plus project and 2040 cumulative year with project conditions. Table 3.2-12 indicates that implementation of the project is not expected to result in violations of the state or federal 1- or 8-hour CO standards at the three most congested and heavily-trafficked intersections within the project vicinity. Consequently, the project would not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of CO NAAQS. The impact of traffic from the project on ambient CO levels is considered less than significant. No mitigation is required.

Table 3.2-10: Estimate of Unmitigated Localized Operational Emissions associated with Existing Uses and Buildout of the Master Plan (pounds per day)

	VOC	NO_X	CO	SO_X	PM10	PM2.5
Existing Uses (2014)						
Natural Gas	<1	3	3	<1	<1	<1
Architectural Coatings	5	-	-	-	-	-
Consumer Products	14	-	-	-	-	-
Landscaping	<1	<1	<1	<1	<1	<1
Permitted Sources	48	20	84	1	28.2	28.2
Daily Existing Uses	67	23	87	1	28.5	28.5
No Project (2040)						
Natural Gas	<1	3	3	<1	<1	<1
Architectural Coatings	5	-	-	-	-	-
Consumer Products	14	-	-	-	-	-
Landscaping	<1	<1	<1	<1	<1	<1
Permitted Sources	48	20	84	1	28.2	28.2
Daily No Project	67	23	87	1	28.5	28.5
Master Plan Buildout (2040)						
Natural Gas	1	11	9	<1	1	1
Architectural Coatings	10	-	-	-	-	-
Consumer Products	57	-	-	-	-	-
Landscaping	<1	<1	<1	<1	<1	<1
Permitted Sources	59	25	104	1	34.8	34.8
Daily Master Plan Buildout	135	36	113	1	35.6	35.6
Net Daily Emissions – Master Plan over Existing Uses	**68**	**12**	**26**	**<1**	**7.1**	**7.1**
SCAQMD Localized Operational Threshold	--	173	4,547	--	26	9
Exceed Significant Threshold?	--	No	No	--	No	No
Net Daily Emissions – Master Plan over No Project	**68**	**12**	**26**	**<1**	**7.1**	**7.1**
SCAQMD Localized Operational Threshold	--	173	4,547	--	26	9
Exceed Significant Threshold?	--	No	No	--	No	No

Emissions may not add up because of rounding.
Source: Emissions modeling by ICF 2014 (Appendix B).

Table 3.2-11: Estimate of Health Risk from Existing Uses and Buildout of the Master Plan

Scenario	Maximum Incremental Cancer Risk	Cancer Burden	Acute Hazard	Chronic Hazard
2007 HRA	7.5	0.031	0.7	0.38
2040 Master Plan Buildout	9.2	0.038	0.9	0.47
Project Increment	*1.7*	*0.007*	*0.2*	*0.09*
SCAQMD Thresholds	10	0.5	1.0	1.0

Note: HRA for year 2007 found in SCAQMD's *2013 Annual Report on AB 2588 Air Toxics Hot Spots Program.* Risk scaled based on 1.4 million square feet of uses active during year 2007 and 1.725 million square feet of uses assumed with master plan buildout.
Sources: SCAQMD, 2014; ICF, 2014.

Table 3.2-12: Modeled Carbon Monoxide Levels Measured at Receptors in the Vicinity of Affected Intersections during Peak Periods.

Intersection	Peak Hour Period	2014 Existing Plus Project		2040 Cumulative With Project	
		1 Hr	8 Hr	1 Hr	8 Hr
Soto Street at Marengo Street	AM	7.5	6.3	6.0	5.2
	PM	7.2	6.1	5.9	5.2
Soto Street at Charlotte Street/I-10 WB Ramps	AM	7.1	6.0	5.9	5.2
	PM	7.2	6.1	5.8	5.1
Daly Street/Marengo Street at Mission Road	AM	7.3	6.1	5.9	5.2
	PM	7.3	6.1	5.9	5.2

Notes:
Background concentrations of 5.1 and 4.6 ppm were added to the modeling for 1- and 8-hour results, respectively, based on SCAQMD projected future-year concentrations for Central Los Angeles.
The federal and state 1-hour standards are 35 and 20 ppm, respectively.
The federal and state 8-hour standards are 9 and 9.0 ppm, respectively. The difference lies in the rounding convention.
Source: EMFAC2011 and CALINE4 modeling by ICF (Appendix B).

Mitigation Measures

To mitigate localized construction impacts (see AQ-4, Construction, above) please see mitigation measures MM-AQ-1 through MM-AQ-3 above.

Level of Significance after Mitigation

Potential emissions of PM2.5 and PM10 during construction would remain significant after mitigation.

Impact AQ-5: Would the Proposed Project Create Objectionable Odors that Would Affect a Substantial Number of People

Construction and Operation

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The proposed project does not include any uses identified by SCAQMD as being associated with odors and therefore would not produce objectionable odors.

Odors resulting from construction of the proposed project are not likely to affect a substantial number of people because construction activities usually do not emit offensive odors. Potential odor emitters during construction activities include asphalt paving and architectural painting activities. SCAQMD Rule 1108 limits the amount of VOC emissions from cutback asphalt and Rule 1113 limits VOC content of architectural coatings. Given mandatory compliance with SCAQMD rules, no construction activities or materials are proposed that would create a significant level of objectionable odors. As such, potential impacts during short-term construction would be less than significant. No mitigation measures are required.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

3.2.5 Cumulative Impacts

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. The study area for analysis of cumulative effects on air quality is the Basin. The Basin experiences chronic exceedances of state and federal ambient air quality standards as a consequence of past and present projects and is subject to continued nonattainment status by reasonably foreseeable future projects. These nonattainment conditions within the region are considered cumulatively significant. Therefore, SCAQMD thresholds have been established to ensure attainment of the NAAQS and CAAQS.

As discussed above, the project is consistent with the AQMP and SIP (see Impact AQ-1). Furthermore, emissions would be below SCAQMD regional construction and operational thresholds (see Impact AQ-2) and would not result in substantial pollutant concentrations at nearby sensitive receptors during operations but would affect receptors during construction (see Impact AQ-4). The proposed project would comply with SCAQMD rules and regulations, including Rule 403 (Fugitive Dust Control) and Rule 1108 (Cutback Asphalt), during construction as well as all other adopted AQMP emissions control measures while fully implementing buildout of the master plan. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all projects Basin-wide, which would include all nearby projects. As such, cumulative impacts on Basin air quality with respect to criteria pollutant emissions would be less than significant. Therefore, the project's long-term contribution to regional cumulative air quality impacts would be less than cumulatively considerable. However, as noted above, the proposed project would result in significant unavoidable localized construction impacts on nearby sensitive receptors due to PM10 and PM2.5 emissions after implementation of Mitigation Measures MM-AQ-1

through MM-AQ-3. Therefore, the proposed and related projects (see Table 2-2 in Chapter 2 for a list of related projects) would result in significant localized cumulative PM10 and PM2.5 pollutant emissions impacts. It's also possible that the impacts of cumulative emissions of other criteria pollutants due to the proposed project and related projects on sensitive receptors in the vicinity of the project site could be significant during construction (if, for example, two or more construction projects overlap) and operation if the cumulative emissions exceed SCAQMD daily emissions thresholds for construction and operation.

3.3 Biological Resources

3.3.1 Introduction

This section identifies biological resources in the project vicinity and evaluates potential impacts on those resources that could occur as result of construction and operation of the campus improvements proposed under the master plan. To reduce impacts identified as significant, mitigation measures are also identified.

3.3.2 Regulatory Setting

3.3.2.1 Federal

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was enacted in 1918. Its purpose is to prohibit killing or transporting native migratory birds or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The list of migratory bird species that are protected by the MBTA is maintained by the U.S. Fish and Wildlife Service (USFWS), which regulates most aspects of the taking, possession, transportation, sale, purchase, barter, exportation, and importation of migratory birds. Under the MBTA, "take" means only to kill, directly harm, or destroy individuals, eggs, or nests or to otherwise cause failure of an ongoing nesting effort. Permits are available under the MBTA through USFWS, and authorization for potential take under MBTA is addressed as part of the federal Endangered Species Act (ESA) Section 7 consultation process.

The proposed project must be analyzed to ensure consistency with the MBTA, including avoidance of take with respect to nesting birds, their eggs, or activities that may cause nest failure. This applies to all migratory species protected under the MBTA that may be directly or indirectly affected by the project. Any potential take must be either avoided or minimized through mitigation measures or permitted through consultation with USFWS.

Federal Endangered Species Act

The federal ESA was enacted in 1973 to protect threatened and endangered species and their associated ecosystems. "Take" of a listed species is prohibited except when specific authorization has been granted through a USFWS permit under Sections 4(d), 7, or 10(a) of the ESA. "Take" is defined as to harass, harm, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any of these activities without a permit.

Clean Water Act

In 1948, Congress first passed the Federal Water Pollution Control Act. This act was amended in 1972 and became known as the Clean Water Act (CWA), which regulates the discharge of pollutants into the waters of the United States. Under Section 404, permits need to be obtained from the U.S. Army Corps of Engineers (USACE) for the discharge of dredged or fill material into jurisdictional waters of the United States. USACE-regulated activities under Section 404 involve a discharge of dredged or fill material, including, but not limited to, grading, placing of riprap for erosion control,

pouring concrete, laying sod, and stockpiling excavated material into waters of the United States. Activities that generally do not involve a regulated discharge (if performed specifically in a manner that avoids discharges) include driving pilings, some drainage channel maintenance activities, constructing temporary mining and farm/forest roads, and excavating without stockpiling. USACE issues Nationwide Permits for activities that require discretionary authority and do not exceed specific impact requirements (e.g., less than 0.5 acre of impacts, no impacts on special aquatic sites, etc.). USACE requires individual permits for activities that exceed the requirements of Nationwide Permits.

Under Section 401 of the CWA, Water Quality Certification from the State Water Resources Control Board/Regional Water Quality Control Board needs to be obtained if an action could result in any impacts on jurisdictional waters of the United States.

3.3.2.2 State

California Endangered Species Act

The California ESA authorizes the California Fish and Game Commission to designate endangered, threatened, and rare species and regulate the taking of these species (California Fish and Game Code Sections 2050–2098). The act defines "endangered" species as those whose continued existence in California is jeopardized. State-listed "threatened" species are those that are not presently facing extinction but that may become endangered in the foreseeable future.

Section 2080 of the California Fish and Game Code prohibits the taking of state-listed plants and animals. The California Department of Fish and Wildlife (CDFW) also designates "fully protected" or "protected" species as those that may not be taken or possessed without a permit from the California Fish and Game Commission and/or CDFW. Species that have been designated as fully protected or protected may or may not be listed as endangered or threatened.

California Fish and Game Code

The California Fish and Game Code is regulated by the California Fish and Game Commission, as authorized by Article IV, Section 20, of the Constitution of the State of California. Sections 3503, 3503.5, 3505, 3800, and 3801.6 of the California Fish and Game Code protect all native birds, birds of prey, and all nongame birds, including their eggs and nests, that occur naturally within the state that are not already listed as fully protected. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, falcons), including their nests or eggs. CDFW's Lake and Streambed Alteration Program (Sections 1600–1607) requires any person who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFW before beginning the project.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977. It allows the California Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are designated as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants but includes some exceptions for agricultural and nursery operations, emergencies, and, after properly notifying CDFW, vegetation removal from canals, roads, and other sites, changes in land use, and certain other situations.

A consortium of scientists, botanists, and enthusiasts, the California Native Plant Society (CNPS) has a mission to review and categorize native plants in California. The resulting list of sensitive plant species produced by CNPS can be above and beyond the federal and state lists of threatened and endangered species. CNPS rankings can therefore be used as a criterion for environmental review in the CEQA process. If a property has suitable habitat, CEQA may require analysis of all CNPS Rank 1B, Rank 2, Rank 3, and Rank 4 plants that could occur in the vicinity. Surveys should be completed in accordance with CDFW and CNPS protocols during the plant species' blooming period to stand up to rigorous environmental review.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act (NCCPA) allows for the development of broad-based ecosystem-level plans for the protection and perpetuation of biological diversity. The primary objective of Natural Community Conservation Plans prepared under the NCCPA is to conserve natural communities at the ecosystem level while accommodating compatible land use. Although plants that are protected under an approved Natural Community Conservation Plan may be "taken" by activities that are covered under the plan, they typically receive a high level of conservation and protection.

California Coastal Act of 1976

The California Coastal Act (CCA), administered by the California Coastal Commission, includes policies for development proposed within the Coastal Zone and recognizes California's ports, harbors, and coastline beaches as economic and coastal resources. Decisions to implement specific development, where feasible, are to be based on consideration of alternative locations and designs to minimize any adverse environmental impacts. The California Coastal Commission regulates all jurisdictional wetlands that are under the joint jurisdiction of USACE and the Regional Water Quality Control Boards as well as riparian habitat that is under the jurisdiction of CDFW. The CCA also defines "Environmentally Sensitive Area" as "any area in which plant or animal life, or their habitats, is either rare or especially valuable because of its special nature or role in an ecosystem, which could be easily disturbed or degraded by human activities and developments" (Section 30107.5). The CCA requires such areas to be protected and development projects within or adjacent to such areas to be planned and sited to prevent degradation of the Environmentally Sensitive Area.

3.3.2.3 Local

Los Angeles County Significant Ecological Areas

As part of the general plan's Conservation/Open Space and Land Use Elements, the County has identified and adopted policies for Significant Ecological Areas (SEAs), which represent a wide variety of biological communities within the County. The SEAs are intended to preserve and protect regional biodiversity; however, SEAs do not preclude limited compatible development.

Los Angeles County Oak Tree Ordinance

The Los Angeles County Oak Tree Ordinance requires an oak tree permit to be obtained to cut, destroy, remove, relocate, inflict damage, or encroach upon a protected oak tree or its protected zone. The ordinance protects any tree, shrub, or plant of the oak tree genus, *Quercus*, with a diameter of 8 inches or more; for oaks with multiple trunks, a combined diameter of 12 inches or more, measured 4.5 feet above the natural grade, is required for the two largest trunks. The

protected zone for oaks is defined as the area beneath the dripline or canopy of the tree plus 5 feet beyond the dripline or 15 feet from the trunk, whichever distance is greater. Impacts can include pruning or cutting the trunk to apply pesticides to a protected tree for the benefit of the tree.

There are two types of permits, administrative and discretionary. Actions that would affect one protected tree on a property with a single-family residence require an approved administrative oak tree permit. Actions that would affect protected oak trees on any other type of property require a discretionary oak tree permit.

Oak tree permit requests require the property owner to file an application with the Department of Regional Planning and provide a filing fee, an oak tree report, site plans for the property, and maps of the surrounding area.

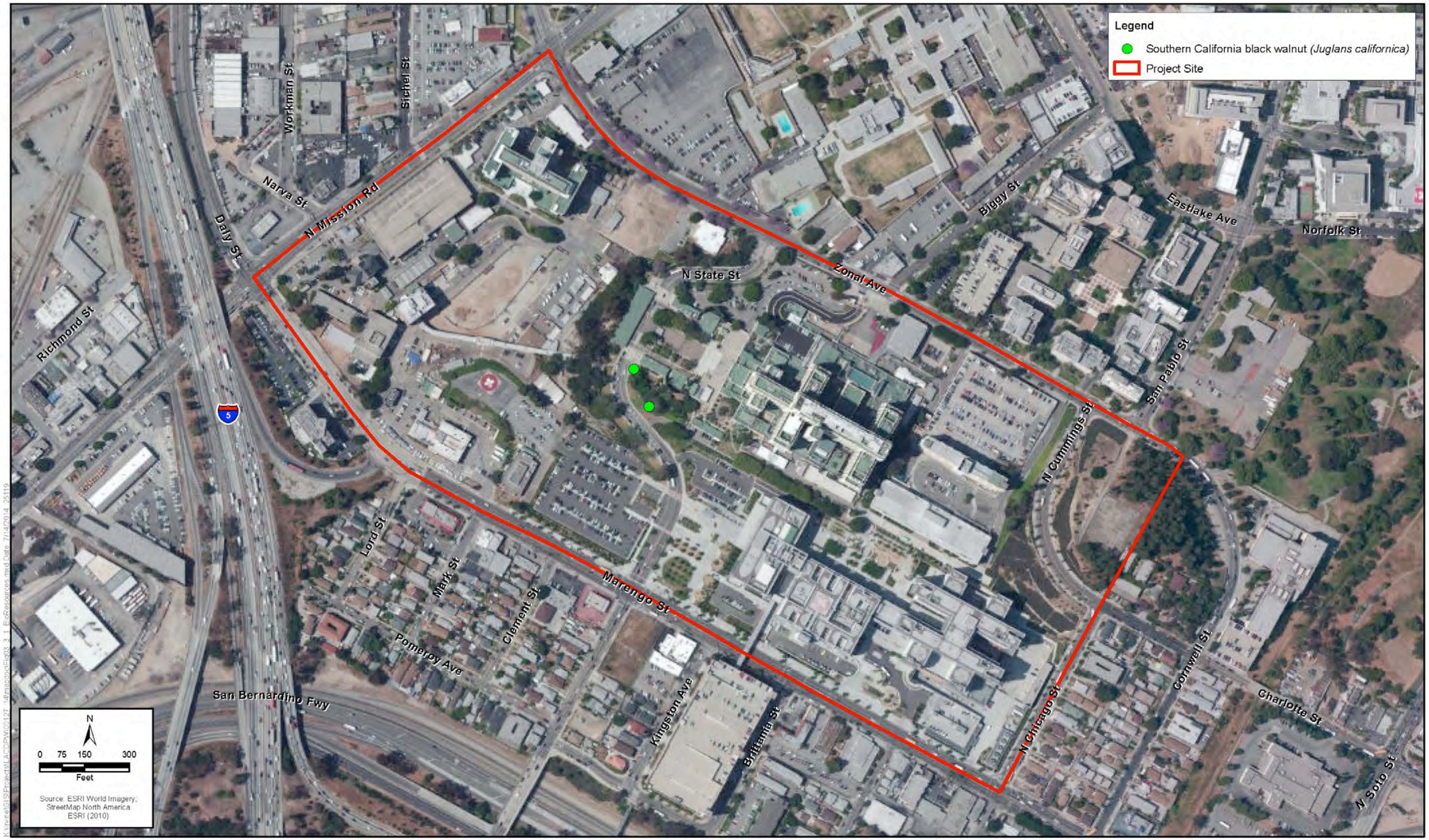
3.3.3 Environmental Setting

The following discussion is based primarily on literature review and a biological resources field survey conducted on the project site on May 21, 2014. The project site contains developed areas and ornamental landscaping. Existing development includes buildings, parking structures, paved surface parking, roadways, and gravel lots. Ornamental landscaping, including trees, shrubs, and turf areas, has been planted throughout the site. The majority of the trees on the site are nonnative species in an ornamental setting; however, native tree species have also been planted on the medical center campus. The vegetation in the ornamental areas within and adjacent to the project site could support nesting habitat for bird species, most of which are common residents and found in similar urban areas throughout Southern California. No County designated SEAs encompass the project site. A biological resources map is provided in Figure 3.3-1.

3.3.3.1 Migratory Bird Species

A number of the native migratory bird species that are protected under the MBTA are tolerant of urban development and are expected to forage and/or nest within the ornamental landscaping and/or structures on the project site. The local bird species that were identified during the May 21, 2014, ICF field survey are typical of urban areas. These include black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), and house finch (*Haemorhous mexicanus*).

Figure 3.3-1: Biological Resources Map



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3.3.3.2 Sensitive Vegetation Communities

Vegetated areas within the project site consist of landscaped areas with mostly nonnative ornamental species and some native tree species. The native trees detected during the May 21, 2014, ICF field survey included coast live oak (*Quercus agrifolia*), western sycamore (*Platanus racemosa*), and California black walnut (*Juglans californica*). On-site, these native trees do not constitute native habitats because they are interspersed among nonnative trees in relatively small groupings within or immediately adjacent to developed areas. No native terrestrial vegetation communities were observed on the site; therefore, the proposed project site does not support any vegetation communities considered sensitive by CDFW.

3.3.3.3 Jurisdictional Waters and Wetlands

The project site is developed with the LAC+USC Medical Center. No wetlands are located on the project site or in the immediate vicinity. The freshwater pond at Lincoln Park and the Los Angeles River are both more than 0.25 mile from the project site. No jurisdictional waters or wetlands regulated under Sections 401 and 404 of federal CWA or the California Coastal Act were observed during the May 21, 2014, field survey within the project site. Similarly, no riparian vegetation or state streambeds regulated under Sections 1600–1607 of the California Fish and Game Code by CDFW were observed.

3.3.3.4 Sensitive Plant Species

No federal or state-listed endangered or threatened plant species were observed within the project site, and none are expected to occur because the proposed project would not change this condition. Two individual California black walnut trees, a California Rare Plant Rank (CRPR) 4.2 species, were detected on the site during the May 21, 2014 survey. These California black walnut trees are the only species of plants considered California Rare Plants (see Figure 3.3-1). Plant species afforded the 4.2 category are considered to be of "limited distribution," with a threat rank of "fairly endangered in California" by the CNPS, in accordance with the Native Plant Protection Act. These two individuals are interspersed with ornamental trees adjacent to the sidewalk along North State Street. The California black walnut individuals do not represent a regionally significant population because they occur in isolation, are interspersed among other ornamental trees, do not form part of a grove, and are not considered regionally significant as individuals. No other plant species considered to be rare according to the CRPR (i.e., List 1, 2, or 4 species) were observed, and no others are expected to occur. The majority of the vegetation on the project site is nonnative, ornamental landscape plant species, which provide minimal habitat value for supporting sensitive plant species. Moreover, based on the results of the California Natural Diversity Database query, no sensitive plant species have moderate or high potential to occur within or adjacent to the project site (see Table 3.3-1).

3.3.3.5 Sensitive Wildlife Species

No federal or state-listed terrestrial wildlife species, per the federal or state ESA, were observed within the project site and none are expected to occur. The vegetated areas occurring within the project site are landscaped areas with mostly nonnative ornamental plant species. They do not provide habitat that would support the sensitive wildlife species known to occur in the vicinity of the proposed project (Table 3.3-1).

Table 3.3-1. Potentially Occurring Special-Status Species

Species	Status	Habitat Requirements	Potential to Occur
Plants			
Marsh sandwort (Arenaria paludicola)	CRPR 1B.1	Perennial herb. Sandy openings in fresh water or brackish marshes and swamps; 3–170 m (9–558 ft). Blooming period: May–August.	None. Suitable habitat and soils do not occur on-site.
Coastal dunes milk-vetch (Astragalus tener var. titi)	FE, SE, CRPR 1B.1	Annual herb. Often in vernally mesic areas in sandy coastal bluff scrub, coastal dunes, and mesic coastal prairie; 1–50 m (3–164 ft). Blooming period: March–May.	None. Suitable habitat and soils do not occur on-site.
Davidson's saltscale (*Atriplex serenana* var. *davidsonii*)	CRPR 1B.2	Annual herb. Alkaline conditions in coastal bluff scrub and coastal scrub; 10–200 m (32–656 ft). Blooming period: April–October.	None. Suitable habitat does not occur on-site.
Nevin's barberry (Berberis nevinii)	FE, SE, CRPR 1B.1	Evergreen shrub. Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub; 274–825 m (898–2,707 ft). Blooming period: March–June.	None. Suitable habitat and soils do not occur on-site.
Round-leaved filaree (*California macrophylla*)	CRPR 1B.1	Annual herb. Clay soils in cismontane woodland and valley and foothill grassland; 15–1200 m (50–3,936 ft). Blooming period: March–May.	None. Suitable habitat and soils do not occur on-site.
Plummer's mariposa-lily (*Calochortus plummerae*)	CRPR 4.2	Perennial bulbiferous herb. Granitic and rocky areas in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland; 100–1,700 m (328–5,576 ft). Blooming period: May–July.	None. Suitable habitat and substrates do not occur on-site.
Santa Barbara morning-glory (*Calystegia sepium* ssp. *binghamiae*)	CRPR 1B.1	Perennial herb. Historically associated with wetland and marshy places, such as marshes and coastal swamps, and alluvial riparian scrub but possibly in drier situations as well; 0–220 m (0–722 ft). Blooming period: April–May.	None. Suitable habitat does not occur on-site.
Southern tarplant (Centromadia parryi ssp. australis)	CRPR 1B.1	Annual herb. Found within the margin of marshes and swamps, vernally mesic soils in valley and foothill grassland, and vernal pools; 0–480 m (0–1,574 ft). Blooming period: May–November.	None. Suitable habitat does not occur on-site.
Many-stemmed dudleya (*Dudleya multicaulis*)	CRPR 1B.2	Perennial herb. Often in clay soils in chaparral, coastal scrub, and valley and foothill grassland; 15–790 m (49–2,591 ft). Blooming period: April–July.	None. Suitable habitat and soils do not occur on-site.
Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*)	CRPR 1A	Perennial herb. Coastal salt and freshwater marshes and swamps; 10–1,675 m (32–5,494 ft). Blooming period: August–October.	None. Suitable habitat does not occur on-site.

Species	Status	Habitat Requirements	Potential to Occur
Mesa horkelia (Horkelia cuneata var. puberula)	CRPR 1B.1	Perennial herb. Sandy and gravelly soils within maritime chaparral, cismontane woodland, and coastal scrub; 70–810 m (229–2,657 ft). Blooming period: February–September.	None. Suitable habitat and soils do not occur on-site.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	CRPR 1B.1	Annual herb. Coastal salt marsh, coastal salt swamps, playas, vernal pools; 1–1,220 m (3–4,001 ft). Blooming period: February–June.	None. Suitable habitat does not occur on-site.
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	CRPR 4.3	Annual herb. Openings in chaparral and sage scrub; below 885 m (2,900 ft). Blooming Period: January–July.	None. Suitable habitat does not occur on-site.
Prostrate vernal pool navarretia (*Navarretia prostrata*)	CRPR 1B.1	Annual herb. Mesic coastal scrub, meadows and seeps, alkaline valley and foothill grassland, and vernal pools; 15–1,210 m (49–3,968 ft). Blooming period: April–July.	None. Suitable habitat does not occur on-site.
Parish's gooseberry (*Ribes divaricatum* var. *parishii*)	CRPR 1A	Perennial shrub. Riparian woodland; 65–300 m (213–984 ft). Blooming period: February–April.	None. Suitable habitat does not occur on-site.
Greata's aster (Symphyotrichum greatae)	CRPR 1B.3	Perennial herb. Mesic areas in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland; 300–2,010 m (984–6,593 ft). Blooming period: June–October.	None. Suitable habitat does not occur on-site.
Reptiles			
Western pond turtle (Actinemys [=*Emys*] *marmorata*)	CSC	Requires slack- or slow-water aquatic habitat as well as aerial and aquatic basking sites. Also requires an upland oviposition site on an unshaded slope with clay soils in the vicinity of the aquatic site.	None. Suitable habitat does not occur on-site.
Coast horned lizard (*Phrynosoma blainvillii*)	CSC	Inhabits grasslands, brushlands, woodlands, and open coniferous forests with sandy or loose soil; requires abundant ant colonies for foraging.	None. Suitable habitat does not occur on-site.
Birds			
Swainson's hawk (*Buteo swainsoni*)	FT	Forages in open stands of grass-dominated vegetation, sparse shrublands, and small, open woodlands. In many parts of its range, has adapted well to foraging in agricultural areas (e.g., wheat and alfalfa) but cannot forage in most perennial crops or annual crops, which grow much higher than native grasses. Usually nests in scattered trees within these grassland, shrubland, or agricultural landscapes.	None. Suitable foraging and nesting habitat does not occur on-site.

Species	Status	Habitat Requirements	Potential to Occur
Burrowing owl (Athene cunicularia)	CSC	Inhabits prairies, grasslands, lowland scrub, agricultural lands, coastal dunes, desert floors, and some artificial, open areas. Requires large, open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small-mammal burrows. Uses rodent or other burrows for roosting and nesting cover; also uses pipes, culverts, and nest boxes when burrows are scarce.	None. Suitable foraging and nesting habitat does not occur on-site.
American peregrine falcon (*Falco peregrinus anatum*)	CFP	Forages over a variety of habitats; however, breeds only near water, typically with the nest placed on a cliff ledge.	None. Suitable foraging and nesting habitat does not occur on-site.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE, SE	Breeds in riparian woodlands along rivers, streams, or other wetlands. Usually nests in proximity to water or very saturated soil.	None. Suitable foraging and nesting habitat does not occur on-site.
Least Bell's vireo (Vireo bellii pusillus)	FE, SE	Inhabits riparian thickets either near water or in dry portions of river bottoms. Nests along margins of bushes, and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons.	None. Suitable foraging and nesting habitat does not occur on-site.
Coastal California gnatcatcher (Polioptila californica californica)	FT, CSC	Prefers open, scrubby habitats such as coastal sage scrub and some forms of chaparral.	None. Suitable foraging and nesting habitat does not occur on-site.
Mammals			
Pallid bat (Antrozous pallidus)	CSC	Found throughout Southern California, from the coast to mixed conifer forests, grasslands, shrublands, and woodlands. Most common in open, dry habitats with rocky areas for roosting; yearlong resident in most of its range. Roosts under bridges and in rock crevices, caves, mine shafts, buildings, and tree hollows.	Foraging: Low Roosting: None
Western yellow bat (*Lasiurus xanthinus*)	CSC	Inhabits extremely arid areas to dry areas. Inhabits savannas, secluded woodlands, and regions dominated by pastures or croplands and even tolerates residential areas. Roosts in trees; commonly found in the skirt of dead fronds of both native and nonnative palm trees.	Foraging: Low Roosting: Low
Western mastiff bat (Eumops perotis californicus)	CSC	Forages in a variety of habitats, such as dry desert washes, floodplains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas. Primarily a cliff-dwelling species for breeding.	Foraging: Low Roosting: None

Species	Status	Habitat Requirements	Potential to Occur
Big free-tailed bat (Nyctinomops [=Tadarida] macrotis)	CSC	Inhabits arid, rocky areas; roosts in crevices in cliffs.	Foraging: Low Roosting: None
American badger (Taxidea taxus)	CSC	Inhabits a diversity of habitats, with the principal requirements being sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, and mountain meadows near timberline are preferred.	None. Suitable habitat does not occur on-site.
Notes: CSC = California Species of Concern; FT = Federal Threatened; FE = Federal Endangered; SE = State Endangered Species; CFP = California Fully Protected. Source: California Department of Fish and Wildlife, 2014.			

3.3.4 Environmental Impact Analysis

3.3.4.1 Methods

The following sections evaluate the biological resources impacts that would result should the proposed project be implemented. The existing conditions described in Section 3.3.3, which presents the results of a field survey conducted on May 21, 2014, and a search of the CDFW California Natural Diversity Database, and the significance thresholds identified below provide the basis for assessing the direct and indirect impacts on plants and wildlife of anticipated development of the campus master plan.

3.3.4.2 Thresholds of Significance

For the purposes of this EIR, in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact under CEQA if it would:

BIO-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS.

BIO-2 Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA, through direct removal, filling, hydrological interruption, or other means.

BIO-3 Result in substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

BIO-4 Conflict with any local policies or ordinances to protect biological resources, such as a tree preservation policy or ordinance.

The County of Los Angeles determined in the NOP/IS prepared for this EIR (see Appendix A) that the proposed project would result in no impacts in the areas listed below; therefore, these issues were not carried forward for further analysis in this EIR.

BIO-5 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.

BIO-6 Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

3.3.4.3 Impacts and Mitigation Measures

Impact BIO-1: Would Implementation of the Proposed Project Have a Substantial Adverse Effect, either Directly or through Habitat Modifications, on Any Species Identified as a Candidate, Sensitive, or Special-status Species in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS?

Construction

As discussed in Section 3.3.3, Environmental Setting, the project site and its surroundings contain developed land uses and ornamental landscaping. No sensitive animal species have been documented on-site, and none have the potential to occur. Therefore, the proposed project would not have the potential to adversely affect, either directly or through habitat modification, any wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS. (Note: For a discussion of potential impacts on nesting migratory birds during construction, please see Impact BIO-3.)

The project site does not support suitable habitat for federal- or state-listed threatened or endangered plant species and, therefore, would not affect any federal- or state-listed plant species. Construction of the proposed project could affect the two California black walnut trees (a CRPR 4.2 species); however, the two trees do not represent a regionally significant population. Therefore, damage to or the removal of these trees during construction would be a less-than-significant impact.

There is some limited potential for several bat species, all considered California Species of Concern, to occur in the project site due to some limited foraging and roost potential. Though the likelihood is low, there is potential for roosting Western yellow bats to be present in palm trees on the project site. If individual development projects under the proposed master plan would require removal of palm trees or other potential roost sites, a potentially significant impact to CDFW species of concern could occur.

Operation

As discussed above, there are no candidate, sensitive, or special-status animal or plant species on-site, with the exception of the two California black walnut trees that were identified on the project site or in its surroundings. If the two California black walnut trees remain on the site, it is not anticipated that operational activities would have an adverse impact on these trees. Operational activities on the campus, which would not differ significantly from current activities, are also not expected to result in significant impacts on bat species that may roost on the project site. Therefore, operation of the facilities and buildings proposed under the master plan would not have an adverse

impact on any candidate, sensitive, or special-status animal or plant species. Accordingly, operational impacts associated with buildout of the master plan would be considered less than significant.

Mitigation Measures

The following measure is proposed to mitigate potential construction impacts to roosting bat species described above under Impact BIO-1:

MM-BIO-1: To avoid impacts on roosting bats, preconstruction surveys shall be conducted prior to the on-set of work within the vicinity of vacant buildings and prior to tree removal. During surveys, biologists shall avoid unnecessary disturbance of potentially occupied roosts. Full-spectrum acoustic detectors shall be used during emergence surveys to assist in species identification. If it is determined that trees or structures in the project area are being used by bats as roost sites, the following protective measures shall be implemented:

- Disturbance of maternity roosting structures or trees (e.g., structure removal, construction equipment operation near roosts, tree trimming or removal) shall not occur during the maternity period (April 15 to September 15) to avoid impacts on reproductively active females and active maternity roosts (whether colonial or solitary). The maternity roost shall remain undisturbed from the time it is located until the following September 15 or until a qualified biologist has determined the roost is no longer active. No construction work shall occur at the roost or within a 100-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) until September 15.
- Exclusion devices may be installed outside of the maternity period (September 16 to April 14) to preclude bats from occupying buildings during, or prior to the on-set of, construction. Exclusionary devices shall be installed only by or under the supervision of an experienced bat biologist. Eviction of bats roosting in trees outside the maternity season shall be done in favorable weather under the supervision of a qualified bat biologist and adhering to the following two-step removal process:
    - On Day 1, for trees with cavities, crevices, and exfoliating bark, and that are found to support roosting bats, Step 1 would be the removal of branches and limbs with no cavities. These limbs shall be removed by hand (e.g., using chainsaws). This will create a disturbance (noise and vibration) and physically alter the tree. Bats roosting in the tree, which may not have been detected during the preconstruction survey, will either abandon the roost immediately (rarely) or, after emergence, will avoid returning to the roost. For foliage roosting bats, Step 1 would be to remove adjacent, smaller, or non-habitat trees to create noise and vibration disturbance that would cause abandonment. On Day 2, under the supervision of a qualified biological monitor familiar with the life history of subject bat species, the tree may be removed.
    - Qualified biologists should search all downed roost trees for dead and injured bats. The presence of dead or injured bats that are species of special concern shall be reported to CDFW.
- Non-maternity roost trees should ideally be removed or trimmed in the fall between September 16 and October 31. If the removal of non-maternity roost trees cannot be timed to occur within this period, tree trimming and removal of non-maternity roost trees shall be timed to avoid periods of inclement or unseasonably cold weather to avoid impacts on bats in torpor (a period of seasonal inactivity). In all circumstances, qualified biologists shall monitor non-maternity tree removal.

Level of Significance after Mitigation

Implementation of MM-BIO-1 would ensure that the potential impacts of construction activities on roosting bats would be reduced to less than significant.

Impact BIO-2: Would Implementation of the Proposed Project Have a Substantial Adverse Effect on Federally Protected Wetlands, as Defined by Section 404 of the CWA, through Direct Removal, Filling, Hydrological Interruption, or Other Means?

Construction and Operation

No federally protected wetlands, as defined under Sections 401 and 404 of the CWA or the CCA, are located within or immediately adjacent to the project site. Additionally, as discussed in Section 3.8, Hydrology and Water Quality, projects implemented under the master plan would be required to obtain and comply with a General Construction Permit through the State Water Resources Control Board. This permit and associated NPDES requirements include development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), with associated monitoring and reporting. Stormwarter BMPs would be required to control erosion, minimize sedimentation, and control stormwater runoff water quality during construction activities. Additional source-control BMPs would also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-stormwater discharges. Therefore, construction and operation of the proposed project would not adversely affect any federally protected wetlands.

Mitigation Measures

No impacts to wetlands would occur; therefore, no mitigation is required.

Impact BIO-3: Would Implementation of the Proposed Project Result in Substantial Interference with the Movement of any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors or Impede the Use of Native Wildlife Nursery Sites?

Construction and Operation

The project site is located in an urban setting; there is no natural habitat on-site. Moreover, the project site is not within or part of a wildlife corridor. Construction of the proposed project may temporarily cause portions of the site to be inaccessible to bird species in the surrounding area. Although construction of projects implemented under the master plan could occur over a period of 25 years, the project site is not considered to be critical to wildlife movement and therefore, construction and operational activities proposed under the master plan would not pose substantial barriers or other impediments to wildlife movement. Therefore, this impact would be less than significant.

Bird species that are protected under the MBTA have the potential to nest in the existing ornamental vegetation on the project site. Some bird species that are protected by the MBTA may also nest on existing buildings. Removal of vegetation and the demolition of buildings during construction could result in direct impacts on nests that are protected under the MBTA. Also, high noise levels and dust from construction activity could cause indirect impacts on nests and cause failure. The MBTA prohibits take of nearly all native birds. Under the MBTA, “take” means to kill, directly harm, or destroy individuals, eggs, or nests or otherwise cause failure of an ongoing nesting effort. Similar

provisions within the California Fish and Game Code protect all native birds of prey (Section 3503.5) and all non-game birds that occur naturally in the state (Section 3800). The destruction of an occupied nest would be a significant impact and a violation of the MBTA and the California Fish and Game Code. Therefore, this impact could be significant. However, Mitigation Measure MM-BIO-1 would reduce the significant impact associated with MBTA-protected bird species to less than significant.

Mitigation Measures

The following measure is proposed to mitigate construction impacts to nesting birds described above under Impact BIO-3:

MM-BIO-2: The County shall avoid the nesting season for birds or conduct preconstruction nesting bird surveys if construction activities are carried out during the nesting season. To ensure compliance with the MBTA and similar provisions under Sections 1600–1616 of the California Fish and Game Code, the County of Los Angeles, through the general contractor, shall conduct all vegetation removal during the non-breeding season, between September 1 and February 14, or implement the following:

- If the removal of vegetation, demolition of buildings, or noise-generating construction activities are scheduled between February 15 and August 31, the County of Los Angeles Department of Public Works or the construction contractor shall retain a qualified biologist (i.e., experienced with conducting nesting bird surveys) who shall conduct a focused nesting bird survey prior to the start of vegetation removal, building demolition, or noise-generating construction activities within any potential nesting habitat (i.e., all vegetation, buildings, eaves on buildings, etc.). The size of the nesting bird survey area shall be determined by a qualified biologist at the time of the survey and include the entire limits of disturbance. It may also include a buffer area if deemed necessary by the biologist. The preconstruction nesting bird surveys shall be conducted no more than 7 days prior to initiation of vegetation removal, building demolition activities, or noise-generating construction activities. If no active nests are detected during these surveys, no restrictions on project activities shall be necessary.

- If active nests are found, a qualified biologist shall identify and flag an appropriate buffer around the nest, and no construction activities shall occur within the buffer until the qualified biologist has determined that young have fledged or the nest is no longer active. The specific buffer width shall be determined by a qualified biologist at the time of discovery and vary according to the bird species, site conditions, and the type of work activities to be conducted.

- The survey results shall be submitted to County of Los Angeles Department of Public Works for review and approval of the recommended nest buffer areas, if any, prior to the commencement of any vegetation removal, building demolition, or noise-generating construction activities on the project site.

Level of Significance after Mitigation

Implementation of MM-BIO-1 would ensure that the potential impacts of construction activities on nesting birds that are protected under the MBTA and California Fish and Game Codes would be reduced to less than significant.

Impact BIO-4: Would Implementation of the Proposed Project Conflict with Any Local Policies or Ordinances to Protect Biological Resources, such as a Tree Preservation Policy or Ordinance?

Construction

Native oak trees have been planted as part of the ornamental landscape in the project area. Approximately 45 coast live oak (*Quercus agrifolia*) trees occur on the project site. These trees are interspersed with nonnative ornamental trees in landscaped areas.

Construction of proposed master plan facilities and structures could result in damage to or removal of vegetation on the project site, including native oak trees that have been planted in ornamental areas. While coast live oak trees are not considered special-status plant species, these trees are protected under the Los Angeles County Oak Tree Ordinance. Protected trees include native oaks that measure 8 inches or more in diameter or oaks with multiple trunks, with a combined diameter of 12 inches or more for the largest two trunks measured 4.5 feet above the natural grade. Potential damage to or removal of oak trees that are protected by the Los Angeles County Oak Tree Ordinance would be a significant impact.

Operation

Operation of facilities and buildings proposed under the master plan, including routine maintenance and pruning of ornamental vegetation and trees, is not expected to result in significant impacts on protected biological resources such as oak trees, which are protected by the Los Angeles County Oak Tree Ordinance.

Mitigation Measures

The following measure is proposed to mitigate the impact to oak trees described above under Impact BIO-4:

> **MM-BIO-3:** Prior to the removal of any trees, a qualified arborist shall inventory native oak trees on the project site to support the application regarding the impacts on oak trees. Oak tree permit requests require a property owner to file an application with the Department of Regional Planning and provide a filing fee, an oak tree report, site plans for the property, and maps of the surrounding area. The oak tree report shall include information about the protection of oak trees that may be adjacent to construction activities that are to remain. The oak tree report shall also include the proposed replanting plan, in accordance with the required replacement ratio, for any oak trees that are to be removed.

Level of Significance after Mitigation

Implementation of MM-BIO-3 would ensure that potential oak tree removal and resulting replanting per the County's tree protection ordinance, would result in less than significant impacts.

3.3.5 Cumulative Impacts

The study area for cumulative biological impacts consists of the general project area encompassing the related projects identified in Chapter 2 of this EIR, which includes the neighborhoods of Boyle Heights, Lincoln Heights, and Chinatown. As discussed in the impacts section above, construction of individual projects under the proposed master plan could result in impacts to roosting bats, the

destruction of active bird nests, and removal of oak trees. It is possible that other related projects could also result in similar impacts and the cumulative impacts on these species could be significant. However, with implementation of the mitigation measures identified above and avoidance of potential impacts to the affected species, the proposed master plan project would not contribute to significant cumulative impacts. Additionally, because the majority of the project site and surrounding area is currently developed or disturbed, the proposed master plan is not anticipated to result in cumulative impacts on biological resources beyond those identified above. Therefore, the proposed project would not contribute to any significant cumulative impacts to biological resources.

3.4 Cultural Resources

3.4.1 Introduction

This section discusses potential impacts on cultural resources the could result from the proposed project.

3.4.2 Regulatory Setting

The proposed project is subject to several laws regarding historical resources as well as regulations and building codes regarding built-environment historical resources. The term "historical resources" in this context encompasses all cultural resource types, including built-environment resources, prehistoric archaeological sites, and historical archaeological sites. Additionally, paleontological resources are considered cultural resources for the purposes of the California Environmental Quality Act (CEQA). In addition, the appropriate treatment of historic properties is guided by federal guidelines promulgated by the Secretary of the Interior.

3.4.2.1 State

The National Historic Preservation Act of 1966 mandated the selection and appointment of a State Historic Preservation Officer (SHPO) in each state. Each SHPO is tasked, among other duties, with maintaining an inventory of historic properties. In California, the state legislature established additional duties for the SHPO. These include maintenance of the California Register of Historical Resources (CRHR). Established by California Public Resources Code (PRC) Section 5024.12(a) in 1992, the CRHR serves as "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent feasible, from substantial adverse change." According to PRC Section 5024.1(c), the CRHR criteria broadly mirror those of the National Register of Historic Places (NRHP). The CRHR criteria found at PRC Section 5024.1(c) are as follows:

A historical resource is considered significant at the local, state, or national level if it meets one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. It is associated with the lives of person important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The general rule is that a resource must be 50 years old to qualify for the CRHR. In addition to meeting one or more of the significance criteria, the resource must possess integrity. Integrity is defined as "the authenticity of a historical resource's physical identity evidence by the survival of characteristics that existed during the resource's period of significance."

There are several ways for resources to be included in the CRHR. A resource can be *listed* in the CRHR based on a nomination and public consideration process. In addition, a resource that is subject to a discretionary action by a government entity will be evaluated with respect to *eligibility* for the CRHR. Properties that are listed in or formally determined eligible for listing in the NRHP are *automatically* listed in the CRHR.

California Environmental Quality Act

Established in 1970, CEQA directs state and local government entities to analyze and publically disclose environmental impacts of proposed projects. Moreover, it requires the development and adoption of mitigation measures to lessen impacts. At PRC Section 21060.5, the State CEQA Guidelines define the environment to include "objects of historic… significance." For the purposes of CEQA, "historical resources" are defined at PRC Section 15064.5(a) of the State CEQA guidelines. Paleontological resources are provided protection as historical resources, as discussed in State CEQA Guidelines Section 15064.5(a)(3).

The text below regarding historical significance is abbreviated and excerpted.

1. A resource listed in or determined eligible by the State Historical Resources Commission for listing the CRHR.

2. A resource included in a local register of historical resources… or identified as significant in a historical resource survey… shall be presumed historically significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR.

State Health and Safety Code Section 7050.5/California Public Resources Code Section 5097.9

Under State Health and Safety Code (HSC) Section 7050.5, if human remains are discovered during any project activity, the County coroner must be notified immediately. If human remains are exposed, HSC Section 7050.5 states that no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. Construction shall halt in the area of the discovery of human remains, the area of the discovery shall be protected, and consultation and treatment shall occur as prescribed by law. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) within 24 hours. The NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased person so they can inspect the burial site and make recommendations for treatment or disposal.

Public Resources Code Section 50987.5

PRC Section 50987.5 states that no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any…vertebrate paleontological site, including fossilized footprints…or any other archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

3.4.2.2 Local

City of Los Angeles Cultural Heritage Ordinance

The City of Los Angeles maintains a list of all sites, buildings, and structures that have been designated through the Cultural Heritage Ordinance as Historic-Cultural Monuments (HCMs). This list was reviewed to determine if any properties on the project site have been listed as HCMs. No HCMs were identified on the master plan campus.

Historic-Cultural Monument

Section 22.1717.7 of the Cultural Heritage Ordinance defines HCMs as follows:

1. Any site (including significant trees or other plant life located on the site), building, or structure of particular historic or cultural significance to the City of Los Angeles, including historic structures or sites in which the broad cultural, economic, or social history of the nation, state, or community is reflected or exemplified.
2. Any site identified with historic personages or important events in the main currents of national, state, or local history.
3. Any site that embodies the distinguishing characteristics of an architectural type specimen that is inherently valuable for a study of a period, style, or method of construction or a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

Any person may submit an application for HCM designation. However, the Cultural Heritage Commission determines whether or not the application merits consideration. If the commission recommends for approval of the application, the resource is included in the list of HCMs, and no permit for the demolition, substantial alteration, or relocation of the HCM may be issued (Section 22.171.14) unless:

1. The Superintendent of Building determines that the demolition, relocation, or substantial alteration is necessary in the interest of the public health, safety, or general welfare.
2. The substantial alteration complies with the Secretary of the Interior's Standards for Rehabilitation.
3. The substantial alteration protects and preserves the historic and architectural qualities and the physical characteristics that made the site, building, or structure a designated HCM.
4. The proposed action is in compliance with PRC Section 21000 et seq.

The Conservation Element of the City of Los Angeles General Plan (adopted September 2001) specifically addresses archaeological and paleontological resources. The Conservation Element's

paleontological objective is to "protect the city's archaeological and paleontological resources for historical, cultural, research, and/or educational purposes." Moreover, its policy is to "continue to identify and protect significant archaeological and paleontological sites and/or resources that are known to exist or identified during land development, demolition, or property modification activities."

3.4.3 Environmental Setting

This section provides information on the archaeological, historical, and paleontological resources at the LAC+USC campus. The setting for the proposed project is urban East Los Angeles, in the Lincoln Heights neighborhood. The project site is located approximately 2 miles east/northeast of downtown Los Angeles and the Los Angeles Civic Center area. Several blocks to the south is Interstate 10 (the San Bernardino Freeway) and several blocks to the west is Interstate 5 (the Golden State Freeway), both of which provide easy access to the hospital. Although this was once a neighborhood that had a mix of commercial, industrial, and residential uses, today, the streets immediately surrounding the project area are dominated primarily by properties with commercial, industrial, and medical uses. A small residential area remains to the southwest. Hazard Reservoir is just one block east of General Hospital, as is Hazard Park; the USC Keck School of Medicine is one block to the northeast. Less than 1 mile to the northeast is Lincoln Park, a city-owned recreation area with a small lake. Lincoln Park opened in 1901 and was original known as East Los Angeles Park or Eastlake Park.

3.4.3.1 Geologic Setting

The project area is situated in the Los Angeles Basin, south of the Santa Monica Mountains. The basin is bounded to the north by the Santa Monica Mountains, to the east by the Santa Ana Mountains and associated hills (Puente/Chino, San Jose, and Repetto), to the south by the San Joaquin Hills and the Pacific Ocean, and to the west by the Palos Verdes Hills and the Pacific Ocean. This area is part of the northernmost Peninsular Ranges, part of the California geomorphic province. This series of ranges is separated by northwest trending valleys that run subparallel to faults branching from the San Andreas fault, which, for the most part, lies east of this geomorphic province.

Stratigraphy

Dibblee (1989) maps the area as primarily Quaternary alluvium, with Quaternary older alluvium and two units of an unnamed late Miocene marine shale. Yerkes and Campbell (2005) indicate that surficial deposits in the project study area are primarily part of a Quaternary old alluvial fan, with some Quaternary alluvial fan, and the Puente Formation. Given the fossils that were recovered adjacent to the project study area, Dibblee's (1989) mapping of the Quaternary units is considered to be more accurate. Additionally, because of the scale of the maps, Dibblee's (1989) sedimentary descriptions are closer to what is seen within the project study area; however, Yerkes and Campbell's (2005) naming system for the Miocene units follows the local naming system more closely.

Quaternary Alluvium

Dibblee (1989) describes these sediments primarily as Holocene (< 11,000 years old) alluvium (Qa) of the valley floodplains. The Holocene alluvium consists of unconsolidated sediments, ranging from silts to gravels.

Quaternary Older Alluvium

Dibblee (1989) indicates that the Quaternary (11,000–2.5 million years old) older alluvium (Qoa) deposits include weakly consolidated sediments, ranging from silts to gravels.

Puente Formation; Unnamed Shale

Yerkes and Campbell (2005), and many prior workers, map the northern portion of the project study area as Puente Formation siltstone (Tpnz) and the southern portion as Puente Formation sandstone (Tpna), while Dibblee (1989) maps the same regions as unnamed silty shale (Tush) and unnamed sandstone (Tuss), respectively. Yerkes and Campbell's (2005) naming will be followed because of the number of other regional authors who follow this same system.

Puente Formation, Siltstone; Unnamed Shale, Silty Shale

Yerkes and Campbell (2005) describe this unit as a light grey, well-bedded siltstone (Tpnz). Interbeds are noted lower in the section, with thicker beds at the top of the section.

Dibblee (1989) indicates that this unit is a grey to light brown, thinly bedded silty clay shale (Tush). Locally large calcareous nodules are present as well as thin interbeds of fine-grained sandstone, diatomite, and semi-siliceous shale.

Puente Formation, Sandstone; Unnamed Shale, Sandstone

Yerkes and Campbell (2005) note that this medium to light brown and light grey, fine to very coarse sandstone (Tpna) is well-bedded with discoidal concretions locally that become more frequent near the base of the unit. Most of the base of the unit is well cemented but becomes more friable in the upper portion of the unit.

Dibblee (1989) describes this unit is a semi-friable, light grey to tan sandstone (Tuss) with thin interbeds of silty shale.

3.4.3.2 Prehistoric Setting

The prehistoric occupation of Southern California is divided chronologically into four temporal phases or horizons (Moratto 1984). Horizon I, or the Early Man Horizon, began at the first appearance of people in the region, approximately 12,000 years ago, and continued until about 7,000 years Before Present (B.P.). Although little is known about these people, it is assumed that they were semi-nomadic and subsisted primarily on game.

Horizon II, also known as the Millingstone Horizon or Encinitas Tradition, began around 7,000 B.P. and continued until about 3,500 B.P. The Millingstone Horizon is characterized by widespread use of milling stones (manos and metates), core tools, and few projectile points or bone and shell artifacts. This horizon appears to represent a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less important and that reliance on collecting shellfish and vegetal resources increased (Moratto 1984).

Horizon III, the Intermediate Horizon or Campbell Tradition, began around 3,500 B.P. and continued until about 1000 B.P. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, indicating a greater reliance on acorns as a food source. Projectile points become more abundant and, together with faunal remains, indicate increased use of both land and sea mammals (Moratto 1984).

Horizon IV, the Late Horizon, which began around 1000 B.P. and terminated with the arrival of Europeans, is characterized by dense populations; diversified hunting and gathering subsistence strategies, including intensive fishing and sea mammal hunting; extensive trade networks; use of the bow and arrow; and a general cultural elaboration (Moratto 1984).

3.4.3.3 Native American Ethnographic Setting

The project site is located within the traditional use area of the Gabrielino. Gabrielino territory included the watersheds of the San Gabriel, Santa Ana, and Los Angeles Rivers; portions of the Santa Monica and Santa Ana Mountains; the Los Angeles Basin; the coast from Aliso Creek to Topanga Creek; and San Clemente, San Nicolas, and Santa Catalina Islands.

The Gabrielino are characterized as one of the most complex native societies in Southern California. This complexity derives from their overall economic, ritual, and social organization (Bean and Smith 1978; Kroeber 1925). Similar to their Chumash neighbors to the north, the Gabrielino had an elaborately developed material culture. The Gabrielino's technological and artistic items included shell set in asphalt, carvings, painting, baskets, and a wide range of stone, shell, and bone objects that were both utilitarian and decorative.

Gabrielino subsistence was based on a varied hunting and gathering strategy that included large and small land and sea mammals, river and ocean fish, and a variety of plant resources. Deep-sea fishing was accomplished from boats of wooden planks tied together and sealed with asphalt and other materials. Sea mammals were taken with harpoons, spears, and clubs. River fishing was done with the use of line and hook, nets, basket traps, spears, and poisons. Land mammals were hunted with bow and arrow, clubs, and traps.

The Gabrielino first encountered Europeans in 1542 when the Spanish conquistador Juan Rodriguez Cabrillo and his crew entered Gabrielino territory. Spanish colonization of the region began in 1769 and resulted in the establishment of Missions San Fernando and San Gabriel. Disease and violence resulting from Spanish colonization, as well as the harsh effects of mission life, diminished Gabrielino populations. Following the secularization of the missions, most surviving Gabrielino became wage laborers on the ranchos of Mexican California. In the early 1860s, a smallpox epidemic nearly wiped out Gabrielino culture.

One major ethnographic Gabrielino village close to the project site was the village of Yaanga, one of the largest Gabrielino villages in the region. The precise location of Yaanga is uncertain because the original community was abandoned sometime prior to 1836 (Robinson 1952:16). Yaanga was most likely located slightly south of the old Spanish plaza of El Pueblo de Los Angeles, near where the former Bella Union Hotel was later built (Dillon 1994:30) on Main Street above Commercial Street (Newmark 1916:25–26). The reference to this well-known 19th-century Los Angeles hotel places this village location about two city blocks northwest of the project site. The village of Yaanga was later instrumental in the founding of El Pueblo de Los Angeles because the Spanish colonial governor wanted a Native American village population to support the new civil community with labor and materials.

3.4.3.4 Historical Setting

Southern California and Los Angeles County

Spanish occupation of California began in 1769 in San Diego. Mission San Gabriel was established in the Los Angeles Basin in 1771, and the Los Angeles pueblo was established as a civilian settlement on September 4, 1781. In 1821, Mexico won independence from Spain and subsequently became a republic. In 1833, the Mexican government secularized the missions. Although secularization was intended to distribute the mission lands to the settlers and native population, few Native Americans received land grants. The large-scale cattle ranchers, or rancheros, claimed the bulk of the resources. These cattle ranches became the driving force in the economy.

At the end of the war between Mexico and the United States in 1848, the Treaty of Guadalupe Hidalgo was signed, giving control of California to the United States. In 1850, California was admitted into the Union. Los Angeles County was one of the original counties in the state, although parts of the County were later removed to form Orange County and parts of San Bernardino County. On April 4, 1850, the City of Los Angeles was incorporated as a municipality. Although an important town in California at that time, the city's resident population in 1850 was only 1,610, while the County population was estimated to be 3,530. Los Angeles grew very slowly for the next 30 years, with the city population reaching 11,183 by 1880 and the County population reaching 33,381.

Los Angeles was connected to the national railroad system by 1876 and the Southern Pacific Railroad by 1885. Promotion of Southern California by the Southern Pacific led to a real estate boom (and bust) in the late 1880s. By 1890, the population of Los Angeles County had tripled, reaching a total of 101,454 individuals. The County had a population of 170,298 by 1900 and then experienced another massive surge of growth, reaching 504,131 by 1910. By 1920, the County population was 936,455; by the time of the 1930 census, it had more than doubled, reaching 2,208,492.

Los Angeles County Hospital

Provided below is an excerpt from the *National Register Eligibility and Findings of Effects Report, Los Angeles County University of Southern California Medical Center Replacement Hospital*, prepared by Mellon & Associates in February 1999. It briefly summarizes the history of General Hospital.

> Los Angeles County Hospital was established in an adobe home in 1858 by the Sisters of Charity. In 1878, the Los Angeles County Board of Supervisors purchased 37.72 acres of land on Mission Road in Boyle Heights.[1] The land was acquired for construction of a County hospital and poor farm,[2] and the first hospital building was constructed[3] within a few months of wooden materials and with almost no planning. Expansion of the hospital campus has since progressed successfully eastward with the acquisition of additional land and vacation of neighboring streets.

[1] The land was purchased from Dr. John S. Griffin for the sum of $7,544.

[2] The farm was established as a separate unit in 1888.

[3] The contract was awarded to George F. Leonard for a 100-bed hospital building. Mr. Leonard must have been the contractor because Buchanan & Herbert are identified as the architects of the two-story building, which has since been demolished.

Late 19th Century through 1920

Construction began in 1897 to replace the hospital's inadequate wooden buildings with larger brick buildings. In 1900, electric lighting was installed, followed in 1902 by the first elevator. By 1904, there was a telephone system with an annunciator, intercom, and call bells. A contract was awarded to San Francisco–based architect William Mooser for design of four new buildings, which were completed in 1904. In 1909, a contract was let for construction of a new Administration Building. Designed by Hudson & Munsell, this is currently the oldest extant building. These buildings were all constructed of brick with classically inspired details.

By 1915, the hospital buildings were clustered along Mission Road between South Griffin Avenue (later Zonal Avenue) and Marengo Road. According to a 1915 map, the hospital landscape also included a tennis court, handball court, covered walkways, cement walks, and dedicated lawns. The administrative and residential buildings faced Mission Road, while the various medical wards were allocated to spaces along the secondary roads; service buildings, shops, kitchens, and the power houses were located toward the rear of the property. These buildings were most likely not visible to the general public while traveling on the surrounding roads.

A library building, now gone, was built in 1913. The original building for psychopathic patients was constructed in 1914; it is no longer extant. The gatehouse on Mission Road first appears on a 1915 map of the hospital campus; it was expanded between 1920 and 1951. The Service Building, also known as the Pharmacy Building, is the third-oldest extant building on the property, having been constructed in 1918. A power plant was also constructed in 1918; however, it too has been demolished.

1920s to 1932

Between 1920 and 1930, the County's population doubled, and the hospital was forced to expand.[4] Overflow patients were housed in corridors that connected some of the buildings or makeshift wards. County Hospital patients who were stricken with tuberculosis and other highly contagious illnesses were isolated in the largest building constructed during this period, the first Communicable Diseases Building (1924), designed by County architect Montrose Warn.

The first Tuberculosis Ward, which had been operating in a temporary building, was constructed in 1925. The Laundry Building was constructed in 1926. Additional support buildings, such as the Paint Shop, were constructed in the 1920s. Despite the need to expand, County Hospital buildings remained clustered along Mission Road, Marengo Street, and South Griffin Avenue.

Beginning in 1920, several buildings were constructed to house the nurses and other employees and staff members at the hospital. The nurses home and associated cottages, as well as other employee housing, were in existence as early as 1894, as seen on a map prepared at that time. Through the late 19th century and early 20th century, employees took up residence wherever there was space available, such as the Surgical Pavilion, as seen in the 1906 Sanborn map. Additional residential units for employees and nurses were constructed along (but set back from) Marengo Street, and by 1920, cottages and a hall were being constructed.

[4] Additional land was acquired in 1923. Over the next decade, original buildings were replaced to increase the number of patients that could be treated and provide fire-safe buildings for patients and staff.

In 1927, the former Contagious Ward was converted to an osteopathic hospital; the Contagious Ward was originally constructed in 1905. All of these buildings have been demolished. Los Angeles County Osteopathic Hospital was founded in 1928 and housed in Unit II on the campus of County Hospital. The School of Nursing was founded in 1895. Known as the "College of Training for Nurses Attached to the County Hospital," student nurses received training at County Hospital, but only graduate nurses worked at the osteopathic hospital.

The Construction of the Acute Unit, 1932–1933

Widespread prosperity and a pressing need for more beds initiated planning in 1922 for a modern hospital. Upon completion, the new facility would eclipse the small scale of the 19th-century campus buildings located along Mission Road. A bond measure for construction was passed in 1923, and the Board of Supervisors selected Allied Architects Association to design the new hospital. Additional property was purchased and annexed to the campus for construction of the Acute Unit, as General Hospital was called at the time.

Development plans called for construction of a state-of-the-art high-rise hospital tower, which would be set on a promontory that overlooked downtown Los Angeles. Extensive terracing was required as well as reconfiguration of North State Street to create a formal vehicular drive that would lead up the hill to the hospital entrance. Construction was originally projected to cost about $5 million but reached nearly $13 million when completed in late 1933.

When constructed, General Hospital was the largest hospital facility in the country. It incorporated a number of innovations related to hospital organization and administration. Construction of the Acute Unit dramatically changed the landscape of the County Hospital campus. Not only did it open up additional lands for development of hospital buildings east of the original campus, it allowed the County to make a statement both physically and visually that affirmed its goal to take care of residents in a state-of-the-art facility that reflected current innovations in hospital organization and patient care. It supported the belief that hospital-related activities should be contained within one or a few buildings, as opposed to the way County Hospital had operated for 50 years, with scattered and isolated buildings of varying ages and condition.

Post-World War II through 1968

Post-World War II was a period of rapid growth and development. With increasing population, County Hospital was forced to expand and provide additional services. Many new buildings were constructed, which required demolition of the earliest hospital buildings. Property was purchased south and east of General Hospital, with several residential blocks becoming annexed to the hospital campus. Construction of the Psychiatric Hospital (1951), Graduate Hall (1953/1955), Pediatric Pavilion (New Communicable Diseases Unit, 1955), Osteopathic Hospital (Women's and Children's Hospital, 1959), Muir Hall (1962), Outpatient Department Building (1963), and Intern-Resident Dormitory (1965) took place. Improvements to the campus thereafter were generally limited to modular buildings and trailers, which were placed where space allowed, including the roof terraces of General Hospital.

The post-World War II era saw a continuation to the monumental building phase started by construction of the Acute Unit east of the original County Hospital campus. Buildings were often designed by locally known and respected architects or through collaborations between architectural firms. For example, the first five buildings mentioned above were designed by Architects Associated, which included Paul R. Williams and Adrian Wilson. Photographs and newspaper articles from the time period indicate that all of the buildings shared similar massing, window types, and exterior treatments.

The County would return to the same architectural firms throughout the 1950s and 1960s, which seems to suggest a County belief that consistency in style equates to dependability in patient care. Many of these architects and firms would be responsible for other County buildings through the region. For example, both the Outpatient Department Building and Intern-Resident Dormitory (or the Interns and Resident Building) were designed by Arthur Froelich and Associates; architects Douglas Honnold and John Rex were also involved in the design of the Outpatient Department Building. The firm of Honnold and Rex was also responsible for the design of the General Laboratory (1965) at 1801 Marengo Street. Honnold and Rex also collaborated with Richard Neutra and others on the County Hall of Records, while Williams and Wilson collaborated with other architects on the design of the Hall of Administration, both located in the downtown Los Angeles Civic Center.

Arthur Froelich and Associates designed the Flammable Storage Building (1970) as well as the Cancer Research Lab (1970), which is at the corner of Mission Road and Griffin Avenue, the location where the Livingston Research Building (1962), designed by Donald S. Gill, had been constructed. A later building, the Livingston Annex, by Norbert W. Pieper, was built in 1976. Mr. Pieper also remodeled the Livingston Research Building in 1977.

Donald S. Gill and Vincent Palmer were the architects for the 1956 addition to the Rehabilitation Center (Pediatrics Clinic/School of Nursing), which was originally constructed in 1951 and designed by W. C. Pennell. This building, which fronts Mission Road south of Griffin Avenue, is the former campus of the College of Osteopathic Physicians and Surgeon, which later became the California College of Medicine. This collection of buildings from the first half of the 20th century includes the 1920s Tower Hall and the 1937 Phinney Hall/Building 40, the later designed by architect Louis L. Dorr. The Library (1943) and Science (1946) buildings were not designed by any architects of note, nor was the associated college cafeteria (1948) across Griffin Avenue (demolished).

1968 to 1978

The period of 1968 to 1978 brought some favorable developments. One was the name change in July 1968, from Los Angeles County Hospital to Los Angeles County University of Southern California (LAC+USC) Medical Center. This new name recognized the existing USC Health Sciences and School of Medicine facilities, located across Zonal Avenue, which were available to serve the hospital. After 1968, General Hospital underwent several physical improvements, including smaller wards for patients, redecoration, new lighting, and high-speed elevators.

The new Administration Building and the associated Medical Examiner's Building, located near the corner of Mission Road and Marengo Street, opened in 1969. The two new buildings stood at the former site of some of the original County Hospital buildings, such as the Surgical Wards and Pavilion and the Tuberculosis Ward. Although a few buildings in the Livingston mini-campus area were constructed in the 1970s, no large construction activities took place at the LAC+USC campus. When additional space was needed, modular buildings were constructed.

The Northridge earthquake on January 17, 1994, caused extensive damage on the campus, resulting in the closure or demolition of many individual buildings.

Current Campus

For the purposes of this discussion, the LAC+USC campus is divided into five parts. The first and second sections are bounded by Zonal Avenue to the north, Cummings Street to the east, Marengo Street to the south, and Mission Road to the west; this is where the highest concentration of

hospital buildings is located. This very large parcel is divided asymmetrically by State Street, which provides access between Zonal Avenue and Marengo Street. Section 3 consists of the former College of Osteopathic Physicians and Surgeons/College of Medicine campus, now occupied by the School of Nursing. Section 4 is the Livingston mini-campus, a collection of four research buildings. Section 5 denotes the two buildings located at the southeast corner of Mission Road and Zonal Avenue.

LAC+USC Section 1/General Hospital Hill

East of State Street, the campus is located on a hillside; on top of the hill is the Acute Unit, or General Hospital, which dates to 1932 and is the most recognizable building on the campus. Designed by Allied Architects Association and constructed of reinforced concrete, this monumental Art Deco building rises 19 stories (including a subterranean basement with parking and offices) and was determined eligible for listing in the NRHP under Criteria A and C in 2002 by consensus between FEMA and the SHPO. In addition to the Acute Unit, the forecourt, including the planters, fountains, paving pattern, and concrete retaining walls, as well as the one-story former Patient's and Visitor's buildings are considered character-defining features of the hospital. North State Street is also considered a character-defining feature because it was designed to complement the setting and scale of General Hospital. A gatehouse on Zonal Avenue, as well as the associated metal gates, is also considered a contributing feature. There are two detached one-story buildings with gable roofs at the northeast corner of the hospital (Barracks D and G).

Farther east of General Hospital is the seven-story Outpatient Clinic, constructed in 1961, and the Interns and Residents Building, constructed in 1962. The former was designed by Arthur Froelich, Douglas Honnold, and John Rex; the latter was designed by Arthur Froelich and Associates. Neither building has been evaluated for NRHP eligibility. On the north side of the Interns and Resident's Building is a multi-story garage, Parking Structure 12, which was constructed after 1967 but before 1983, based on available plot plans. There is an open stairwell on the west side of the Interns and Residents Building that leads down from the parking lot to the courtyard space created by the three buildings. Another set of stairs leads down from the courtyard to the rear of General Hospital and along a pathway to the two barracks. Both the Interns and Residents Building and the Outpatient Clinic are accessible from this courtyard. Each also has another entrance on the opposite side of the buildings. In the courtyard, there is a single-lane one-way road that provides access for the public and buses to and from Zonal Avenue; there is also short-term and handicapped parking.

LAC+USC Section 2/Old County Hospital Campus

West of State Street are three of the oldest hospital buildings, the old Administration Building (1910), the Pharmacy (Service) Building, and the gatehouse/thrift store. All three were built between 1900 and 1920 with brick construction and located in the oldest section of the hospital grounds, near the intersection Marengo Street and Mission Road. Connecting the 1918 Pharmacy to the basement of the General Hospital is an enclosed reinforced-concrete viaduct that transitions to a tunnel below the hillside west of State Street. The concrete viaduct is considered a character-defining feature of General Hospital and NRHP eligible; portions were constructed in 1933 and 1955 to connect to the Psychiatric Unit (no longer extant). The new (1969) Administration Building and associated Medical Examiner's Building are located along Marengo Street; both were designed by Robert Kliegman. Farther southeast, along Marengo Street, is the 1962 Central Steam Plant, designed by civil engineer M. A. Nishkian, and the 1965 General Laboratory, designed by Douglas Honnold and John Rex.

Along Mission Road, north of the gatehouse, is the three-story, metal-frame Parking Lot Structure 10, which was constructed in the 1980s. A stucco and metal fence runs south along Mission Road from the entrance and east along Marengo Street, with two additional breaks for ingress/egress. The fence ends at the General Laboratory.

In the area between these buildings and the viaduct are several buildings that serve as shops and maintenance facilities as well as parking areas. Most are one-story and simple in construction. On the north side of the viaduct is the Mason Shop, a large one-story stucco building with a hipped roof, several square modular buildings containing off-site operations, and the incinerator. The two- and three-story incinerator building appears to be a replacement for similar earlier structures at the same location. Just north of the incinerator is the MRI building, which was constructed in 1988.

Several one-story modular buildings between the administration buildings and the former Women's and Children's Hospital house patient services. The Women's and Children's Hospital, the last of the Williams and Wilson–designed building remaining at LAC+USC, rises 10 stories at the southeast corner of Mission Road and Zonal Avenue. Behind it are several one-story modular buildings/trailers and a one-story brick gatehouse, which may have been constructed at the same time as the hospital building. An associated curved Roman brick wall, which wraps around the north and east sides of the building, was also built at the same time; similar brick walls were built concurrently with the Pediatric Pavilion and Psychiatric Unit, which are no longer standing.

LAC+USC Section 3/School of Nursing (formerly the College of Osteopathic Physicians and Surgeons)

On the north side of Mission Road, bounded on the east by Griffin Avenue, is a large parcel that contains buildings that are now associated with the School of Nursing. Two post-World II–era buildings, primarily brick construction, are located along Mission Road: Building 10/20 (1951) and the adjoining Pediatrics Clinic (1956) to the south. Tower Hall (1920s), the former library, and the former Science Building/Building 90 all exhibit elements of the Spanish Colonial and Mission Revival styles; a one-story arcade fronts a portion of the Tower Hall and Central Files Building (library) façades. The former Science Building is a one-story brick building that has a false parapet with clay tile. Phinney Hall, constructed in the late 1930s, was designed by architect Louis Dorr in a Mission Revival style. It now houses the S. Mark Taper Foundation Family Advocacy Center. The three-story North Hall is located at the far northwest corner of the parcel; a modular building with the Premature Infant Clinic is located between Tower Hall and Phinney Hall. This parcel was historically the College of Osteopathic Physicians and Surgeons. The college was formed from two separate local colleges of osteopathy in 1914. By 1920, the renamed Pacific College of Osteopathy was operating in a building at 1057 Mission Road, across the street and one block southwest of the Los Angeles County Hospital campus.

In 1928, the osteopathic hospital opened in Unit II on the campus and then moved to a new building, constructed in 1959 and designed by Paul R. Williams and Adrian Wilson, at the same location. Sanborn maps from 1951 indicate that the college constructed laboratories, an auditorium, a cafeteria, and classrooms on Griffin Avenue, across the street from the hospital. The cafeteria, constructed in 1948, was located on the east side of Griffin Avenue. The campus along Griffin Avenue and Mission Road was constructed from the late 1920s through the early 1950s.

LAC+USC Section 4/Livingston Mini-Campus (formerly the College of Osteopathic Physicians and Surgeons)

Located to the east of Griffin Avenue, where the cafeteria for the College of Osteopathic Physicians and Surgeons once stood, is the Livingston mini-campus. There are four buildings on this parcel: the Cancer Research Building, a two-story structure situated prominently at the corner of Mission Road

and Griffin Avenue, the two-story Livingston Research Building, and the one-story Livingston Annex and child care center. None of these buildings were constructed when the 1951 Sanborn map was prepared. The Cancer Research Building (also known as the Cancer Research Lab) was constructed in 1970, and the child care center, a modular building, was constructed in 1994. The Livingston Research Building was constructed in 1962 and was originally part of the College of Osteopathic Physicians and Surgeons. It was designed by Donald S. Gill and remodeled in 1977 by Norbert W. Pieper. Mr. Pieper was the architect of note for the Livingston Annex, which was constructed in 1976. Between these buildings and the railroad tracks is a surface parking lot.

LAC+USC Section 5

At the southeast corner of Zonal Avenue and Mission Road are two buildings, along with a parking lot, which is accessed from Zonal Avenue. The buildings, 5P21 and the Carpenter's Mill (also referred to as 'Big Blue'), are associated with the LAC+USC Medical Center. The building at the corner was constructed in 1994; the Carpenter's Mill was constructed in between 1970 and 1982 and is currently used both for storage and as a crafts shop for on-site electricians, carpenters, roofers, glazers, millwrights, plumbers, and painters.

3.4.3.5 Historical and Archaeological Resources

The identification of historical and archaeological resources within the project area was based on a review of existing sources of information and field surveys by architectural historians. No field survey was conducted for archaeological resources because the proposed project area is entirely built up, and there is no ground visibility for archaeological survey. The review of existing sources of information, combined with information collected during the field visits, was used to determine the historical resource significance of buildings, structures, objects, sites, and districts and evaluate potential effects on such resources.

Information Review Results

The sources of information that were reviewed included:

- National Register of Historic Places
- California Historical Landmarks
- California Points of Historical Interest
- California Register of Historical Resources
- City of Los Angeles Historic-Cultural Monument List
- Facilities Management Archival Files at LAC+USC Medical Center
- City of Los Angeles Building and Safety (permits)
- Los Angeles Public Library (online databases)
    - *Los Angeles Times* Historical Newspapers
    - Los Angeles Public Library Photo Database
- Architects Database (online)
- American Architects Dictionary, 1962 (American Institute of Architects [online])

On March 28, 2014, a records search was conducted at the South Central Coastal information Center (SCCIC) in Fullerton, California. The research focused on the identification of previously recorded historic built-environment, archaeological, and prehistoric resources at the project site and within a 0.25-mile radius of the project site. Research included a search of records, including historical site inventories, archaeological site records and reports, and historic U.S. Geological Survey topographic maps. National, state, and local inventories of architectural and historical resources were reviewed to determine the location of previously documented historic and architectural resources proximate to the project area. These included standard sources of information, such as the NRHP, CRHR, California Historical Landmarks, California Points of Historical Interest, and HCMs. The record search identified 16 cultural resource studies that were completed for all or part of the project area.

Six previously recorded built-environment resources were identified on the LAC+USC medical center campus. The purposes for which these resources were evaluated are not always known. Some, for example, were identified as the result of the survey of individual buildings, or in response to FEMA actions. No complete identification or evaluation of historical resources has been undertaken at the LAC+USC campus.

These include five NRHP-eligible resources, the Administration Building/ Los Angeles County Hospital/Coroner's Building (P-167090), Pharmacy Building, Science Hall/Building 90 (P-175288), new Pediatric Outpatient Clinic/Building 10/20 (P-19-175266), and General Hospital – Acute Unit (P-156354), and one non-eligible resource, the Livingston Research Center/Building 210 (P-19-175482). No properties that have been listed in the NRHP or the CRHR are located on the project site.

Within a 0.25-mile radius surrounding the project site, 18 built-environment resources and one historical archaeological resource, LAN-3659H, have been recorded. No prehistoric-era resources have been recorded within a 0.25-radius of the project site. LAN-3659H is composed of a light scatter of historic-era artifacts on a small hill remnant in the western corner of the Hazard Park U.S. Army Reserve Center. It was determined ineligible for the CRHR. Artifacts observed included solarized, cobalt, and light aqua-colored glass bottle glass fragments; fragments of an earthernware crock; and fragments of several improved earthernware dishes within a 20- by 15-meter area. No human remains have been identified on the project site.

The six previously recorded built-environment resources and one historical archaeological resource identified above are listed in Tables 3.4-1 and 3.4-2.

Table 3.4-1: Properties Previously Determined Ineligible for the NRHP and Not Listed in the CRHR

Trinomial	Date/Age	Other Name	Discussion of Significance
LAN-3659H	ca. 1900–1920		6Z – Determined ineligible for listing in the NR or CR or local designation through survey evaluation.
Livingston Research Center	1962	Building 210	6Z – Determined ineligible for listing in the NR or CR or local designation through survey evaluation.
Source: ICF International, 2014.			

Table 3.4-2: Properties Previously Determined Eligible for the NRHP and Listed in the CRHR

Name of Building/ Building Number	Building Date	Other Name	Discussion of Significance
Old Administration Building	1910		3B – Determined eligible for listing in the NRHP as a separate property (1976) and eligible for its association with the General Hospital complex.
Pharmacy Building	1917/1918	Service Building	3S – Determined eligible for listing in the NRHP as a separate property (1976).
Science Hall (School of Nursing)	1946	Building 90	3D – Appears eligible for NRHP as a contributor to an NRHP-eligible district through survey evaluation. Potential district or multiple-resource property not defined (1994).
New Pediatric Outpatient Building (School of Nursing)	1951/1956	Building 10/20	3D – Appears eligible for NRHP as a contributor to an NRHP-eligible district through survey evaluation. Potential district or multiple-resource property not defined (1994).
General Hospital complex	1933	Acute Unit	3S – Determined eligible for listing in the NRHP as a separate property (1976).
General Hospital complex	1933	Payroll Building	3D – Associated with the General Hospital complex.
General Hospital complex	1933	Quality Assurance Utilization Building	3D – Associated with the General Hospital complex.
General Hospital complex	1933	Entrance Forecourt	3D – Associated with the General Hospital complex.
General Hospital complex	1933	Vehicular/ Pedestrian Tunnel/ Tramway	3D – Associated with the General Hospital complex.
General Hospital complex	1933	Marengo Street and Zonal Avenue Gateways	3D – Associated with the General Hospital complex.
General Hospital complex	1933	Configuration of N. State Street	3D – Associated with the General Hospital complex.
Source: ICF International, 2014.			

The old Administration Building, also known as the Coroner's Building at the Los Angeles County Hospital, was determined eligible for the NRHP in 1976. It was constructed in 1909 and designed by Hudson and Munsell. As one of the oldest buildings on the hospital campus, it dates to an era when County Hospital was the largest west of Chicago. It represents the rapid growth of Los Angeles, which made this building inadequate and led to the construction of the Acute Unit. Its status is 3S;

this was confirmed in 1994 when it was established that the building and the Acute Unit, Pharmacy (Service) Building, Women's and Children's Hospital, arcade, and tunnel were eligible for listing in the NRHP as contributors to an (undefined/unnamed) district.

General Hospital, or the Acute Unit, was determined individually eligible for the NRHP in 1976 because, at the time of its construction, it was the largest single hospital unit in the United States. This was confirmed in 1994 when it was determined that General Hospital, which was given 3S status; the Quality Assurance Utilization Building (former Patient's Building); the Payroll Building (former Visitor's Building); and forecourt to General Hospital were contributing features to a potential multiple-resource property or NRHP-eligible district. The light standards on North State Street, but not the globes, were also found to be contributors to the multiple-resource property or district. In 1994, Building 10/20 and Building 90/Science Hall, both located on the School of Nursing campus, were found eligible as contributors to a potential (but unnamed and undefined) NRHP-eligible multiple-resource property or district.

In 1999, Mellon & Associates reconfirmed that the Acute Unit; Payroll Building; Quality Assurance Utilization Building; entrance forecourt; configuration of the North State Street, Marengo Street, and Zonal Avenue gateways; vehicular/pedestrian tunnel/tramway; Pharmacy Building; and old Administration Building appeared eligible for listing in the NRHP. Their report, *National Register Eligibility and Finding of Effects Report*, prepared in support of the LAC+USC Medical Center Replacement Hospital, also determined that the streetlights on North State Street were more recent and not eligible for the NRHP.

At no time was a district nomination prepared that would have clarified whether or not all of the aforementioned resources were contributors to a single district or discontiguous multiple-resource property or whether smaller districts, which are representative of various building periods, such as those between 1932 and 1933 and associated with General Hospital, would be a more accurate representation.

No properties at the LAC+USC Medical Center campus are listed as City of Los Angeles HCMs.

Field Investigation Results

Architectural historians visited the project site on two occasions. The first was on April 4, 2014, which consisted of a general windshield survey of the LAC+USC campus, which did not include visitation of all buildings on the property. In addition, a reconnaissance survey was conducted on May 21, 2014. The latter survey included a walk-through of the accessible campus areas and photo documentation of all buildings constructed in 1965 or earlier. A few areas were not accessible due to construction activities.

The identification effort found that four potentially significant historical architectural resources that were not previously identified in earlier surveys are present (see Table 3.4-3). Table 3.4-4 identifies properties constructed in 1965 or earlier on the LAC+USC Medical Center campus that were determined not eligible for the CRHR based on the results of the field survey. Unless otherwise noted, the determination of eligibility for these resources occurred as a result of this survey.

Table 3.4-3. Properties Eligible for the CRHR (constructed in 1965 or earlier)

Name of Building/ Building Number	Building Date	Other Name	Discussion of Significance
Women's and Children's Hospital	1959	Osteopathic Hospital	3B – Criteria 1 and 3 (planning, location, design)
Gatehouse associated with Women's and Children's Hospital	Est. 1959		3D – Criterion 3 (design, association with hospital)
School of Nursing/ Building 40	1937	Phinney Hall	CRHR Criterion 3 (design)
School of Nursing/Building 30	1920s	Tower Hall	CRHR Criteria 1 and 3 (association with College of Medicine/ Osteopathic Physicians and Surgeons campus, design)
Source: ICF International, 2014.			

Photo 1: Women's and Children's Hospital – Looking East at the South Wing and Entry

Photo 2: Gatehouse – Looking West/Southwest, Primary and Secondary Façade

Photo 3: Building 40 – Looking Southwest, Primary Façade/South Wing and Entry

Photo 4: Building 30 – Looking West, Primary Elevation

Table 3.4-4: Properties Not Eligible for the CRHR (constructed in 1965 or earlier)

Name of Building/ Building Number	Building Date	Other Name	Discussion of Significance
School of Nursing Property/Former College of Osteopathic Physicians and Surgeons/Building 110	1943	Library Building	Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
School of Nursing Property/Former College of Osteopathic Physicians and Surgeons/Building 50	1936	North Hall	Significantly altered, lacks integrity.
Mission Road Gatehouse/Thrift Store	1912 (1920 – 1951)		Significantly altered, lacks integrity.
Outpatient Clinic	1961	Outpatient Department Building	Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
Interns and Residents Building	1962		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
Barracks D	Unknown		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
Barracks G	Unknown		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
Telephone Exchange Building	1957		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
General Laboratory	1965		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
Central Steam Plant	1962		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
Incinerator	Unknown		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.

Name of Building/ Building Number	Building Date	Other Name	Discussion of Significance
Livingston Research Building[5]	1962		Does not embody the distinctive characteristics of a type, period, or method of construction; is not the work of a master; does not possess high artistic value.
Source: ICF International, 2014.			

3.4.3.6 Paleontological Resources

Searches for paleontological records were completed through the Natural History Museum of Los Angeles County (LACM) (McLeod 2014); published and online resources were also consulted (Jefferson 1991a, 1991b; Hay 1927; Miller 1971; LACM Invertebrate Paleontology 2014; Paleobiology Database 2014; University of California Museum of Paleontology 2014). A copy of the LACM records search is provided as an appendix to the paleontological literature search materials (see Appendix C).

There are no known fossil localities within the project site; however, five localities are present within 1 mile of the project site (Miller 1971; McLeod 2014). These are listed in Tables 3.4-5 and 3.4-6 and described below.

Table 3.4-5: Fossil Localities Near the Project Site in the Quaternary Older Alluvium

Common Name	Taxon	Locality; Reference(s)
Mammoth, possibly Columbian mammoth	† Mammuthus sp. cf. M. columbi	Los Angeles Brickyard, Mission Road and Daly Street – LACM 2032. Miller 1971, Jefferson 1991a, Jefferson 1991b, McLeod 2014; 20 to 30 feet below ground surface.
American mastodon	† Mammut americanum (much of a single individual)	
Horse	† Equus sp.	
Camel	† Camelops sp.	
Harlan's ground sloth	† Paramylodon harlani	
Western pond turtle	Clemmys marmorata	
Saber-toothed cat	† Smilodon fatalis (originally Smilodon cf. S. californicus)	Workman storm drain, Workman Street and Alhambra Avenue – LACM 1023; Miller 1971, Jefferson 1991a, Jefferson 1991b, McLeod 2014: storm drain.
Horse	† Equus sp.	
Deer, possibly mule deer	Odocoileus sp.	
Turkey	† Melegris californica (originally cf. Paraparvo sp.)	
Note: † indicates extinct species. Source: Cogstone, 2014.		

[5] The Livingston Research Building was determined ineligible on June 4, 1994. See correspondence from Historic Resources Group to the Federal Emergency Management Agency.

Table 3.4-6: Fossil Localities Near the Project Site in the Puente Formation

Common Name	Taxon	Locality; Reference(s)
Bristlemouth	† Cyclothone sp.	1st and Hill Streets – LACM 5961; McLeod 2014.
Fish	Unidentified fish	Chester Street and Vaquero Avenue – LACM 7007; McLeod 2014.
Herring	† Xyne grex	Valley Boulevard and Highbury Avenue – LACM 1027; McLeod 2014.
Note: † indicates extinct species. Source: Cogstone, 2014.		

Quaternary Alluvium

Quaternary alluvium typically is not old enough to contain fossils; however, given the local geology, Quaternary alluvium units can cover older fossiliferous formations. Additionally, such sediments may contain archaeological resources, particularly in an area close to a large waterway.

Quaternary Older Alluvium

Numerous localities are known from Quaternary older alluvium sediments in the City of Los Angeles, and two localities are known within 1 mile of the project site (Table 3.4-5).

Los Angeles Brickyard Number 3 (LACM 2032) at Mission Road and Daly Street, just north of the LAC+USC Medical Center campus, is the closest locality to the project site; fossils were found between 20 and 35 feet below ground surface (Miller 1971; Jefferson 1919a, 1991b; McLeod 2014 pers. comm.). Mammoth (†), mastodon (†), horse (†), camel (†), giant ground sloth (†), and pond turtle fossils were recovered.

A storm drain excavation at Workman Street and Alhambra Avenue (LACM 1023), also just north of the LAC+USC Medical Center campus, produced saber-toothed cat (†), horse (†), deer, and turkey (†) fossils (Miller 1971; Jefferson 1919a, 1991b; McLeod 2014).

Puente Formation; Unnamed Shale

Within the Los Angeles area, the Puente Formation contains numerous fossils of plants and animals. Although no localities are known from the project study area, three localities are known from the Puente Formation within 1 mile of the project study area (Table 3.4-6).

At 1st Street and Hill Street, almost due west of the project site, LACM 5961 produced a deep-sea fish known as a bristlemouth (†). At LACM 7007, northeast of the project site, west of Chester Street and Vaquero Avenue, an unidentified fossil fish was recovered. East of the project site, at Valley Boulevard and Highbury Avenue, a herring (†) was recovered from LACM 1027 (McLeod 2014).

3.4.4 Environmental Impact Analysis

3.4.4.1 Thresholds of Significance

For the purposes of this EIR, and in accordance with Section 21084.1 of CEQA and Appendix G of the State CEQA Guidelines, the proposed project would have a significant adverse environmental impact if it would:

CR-1: Cause a substantial adverse o change in the significance of a historical resource, as defined in Section 15064.5 of the State CEQA Guidelines.

CR-2: Cause a substantial adverse change in the significance of an archaeological resource, as defined in Section 15064.5 of the State CEQA Guidelines.

CR-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

CR-4: Disturb any human remains, including those interred outside of formal cemeteries.

3.4.4.2 Impacts and Mitigation Measures

Construction Scenario

Impact CR-1: Would the Proposed Project Cause a Substantial Adverse Change in the Significance of a Historical Resource, as Defined in Section 15064.5 of the State CEQA Guidelines?

Construction

Construction of facilities and improvements proposed under the master plan would occur over a period of years as funding for each individual project is appropriated. General construction activities would include demolition of several structures, including the Women's and Children's Hospital, old Utility and Maintenance Facility, Outpatient Department Building, Interns and Residents Building, Parking Structure 12, several modular buildings, and storage and warehouse buildings. Next, excavation for the foundations of the proposed new buildings would be required. Finally, substantial grading would occur in the middle part of the campus to construct the parking structures, community amenities, open space, and paths that are proposed for this part of the campus.

The project site contains buildings, structures, and districts that have been determined eligible for listing in the NRHP and/or CRHR. The fact that a resource is not listed in, or determined eligible for listing in, the CRHR or local register does not preclude an agency from determining that the resource may be a historical resource, as defined by PRC Section 5020.1(j) or 5024.1.

Significant impacts on historical resources would occur when the resources are demolished or when the characteristics that convey the resources' historical significance are materially altered. Potential impacts on individual historical resources resulting from development under the master plan could include, but may not be limited to, the following:

- **Demolition of Women's and Children's Hospital**: As part of the proposed master plan, one building that has been determined eligible for listing in the CRHR would be demolished: the Women's and Children's Hospital, determined eligible for the CRHR under Criteria 1 and 3. Demolition of a historical resource would be considered a significant impact.

- **Alterations to General Hospital Retaining Walls**: Changes in pedestrian access and development of "the hill" may require retaining walls to be removed or altered. The retaining walls that support the west side of the hill below the historic General Hospital are considered character-defining features of the General Hospital setting. Demolition of, damage to, and/or alteration of these features has the potential to cause an adverse change in the setting of General Hospital, which is NRHP eligible.
- **Alterations to Setting of State Street**: Any alterations to the overall setting of State Street, which is considered a character-defining feature of the General Hospital/Acute Unit setting, may have an adverse impact on the setting of General Hospital, which is NRHP eligible.
- **Impacts on Viaduct/Pedestrian Tunnel**: Construction of the proposed Market Plaza, Community Garden, and Pedestrian Mall have the potential to affect the existing viaduct/pedestrian tunnel that connects the Service Building to the basement of General Hospital indirectly. Although direct impacts are not anticipated as a result of construction of the Market Plaza, Community Garden, or Pedestrian Mall, indirect impacts related to excavation and/or grading, along with temporary increases in vibration as a result of these actions, could occur. The viaduct/tunnel is one of the oldest elements of the hospital grounds, and although it has been expanded and altered over the years, the portion that was constructed in 1933 is considered a contributing element of the General Hospital setting. Any actions that would damage, alter, or demolish this structure may cause a substantial adverse change in the significance of the setting of the General Hospital/Acute Unit setting.
- **Impacts on Old Administration Building and Service Building**: The proposed Artist Meadow would be located between two historical resources: the old Administration Building and the Service Building; both buildings have been determined eligible for listing in the NRHP. Although direct impacts are not anticipated as a result of construction of the meadow, indirect impacts related to excavation and/or grading, along with temporary increases in vibration as a result of these actions, could occur.

Construction impacts on identified historical resources due to individual projects proposed under the master plan could be significant but would vary, depending on final plans, and would need to be analyzed in detail to confirm the level of impact and what type of mitigation, if any, would be required (see the proposed mitigation measures below). However, the proposed demolition of the Women's and Children's Hospital would be a significant and unavoidable impact of the master plan.

Operation

Operation of the LAC+USC Medical Center campus under the proposed master plan would not affect historical resources.

Mitigation Measures

The measures listed below are proposed to mitigate the potential construction impacts on historical resources described above (Impact CR-1). These measures would be implemented, as appropriate, as individual development projects are proposed and approved under the master plan. Please note that since this is a program EIR, the mitigation measures are by necessity broad in scope. Any subsequent environmental documents for individual projects under the proposed master plan may require additional specific mitigation measures.

MM-CR-1: Prior to the removal of or alterations to the 1933 retaining walls or the overall setting of State Street, which are considered character-defining features of the General Hospital/Acute Unit setting, documentation of these features of the General Hospital setting in a manner that meets Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) standards shall be prepared. This shall include photographs and drawings of the current conditions, including State Street, the retaining walls, the forecourt, and the ancillary buildings. Preservation of the character-defining features shall be attempted.

MM-CR-2: Prior to demolition of the Women's and Children's Hospital, documentation of this property to HABS/HAER standards shall be prepared. Character-defining features shall be called out, and a historic context for this building shall be prepared.

MM-CR-3: A protection plan for the viaduct/tunnel shall be prepared prior to the construction of any master plan project that would occur in the immediate vicinity of the viaduct/tunnel. This protection plan shall be prepared by a qualified historic preservation specialist who shall document the current condition of this structure before any construction begins and monitor the structure during construction.

MM-CR-4: A historic structures report shall be prepared that identifies the character-defining features of the old Administration Building and the Pharmacy/Service Building, which will provide the basis for preparation of a protection and preservation plan for these buildings. The preservation and protection plan shall be prepared by a qualified historic preservation consultant who will document the current condition of the buildings and monitor the condition of the buildings during any construction activities.

MM-CR-5: The County shall consult with a qualified historic preservation consultant to determine appropriate street and walkway lighting that both enhances the historic setting of General Hospital and provides sufficient illumination. All new material, such as streetlights, benches, bollards, and other street/landscape furniture, shall be chosen in consultation with the historic preservation expert and meet the Secretary of the Interior's Standards.

MM-CR-6: Prior to proceeding with construction of individual development projects that could adversely affect properties 50 years of age or older on the medical center campus, the County shall evaluate those properties to determine their eligibility for the CRHR and/or NRHP.

MM-CR-7: An updated State of California Department of Parks and Recreation (DPR) 523 form shall be prepared by a qualified architectural historian, historian, or historical architect for General Hospital and its setting that specifically identifies the contributing and non-contributing features of the historic General Hospital and its setting. The DPR 523 form shall be prepared prior to undertaking of any work within the setting of General Hospital that could adversely affect this historic resource.

Level of Significance after Mitigation

Demolition of the Women's and Children's Hospital or other historical resources such as the associated gatehouse, would be an unavoidable significant adverse impact. The mitigation measures identified above may reduce the impacts due to alteration or removal of contributing features of the General Hospital setting to a less-than-significant level. However, that determination can not be made until individual development projects are proposed, further historical analysis of the General Hospital setting has been completed, and the extent of potential alterations to the contributing features are identified.

Impact CR-2: Would the Proposed Project Cause a Substantial Adverse Change in the Significance of an Archaeological Resource, as Defined in Section 15064.5 of the State CEQA Guidelines?

Construction

Generally, for the project area, no impacts on archaeological resources are anticipated. Surface disturbances over the past 130 years have probably destroyed intact archaeological resources. Therefore, there is a low likelihood of encountering prehistoric and historical archaeological resources. Nonetheless, the possibility remains that structural demolition and grading and excavation for new foundations and access routes, as well as excavation for parking structures, could affect unknown buried archaeological resources. Disturbance or destruction of archaeological resources resulting in a substantial adverse change in the significance of the resource would be a significant impact. Construction impacts would vary, depending on final plans, and would need to be analyzed in detail to determine what level of monitoring, if any, would be required. Mitigation measure MM-CR-8, below, explains how this mitigation would be carried out to mitigate potential impacts on archaeological resources.

Operation

Operation of the LAC+USC Medical Center campus under the proposed master plan would not affect archaeological resources.

Mitigation Measures

The following measure is proposed to mitigate Impact CR-2, as described above:

> **MM-CR-8:** Prior to any demolition, grading, or excavation related to the construction of facilities or improvements under the master plan, a qualified archaeologist shall be retained by the County or construction contractor to determine which areas shall require cultural resources monitoring during initial ground disturbance. The location of construction activities that are likely to encounter subsurface sediments with archaeological sensitivity shall be determined by the qualified archaeologist upon review of project excavation and grading plans.
>
> If determined necessary, monitoring by a qualified archaeologist shall be conducted in the project area during all initial ground-disturbing activities. If, during cultural resources monitoring, the archaeologist determines that the sediments being excavated have been previously disturbed and are unlikely to contain significant cultural materials, the archaeologist shall request that monitoring be reduced or eliminated. Spot-check monitoring shall occur during all construction, on a schedule determined by the project archaeologist.
>
> If buried cultural resources such as trash deposits, building foundations, privy pits, flaked or ground stone, or human remains are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find. Treatment measures for items that are not associated with human remains typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.

Level of Significance after Mitigation

Impacts on archaeological resources, if any are found, are expected to be reduced to a level of less than significant with implementation of mitigation measure MM-CR-8.

Impact CR-3: Would the Proposed Project Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature?

Paleontological Sensitivity

A multilevel ranking system was developed by professional resource managers as a practical tool for evaluating the potential for paleontological resources. This is the Potential Fossil Yield Classification (PFYC) system (Bureau of Land Management 2007). With the PFYC system, geologic units are classified according to the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. This ranking is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment. The system has five numbered scores, from 1 to 5, but score 3 is subdivided into a and b.

The Quaternary alluvium is assigned a PFYC value of 2, with a low sensitivity for fossil resources because of the young age of the sediments. However, these units do cover older fossiliferous units. The Puente Formation is assigned PFYC 3a, with a moderate potential for fossils. The Quaternary older alluvium is assigned PFYC 4, with a high potential for fossils because of significant finds adjacent to the project site (shown in Table 3.4-7 and Figure 3.4-1).

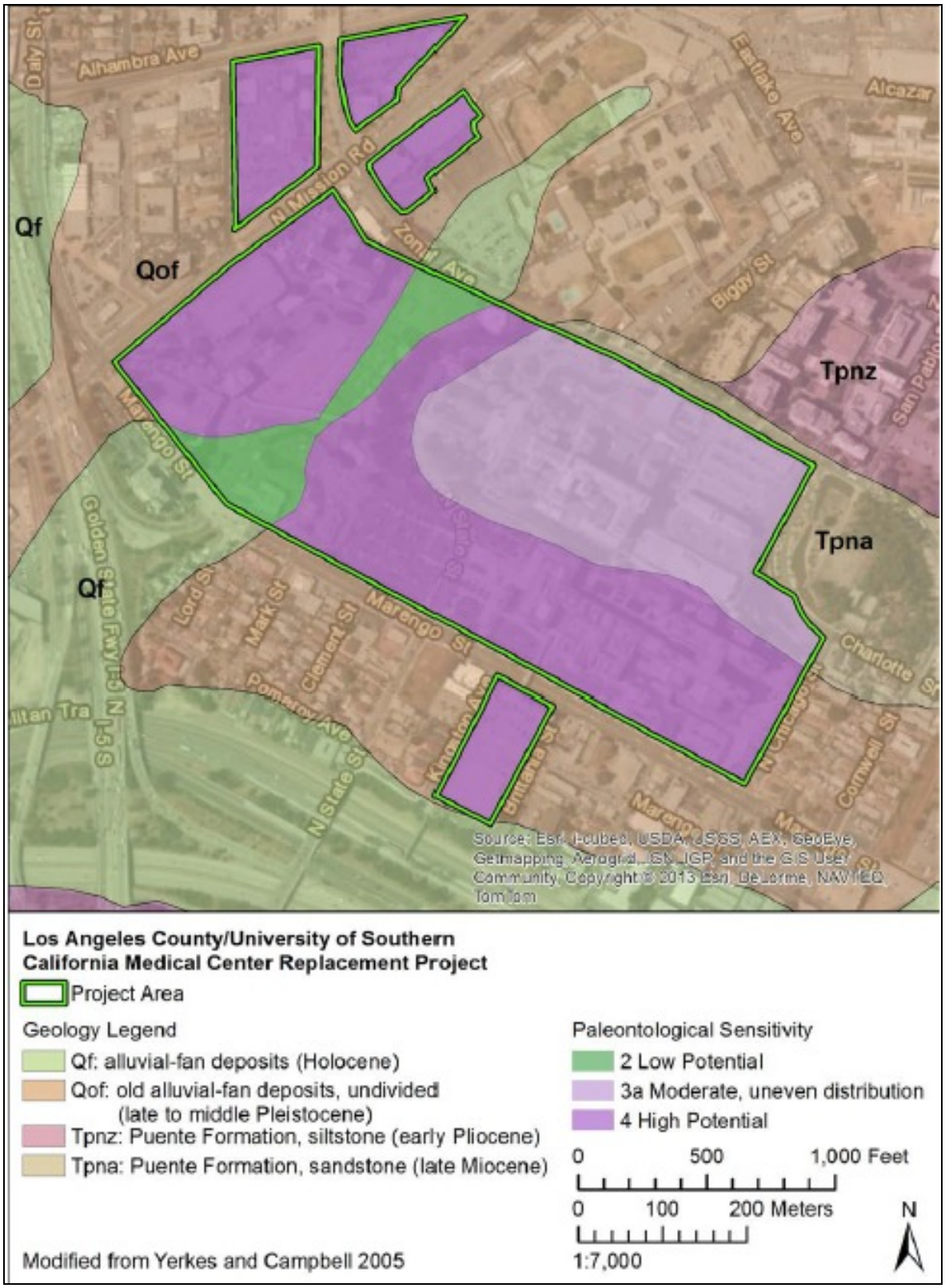
Table 3.4-7: Paleontological Sensitivity Rankings

	PFYC Ranking					
Rock Units	**5: Very High**	**4: High**	**3a: Moderate-Patchy**	**3b: Moderate-Undemonstrated**	**2: Low**	**1: Very Low**
Quaternary alluvium					X	
Quaternary older alluvium		X				
Puente Formation			X			
Source: Cogstone, 2014.						

Construction

No fossils are known within the project site. However, late Pleistocene (50,000 to 11,000 years old) localities that produced mammoth, mastodon, giant ground sloth, and saber-toothed cat are known from nearby locations. In addition, Miocene (22 to 5 million years old) localities that produced extinct herring and other fishes are also known nearby. Consequently, structural demolition and grading and excavation for new foundations and access routes, as well as excavation for parking structures, have the potential to destroy paleontological resources, a potentially significant impact.

Figure 3.4-1: Paleontological Sensitivity of the Project Site



Source: Cogstone, 2014.

Although the extent of construction impacts would vary, depending on final plans, and would need to be analyzed in detail to determine what level of monitoring, if any, would be required, it is likely that paleontological resources could be encountered during construction activities should excavation extend more than 6 feet below the original ground surface in Quaternary sediments or occur in the Puente Formation. Therefore, a Paleontological Mitigation Plan is recommended. The plan would provide procedures that would ensure that any adverse effects on paleontological resources would be mitigated. Mitigation measure MM-CR-9, below, explains how potential impacts on paleontological resources would be mitigated.

Operation

Operation of the LAC+USC Medical Center campus under the proposed master plan would not affect paleontological resources.

Mitigation Measures

The following measure is proposed to mitigate Impact CR-3, above:

MM-CR-9: Prior to any excavation related to the construction of facilities or improvements proposed under the master plan, a qualified vertebrate paleontologist with a graduate degree and more than 10 years of experience shall be retained by the County or construction contractor to determine areas that shall require paleontological monitoring during initial ground disturbance. The locations for construction activities, especially excavation for the proposed parking garages, which is likely to encounter subsurface sediments with high paleontological sensitivity, shall be determined by the qualified paleontologist upon review of project excavation and grading plans. Very shallow surficial excavations (i.e., less than 5 feet in depth) within areas of previous disturbance or areas of Quaternary younger alluvial deposits shall be monitored on a part-time basis to ensure that underlying sensitive units (i.e., Quaternary older alluvium) are not adversely affected. Areas consisting of artificial fill materials shall not require monitoring.

If excavations for the project take place in Quaternary older alluvial deposits or within Fernando or Puente Formation bedrock, such excavations shall be monitored on a full-time basis by a qualified paleontological monitor and under the supervision of the qualified paleontologist. The paleontological resource monitoring shall include inspection of exposed rock units during active excavations within the geologically sensitive sediments. Monitoring may be reduced if some of the potentially fossiliferous units described herein are, upon exposure and examination by qualified paleontologic personnel, determined to have a low potential for containing fossil resources.

The paleontologic monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall have authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules shall be made. To prevent construction delays, paleontological monitors shall be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment shall include handheld global positioning system receivers, digital cameras, and cell phones as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis.

Fossils collected, if any, shall be transported to a paleontological laboratory for processing where they shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility (such as LACM).

Following analysis, a Report of Findings with an appended itemized inventory of specimens shall be prepared. The report and inventory, when submitted to the appropriate lead agency along with confirmation of the curation of recovered specimens into an established, accredited museum repository, shall signify completion of the program to mitigate impacts on paleontological resources.

Level of Significance after Mitigation

Impacts on paleontological resources, if any are found, are expected to be reduced to a level of less than significant with implementation of mitigation measure MM-CR-9, as identified above.

Impact CR-4: Would the Proposed Project Disturb Any Human Remains, Including Those Interred Outside of Formal Cemeteries?

Construction

Ground-disturbing activities have the potential to unearth human remains. Should human remains be uncovered during construction, mitigation plans would require construction to halt in the area of discovery, the area to be protected, and no further disturbance to occur, as specified by State Health and Safety Code Section 7050.5. Mitigation measure MM-CR-10, below, explains how potential impacts on human remains would be mitigated.

Operation

Operation of the LAC+USC Medical Center campus under the proposed master plan would not affect human remains.

Mitigation Measures

The following measure is proposed to mitigate impact CR-4, as described above:

MM-CR-10: In the event that human remains are uncovered, construction plans shall specify that construction shall halt in the area of discovery, the area shall be protected, and no further disturbance shall occur, as specified by State Health and Safety Code Section 7050.5. The County coroner shall determine the origin and disposition of the human remains pursuant to PRC Section 5097.98. If the coroner recognizes the remains to be Native American, he or she shall contact the NAHC within 24 hours. For remains of Native American origin, no further excavation or disturbance shall take place until the most likely descendant of the deceased Native American(s) has made a recommendation to the landowner or the person responsible for the excavation work regarding the means for treating or disposing of the human remains and any associated grave goods, with appropriate dignity, as provided by PRC Section 5097.9. In consultation with the most likely descendant, the project archaeologist and the project proponent shall determine a course of action regarding preservation or excavation of Native American human remains, and this recommendation shall be implemented expeditiously. If the NAHC is unable to identify a most likely descendant or the descendant fails to make a recommendation within 48 hours after being notified by the commission, the project

archaeologist and the project proponent shall determine a course of action regarding preservation or excavation of Native American human remains, which shall be submitted to the NAHC for review prior to implementation.

Level of Significance after Mitigation

Impacts on human remains, if any, are expected to be reduced to a level of less than significant with implementation of mitigation measure MM-CR-10.

3.4.5 Cumulative Impacts

3.4.5.1 Historical Resources

The study area for the cumulative impacts analysis for historical resources consists of the existing LAC+USC Medical Center campus and the immediate surrounding neighborhood. This includes the commercial and residential area bounded by I-10 along the south, I-5 to the southwest and west, the railroad tracks to the northwest, and Eastlake Avenue along the north to the intersection with San Pablo Street. The western border of the study area for cumulative impacts is San Pablo Street south of Eastlake Avenue to Zonal Avenue, following Zonal Avenue east to Cornwell Street and Cornwell Street to the intersection with Soto Street, and then south to I-10.

This specific study area was chosen to take into account the potential for cumulative impacts to historical resources and how those impacts would affect those members of the community who may experience those resources on a daily basis. This includes the Keck School of Medicine, the Los Angeles County Detention Juvenile Hall and the Hazard Reservoir, as well as small pocket neighborhoods south of Marengo Street and straddling Cornwell Street east of the campus. There are two related projects within the study area: the USC Health Science Campus Master Plan and the Marengo Center Community Building. According to the Environmental Impact Report for the USC Health Science Campus Master Plan, that project would not cause a substantial adverse change in the significance of a historical resource; the project would take place on property with no extant buildings or structures. The latter is a three-story, 27,175-square-foot mixed-use commercial building that is currently under construction. Because this building is under construction, it is not known whether or not historical resources were located at this parcel; however, it was not historically part of the LAC+USC Medical Center campus, per historic Sanborn Maps and hospital building indexes. Therefore, there would be no additional impacts to historical resources within the cumulative impacts analysis study area from related projects.

The proposed master plan project has the potential to result in significant impacts on historical resources. Within the plan area are 14 buildings, structures, and/or groupings of buildings and structures that qualify as historical resources under CEQA. The primary cause of impacts would be associated with construction activities, especially demolition of the Women's and Children's Hospital and alteration of character-defining features associated with the General Hospital/Acute Unit setting. The proposed mitigation measures would reduce the impact of the proposed master plan project on the setting of General Hospital/Acute unit, but it would not reduce the impact of demolition of the Women's and Children's Hospital. Specifically, the loss of the Women's and Children's Hospital would compound the previous loss of four other buildings that the team of Paul R. Williams and Adrian Wilson designed for the LAC+USC Medical Center campus in the late 1950s and early 1960s. These buildings were demolished in the early 2000s, leaving the Women's and Children's Hospital as the sole remaining example of their work at this location. Furthermore, the

proposed demolition of other mid-century (but ineligible) buildings, such as the Outpatient Department Building, would leave few, if any, examples of architecture from the era/building period in the project area. Therefore, the project would result in a cumulatively considerable impact on historical resources if demolition of the Women's and Children's Hospital is not avoided.

3.4.5.2 Archaeological Resources

The study area for cumulative impacts on archaeological resources is defined for this project as the Boyle Heights/Lincoln Heights areas of Los Angeles, areas of the city that surround the medical campus, which is on a gentle rise of hills east of the Los Angeles River. In this area, construction activities associated with the project could disturb or destroy archaeological resources and thereby contribute to the progressive loss of archaeological resources.

Cumulative growth and development in the Boyle Heights/Lincoln Heights areas of Los Angeles could have impacts if significant prehistoric or historical archaeological resources are found during construction activities. However, it is unknown if significant resources exist in these areas. It should be noted that a great deal of historical period debris can be found during construction—items such as bricks, bottles, broken cups, and plates—but this material is seldom considered a significant resource and eligible for the CRHR. The potential for an individual project to affect significant cultural resources is unknown, but given the number of projects in the Boyle Heights/Lincoln Heights area of Los Angeles, it is probable that cumulative growth and development could have impacts on significant prehistoric or historical archaeological resources. Nonetheless, the proposed project's construction would not contribute to a cumulative impact related to archaelogical resources. Mitigation measure MM-CR-9 would reduce potential project-related impacts. This mitigation measure includes monitoring, treatment of any discovered cultural resources to mitigate impacts, preparation of a final report, and curation of discovered materials in an approved facility. The incremental effects of the proposed project, after mitigation, would not contribute to a significant adverse cumulative impact on archaeological resources. With mitigation, all project-related impacts would be reduced to a less-than-significant level; therefore, the proposed project's contribution to significant cumulative impacts would be rendered less than cumulatively considerable.

3.4.5.3 Paleontological Resources

The study area for cumulative impacts on paleontological resources is defined for this project as the Boyle Heights/Lincoln Heights areas of Los Angeles, areas of the city that surround the medical campus, which is on a gentle rise of hills east of the Los Angeles River. In this area, construction activities associated with the project could disturb or destroy paleontological resources and thereby contribute to the progressive loss of fossil resources.

Cumulative growth and development in the Boyle Heights/Lincoln Heights areas of Los Angeles could have impacts if paleontological resources are found during construction activities. However, it is unknown if significant resources exist in this area. The potential for an individual project to affect significant paleontological resources is unknown, but given the number of projects in this area of the City of Los Angeles, it is probable that cumulative growth and development could have impacts on significant paleontological resources. Nonetheless, the proposed project's construction would not contribute to a cumulative impact related to paleontological resources. Mitigation measure MM-CR-10 would reduce potential project-related impacts. This mitigation measure includes monitoring, recovery, treatment, and deposit of fossil remains in a recognized repository. The incremental effects of the proposed project, after mitigation, would not contribute to a significant adverse

cumulative impact on paleontological resources. With mitigation, all project-related impacts would be reduced to a less-than-significant level, and the proposed project would not contribute to significant cumulative impacts.

3.5 Geology/Soils

3.5.1 Introduction

This section describes the regulatory setting and affected environment related to geologic, soil, and seismic conditions in the proposed project's study area. It also identifies the potential project impacts related to geology, soils, and seismicity pursuant to CEQA.

In June 2014, Ninyo & Moore prepared its *Preliminary Geotechnical Evaluation for the LAC+USC Medical Center Campus Master Plan Project*, which is included in Appendix D to this EIR. This section summarizes the analysis and findings included in that report.

3.5.2 Regulatory Setting

3.5.2.1 Federal

No federal regulations are applicable to the proposed project.

3.5.2.2 State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed into law in California to address hazards associated with surface faulting. The law was a direct result of the 1971 San Fernando earthquake, which was caused by extensive surface fault rupture, the most easily avoided seismic hazard. The earthquake damaged numerous homes, commercial buildings, and other structures.

Alquist-Priolo provides a mechanism for reducing surface fault rupture losses statewide. The intent of the act is to ensure public safety by prohibiting the siting of most structures meant for human occupancy across traces of active faults that constitute a potential hazard from surface faulting or fault creep.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act addresses issues related to earthquake hazards from nonsurface fault rupture, including hazards related to liquefaction and seismically induced landslides. The purpose of the Seismic Hazards Mapping Act, which was passed in 1990 and went into effect in 1991, is to identify and map seismic hazard zones. Such information can be used by cities and counties when preparing the safety elements of their general plans, thereby encouraging land use management policies and regulations that will reduce seismic hazards. The act has resulted in the preparation of maps that delineate Liquefaction Zones and Earthquake-Induced Landslide Zones of Required Investigation (California Department of Conservation, California Geological Survey 2007).

California Building Standards Code

The California Building Standards Commission (Commission) is responsible for coordinating, managing, adopting, and approving building codes in California. In January 2011, the 2010 California Building Standards Code (CBSC) became effective. The 2010 CBSC updated all prior codes under

California Code of Regulations (CCR) Title 24. The 2013 version of the CBSC, which was reviewed and approved by the Commission at meetings in December 2012 and January 2013, went into effect on January 1, 2014.

The State of California provides minimum standards for building design through the 2010 California Building Code (CBC), a component of the 2010 CBSC (codified under CCR Title 24). Chapters 16 through 18 of the 2010 CBC regulate structural design, structural tests and inspections, and soils and foundations. The CBC applies to building design and construction in the state and is based on the federal Uniform Building Code (UBC), which is used widely throughout the country (generally adopted on a state-by-state or district-by-district basis).

The CBC, which has been modified for California conditions, contains numerous provisions that are more stringent than those in the UBC because of California's seismic and environmental conditions. According to Section 1613 of the CBC, "[e]very structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7."[1]

3.5.2.3 Local

No local regulations are applicable to the proposed project.

3.5.3 Environmental Setting

3.5.3.1 Regional Geology

The project site is located within the Peninsular Ranges Geomorphic Province of Southern California. This geomorphic province encompasses an area that extends from the Transverse Ranges and the Los Angeles Basin southward to the Mexican border, a distance of approximately 125 miles. From there, it continues another 775 miles to the tip of Baja California. The Peninsular Ranges province, which varies in width from approximately 30 to 100 miles, is characterized by northwest-trending mountain range blocks separated by similarly trending faults.

The project site is situated in the Los Angeles Basin, a region that has been divided into four structural blocks, including uplifted zones. The structural blocks are generally bounded by fault systems. The project site is within the Central block, which is largely a synclinal[2] depression. The Central block is bounded on the southwest by the Newport-Inglewood fault zone, on the northwest by the Santa Monica-Hollywood-Raymond Hill fault system, and on the northeast by the Whittier and Elysian Park fault system (Norris and Webb 1990). Active northwest-trending fault zones in the Peninsular Ranges province include the San Jacinto fault zone, Elsinore fault zone (Whittier fault), and Newport-Inglewood fault zone. The predominant tectonic activity associated with these and other faults within this regional tectonic framework is right-lateral strike-slip movement.

[1] ASCE 7 is a document published by the American Society of Civil Engineers (ASCE) that specifies minimum design loads for buildings and other structures.

[2] In structural geology, a syncline is a fold, with the youngest layers closest to the center of the structure.

The predominant rock type that underlies the Peninsular Ranges province is a Cretaceous-age[3] igneous rock (granitic rock), often referred to as Southern California batholith. Older Jurassic-age metavolcanic and metasedimentary rocks and older Paleozoic[4] limestone, altered schist,[5] and gneiss[6] are also present within the province. Cretaceous-age marine sedimentary rocks and younger Tertiary-age[7] rocks composed of volcanic, marine, and non-marine sediments overlie the older rocks. More recent Quaternary[8] sediments, primarily of alluvial origin, compose the low-lying valley and drainage areas within the region, including the area where the LAC+USC Medical Center project site is located.

3.5.3.2 Site Geology

The project site is located on the northern edge of the Los Angeles coastal plain, approximately 1 mile east of the Los Angeles River, on a gently sloping alluvial fan at the base of the nearby hills, which ascend to the north. Regional geologic maps indicate that the elevated northeastern portion of the site is underlain by the Tertiary-age Puente Formation (Yerkes and Campbell 2005), which is generally composed of sandstone. The lower western and southern portions of the site are mapped as being underlain by young (Holocene[9]) and older (late- to middle-Pleistocene[10]) alluvial deposits, which are generally composed of silt, sand, and gravel.

Previous geotechnical evaluations performed at the site by Ninyo & Moore in 1995 encountered artificial fill soils in portions of the campus. The artificial fill was related to the original development of the medical center. The soils were generally composed of silty clay and silty to clayey sand. Subsequent to the 1995 evaluation, during Ninyo & Moore's 2014 geologic reconnaissance, the Puente Formation was observed in open space areas in the northeast corner of the site.

The project site is not located in a City of Los Angeles Methane Zone or Methane Buffer Zone.

Groundwater

The site is located within the Central basin of the Los Angeles Coastal Groundwater Basin. Historic groundwater monitoring data from wells located on adjacent properties to the west, south, and east were reviewed on the California Water Resources Control Board's GeoTracker website (State of California 2014). Measurements taken at these wells indicate that groundwater levels ranged from approximately 13 to 44 feet below the ground surface between 2005 and 2013. The previous subsurface evaluation at the project site conducted by Ninyo & Moore, in 1995, encountered groundwater approximately 21 to 58 feet below the ground surface. The historic high groundwater level in the vicinity was approximately 20 feet deep.

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[3] Noting or pertaining to a period of the Mesozoic era, from 140 to 65 million years ago.

[4] Noting or pertaining to an era occurring between 570 and 230 million years ago.

[5] Any of a class of crystalline metamorphic rocks whose constituent mineral grains have a more or less parallel or foliated arrangement.

[6] A metamorphic rock, generally made up of bands that differ in color and composition, with some bands being richer in feldspar and quartz, others richer in hornblende or mica.

[7] Noting or pertaining to the early part of the Cenozoic era, occurring from 65 to 2 million years ago.

[8] Noting or pertaining to the present period of earth history, forming the latter part of the Cenozoic era. Originated 2 million years ago and included the Recent and Pleistocene epochs.

[9] Denoting or formed in the second and most recent epoch of the Quaternary period, which began 10,000 years ago at the end of the Pleistocene.

[10] Noting or pertaining to the epoch that formed the early part of the Quaternary period, beginning about 2 million years ago and ending 10,000 years ago.

Groundwater levels, which are subject to fluctuations, may be influenced by seasonal variations, precipitation, irrigation, soil/rock types, groundwater pumping, and other factors. In addition, shallow perched conditions may be present.

Faulting and Seismicity

The project site is located in a seismically active area, as is the majority of Southern California, and the potential for strong ground motion at the site is considered significant. Figure 3.5-1 shows the approximate site location relative to the principal faults in the region.

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. According to the preliminary geotechnical evaluation prepared for the proposed project, the project site is not transected by known active or potentially active faults. However, earthquake events on one of the active or potentially active faults near the project site could result in strong ground shaking, which could affect the LAC+USC Medical Center campus.

The site is not located within a State of California Earthquake Fault Zone. Table 3.5-1 lists the principal known active faults within approximately 50 miles of the project site and the predicted maximum moment magnitude (M_{max}). The fault distances in this table are measured from the approximate center of the project site.

Table 3.5.1: Principal Regional Active Faults

Fault	Approximate Fault-to-Site Distance[1] (miles [kilometers])	Maximum Moment Magnitude[2] (M_{max})
Upper Elysian Park Blind Thrust	0.4 [0.7]	6.4
Raymond	4.2 [6.8]	6.5
Hollywood	4.3 [6.9]	6.4
Puente Hills Blind Thrust	5.6 [8.9]	7.1
Verdugo	5.9 [9.5]	6.9
Newport-Inglewood (Los Angeles Basin)	9.6 [15.4]	7.1
Whittier	10.3 [16.5]	6.8
Sierra Madre	10.4 [16.7]	7.2
Santa Monica	11.6 [18.7]	6.6
Clamshell-Sawpit Canyon	14.6 [23.4]	6.5
Malibu Coast	18.2 [29.4]	6.7
San Gabriel	18.3 [29.4]	7.2
Palos Verdes	18.9 [30.1]	7.3
San Jose	19.0 [30.6]	6.4
Northridge (East Oak Ridge)	19.8 [31.8]	7.0
Anacapa-Dume	19.9 [31.9]	7.5
Santa Susana	24.5 [39.5]	6.7
Chino-Central Avenue (Elsinore)	26.7 [42.9]	6.7
Cucamonga	27.9 [44.9]	6.9
San Joaquin Hills	29.7 [47.8]	6.6

Sources:
[1] USGS, 2008.
[2] Cao, et al., 2003.
Ninyo & Moore, 2014.

Figure 3.5-1. Regional Faults

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Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength from excess pore pressure when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact because of the rapid rise in pore water pressure, causing the soil to behave as a fluid for a short period of time. Liquefaction is known to occur generally in saturated or nearly saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Factors known to influence liquefaction potential include the composition and thickness of the soil layers, grain size, relative density, the groundwater level, the degree of saturation, and both the intensity and duration of the ground shaking. The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of slabs due to sand boiling, and the buckling of deep foundations due to liquefaction-induced ground settlement.

According to the preliminary geotechnical evaluation, a portion of the western part of the project site is considered to be susceptible to liquefaction. Other areas of the site that are not included on the State of California Seismic Hazards Zone map could also be subject to liquefaction.

Landslides

Landslides, slope failures, and mudflows generally occur where slopes are steep and/or the earth materials are too weak to support themselves. Earthquake-induced landslides may also result from seismic ground shaking.

The geologic maps did not reveal past landslides at the site. The project site has been extensively developed and is covered primarily with pavement, hardscape, and structures. The site includes some graded slopes, which are associated with landscaping and pedestrian areas, and the northeast corner of the site contains a slope that ascends approximately 60 feet toward the edge of the property. This slope is landscaped and lined with a series of concrete drainage swales that route water runoff away from the slope's face.

According to the preliminary geotechnical evaluation prepared for the proposed project, the potential for future landslides or mudflows that could affect development within the project site is relatively low.

Site Soils

According to the preliminary geotechnical evaluation, the exposed materials at the surface of the project site include silty clay and silty to clayey sand soils as well as interbedded sandstone and a shale rock formation. Sandy soils typically have low cohesion and a relatively higher potential for erosion from surface runoff when exposed in cut slopes or utilized near the face of fill embankments. Surface soils with higher amounts of clay tend to be less erodible because the clay acts as a binder that holds the soil particles together.

Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion occurs by various processes and may occur in the project area where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses.

Compressible/Collapsible Soils

Compressible soils undergo consolidation when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon in which the soils undergo a significant decrease in volume when exposed to an increase in moisture content, with or without an increase in external loads. Buildings, structures, and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present.

According to the preliminary geotechnical evaluation, the project area is underlain by fill soils, alluvial sediments, and sedimentary rock formations. Given their young nature, the alluvial deposits under the site are generally unconsolidated, reflecting a depositional history without substantial loading, and may be subject to collapse. Older undocumented fill soils are considered potentially compressible/collapsible.

Expansive Soils

Expansive soils include clay minerals, which are characterized by their ability to undergo significant volume change (shrink or swell) in response to variations in moisture content. Sandy soils are generally not expansive. Changes in soil moisture content can result from rainfall, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors.

A volumetric change in expansive soils may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs on grade, or pavement that was supported on such material. According to the preliminary geotechnical evaluation prepared for the proposed project, the near-surface soils at the project site are composed predominantly of sandy, coarse-grained materials. These soils typically have a low expansion potential. However, clayey soils may be present in areas that were not observed.

Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas. It generally occurs where deep soil deposits are present. Subsidence in such areas is typically associated with regional withdrawals of groundwater or other withdrawals, such as oil and natural gas. Subsidence can result in the development of ground cracks and damage to subsurface vaults, pipelines, and other improvements.

Mapped areas of subsidence were not found in the City or County of Los Angeles reference materials. The *County of Los Angeles General Plan Safety Element* (1990) includes goals and policies addressing geologic hazards and the introduction or expansion of developments in areas known to have geologic hazards. The *Safety Element of the Los Angeles City General Plan* (1996) includes information regarding the city's program to preclude potential subsidence within the city. Subsurface extraction activities within the city are regulated by Oil Drilling District procedures, which contain provisions for monitoring and imposing measures to preclude subsidence related to oil and gas extraction. Therefore, the potential for subsidence at the project site is relatively low.

Corrosive Soils

The geologic environment of the project site could include soil conditions that would be corrosive to concrete and metals. Corrosive soil may exacerbate corrosion hazards for buried conduits, foundations, and other buried concrete or metal improvements. Corrosive soil could cause premature deterioration of these underground structures or foundations.

3.5.4 Environmental Impact Analysis

3.5.4.1 Methods

Potential significant impacts were identified from a review of the *Preliminary Geotechnical Evaluation for the LAC+USC Medical Center Campus Master Plan Project,* prepared by Ninyo & Moore in June 2014 (Appendix D). The following discussion identifies impacts and the measures required to mitigate impacts that are found to be significant.

3.5.4.2 Thresholds of Significance

For the purposes of this EIR and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

GEO-1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:

1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to *Division of Mines and Geology Special Publication 42*);

2) Strong seismic ground shaking;

3) Seismically related ground failure, including liquefaction; or

4) Landslides.

GEO-2: Result in substantial soil erosion or the loss of topsoil.

GEO-3: Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

GEO-4: Be located on expansive soils, as defined in Table 18-1-B of the UBC (1994), or corrosive soils, creating substantial risk to life or property.

The lead agency determined in the NOP/IS (see Appendix A) that the proposed project would result in no impacts in the following area and was therefore screened from further review in this EIR.

GEO-5: Have soils that would be incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater.

3.5.4.3 Impacts and Mitigation Measures

Impact GEO-1: Would the Proposed Project Expose People or Structures to Potential Substantial Adverse Effects, including the Risk of Loss, Injury, or Death, Involving Earthquake Fault Rupture, Seismic Shaking, Ground Failure, or Landslides?

Construction and Operation

Fault Rupture

As previously stated, the project site is not transected by known active or potentially active faults. The active Upper Elysian Park blind thrust fault is located approximately 0.4 mile north of the approximate center of the site, the active Raymond fault is located approximately 4.2 miles north of the approximate center of the site, and the active Hollywood fault is located approximately 4.3 miles northwest of the approximate center of the site. Therefore, the potential for surface rupture is relatively low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible, a potentially significant impact. Implementation of mitigation measure MM-GEO-1, below, would reduce potential fault rupture hazards to a less-than-significant level.

Seismic Ground Shaking

Because the proposed project would be located within a seismically active region, the potential exists for seismic ground shaking. However, the level of ground shaking at a given location depends on many factors, including the size and type of earthquake, the distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking. The potential levels of ground shaking at the project site could result in significant impacts on future improvements. However, the proposed project would adhere to all applicable seismic design requirements and guidelines. Additionally, implementation of structural design mitigation measures (see MM-GEO-1, below) would reduce potential seismic ground shaking impacts to a less-than-significant level.

Liquefaction

According to the preliminary geotechnical evaluation prepared for the proposed project, the western portion of the project site is located within an area that is considered susceptible to liquefaction. Other areas of the site that are not indicated on the state map as susceptible could also be subject to liquefaction. Liquefaction and its associated manifestations could cause damage to future project improvements if not mitigated during detailed project design, a potentially significant impact. The potential damaging and significant effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of pavement due to sand boiling, and the buckling of deep foundations due to liquefaction-induced ground settlement. Mitigation measures identified in MM-GEO-1 would reduce the potentially significant liquefaction hazards impacts to campus development to a less-than-significant level.

Landslides

According to the preliminary geotechnical evaluation prepared for the proposed project, the potential for future landslides or mudflows to affect developments within the project area is relatively low. Significant impacts related to landslides or mudflows within the project area are not

anticipated. Slopes created for future developments within the project area would be designed to reduce the potential for landslides or mudflows. This would be considered a less than significant impact.

Mitigation Measures

The following measure is proposed to mitigate Impact GEO-1, above:

MM-GEO-1: All recommendations included in the preliminary geotechnical evaluation prepared for the proposed project (see Appendix D) shall be followed. A detailed subsurface geotechnical evaluation shall be performed to address site-specific conditions at the locations of the planned improvements and provide detailed recommendations for design and construction.

The geotechnical evaluation shall include the following measures to mitigate potential fault rupture, seismic ground shaking, and liquefaction hazards identified under Impacts GEO-1 and GEO-2.

- *Seismicity*: Structural elements of future improvements shall be designed to resist or accommodate appropriate site-specific ground motions and conform to the current seismic design standards.
- *Liquefaction:* An assessment of the liquefaction potential shall be made prior to detailed design and construction of project improvements. Structural design and mitigation techniques, such as in situ ground modification or supporting foundations with piles at depths designed specifically for liquefaction, shall be included.

  To evaluate the potential for liquefaction, subsurface evaluation may be performed. Site-specific geotechnical evaluations that assess the liquefaction and dynamic settlement characteristics of the on-site soils shall include the drilling of exploratory borings, evaluation of groundwater depths, and laboratory testing of soils.

  Methods for construction in areas with a potential liquefaction hazard may include in situ ground modification, removal of liquefiable layers and replacement with compacted fill, or support of project improvements on piles at depths designed specifically for liquefaction. Pile foundations can be designed for a liquefaction hazard by supporting the piles on dense soil or bedrock located below the liquefiable zone or employing other appropriate methods, as evaluated during the site-specific evaluation. Additional recommendations for mitigation pertaining to liquefaction may include densification by installation of stone columns, vibration, deep dynamic compaction, and/or compaction grouting.

The geotechnical evaluation shall include the following measures to mitigate unstable soil impacts identified under Impact GEO-3.

- *Groundwater:* Excavations for foundations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and provide access for construction. All recommendations included in the preliminary geotechnical evaluation pertaining to groundwater shall be followed.

  Excavations for underground structures will need to be performed with care to reduce the potential for lateral deflection of excavation sidewalls and/or shoring, which may also cause differential movement of structures located near the excavation.

Further study, including subsurface exploration, shall be performed during the detailed design phase of future improvements to evaluate the presence of groundwater, seepage, and/or perched groundwater at the site and the potential impacts on design and construction of project improvements. An assessment of the potential for shallow groundwater shall be made during the design phase of the project, and mitigation techniques shall be developed as necessary.

- *Collapsible Soils/Settlement:* An assessment of the potential for soils that are prone to settlement shall be made prior to detailed design and construction of project improvements, and mitigation techniques shall be developed, as appropriate, to reduce impacts related to settlement to low levels.

  During the detailed design phase of the project, surface reconnaissance and site-specific geotechnical evaluations shall be performed to assess the settlement potential of the on-site natural soils and undocumented fill. This may include detailed surface reconnaissance to evaluate site conditions, drilling of exploratory borings or test pits, and laboratory testing of soils, where appropriate, to evaluate site conditions.

  Prescribed mitigation measures for soils with the potential for settlement shall include either removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction with new fills, or a specialized foundation design, including the use of deep foundation systems to support structures. Varieties of in situ soil improvement techniques are also available, such as dynamic compaction (heavy tamping) or compaction grouting.

The geotechnical evaluation shall include the following measures to mitigate the expansive and corrosive soils hazards identified under Impact GEO-4.

- *Expansive Soils*: Mitigation techniques to reduce expansive soil potential shall be included as necessary. Techniques shall include overexcavation and replacement with non-expansive soil, soil treatment, moisture management, and/or a specific structural design for expansive soil conditions developed during the design phase.

  Corrosive Soils: An assessment of the potential for corrosive soils shall be made during the detailed design phase of the project through soil testing procedures. Mitigation techniques shall be developed, as appropriate, to reduce impacts related to corrosive soils to low levels.

  Subsurface evaluation, including laboratory testing, shall be performed. Evaluation of the corrosive soil potential shall be accomplished through testing and analysis of soils at foundation design depths. The laboratory tests conducted on the soils prior to construction and improvement plan preparation shall include corrosivity tests. Review of these data by a corrosion engineer will result in corrosion protection measures that will be suitable to the project elements. Evaluation of the potential corrosive soils hazard shall be performed prior to detailed design and construction so that, in the event the hazard exists, mitigation techniques may be implemented. To avoid site-specific subsurface evaluation, corrosion protection measures may be included in the initial design for the proposed project improvements.

  Mitigation for corrosive soil conditions may involve the use of concrete that is resistant to sulfate exposure. Corrosion protection for metals may be needed for underground foundations or structures in areas where corrosive groundwater or soil could cause

deterioration. Typical mitigation techniques include epoxy and metallic protective coatings, the use of alternative (corrosion-resistant) materials, and selection of the appropriate type of cement and water/cement ratio.

Level of Significance after Mitigation

Less than significant.

Impact GEO-2: Would the Proposed Project Result in Substantial Soil Erosion or the Loss of Topsoil?

Construction

According to the preliminary geotechnical evaluation, the materials exposed at the surface of the project site include silty clay and silty to clayey sand soils as well as interbedded sandstone and a shale rock formation. Sandy soils typically have low cohesion and a relatively higher potential for erosion from surface runoff when exposed in cut slopes or utilized near the face of fill embankments. Surface soils with higher amounts of clay tend to be less erodible because the clay acts as a binder that holds the soil particles together.

Future construction at the project site would result in ground surface disruption during excavation, grading, and trenching that would create the potential for erosion to occur. However, as described in Section 3.8, Hydrology and Water Quality, any project involving grading of an area greater than 1 acre is required to apply for a National Pollutant Discharge Elimination System permit from the Los Angeles Regional Water Quality Control Board. This permit requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that incorporates best management practices (BMPs) for erosion control. Specifically, construction activity resulting in a land disturbance of one acre or more, or less than one acre but part of a larger common plan of development or sale must obtain the Construction Activities Stormwater General Permit. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. Construction activity does not include routine maintenance such as, maintenance of original line and grade, hydraulic capacity, or original purpose of the facility. Implementation of BMPs would ensure that sediment would be confined to the construction area and not transported off-site. As a result, project impacts would be less than significant.

Operation

During long-term operation of proposed developments and improvements at the project site, provisions for surface drainage and incorporation of appropriate BMPs (filtration, runoff-minimizing landscaping for common areas, energy dissipators, inlet trash racks, and water quality inlets) would reduce the potential for soil erosion at the site. Additionally, proposed stormwater and low impact development (LID) features (i.e., bioretention and wetland/detention areas) would also minimize runoff and the potential for soil erosion. Therefore, operational impacts would be less than significant.

Mitigation Measures

The following measure would ensure that soil erosion impacts (Impact GEO-2) would be minimized:

> **MM-GEO-2:** All earthwork and grading shall be performed in accordance with the recommendations in the SWPPP and the Construction Activities Stormwater General Permit. Additionally, BMPs related to ongoing drainage design and maintenance practices shall be included in the SWPPP and implemented to reduce soil erosion during operation of the proposed project. The BMPs shall include design procedures such as a surface drainage design for roadways and facilities to provide for positive surface runoff and reduce concentrated runoff conditions. Other examples of BMPs include the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices.

Level of Significance after Mitigation

Less than significant.

Impact GEO-3: Would the Proposed Project Be Located on a Geologic Unit or Soil that Is Unstable or that Would Become Unstable, Potentially Resulting in an On-site or Off-site Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse?

Construction and Operation

As previously stated, mapped areas of subsidence were not found in the City or County of Los Angeles reference materials.. The County of Los Angeles General Plan Safety Element includes goals and policies addressing the introduction or expansion of developments in areas known to have geologic hazards. Therefore, the potential for subsidence on the project site is relatively low. This would be considered a less-than-significant impact. No mitigation measures are required.

Proposed construction activities would include excavation and site grading for new medical, office, and retail structures; pedestrian areas; landscaping; open space areas; and parking area improvements. Given the reported depth of groundwater in the project area and the anticipated depth of the aforementioned construction activities, groundwater could have a significant impact on excavations for future project improvements. Wet or saturated soil encountered in excavations for the project could cause instability and present a constraint to the construction of foundations.

Structural design and mitigation techniques would be developed to reduce impacts related to liquefaction. Therefore, liquefaction impacts would be considered less than significant with mitigation incorporated.

Because of the presence of potentially compressible/collapsible soils at the site, the potential exists for differential settlement to cause damage to project improvements. The potential impacts of settlement would be considered significant without appropriate mitigation implemented during detailed project design and construction. Mitigation measures, including removal of compressible/collapsible soils and replacement with compacted fill, would reduce potential impacts to less-than-significant levels. Therefore, this would be considered a less-than-significant impact. with mitigation incorporated.

For a discussion of liquefaction hazards, see Impact GEO-1, above.

Mitigation Measures

See MM-GEO-1, above.

Level of Significance after Mitigation

Less than significant

Impact GEO-4: Would the Proposed Project Be Located on Expansive Soil, as Defined in Table 18-1-B of the UBC (1994), or Corrosive Soils, Creating Substantial Risk to Life or Property?

Construction and Operation

According to the preliminary geotechnical evaluation prepared for the proposed project, the near-surface soils at the project site are composed predominantly of sandy, coarse-grained materials. These soils typically have a low expansion potential. However, clayey soils may be present in areas that were not observed. If construction activities occur on soils that are known to be potentially expansive, the impact on proposed future improvements could be significant. Implementation of the proposed mitigation measure (MM-GEO-1) would reduce potential impacts from expansive soils to less than significant.

As previously stated, the geologic environment of the project site could include soil conditions that would be corrosive to concrete and metals. Corrosive soil may exacerbate corrosion hazards for buried conduits, foundations, and other buried concrete or metal improvements. Corrosive soil could cause premature deterioration of these underground structures or foundations, a potentially significant impact. With implementation of appropriate mitigation (see MM-GEO-1), the impact from corrosive soils would be less than significant.

Mitigation Measures

Please see mitigation measure MM-GEO-1, above.

Level of Significance after Mitigation

Less than significant.

3.5.5 Cumulative Impacts

The study area for potential cumulative geology and soils impacts consists of the project site and the immediate surrounding area that encompasses the related projects, which consists of the neighborhoods of Boyle Heights, Lincoln Heights, and Chinatown. This study area was selected since it encompasses the surrounding neighborhoods with the most similar geologic conditions to the project site. Similar to the proposed project, related projects would be built in a seismically active region of Southern California and could experience ground shaking and other seismically related hazards. However, the projects would be subject to applicable seismic standards, safety requirements, and standard design specifications to keep the potential risk of damage from seismic and other geologic hazards to an acceptable level. Therefore, construction of the proposed project and adjacent projects would not result in cumulatively considerable impacts with respect to geology and seismicity.

During construction of the proposed and related projects, the potential exists for grading and excavation to expose soils in the area to wind or water erosion, resulting in a cumulative loss of soil. However, as noted in the discussion under Impact GEO-2, any project involving grading of an area greater than 1 acre is required to apply for a National Pollutant Discharge Elimination System permit, which necessitates implementation of BMPs for erosion control. Additionally, the City of Los Angeles Stormwater LID Ordinance. which applies to all development and redevelopment projects that create, add, or replace 500 square feet or more of impervious surface, requires the use of LID standards and practices for the purposes of reducing offsite runoff and erosion. Compliance with National Pollutant Discharge Elimination System permit requirements and the city's Stormwater LID Ordinance would minimize potential soil erosion impacts and therefore, it is not expected that the proposed and related projects would result in significant cumulative soil erosion impacts.

Following the completion of construction, the proposed and related projects would not change the geologic properties of the area. There would continue to be some level of seismic and other geologic risks during operation of the proposed and related projects as a result of their locations within a seismically active region; however, these risks would not increase or decrease as a result of the proposed and related projects. Therefore, operation of the proposed project and adjacent projects would not result in cumulatively considerable impacts with respect to geology, soils, and seismicity.

3.6 Greenhouse Gas Emissions

3.6.1 Introduction

This section describes the applicable laws and regulations, existing conditions, and impact analysis for GHG emissions.

3.6.2 Regulatory Setting

3.6.2.1 Federal

Although climate change and GHG reductions are concerns at the federal level, at this time, no federal legislation or regulations have been enacted related to GHG emissions reductions and climate change specifically. However, recent activity suggests that regulation may be forthcoming. Foremost among recent developments have been the U.S. Supreme Court's decision in *Massachusetts et al. v. U.S. Environmental Protection Agency*, the "Endangerment Finding," and the "Cause or Contribute Finding," which are described below. Despite these findings, the future of GHG regulation at the federal level is still uncertain and continues to evolve. Recent activity includes proposed standards for carbon dioxide (CO_2) emissions from new fossil fuel–fired electricity power plants by EPA, as outlined in *The President's Climate Action Plan* issued in 2013. If approved, these standards would be the first to establish national GHG limits for the electric power industry.

Massachusetts et al. v. U.S. Environmental Protection Agency (2007)

Twelve U.S. states and cities, including California, in conjunction with several environmental organizations, sued EPA to regulate GHGs as a pollutant, pursuant to the federal CAA. The court ruled that the plaintiffs had standing to sue, finding that GHGs fit within the CAA's definition of a pollutant, and EPA's reasons for not regulating GHGs were insufficiently grounded.

Endangerment and Cause or Contribute Findings (2009)

On December 7, 2009, the EPA administrator found that current and projected concentrations of CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) threaten the public health and welfare of current and future generations (Endangerment Finding). Additionally, the administrator found that combined emissions of CO_2, CH_4, N_2O, and hydrofluorocarbons from motor vehicles contribute to atmospheric concentrations of GHG pollution that threaten public health and welfare through climate change (Cause or Contribute Finding). Although these findings do not themselves impose any requirements on industry or other entities, they were an important step in EPA's process to develop GHG regulation.

President's Council on Environmental Quality Draft Guidance (2010)

On February 18, 2010, Nancy Sutley, chair of the Council on Environmental Quality (CEQ), issued a memorandum that provided guidance regarding consideration of the effects of climate change and GHG emissions under the National Environmental Policy Act (NEPA). The draft guidance suggests that the effects of projects that directly emit GHGs in excess of 25,000 metric tons (MT) of carbon dioxide equivalent (CO_2e) annually should be considered in a qualitative and quantitative manner.

The CEQ does not propose this reference as a threshold for determining significance but as "a minimum standard for reporting emissions under the CAA." The draft guidance also recommends that the cumulative effects of climate change on a proposed project should be evaluated. The draft guidance is still subject to public comment and will not be effective until issued in final form (Sutley 2010).

Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy (CAFE) standards, which went into effect in 2012 for vehicles, incorporate stricter fuel economy standards in one uniform federal standard. The standards are equivalent to those previously promulgated by the State of California (see the AB 1493 discussion below). The changes are expected to reduce GHG emissions from new vehicles by roughly 25%, relative to business-as-usual (BAU) conditions, by 2016.

In October 2012, EPA and the National Highway Traffic Safety Administration (NHTSA) established the final rule for fleet-wide passenger car and light-truck model years 2017 to 2025. The new CAFE standards are aimed at reaching an emissions rating of 163 grams of CO per mile, or the equivalent of 54.5 miles per gallon (mpg), by model year 2025. Fleet-wide fuel economy standards will become more stringent with each subsequent model year through 2025. Because of a statutory requirement that directs NHTSA to set average fuel economy standards five model years at a time, NHTSA has mandated a fleet-wide industry average of 40.3 to 41.0 mpg for model years 2017 to 2022 and estimates that the mileage figures for 2025 model year vehicles will be between 48.7 and 49.7 mpg (EPA 2012).

3.6.2.2 State

California has adopted statewide legislation to address issues related to various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the state's long-term GHG emissions-reduction and climate change adaptation program. The governor of California has also issued several executive orders related to the state's evolving climate change policy. Of particular importance to local governments is the direction provided by the AB 32 Scoping Plan, which recommends that local governments should reduce their GHG emissions to a level consistent with state goals (i.e., 15% below current levels).

In the absence of federal regulations, GHG emissions are generally regulated at the state level and typically approached by setting emissions-reduction targets for existing sources of GHG emissions, establishing policies to promote renewable energy and increase energy efficiency, and developing statewide action plans. Summaries of key policies, legal cases, regulations, and legislation at the state level relevant to the County are provided below. Key statewide GHG regulations that are directly applicable to the proposed project are also included below.

AB 1493—Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)

AB 1493 required ARB to develop and implement regulations to reduce automobile and light-truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year. In June 2009, the EPA administrator granted a CAA waiver of preemption to California. This waiver allowed California to implement its own GHG emissions standards for motor vehicles beginning with model year 2009. ARB approved joint rulemaking efforts to reduce GHG emissions from passenger cars (model years 2017 to 2025) on December 31, 2012 (ARB 2014a).

Renewable Energy Standard/Renewable Portfolio Standard (2002/2006/2011)

Senate Bill (SB) 1078 (2002) and SB 107 (2006) created the Renewable Energy Standard (RES), which required electric utility companies to increase procurements from eligible renewable energy resources by at least 1% of their retail sales annually until reaching 20% by 2010. SB 2X 1 (2011) requires a Renewable Portfolio Standard (RPS), functionally the same thing as the RES, of 33% by 2020. In 2012, the statewide average for the three largest electrical suppliers (Pacific Gas and Electric [PG&E], Southern California Edison [SCE], and San Diego Gas & Electric [SDG&E]) was 19.89%.

AB 32, the Global Warming Solutions Act of 2006/2011 Update

AB 32 codified the state's GHG emissions target by requiring California's global warming emissions to be reduced to 1990 levels by 2020. Since being adopted, ARB, the California Energy Commission, the California Public Utilities Commission (CPUC), and the California Building Standards Commission have been developing regulations that will help the state meet the goals of AB 32 and Executive Order (EO) S-03-05. The scoping plan for AB 32 identifies specific measures to reduce GHG emissions to 1990 levels by 2020 and requires ARB and other state agencies to develop and enforce regulations and other initiatives to reduce GHG emissions. Specifically, the scoping plan articulates a key role for local governments by recommending that they establish GHG emissions-reduction goals for both their municipal operations and the community that are consistent with those of the state (i.e., approximately 15% below current levels) (ARB 2008).

In March 2011, the San Francisco Superior Court enjoined implementation of ARB's scoping plan, finding that the alternatives analysis and public review process violated both CEQA and ARB's certified regulatory program (*Association of Irritated Residents et al. v. California Air Resources Board*, Case No. CPF-09-509562, March 18, 2011). In response to this litigation, ARB adopted a new CEQA document (*Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*) on August 24, 2011. ARB re-evaluated the baseline in light of the economic downturn and updated the projected 2020 emissions to 545 million metric tons of CO_2e ($MMTCO_2e$). Two reduction measures (Pavley I and RPS [12% to 20%]) that were not previously included in the 2008 scoping plan baseline were incorporated into the updated baseline, further reducing the 2020 statewide emissions projection to 507 $MMTCO_2e$. The updated forecast of 507 $MMTCO_2e$ is referred to as the AB 32 2020 baseline. An estimated reduction of 80 $MMTCO_2e$ is necessary to lower statewide emissions to the AB 32 target of 427 $MMTCO_2e$ by 2020 (ARB 2011).

ARB approved the *First Update to the Scoping* Plan on May 22, 2014, and finalized the environmental analysis following public review on May 15, 2014. The first update includes both a 2020 element and a post-2020 element. The 2020 element focuses on the state, regional, and local initiatives that are being implemented now to help the state meet the 2020 goal. The post-2020 element provides a high-level view of the long-term strategy for meeting the 2050 GHG goals, consistent with the goals set forth in EO S-3-05 and EO B-16-2012.

Executive Order S-03-05 (2005) and Executive Order B-16-2012 (2012)

EO S-03-05 is designed to reduce California's GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by 2020, and (3) 80% below 1990 levels by 2050. EO B-16-2012 establishes benchmarks for reducing transportation-related GHG emissions. It requires agencies to implement the Plug-in Electric Vehicle Collaborative and California Fuel Cell Partnership by 2015 and sets forth targets specific to the transportation section, including the goal of reducing transportation-related GHG emissions to 80% less than 1990 levels.

Executive Order S-01-07, Low-Carbon Fuel Standard (2007)

Governor Arnold Schwarzenegger set forth the low-carbon fuel standard (LCFS) for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10% by 2020. On July 15, 2013, the Fifth District Court of Appeals ruled to allow LCFS regulations to remain operative while ARB analyzes the smog-related impacts of LCFS implementation, including formulation of appropriate enforceable mitigation measures, and subsequently completes a full CEQA review, provided ARB attempts to meet its statutory requirements in good faith (see *Poet, LLC et al. v. California Air Resources Board* et al.). The CEQA process is currently under way. Additionally, on September 18, 2013, the Ninth Circuit Court of Appeals denied a petition for review *in Rocky Mountain Farmers Union v. Corey,* lending finality to the Ninth Circuit Court's decision that the LCFS does not facially violate the dormant Commerce Clause, which most likely removes the most substantial hurdle to the LCFS's constitutional validity under the dormant Commerce Clause (California Environmental Law Blog 2014).

SB 375 (Steinberg), Statutes of 2008

SB 375 requires metropolitan planning organizations (MPOs) to incorporate a "sustainable communities strategy" (SCS) in their regional transportation plans (RTPs) that will achieve the GHG emissions-reduction targets set by ARB. In February 2011, ARB finalized the regional targets. SB 375 also includes provisions for streamlined CEQA review for some infill projects, such as transit-oriented development. However, those provisions will not become effective until an SCS is adopted. The final targets require SCAG to identify strategies that will reduce per capita GHG emissions from passenger vehicles by approximately 8% by 2020 and 13% by 2035 over the base year (i.e., 2005). SCAG adopted the final 2012 RTP, which incorporates the SCS, on April 4, 2012 (SCAG 2012).

State CEQA Guidelines (2011)

The 2011 State CEQA Guidelines include a new section (Section 15064.4) that specifically discusses the significance of GHG emissions. Section 15064.4 calls for a good-faith effort when describing, calculating, or estimating GHG emissions. Section 15064.4 also states that a determination of the significance of GHG impacts should consider whether the project would increase or reduce GHG emissions, exceed a locally applicable threshold of significance, or comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The revisions also state that a project may be found to have a less-than-significant impact if it complies with an adopted plan that includes specific measures to reduce GHG emissions sufficiently (Section 15064(h)(3)). However, the revised guidelines do not require or recommend a specific analysis methodology or provide quantitative criteria for determining the significance of GHG emissions.

Cap and Trade (2012)

The development of a cap-and-trade program was included as a key reduction measure in ARB's AB 32 Scoping Plan (ARB 2012). The cap-and-trade emissions program developed by ARB took effect on January 1, 2012, with enforceable compliance obligations beginning January 1, 2013. The cap-and-trade program aims to regulate GHG emissions from the largest producers in the state by setting a statewide firm limit, or cap, on allowable annual GHG emissions. The cap contains three compliance phases. In compliance Phase 1, large emitters from the electric utility and industrial sectors come under the cap. In compliance Phase 2, which commences in 2015, fuels will be subject to the cap. Compliance Phase 3 will include electricity, industry, and fuels and run until 2020. ARB

administered the first auction on November 14, 2012, with many of the qualified bidders representing corporations or organizations that produce large amounts of GHG emissions, including energy companies, agricultural and food companies, steel mills, cement companies, and universities (ARB 2014a). California is working closely with British Columbia, Ontario, Quebec, and Manitoba through the Western Climate Initiative (WCI) to develop harmonized cap-and-trade programs that will deliver cost-effective emissions reductions. Two lawsuits have been filed against cap-and-trade efforts, but the cap-and-trade program will be implemented as is until further notice.

3.6.2.3 Local

South Coast Air Quality Management District

As discussed in Section 3.2, Air Quality, SCAQMD has primary responsibility for development and implementation of rules and regulations to attain the NAAQS and CAAQS as well as permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations within the Basin. The AB 32 Scoping Plan does not provide an explicit role for local air districts with respect to implementing AB 32, but it does state that ARB will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting but also through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

To provide guidance to local lead agencies regarding the determination of the significance of GHG emissions in their CEQA documents, SCAQMD will be convening an ongoing GHG CEQA Significance Threshold Working Group. Members of the working group will include government agencies that implement CEQA and representatives from various stakeholder groups that provide input to SCAQMD regarding the development of GHG CEQA significance thresholds.

On December 5, 2008, the SCAQMD Governing Board adopted a staff proposal for an interim GHG significance threshold of 10,000 MT per year for industrial permitting projects where SCAQMD is lead agency. The board letter, resolution, interim GHG significance threshold, draft guidance document, and attachments can be found under Board Agenda Item 31 of the December 5, 2008, Governing Board Meeting Agenda. No other quantitative thresholds have been developed by SCAQMD that would apply to the proposed project.

Southern California Association of Governments

SCAG is the federally designated MPO for the majority of the Southern California region. SCAG develops regional plans for transportation, growth management, hazardous waste management, housing, and air quality. The intent of the 2008 Regional Comprehensive Plan (RCP) was to define and solve regional issues such as those related to housing, traffic, transportation, water, and air quality (SCAG 2008). The Compass Blueprint Growth Visioning effort and Two Percent Strategy encourage development that concentrates regional growth, consisting of mixed-use and walkable communities with ample open space, in existing and emerging areas along transportation corridors and in transit centers. Most recently, the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) outlined SCAG's plan for integrating transportation and land use planning in response to projected growth, housing needs, changing demographics, and transportation demands in compliance with the GHG emissions-reduction goals set forth by ARB per SB 375 (SCAG 2012).

Los Angeles County

Los Angeles County currently has a multitude of energy efficiency, land use, water conservation, solid waste, and land conservation strategies in place that act to reduce GHG emissions throughout the County. Los Angeles County has recently completed the Community Climate Action Plan (CCAP) to reduce GHG emissions from community activities within the unincorporated County, which will tie together the County's existing climate change initiatives and provide a blueprint for a more sustainable future (see Section 3.6.4.2 for a description of the CCAP).

3.6.3 Environmental Setting

3.6.3.1 Global Climate Change

According to EPA, a GHG is any gas that absorbs infrared radiation in the atmosphere. This absorption traps heat within the atmosphere, maintaining the earth's surface temperature at a level higher than would be the case in the absence of GHGs. GHGs include water vapor, CO_2, CH_4, N_2O, O_3, PFCs, HFCs, and halogenated chlorofluorocarbons (HCFCs). Naturally occurring GHGs include water vapor, CO_2, CH_4, N_2O, and O_3. Human activities add to the levels of most of these naturally occurring gases. The sources and sinks of each GHG are discussed under the GHG Emissions Sources heading, below.

Increasing levels of GHGs in the atmosphere result in an increase in the temperature of the earth's lower atmosphere, a phenomenon that is commonly referred to as *global warming*. Warming of the earth's lower atmosphere induces a suite of additional changes, including changes in global precipitation patterns; ocean circulation, temperature, and acidity; global mean sea level; species distribution and diversity; and the timing of biological processes. These large-scale changes are collectively referred to as *global climate change*.

The Intergovernmental Panel on Climate Change (IPCC) has been established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change and its potential impacts and provide options for adaptation and mitigation. As the leading authority on climate change science, IPCC's best estimates are that average global temperature rise between 2000 and 2100 could range from 0.5°F to 8.6°F (IPCC 2013). Large increases in global temperatures, as high as 8.6°F, could have massive deleterious impacts on natural and human environments.

Since the industrial revolution (approximately 1750), the concentration of CO_2 in the earth's atmosphere has increased from 270 ppm to roughly 391 ppm. Atmospheric concentrations of CH_4 and N_2O have similarly increased since the beginning of the industrial age. Since 1880, the global average surface temperature has increased by 1.5°F, global average sea level has increased by nearly 190 millimeters (since 1901), and northern hemisphere snow cover (data available since 1920) has decreased by nearly 3 million square kilometers. These recently recorded changes can be attributed with a high degree of certainty to increased concentrations of GHGs in the atmosphere (IPCC 2013). Sinks of CO_2 (which remove rather than emit CO_2) include uptake by vegetation and dissolution into the ocean. Global GHG emissions greatly exceed the removal capacity of natural sinks. As a result, concentrations of GHGs in the atmosphere are increasing (CEC 2006).

GHGs are global pollutants, unlike criteria air pollutants and TACs. Criteria air pollutants and TACs occur locally or regionally, and local concentrations respond to locally implemented control measures. The long atmospheric lifetimes of GHGs allow them to be transported great distances

from sources and become well mixed, unlike criteria air pollutants, which typically exhibit strong concentration gradients away from point sources. GHGs and global climate change represent cumulative impacts. GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change.

3.6.3.2 Definition of Greenhouse Gases

The GHGs listed by the IPCC (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) (2013) are discussed in this section in order of abundance in the atmosphere. California law and the State CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 CCR Section 15364.5). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources.[1] The sources and sinks[2] of each of these gases are discussed in detail below. Generally, GHG emissions are quantified and presented in terms of metric tons of CO_2e emitted per year. The primary GHGs associated with the project are CO_2, CH_4, and N_2O. HFCs, PFCs, and SF_6 are associated primarily with industrial processes and, thus, are not discussed herein.

To simplify reporting and analysis, GHGs are commonly defined in terms of a global warming potential (GWP). The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2e. The GWP of CO_2 is, by definition, 1. The GWP values used in this report are based on the IPCC Fifth Assessment Report (AR5) and United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines and defined in Table 3.6-1 (IPCC 2013). The AR5 GWP values are used in ARB's California inventory and AB 32 Scoping Plan estimate update (ARB 2014).

Table 3.6-1: Lifetime, Global Warming Potential, and Abundance of Several Significant GHGs

Gas	Global Warming Potential (100 years)	Lifetime (years)[1]	Atmospheric Abundance
CO_2 (ppm)	1	50–200	391
CH_4 (ppb)	28	9-15	1,871
N_2O (ppb)	265	120	323
[1] Defined as the half-life of the gas. Definitions: ppm = parts per million; ppb = parts per billion. Sources: Myhre et al. 2013.			

Carbon Dioxide (CO_2) is the most important anthropogenic GHG and accounts for more than 75% of all GHG emissions emitted by humans. Its atmospheric lifetime of 50 to 200 years ensures that atmospheric concentrations of CO_2 will remain elevated for decades, even after mitigation efforts to reduce GHG concentrations are promulgated (IPCC 2007). The primary sources of anthropogenic CO_2 in the atmosphere include fossil fuel usage (including motor vehicle fuels), gas flaring, cement production, and land use changes (including deforestation).

[1] Although water vapor plays a substantive role in the natural greenhouse effect, the change in GHGs in the atmosphere due to anthropogenic actions is enough to upset the radiative balance of the atmosphere and result in global warming.

[2] A sink removes and stores GHGs in another form. For example, vegetation is a sink because it removes atmospheric CO_2 during respiration and stores the gas as a chemical compound in its tissues.

Methane (CH_4), the main component of natural gas, is the second most abundant GHG and has a GWP of 28 (IPCC 2013). Sources of anthropogenic emissions of CH_4 include rice growing, raising cattle, natural gas combustion, landfill outgassing, and coal mining (National Oceanic and Atmospheric Administration 2005).

Nitrous Oxide (N_2O) is a powerful GHG, with a GWP of 265 (IPCC 2013). Anthropogenic sources of N_2O include agricultural processes (e.g., fertilizer application), nylon production, fuel-fired power plants, nitric acid production, and vehicle emissions. N_2O is also used in rocket engines and racecars and as an aerosol spray propellant. In the United States, more than 70% of N_2O emissions are related to agricultural soil management practices, particularly fertilizer applications.

3.6.3.3 GHG Emissions Sources

More than 97% of U.S. GHG emissions are the result of burning fossil fuels. Of these GHGs, approximately 82.5% are in the form of CO_2, 8.7% are CH_4, 6.3.% are N_2O, and 2.5% are fluorinated gases. Fossil fuels are burned to power vehicles, create electricity, and generate heat, while fluorinated gases are human made and result from industrial processes (EPA 2014). In California, vehicle emissions are the largest source of CO_2 emissions, representing approximately 38% of statewide emissions in 2011. Electrical generation is the second-largest source of emissions in California, at 20% (ARB 2014a). On a national level, electrical generation is the largest emissions sector, while transportation is the second largest (EPA 2014). Other sources of GHG emissions in the U.S. include agriculture, land clearing, landfilling, the use of refrigerants, and certain industrial processes.

Although many nations, including the U.S., regularly monitor and report GHG emissions, federal legislation to reduce global emissions has not been adopted and is the subject of much debate. EPA is presently pursuing the regulation of GHGs through the federal CAA, following a U.S. Supreme Court ruling that clarified its authority under the CAA to do so. Many states, including California, as a prominent leader, have passed legislation to reduce GHG emissions. California's GHG regulatory framework is discussed in the Regulatory Setting.

Greenhouse Gas Inventories

A GHG inventory is a quantification of all GHG emissions and sinks within a selected physical and/or economic boundary. GHGs can be inventoried on a large scale (i.e., for global and national entities) or a small scale (i.e., for a particular building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

U.S. Greenhouse Gas Emissions Inventory

EPA estimates that total U.S. GHG emissions for 2012 amounted to 6,526 $MMTCO_2e$, which represents a 4.7% increase over 1990 levels but a 3.4% decrease from 2011 levels. The decrease from 2011 to 2012 was a result of the decrease in the carbon intensity of the fuels that power producers use to generate electricity. Other factors were a decrease in the price of natural gas, a decrease in transportation sector emissions, which was attributed to a small increase in fuel efficiency across different transportation modes and limited new demand for passenger transportation; and much warmer winter conditions, resulting in decreased demand for heating fuel in the residential and commercial sectors. The largest contributors to U.S. GHG emissions in 2012 were electricity generation (32%), transportation (28%), and the industrial sector (20%). Emissions in the electricity generation, transportation, residential, commercial, and industrial sectors consist

primarily of CO_2. GHG emissions from agriculture consist predominantly of CH_4 and N_2O. In general, industrial and, to a lesser extent, commercial emissions in the U.S. have declined over the last decade, while emissions in other sectors, such as transportation, have grown steadily. U.S. GHG emissions are responsible for approximately 17% of the global total (EPA 2014).

California Greenhouse Gas Emissions Inventory

In 2012, total California GHG emissions were estimated to be 458.7 $MMTCO_2e$. The transportation sector accounted for approximately 36% of total emissions, followed by electricity generation (21%), the industrial sector (19%), commercial and residential sources (9%), agriculture (8%), and other sources (6%) (ARB 2014a).

Annual statewide GHG emission inventories provide an important tool for establishing historical emission trends and tracking California's progress toward the 2020 goal. Over the period of 2000 to 2012, GHG emissions decreased by 1.6%. In addition, California's per capita GHG emissions have generally decreased over the last 12 years, going from 13.7 MT of CO2e per person in 2000 to 12.1 in 2012 (ARB 2014b).

County of Los Angeles Emissions Inventory

In 2010, total unincorporated County GHG emissions were estimated to be 7.9 $MMTCO_2e$ according to the CCAP. Building energy use was the largest source of emissions (49%), while transportation emissions from on- and off-road vehicles were the second-largest source of emissions (42%), followed by community waste generation (7%), water conveyance and wastewater generation (2%), agriculture (0.4%), and stationary sources (0.02%) (County of Los Angeles 2014)

3.6.4 Environmental Impact Analysis

3.6.4.1 Methods

GHG emissions from development of the proposed project can be divided into two categories: those produced during construction and those produced during operations. The methodology for identifying construction- and operations-related emissions is presented below.

Construction

Construction associated with the projected level of development that could occur under the master plan would result in the generation of GHG emissions. Construction of individual projects under the master plan would occur over a period of approximately 25 years (2015–2040). Although the master plan guides development, a specific construction schedule has not been determined and is unknown at this point. Mass total combustion exhaust emissions were estimated using SCAQMD's CalEEMod, version 2013.2.2.

Given that the specific construction timeline is unknown at this point, CalEEMod modeling defaults regarding construction phase types, phase lengths, equipment, and vehicle trips were used to provide a reasonable yet conservative analysis according to the square footage at buildout under the master plan. For purposes of analysis, it was assumed that construction would begin in January 2015 and all projects (medical uses, office uses, retail, etc.) and each construction phase for each project (demolition, building construction, etc.) would occur concurrently.

Emissions are summed by phase and compared with the thresholds discussed in Section 3.6.4.2, below. All emissions calculation worksheets and emissions modeling output files are provided in Appendix B.

Operations

Existing uses at the project site currently result in GHG emissions, including emissions associated with motor vehicle travel to and from the site, natural gas combustion for space heating, electricity and water consumption, waste generation, and landscaping. Buildout of the proposed master plan would result in a change in the land uses on the site and, thus, a change in emissions compared with existing levels.

GHG emissions associated with both existing and proposed uses were estimated using CalEEMod, with motor vehicle trip generation data from the traffic impact analysis (Fehr & Peers 2014) and CalEEMod defaults for utility consumption (natural gas, electricity, water, waste) and area sources associated with both existing and proposed land uses. It was assumed that the proposed master plan would be fully built out and operational by 2040. Note that the latest operational year in CalEEMod is 2035. Emissions are summed annually and the net contribution of the proposed project (i.e., master plan buildout compared with existing uses) is compared to the thresholds discussed in Section 3.6.4.2, below. All emissions calculation worksheets and modeling output files are provided in Appendix B.

3.6.4.2 Thresholds of Significance

State CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency should make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions that would result from a project. State CEQA Guidelines Section 15064.4(b) also provides that, when assessing the significance of impacts from GHG emissions, a lead agency should consider (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and (3) the extent to which the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

There are currently no adopted quantitative thresholds relevant to the project. Los Angeles County currently has a multitude of energy efficiency, land use, water conservation, waste, and land conservation strategies in place that act to reduce emissions throughout the County. Los Angeles County recently completed a draft CCAP to reduce GHG emissions from community activities within unincorporated parts of the County. This will tie together the County's existing climate change initiatives and provide a blueprint for a more sustainable future CCAP. The CCAP includes a number of GHG reduction measures that target GHG emissions associated with transportation, building energy, waste, water, and other emissions sources within the County. According to the final draft CCAP, the County would avoid approximately 2.4 MMTof CO_2e emissions with implementation of the measures included in the CCAP. The CCAP and general plan EIR are currently out for public review. Once the CCAP and general plan EIR are certified and CCAP and general plan are adopted by the County, project-specific environmental documents can evaluate GHG impacts qualitatively by identifying all applicable CCAP actions and describing how the actions have been incorporated into

the project design and/or identified as mitigation (Los Angeles County 2014). However, given the general plan EIR has not yet been certified, the project-specific analysis cannot rely on a qualitative "tiering" analysis; thus, a quantitative analysis is provided.

The State CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. Although SCAQMD has adopted a 10,000 MT significance threshold level for industrial projects, this threshold would not be applicable to the proposed project because the project is a mixture of hospital and medical office uses that does not fit into the industrial project category. SCAQMD has not adopted a threshold level for hospital and medical office uses. However, SCAQMD has drafted a screening-level threshold of 3,000 MT per year for commercial projects (SCAQMD 2008). Although the proposed project is not technically a commercial project, the suggested screening-level thresholds for all other land use types are higher than 3,000 MT of CO_2e per year. As such, both direct and indirect GHG emissions from the project are discussed with respect to the 3,000 MT criterion.

Note that GHGs and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis herein analyzes the cumulative contribution of project-related GHG emissions.

3.6.4.3 Impacts and Mitigation Measures

Impact GHG-1: Would the Proposed Project Generate GHG Emissions, Either Directly or Indirectly, that May Have a Significant Impact on the Environment?

GHG emissions from the proposed project can be divided into those produced during construction and those produced during operations.

Construction

Short-term construction activities would result in GHG emissions from fuel combustion associated with on- and off-road construction equipment and vehicles. Emissions associated with buildout are summarized in Table 3.6-2. Consistent with SCAQMD draft guidelines, construction emissions are summed and amortized over a 30-year project life and added to operational emissions, which are discussed below, to determine the significance of potential GHG emissions impacts. As mentioned above in Section 3.6.4.2 Thresholds of Significance, GHG emissions are measured exclusively as cumulative impacts; therefore, the construction emissions listed in Table 3.6-2 are considered as part of the GHG emissions for the project lifecycle, including GHG emissions during operation.

Operation

As discussed in Chapter 2, Project Description, the County has stated its desire to advance sustainable programs that help to improve the environment by promoting efficient energy and water use, providing for comprehensive on-site water management systems, and implementing LEED Silver and CAL Green Program goals, among others. These design features will help reduce GHG emissions associated with short-term construction and long-term operations by reducing energy and water consumption. Additionally, the project area is served by an extensive system of mass transit and major roadways, which reduce the number of motor vehicle trips to the site. However, because the specifics regarding the design features are unknown, the construction and operational analyses herein do not include potential reductions associated with implementation of these features, which would act to reduce emissions beyond the levels presented in Table 3.6-2 and Table 3.6-3.

Table 3.6-2. Estimate of Total Construction GHG Emissions (metric tons)

Phase	Total CO_2e
Demolition	251
Site Preparation	79
Grading	338
Building Construction	12,309
Paving	79
Architectural Coatings	82
Total Construction Emissions	13,138
30-year Amortized Total	438
Source: Emissions modeling by ICF (2014) (Appendix B).	

Table 3.6-3: Estimate of Existing and Master Plan Operational GHG Emissions (metric tons per year)

Emission Source	CO_2e
Existing Uses	
Mobile Sources	21,848
Natural Gas	611
Electricity	4,434
Water	2,247
Waste	132
Area Sources	< 1
Total Existing	29,272
Master Plan Buildout	
Amortized Construction (see table 3.6-2)	438
Mobile Sources	42,355
Natural Gas	2,128
Electricity	16,020
Water	3,650
Waste	1,9612
Area Sources	< 1
Total Master Plan Buildout	66,554
Project Increment Over Existing	37,281
Threshold	3,000
Exceed?	Yes
Source: Emissions modeling by ICF (2014) (Appendix B).	

In summary, long-term operation of the proposed project would result in GHG emissions from fuel combustion (i.e., from on-road motor vehicles associated with visitors); natural gas, electricity, and water consumption; and wastewater and solid waste generation. As shown in Table 3.6-3, total annual GHG emissions (the sum of amortized construction emissions from Table 3.6-2 and annual operational emissions) for the proposed project are expected to exceed the 3,000 MT CO_2e threshold, resulting in a significant impact prior to mitigation.

To put project emissions into perspective, statewide CO2e emissions for 2012 were estimated to be 458.7 million MT; the anticipated buildout total under the proposed master plan is 37,281 MT, or 0.037281 million MT. Mitigation measures are prescribed below.

Mitigation Measures

MM-GHG-1. To reduce GHG emissions during operations, the County shall incorporate the following mitigation measures into the design of each new element, as practicable:

- Maximize the use of solar energy, including solar panels; install the maximum number of solar energy arrays possible on building roofs and/or on the project site to generate solar energy for the facility. The project applicant shall commit to applying to the local utility to install the maximum number of solar panels possible.
- Require all lighting fixtures, including signage, to be state of the art and energy efficient; new traffic signals to have light-emitting diode (LED) bulbs; and light fixtures to use energy-efficient compact fluorescent and/or LED bulbs. Where feasible, use solar-powered lighting.
- Maximize the planting of trees in landscaping and parking lots.
- Use passive heating, natural cooling, and solar hot water systems; reduce the amount of pavement.
- Use only Energy Star appliances as well as heating, cooling, and lighting devices.
- Install lightly colored “cool” roofs and “cool” pavements.
- Limit the use of outdoor lighting to only that needed for safety and security purposes.
- Require the use of electric lawn mowers and leaf blowers.
- Require the use of electric or alternatively fueled sweepers with HEPA filters.
- Use water-based or low-VOC cleaning products.
- Install electric vehicle (EV) charging stations on at least 5% of all vehicle parking spaces, consistent with City of Los Angeles requirements for all new projects.

Level of Significance after Mitigation

Implementation of mitigation measures identified above would result in the following GHG emissions reductions.

- On-site solar energy produces zero emissions, so reductions are equivalent to the emissions that would have been produced had electricity been purchased from the grid (CAPCOA 2010).
- Use of energy efficient lighting can reduce outdoor lighting 16-40% and can reduce traffic lighting up to 90% (CAPCOA 2010).

- Trees for landscaping can sequester carbon for up to 20-years and can help to reduce heat island effects by providing shade.
- Passive heating and cooling can reduce heating requirements 5% to 25% with little cost and 25% to 75% with aggressive design (WBDG 2012).
- Energy Star appliances use 15-50% less electricity than standard appliances (CAPCOA 2010),
- Cool pavements and roofs increase albedo and can reduce ambient temperatures by up to 1°F, which would reduce cooling energy demand (EPA 2005).
- Limiting outdoor lighting to include programming lights or motion sensors in public areas can reduce GHG emissions equivalent to the reduction in energy demand (CAPCOA 2010).
- The use of electric landscaping equipment can produce GHG reductions up to 45.9% in the LADWP region (CAPCOA 2010).
- Use of low-VOC cleaning products can be used as a Best Management Practice to reduce ozone precursors and GHG emissions.
- Installing electric vehicle (EV) charging stations can reduce region-wide GHG emissions up to 12.7%, depending on the penetration of other facilities in the region (CAPCOA 2010).

In addition to the project-specific design features and mitigation measures discussed above, actions undertaken by the state will further reduce project-related GHGs in the future. For example, the Pavley standard aims to improve the efficiency of automobiles and light-duty trucks by 17%, the Advanced Clean Car Standards aim to improve the fuel efficiency of light-duty vehicles by an additional 2.5% over Pavley, LCFS aims to reduce the carbon intensity of diesel and gasoline transportation fuels by at least 10% by 2020, and the renewable portfolio and renewable electricity standards aim to reduce electricity-related GHG emissions by 19.1% (ARB 2014a). Additionally, mitigation measures MM-AQ-2 through MM-AQ-3 are proposed to reduce criteria pollutants, but would provide a GHG co-benefit by requiring a clean and properly maintained construction fleet and limiting idling. which would likely reduce fuel consumption. Nonetheless, net project GHG would continue to exceed the 3,000 MT significance threshold after incorporation of mitigation measures. As such, this impact is considered significant and unavoidable.

Impact GHG-2: Would the Proposed Project Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing Emissions of GHGs.

The County has not yet adopted a qualified plan, policy, or regulation to reduce GHG emissions. Therefore, the most applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions is AB 32, which codified the state's GHG emissions-reduction targets for the future.

AB 32 identified 427 $MMTCO_2e$ as the acceptable level of GHG emissions for California in 2020, which is the same as the 1990 GHG emissions level and approximately 28.5% less than 2020 BAU conditions (596 $MMTCO_2e$).[3] To reach the target level, there will have to be widespread reductions in GHG emissions across California. Some reductions will need to come in the form of changes pertaining to vehicle emissions and mileage standards. Some will come from changes pertaining to

[3] ARB recently updated the AB 32 Scoping Plan and revised the 2020 BAU downward slightly to 509 $MMTCO_2e$, which reflects the reduced GHG emissions estimates resulting from the recent economic downturn and increased efficiencies.

sources of electricity and increased energy efficiency at existing facilities. The remainder will need to come from plans, policies, or regulations that will require new facilities to have lower carbon intensities than they have under BAU conditions.

The AB 32 Scoping Plan details specific GHG emissions-reduction measures that target specific GHG emissions sources. The scoping plan considers a range of actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms (e.g., a cap-and-trade system). Also included are mobile-source emissions reduction measures (Pavley, LCFS, vehicle efficiency measures), energy production–related emissions-reduction measures (natural gas transmission and distribution efficiency measures, natural gas extraction efficiency measures), and the RPS (electricity). As a result, project-related GHG emissions would be reduced through several of the AB 32 Scoping Plan measures.

By adopting all feasible project design and mitigation measures (described above) to reduce GHG emissions, the proposed project would be consistent with and not frustrate any AB 32 Scoping Plan measures, nor be inconsistent in any way with the AB 32 goal of reducing state-wide GHG emissions to 1990 levels by year 2020. As such, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Mitigation Measures

See mitigation measure MM-GHG-1.

Level of Significance after Mitigation

This impact is considered less than significant with mitigation incorporated.

3.6.5 Cumulative Impacts

GHG emissions and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective. Climate change is the result of cumulative global emissions. No single project, when considered in isolation, can cause climate change because a single project's emissions are not enough to change the radiative balance of the atmosphere. Because climate change is the result of GHG emissions and GHGs are emitted by innumerable sources worldwide, global climate change will have a significant cumulative impact on the natural environment as well as human development and activity. As such, GHGs and climate change are cumulatively considerable, even though the contribution may be individually limited (SCAQMD 2008). SCAQMD methodology and thresholds are thus cumulative in nature.

As discussed above, the project would exceed the threshold of significance and would not be consistent with adopted plans and regulations that aim to reduce GHG emissions. Therefore, the project would contribute to a cumulatively significant impact related to air quality and GHGs.

3.7 Hazards and Hazardous Materials

3.7.1 Introduction

This section addresses the proposed project's potential to expose people and the environment to hazards and hazardous materials. Hazardous materials information in this section is based primarily on the draft hazardous materials assessment (HMA) prepared for the proposed project by Ninyo & Moore in June 2014. The HMA is included in Appendix E to this EIR and incorporated by reference herein.

3.7.2 Regulatory Setting

3.7.2.1 Federal

Federal Toxic Substances Control Act (1976) and Resource Conservation and Recovery Act of 1976

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program, administered by the U.S. Environmental Protection Agency (EPA), for regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. Hazardous waste in California is regulated primarily under the authority of the RCRA (United States Code [USC] Title 42, Section 6901 et seq.). The RCRA was established in 1976 to protect human health and the environment, reduce waste, conserve energy and natural resources, and eliminate the generation of hazardous waste. Under the authority of the RCRA, the regulatory framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, or dispose of hazardous waste, is found in Code of Federal Regulations (CFR) Title 40, Sections 260–299. Other applicable federal laws and regulations include the following:

- 49 CFR Sections 172 and 173: These regulations establish standards for the transport of hazardous materials and hazardous wastes. The standards include requirements for labeling, packaging, and shipping hazardous materials and hazardous wastes as well as training requirements for personnel who complete shipping papers and manifests.
- 40 CFR Subchapter I—Solid Wastes: These regulations implement the provisions of the Solid Waste Act and the RCRA. They also establish criteria for the classification of solid waste disposal facilities (landfills), hazardous waste characteristic criteria and regulatory thresholds, and hazardous waste generator requirements as well as requirements for the management of used oil and universal wastes.

Comprehensive Environmental Response, Compensation, and Liability Act/ Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law (42 USC 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons

responsible for releases of hazardous waste at these sites, and establishes a trust fund for cleanup when no responsible party can be identified. CERCLA also enabled revision of the National Contingency Plan (NCP). The NCP (40 CFR 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

National Emission Standards for Hazardous Air Pollutants

EPA established the National Emissions Standards for Hazardous Air Pollutants to govern the use, removal, and disposal of asbestos-containing materials. Responsibility for implementing these requirements has been delegated to the states. California has delegated the responsibility to the South Coast Air Quality Management District (SCAQMD), which implements the National Emissions Standards for Hazardous Air Pollutants through Rule 1403 (see Section 3.4.1.3, Regional and Local).

Occupational Safety and Health Administration

The Occupational Safety and Health Administration's (OSHA's) mission is to ensure the safety and health of American workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. OSHA's staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in 29 CFR 1910.

3.7.2.2 State

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) was created in 1991. It unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board (ARB), State Water Resources Control Board (SWRCB), Regional Water Quality Control Board (RWQCB), CalRecycle, Department of Toxic Substances Control (DTSC), Office of Environmental Health Hazard Assessment (OEHHA), and Department of Pesticide Regulation (DPR) under one agency. These agencies were placed under the Cal/EPA "umbrella" to protect human health and the environment and ensure the coordinated deployment of state resources. The mission is to restore, protect, and enhance the environment and ensure public health, environmental quality, and economic vitality.

California Hazardous Waste Control Law

The California Hazardous Waste Control Law (HWCL) is administered by CAL/EPA to regulate hazardous wastes. Although the HWCL is generally more stringent than the RCRA, until EPA approves the California program, both the state and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous. The HWCL also:

- Establishes criteria for identifying, packaging, and labeling hazardous wastes;
- Prescribes management controls;
- Establishes permit requirements for treatment, storage, disposal, and transportation; and
- Identifies some wastes that cannot be disposed of in landfills.

Hazardous substances are defined by state and federal regulations to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that cause them to be considered hazardous. According to CCR Title 22, Chapter 11, Article 3, substances that have toxic, ignitable, corrosive, or reactive characteristics are considered to be hazardous. Examples of hazardous wastes include material that has been abandoned, discarded, spilled, or contaminated or is being stored prior to proper disposal.

Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substance. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances are hazardous because of their flammable properties. Gasoline, hexane, and natural gas are examples of ignitable substances. Corrosive substances are chemically active and can damage other materials or cause severe burns upon contact. Examples of corrosive substances include strong acids and bases such as sulfuric (battery) acid or lye. Reactive substances may cause explosions or generate gases or fumes. Explosives, pressurized canisters, and pure sodium metal, which reacts violently with water, are examples of reactive materials.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as "mixed waste." Biohazardous materials and wastes include anything derived from living organisms. They may be contaminated with disease-causing agents, such as bacteria or viruses.

Hazardous Waste Control Act (Section 25100 et seq.)

DTSC is responsible for enforcement of the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which creates the framework under which hazardous wastes are managed in California. The law provides for the development of a hazardous waste program that administers and implements the provisions of the federal RCRA cradle-to-grave waste management system in California. It also provides for the designation of California-only hazardous waste and the development of standards that are equal to or, in some cases, more stringent than federal requirements.

California Labor Code (Division 5, Parts 1, 6, 7, and 7.5)

The California Labor Code is a collection of regulations that include workplace regulations to ensure appropriate training regarding the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees who handle hazardous materials are appropriately trained and informed about the materials. Division 5, Part 6, governs operation and care of hazardous material storage tanks and boilers. Division 5, Part 7, ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing. Division 5, Part 7.5, otherwise referred to as the California Refinery and Chemical Plant Worker Safety Act of 1990, was enacted to prevent or minimize the consequences of catastrophic releases of toxic,

flammable, or explosive chemicals. The establishment of process safety management standards is intended to eliminate, to a substantial degree, the risks to which workers are exposed in petroleum refineries, chemical plants, and other related manufacturing facilities.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9)

This program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA for the City of Los Angeles and unincorporated areas of the County is the City of Los Angeles Fire Department's Bureau of Fire Prevention and Public Safety, which has the responsibility and authority to implement and enforce CUPA program requirements, including the following:

- **California Accidental Release Prevention (Cal ARP) Program.** This program requires any business that handles more than threshold quantities of an extremely hazardous substance to develop a Risk Management Plan (RMP). The RMP is implemented by the business to prevent or mitigate releases of regulated substances that could have off-site consequences through hazard identification, planning, source reduction, maintenance, training, and engineering controls.
- **Hazardous Materials Management Plan (HMMP)/Hazardous Materials Inventory Statements.** HMMPs contain basic information regarding the location, type, quantity, and health risks of hazardous materials and/or waste. Each business must prepare an HMMP if that business uses, handles, or stores a hazardous material and/or waste or an extremely hazardous material in quantities greater than or equal to the following:
  - 55 gallons for a liquid,
  - 500 pounds for a solid,
  - 200 cubic feet for any compressed gas, and
  - Threshold planning quantities of an extremely hazardous substance.
- **Hazardous Waste Generator Program**. This program regulates businesses that generate any amount of a hazardous waste. Proper handling, recycling, treating, storing, and disposal of hazardous waste are key elements of this program.
- **Tiered Permitting Program**. This program regulates the on-site treatment of hazardous waste.
- **Underground Storage Tank Program.** This program regulates the construction, operation, repair, and removal of underground storage tanks (USTs) that store hazardous materials and/or waste.

3.7.2.3 Regional and Local

South Coast Air Quality Management District Rule 1403

Rule 1403, as amended, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition and renovation include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and

cleanup procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and use appropriate warning labels, signs, and markings.

Los Angeles County

The Los Angeles County Department of Public Works (DPW), Environmental Programs Division (EPD), prepares and administers the Los Angeles County Integrated Waste Management Plan and Hazardous Waste Management Plan, which provide direction for proper management of all waste generated within the County. EPD advises the Los Angeles County Board of Supervisors on all waste management issues. EPD also implements numerous programs, including recycling, composting, source reduction, household hazardous waste management, and public education programs, to meet state-mandated solid waste reduction goals. These programs regulate USTs in the County's unincorporated areas and more than 76 cities to protect groundwater resources. The programs are the largest in the state, encompassing some 10,000 USTs at more than 2,500 sites. EPD reviews and approves site remediation plans for the cleanup of contamination caused by leaking USTs. It also regulates industrial waste management systems at 5,000 generator sites as well as permit and inspect industrial waste discharges along more than 3,000 miles of local sewers within the County's unincorporated areas and 38 contract cities. EPD responds as a support unit to reported incidents involving existing and/or potential discharges of contaminants or toxic materials/waste into DPW drainage facilities.

City of Los Angeles

Although hazardous material transportation and disposal are largely regulated through state and federal programs, the City of Los Angeles Bureau of Sanitation runs several programs related to the collection and disposal of hazardous waste generated by residential, commercial, and industrial users in the city and surrounding communities. These programs include household hazardous waste disposal events, permanent collection centers, and services for businesses generating small quantiites of hazardous wastes.

City of Los Angeles Fire Code

The Los Angeles City Fire Code prescribes laws for hazardous material storage and handling, thereby safeguarding life and property from fire, explosion, panic, or other hazardous conditions that may arise in the use of buildings, structures, or other premises (City of Los Angeles Municipal Code Chapter 5, Article 7). Although the master plan would be developed on a site owned and operated by the County, the City of Los Angeles Fire Code is relevant due to the proximity of properties under city jurisdiction and its location within the City of Los Angeles Fire Department service area.

City of Los Angeles Fire Department Hazardous Materials Section

The City of Los Angeles Fire Department's Hazardous Materials Section is the administrative agent for the California Health and Safety Code, CCRs related to emergency planning and community right-to-know laws, and the federal SARA Title III. There are three units within this department that process information related to hazardous materials. The Disclosure Unit is responsible for enforcing the disclosure law, which requires all establishments that store, produce, or use hazardous substances to inventory the materials on-site; this law includes new and existing businesses. The Business Plan Unit ensures that businesses take the right measures to mitigate any dangers. The

Risk Management and Prevention Program (RMPP) Unit is responsible for evaluating the RMPP's that businesses have to submit. An RMPP, which is intended to reduce risks associated with the handling of acutely hazardous materials, is required of businesses that handle 55 gallons, 500 pounds, or 200 cubic feet or more of such materials. Although the master plan would be developed on a site owned and operated by the County, the City of Los Angeles Fire Department Hazardous Materials Section is relevant due to the proximity of properties under city jurisdiction.

City of Los Angeles Fire Department's Bureau of Fire Prevention and Public Safety

The Bureau of Fire Prevention and Public Safety maintains an Underground Storage Tank Unit, which implements and enforces the UST program. All USTs used for fuel, solvents, and other liquids must be monitored for leakage. The law requires UST installations, removals, or alterations to be regulated under permit from the City of Los Angeles Fire Department. All USTs installed after January 1, 1984, are required to have secondary containment in addition to a leak detection system. Those installed prior to January 1, 1984, are classified as existing tanks and are required to have a soil analysis report and a continuous monitoring device. Although the master plan would be developed on a site owned and operated by the County, the City of Los Angeles Fire Department Bureau of Fire Prevention and Public Safety is relevant due to the proximity of properties under city jurisdiction.

Los Angeles City Building Code

Division 71 of the Los Angeles Building Code sets forth regulations for the control of methane intrusion emanating from geologic formations. The methane seepage regulations specify site testing requirements and methane mitigation standards for all new buildings and paved areas (i.e., 5,000 square feet of paved area within 15 feet of an exterior wall of a commercial, industrial, institutional, or residential building) within designated methane zones or within methane buffer zones. Although the master plan would be developed on a site owned and operated by the County, the City of Los Angeles Building Code is relevant due to the proximity of properties under city jurisdiction.

3.7.3 Environmental Setting

3.7.3.1 Hazardous Materials

The approximate 86-acre project site is developed with the LAC+USC Medical Center, which consists of multiple buildings and parking lots/structures. The heating and cooling systems on the project site are powered by electricity and natural gas. On April 15, 2014, Jonathon Johnson of Ninyo & Moore conducted site reconnaissance, which consisted of a site visit and visual observations of adjoining properties, as summarized below.

Site Reconnaissance Observations at Project Site

Use and Storage of Hazardous Substances and Petroleum Products

The project site contains four emergency power generators with petroleum fuel tanks, one near the telephone exchange, one near the interns/residents building, one between the pharmacy building and the old coroner's administration building, and one adjacent to and south of the Lot 9 parking structure. Significant evidence of releases or spills was not observed in these areas and therefore were not considered potential environmental concerns (PECs).

Storage and Disposal of Hazardous Wastes

The project site contains areas where hazardous waste materials are containerized and stored (see Table 3.7-1).

Table 3.7-1: Hazardous Storage Areas Observed during Site Reconnaissance

Building	Location	Description	Comments
General Hospital	Room 364	Storage room contained 55-gallon drums and polyurethane drums with hazardous waste materials.	Access to room was not granted. Staining not noted, based on limited visibility.
Telephone Exchange	Room 2260 E	Storage room on south end of telephone building. Room contained a flammable storage locker and cardboard boxes with medical supplies.	No staining observed; secondary containment noted
	Western portion, behind building	Storage area within a fenced section that contained drums and trash bins with biohazardous waste.	No staining observed; no secondary containment.
Inpatient Tower	C1F103	Storage area contained flammable waste lockers, polyurethane containers, 55-gallon steel drums with mixed solvents and contaminated rags, 5-gallon buckets, and cardboard boxes.	No staining observed; secondary containment noted.
Central Plant (East)	West end of the plant	Storage area contained 55-gallon steel drums with waste oil, polyurethane drums, flammable waste lockers, and 5-gallon buckets.	No staining observed; secondary containment noted. Waste stored near storm drain.
Central Plant (West)	Northeast portion of the area	Storage contained universal waste, such as batteries.	No staining observed.
	Northwest corner of building	Storage contained 55-gallon non-hazardous waste steel drums and a polyurethane drum.	No staining observed.
	Northwest portion of the area	Storage area contained 55-gallon steel drums, 5-gallon containers, polyurethane containers, and cardboard boxes.	No staining observed; secondary containment noted.
Women's and Children's Hospital	Northeast portion of the area	Storage area contained gas cylinders/tanks and plastic storage containers.	No staining observed.
Source: Ninyo & Moore, 2014.			

Aboveground and Underground Storage Tanks

Aboveground storage tanks (ASTs) were observed at the project site near the following buildings: General Hospital, Central Plant (East), Women's and Children's Hospital, and Central Plant (West). The observed ASTs at General Hospital, Central Plant (East), and the Women's and Children's Hospital contained liquid oxygen. Salt and sulfuric acid were observed at the Central Plant (West). No staining was observed around the tanks, and no cracks were observed in the containment areas. According to the HMA, these ASTs do not represent PECs for the site.

Evidence of USTs was observed near the following: north of the General Hospital, east of the Central Plant (East), north of the Central Plant (West), and north of the Women's and Children's Hospital. According to site representative, Mario Garcia, assistant chief stationary engineer, the UST listed for the Women's and Children's Hospital has been removed. The locations of the historic USTs and currently active USTs are included in the HMA (see Appendix E).

Asbestos-Containing Materials and Lead-Based Paint

Given the construction date for the buildings on the site (i.e., prior to 1980), the HMA concluded that ACM and lead-based paint (LBP) may be present on building materials. Suspect ACM were observed to be in good condition. Painted surfaces were observed to be in good condition, with the exception of the tunnel located between General Hospital and the pharmacy. The condition of the paint within the tunnel presents a PEC.

Stormwater Systems and Wells

Stormwater catch basins and drains were observed at the site during site reconnaissance. Groundwater monitoring wells were observed on the site north of General Hospital. It is suspected that the wells are part of the remediation process occurring at the site.

Surface/Subsurface Structures

Surface structures and evidence of subsurface structures (e.g., sumps, vaults, oil/water separators, and other surface impoundments) were observed at the site. A clarifier was observed adjacent to and south of the telephone exchange near a hazardous materials storage room. According to the HMA, LAC+USC personnel indicated that the clarifier has not been in use since approximately 2006. Three clarifiers were also observed adjacent to and north of the Central Plant (West), and one clarifier was observed adjacent to and east of the medical examiner's building. The presence of on-site clarifiers represents a PEC.

Other On-Site PECs

Ninyo & Moore staff members were provided a list of building and parking structures at the project site that contain elevators. The elevator types include hydro, traction, and gearless. Hydro elevators typically use hydraulic oil, which could leak and stain the ground floor. Operation of the elevators in the coroner's building, general labs, General Hospital, and the Inpatient Tower represent PECs for the site. The list of elevators is included in the HMA (see Appendix E).

The following were not observed at the site during reconnaissance:

- Significant evidence of releases or spills.
- Unidentified substance containers.

- Evidence of chemical releases on-site (i.e., odors, stressed vegetation, stains, leaks, pools of liquids, spills).
- Electrical transformers.
- Wastewater systems, other than clarifiers.
- Water production wells.

Site Reconnaissance Observations of Adjacent Properties

Two gas stations adjacent to the project site were observed during site reconnaissance. The presence of these gas stations does not represent a PEC; however, the addresses for the gas stations appear on regulatory agency lists that report leaking underground storage tank (LUST) incidents. These facilities are discussed further in Section 3.7.3.2, below.

3.7.3.2 Hazardous Materials Historical and Database Reviews

Historical aerial photographs, fire insurance rate maps, city directories, historic topographic maps, and oil and gas maps were reviewed as part of Ninyo & Moore's HMA for the site. Historical documents are provided in the HMA (see Appendix E).

Historical Aerial Photographs

A 1928 aerial photograph shows the project site developed with structures for the hospital. One large structure (General Hospital) was visible in the central portion of the site near North State Street, which did not appear to bisect the site completely. In the 1938 through 1948 aerial photographs, the site has been developed with the hospital, and North State Street bisected the site from Marengo Street on the south to Zonal Avenue on the north. The site was developed with structures associated with the hospital from approximately Mission Road to Britannia Avenue. The area east of Britannia Avenue was developed with residential structures. From at least 1952 through 1964, the site appeared generally the same but expanded from Brittania Avenue to approximately Cummings Street in 1964. From at least 1964 through 1994, the site appeared generally the same, with structures developing gradually in the southeast portion of the site. From at least 1972 through 1981, two gas stations were observed in the southeast portion of the site, west of the intersection of North Chicago Street and Marengo Street. From at least 1989 through 1994, the two gas stations were no longer present, having been replaced with commercial properties. In the 2005 aerial photograph, the site had expanded eastward to Cummings Street and Chicago Street; the development of a large structure was observed in the southeast portion of the site. From 2005 through 2012, the site appeared generally the same; the hospital and medical center structures were developed up through the time of the site reconnaissance. The gas stations observed on the southeast portion of the site in the 1972 aerial photographs are indicative of a PEC for the site.

The site vicinity appeared generally developed with commercial and residential properties from 1928 through the time of the site reconnaissance. Several gas stations were observed in the vicinity adjacent to and south and west of the site.

Fire Insurance Rate Maps

Sanborn fire insurance rate maps for the subject site and surrounding area were requested from Environmental Data Resources (EDR) as part of the HMA. Table 3.7-2 presents a summary of the fire insurance map review.

Table 3.7-2: Sanborn Fire Insurance Map Review

Year	Site	Adjacent Areas
1890	Los Angeles County Hospital	**North of Mission Road**: storage.
1894	Los Angeles County Hospital, with laundry facility near northeast corner of Mission Road.	**North of Mission Road**: commercial properties.
1906	Building labeled "Contagious Pavilion" south of Griffin Avenue (now Zonal Avenue).	**To the north**: commercial properties. **Beyond Mission Road**: Mission Feed Yard. **South of Marengo Street**: Los Angeles Brick Company. **Marengo Street/Mission Road intersection**: Pacific College of Osteopathy.
1920	Preservation ward, contagious pavilion, leper ward, surgical ward, medical ward, psychopathic wards, chapel, nurses quarters, administration building, library, kitchen and dining, laundry, service building, auto house parking, power house, commercial and residential properties.	**North of South Griffin Avenue** (now Zonal Avenue): commercial properties and vacant properties. **Beyond Mission Road**: commercial properties and the tubercular ward. **Beyond Marengo Street**: Los Angeles Brick Company and vacant and commercial properties.
1951	County General Hospital Acute Unit, auditorium stage and film vaults, classrooms, residential properties, auto parking, contagious pavilion, leper ward, nurses quarters, library, surgical ward, administration building, medical ward, kitchen and dining, laundry, service building, auto house parking, power house, commercial and residential properties, psychopathic wards, osteopathic ward, dormitory, patients building.	**Beyond Zonal Avenue**: commercial and residential properties. **Beyond Cummings Street/Charlotte Street intersection**: residential properties and Hazard Reservoir. **Beyond Marengo Street**: residential properties, fruit syrup manufacturing, church, wire works, mortuary college, commercial properties, and the Los Angeles Brick Company. **Beyond Zonal Avenue**: Tile Show Case Manufacturing and Wood Working, Los Angeles County garage, residential properties, commercial properties, and a gas station (northwest corner of Griffin Avenue and Mission Road). **Beyond Mission Road**: auditorium, three gas stations, auto repair shop, and commercial properties.
1970	Los Angeles County General Hospital, nurses quarters, gas stations, psychopathic unit, new osteopathic unit, research building.	**Beyond Zonal Avenue**: USC, Los Angeles County Juvenile Department, General Hospital, chapel, church. **Beyond Cummings Street**: residential properties, Hazard Reservoir. **Beyond Marengo Street**: County of Los Angeles Crippled Children's Service, residential properties, City Health Center, gas and oil, mortuary college, parking structure. **Beyond Zonal Avenue**: Los Angeles County "Assoc. Risk," maintenance shop, general storage (iron), church. **Beyond Mission Road**: gas and oil, parking, commercial properties, rehabilitation clinic.
Source: Ninyo & Moore, 2014.		

City Directories

City directories from 1920 through 2013 were searched for information regarding the project site. There were no listings for the site prior to 1937. According to information from the city directories regarding uses on the site, the address, 1200 North State Street, has been a hospital and residential property since at least 1937.

Historical Topographic Maps

Historical topographic maps from 1896 through 1901 show most of the site as vacant land, with several structures present around the vicinity of the site. The historical topographic map from 1928 shows the site as developed, with the hospital on the west side of the site, west of State Street, and residential properties on the east side of the site, east of State Street. A reservoir is seen adjacent and northeast of the site boundary. The historical topographic map from 1953 shows that the hospital has expanded to include the area east of State Street and north of Zonal Avenue; the General Hospital building is present as well. Structures south of General Hospital are also present, and the adjacent reservoir northeast of the site boundary is depicted as a covered. The maps from 1966 through 1994 show the site as generally the same (i.e., developed with the hospital).

Oil and Gas Maps

According to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), Online Mapping System (DOGGR 2012), the site does not lie within the administrative boundaries of an oil field. One oil well, Santa Fe Springs Mutual Oil Syndicate 1 (API 03705846), is located on the south end of the site boundary along Marengo Street. According to the DOGGR website, the oil well is active. Given the location and status of the oil well, it is likely that the oil well has affected the environmental integrity of the site.

Previous Report and Documents

The HMA included a review of several reports, which discussed previous investigations and assessments conducted at the project site. The reports, listed below, addressed "recognized environmental conditions" (RECs) and included the results of asbestos surveys. The HMA (see Appendix E) contains summaries of the findings of these reports.

- Phase I Environmental Site Assessment (ESA), dated January 5, 1999.
- LAC+USC Medical Center Replacement Project Environmental Assessment/Environmental Impact Report, dated June 2000.
- LAC+USC Tunnel, dated January 30, 2013.
- LAC+USC Medical Center, 1744 Zonal Avenue, Phase I ESA, dated October 21, 2013.

Environmental Database Search

An environmental information database search was performed by EDR on March 28, 2014. A copy of the EDR report is included in Appendix E. Detailed information regarding the search distances for each of the searches is included in this appendix. Neither the site nor properties located within the searched distance were listed in the following databases:

- National Priorities List
- Proposed and Delisted National Priorities List

- Corrective Action Report
- Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facilities List
- United States Engineering Controls
- United States Institutional Controls
- State Sites
- Solid Waste Landfill Sites
- Permitted Aboveground Storage Tank List
- State Engineering Controls
- State Institutional
- Brownfields
- State Other (DTSC)
- Indian Reservation Land
- Indian Leaking Underground Storage Tank
- Indian Underground Storage Tank
- Emergency Response Notification System List

The databases below listed the site or adjacent properties as being within the searched distances.

Comprehensive Environmental Response, Compensation, and Liability Information System List

One facility, Nu Way Plating Company, at 1805 Sichel Street, approximately 0.14 mile north-northwest of and crossgradient from the site, is listed in this database, with a "completed" date of August 30, 1995. It is not listed as a federal facility. The facility is reported as a "removal only" site, with no assessment work needed. This listing is not indicative of a PEC to the site.

Comprehensive Environmental Response, Compensation, and Liability Information System/No Further Remedial Action Planned List

One facility, Builders Hardware Finishers, at 1846 Sichel Street, approximately 0.19 mile north-northwest of and crossgradient from the site, is listed in this database. It is not listed on the NPL. The facility is reported as a "removal only" site, with no assessment needed. This listing is not indicative of a PEC to the site.

RCRA Generators List

This list identifies sites that generate hazardous waste, as defined by the RCRA. Inclusion on this list is for permitting purposes and is not indicative of a release.

The project site is listed in this database as a large-quantity generator (LQG) with universal waste, including batteries, lamps, and thermostats. The site is also listed as a small-quantity generator (SQG).In addition, the site was also listed as a historical generator from 1981 through 2008. No violations were reported at the project site.

Five additional facilities that were listed as LQGs were within the searched distance. Four of the listed facilities had no violations reported. One facility, Chromal Plating Company, at 1748 Workman Street, approximately 0.09 mile northwest of and crossgradient from the site, is listed in this

database. It has received several notices of violation, including a preparedness and prevention, container use and management, and a generators violation. Thirteen additional facilities were listed in this database as SQGs. One facility, the former TMT Pathway operation at 1021 North Mission Road, approximately 0.12 mile west of and crossgradient from the site, is listed in this database as having reported violations. As of July 7, 1994, all violations for the facility achieved compliance. These listings are not indicative of a release and would not be considered a PEC for the site.

State-Equivalent Comprehensive Environmental Response, Compensation, and Liability Information System

The DTSC Site Mitigation and Brownfields Reuse Program's EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The site was not listed in the database, but three facilities are located within the 0.25-mile search distance:

- Bravo Medical Magnet High School (formerly known as Lincoln Magnet High School) at 1200 Cornwell Street,
- Soto Street Elementary School at 1010 Soto Street, and
- Central Region High School (also known as the East Los Angeles Occupational Center) at the corner of Marengo Street and Chicago Street.

Bravo Medical Magnet High School and the East LA Occupational Center were listed as "inactive – need evaluation," and Soto Street Elementary was listed as "inactive – action required." The potential medium affected is listed as soil for all three sites. Given the distance, potential media affected, and groundwater gradient, it is unlikely that these listings are indicative of a PEC for the site.

State LUST Lists

Databases of the LUST information system are maintained by the state RWQCBs. The site is listed in the LUST database, which is a PEC for the project site.

Nineteen additional listings, representing 15 off-site facilities, are listed in the LUST database and summarized below.

Table 3.7-3: State LUST Database Review

Listing and Address	Distance and Direction	Gradient Direction	Regulatory Status	Closure Date	Environ-mental Concern (Y/N)
Al-Sal Oil #17 1848 Marengo Street	Adjacent, south	Downgradient	Pollution characterization	NA	N
Al-Sal Oil #17 1848 Marengo Street	Adjacent, south	Downgradient	Open – assessment and interim remedial action	NA	N
Lincoln Magnet High School – LAU 1200 Cornwell Street	0.07 mile east-southeast	Crossgradient	Case closed	7/27/1995	N
Estelle Doheny Eye Hospital 1537 Norfolk Street	0.21 mile east-northeast	Crossgradient	Case closed	NA	N

Listing and Address	Distance and Direction	Gradient Direction	Regulatory Status	Closure Date	Environ-mental Concern (Y/N)
Estelle Doheny Eye Hospital 1537 Norfolk Street	0.21 mile east-northeast	Crossgradient	Case closed	7/19/1996	N
Shell 1203 North Soto Street	0.21 mile east-southeast	Crossgradient	Open – site assessment	NA	N
Shell/Soto-Charlotte 1203 North Soto Street	0.21 mile east-southeast	Crossgradient	Case closed	8/1/1996	N
Mobil #11-KXI 1010 North Soto Street	0.24 mile southeast	Crossgradient	Case closed	10/11/1996	N
Moza Automotive Repair 1201 North Mission Road	0.004 mile northwest	Crossgradient	Open – remediation	NA	N
Chevron #9 – 3960 1101 North Mission Road	0.01 mile west-northwest	Crossgradient	Open – remediation	NA	N
Shell (former) 2000–2012 Marengo Street	adjacent, south	Crossgradient	Case closed	1/2/2013	N
Stoddard Automotive 1721 Workman Street	0.04 mile northwest	Crossgradient	Case closed	7/17/1998	N
Stoddard Automotive 1721 Workman Street	0.04 mile northwest	Crossgradient	Case closed	7/17/1998	N
Gannett Outdoor Systems, Inc. 1731 Workman Street	0.06 mile northwest	Crossgradient	Remedial action (cleanup) under way	NA	N
Morton Int'l., Whittaker Corp. 1021 North Mission Road	0.12 mile west	Crossgradient	Remedial action (cleanup) under way	NA	N
Norris Cancer Hospital 1441 Eastlake Avenue	0.15 mile east-northeast	Crossgradient	Case closed	10/11/2001	N
San Antonio Winery 1016 North Mission Road	0.17 mile west	Crossgradient	Case closed	1/22/1998	N
Union Railroad – LA Trans 2100 Alhambra	0.19 mile northwest	Crossgradient	Case closed	1/22/1998	N
Union Railroad – LA Trans 2100 Alhambra	0.19 mile northwest	Crossgradient	Case closed	1/22/1998	N
A-1 Eastern Homemade Pickle Company 1832 Johnston Street	0.20 mile north	Downgradient	Open – site assessment	8/15/2008	N
Mobil – Cardenas, Richard 2829 North Main Street	0.24 mile north-northwest	Crossgradient	Case closed	10/17/2011	N

Notes:
N = no
N/A = not applicable
Y = yes
Source: Ninyo & Moore 2014.

UST Registration List

According to EDR, UST records are provided by the Department of Building and Fire Safety. A facility's inclusion in the UST registration list does not necessarily indicate a release.

The project site is listed in the UST database under several addresses that have registered USTs. The list of addresses associated with the project site that appear in the UST database is provided below.

Table 3.7-4: Site UST Database Review

Listing and Address	Listed in LUST Database
LAC+USC Medical Center 1175 North Cummings Street	No
LAC+USC Medical Center 1635 Marengo Street	No
LAC+USC Medical Center 1129 North State Street	No
LAC+USC Medical Center 1950 Marengo Street	No
L.A. County USC Medical Center – R 1900 Zonal Avenue	No
L.A. County Medical Center Telephone Exchange 1200 North State Street	Yes
Medical Examiner – Coroner 1104 North Mission Road	No
Source: Ninyo & Moore, 2014.	

Adjacent properties were also listed in the UST database (see Table 3.7-5).

Table 3.7-5: Adjacent Properties in UST Database

Listing and Address	Listed in LUST Database
Al Sal Oil #17 1848 Marengo Street	Yes
LAC/USC Medical Center 1950 Marengo Street	No
Chevron Station #9-3960 1101 North Mission Road	Yes
East Los Angeles Occup/Center 2100 Marengo Street	No
Source: Ninyo & Moore, 2014.	

Additional information was not provided for the listed properties. These listings alone are not indicative of a release.

Additional Databases

The following databases listed addresses associated with the project site: CA FID UST, HIST UST, SWEEPS UST, CHMIRS, HIST CORTESE, HAZNET, and RGA LUST.

Environmental Records Review

The HMA included a review of records for the site from DTSC's EnviroStor website, SWRCB's GeoTracker website, and the SCAQMD. Addresses found to be historically associated with the site were also reviewed. Additionally, available records from the Los Angeles Department of Public Health (LADPH) and the Los Angeles City Fire Department (LAFD) were reviewed for the project site as well as historic addresses associated with the project site. Regulatory agency documentation is provided in the HMA (see Appendix E).

No records pertaining to the project site's address were found in the following database:

- DTSC's EnviroStor website

State Water Resources Control Board GeoTracker Website

As described in the HMA, groundwater monitoring related to a LUST case is occurring at the project site's address, 1200 North State Street. A request for a closure work plan, dated September 3, 2013, was reviewed on the GeoTracker website. In December 2005, a closure work plan was submitted to the Los Angeles RWQCB for termination of sampling activities. Pursuant to the 60-day rule and the priority status (Priority D) assigned to the site by the Los Angeles RWQCB, groundwater monitoring activities at the site were suspended. The presence of residual petroleum hydrocarbons in soil and groundwater represents a PEC for the project site.

South Coast Air Quality Management District

The SCAQMD's Facility Information Detail Search website was searched for permits regarding the project site's address. Several addresses associated with the project site had records at the SCAQMD. All sites associated with notices of violation had been closed. The review identified two gas pumps at the project site, associated with 2039 Marengo Street and 1200 North State Street, and an active permit for a petroleum storage tank, associated with 1104 North Mission Road.

Los Angeles Department of Public Health

According to the LADPH, records were available for the following addresses: 1200 North State Street, 1175 North Cummings Street, 1104 and 1240 North Mission Road, and 1129 North State Street. All records and references to letters are included in the HMA (see Appendix E). Generally, the records identified a series of soil and subsurface investigations. A review of available records for the addresses included the following:

1200 North State Street

Five borings were advanced in November 1993 (two borings to 40 feet bgs and three borings to 25 feet bgs) by hollow-stem auger, with soil samples collected and analyzed for VOCs, SVOCs, and total petroleum hydrocarbons (TPH). Results of the analyses indicated that TPH was present in soil beneath the site in 1993. Possible sources of contamination were a utility shed east of and adjacent to the site or other nearby medical center areas. According to the LAC+USC Medical Center Replacement Project letter dated December 2, 1994, the site did not appear to present significant

hazards to public health or the environment, although there was evidence of pockets of crude oil beneath the site in sharply folded geologic formations and the possibility of methane gas and some solvent-like contamination that threatened groundwater.

LAC+USC Medical Center Replacement Project, letter dated February 28, 1995: The *Draft Report for the Subsurface Contamination Investigation, Medical Center Replacement Project*, dated January 27, 1995, was submitted by Dames and Moore. According to the letter, the LAFD concluded that the objectives of the subsurface investigation had been met and the site did not present a significant threat to human health. Exceptions presented by the LAFD included the small amount of VOCs detected in the soils, which were not considered to be significant, that were coming from an uncertain source. The LAFD also mentioned the small amount of chloroform found in groundwater. In addition, methylene chloride and tetrachloroethene found in soil 35 feet bgs could be significant. The LAFD indicated that chlorinated water leaking from Hazard Reservoir could be a potential source of chloroform in groundwater.

Main Hospital Replacement Site, letter dated May 11, 1995: According to the letter, plans were submitted to relocate the main hospital to a location southeast of the original site. This would require demolition of the outpatient clinic, the interns/residents building, several parking structures, a DWP reservoir, hospital support buildings, and residential houses from Cummings Street to Zonal Avenue on the east. Construction of the new hospital would require further assessment of the area. An assessment conducted in the southeast portion of the site from June to August 1994 indicated the presence of TRPH, oil-stained soil, lead, diesel-range TRPH, severely degraded crude oil, benzene, chloroform, perchlorate, and methylene chloride in groundwater.

Closure Report, dated March 27, 1996: The report mentioned two sites, the first at Marengo Street and Cummings Street (main site) and the second, an AIDS clinic, at Zonal Avenue and Mission Road. According to the report, no remedial action has taken place. Extensive site assessment occurred, including deep HSA borings, sampling, and the installation of monitoring wells. Hydrocarbon contamination was found at the AIDS clinic site at 20 feet bgs, with first groundwater at 25 feet bgs; the matter was referred to the RWQCB. Of major interest at the main site was the occurrence of groundwater between 10 and 50 feet bgs and the appearance of halogenated volatile organic compounds, such as chloroform, in monitoring well samples. Crude oil exists in pockets near Marengo Street, although not in significant amounts; the presence of methane gas is a possibility at the site.

Critical Hazardous Material Incident, dated August 24, 2000: According to the file, the site had a reported spill of formaldehyde within a laboratory, which required evacuation and fire department involvement for cleanup.

Inspection Report, dated August 31, 2011: According to the report, the site was in violation because of hazardous waste storage; a notice to comply was issued.

Additionally, the LADPH provided several documents pertaining to the 1200 North State Street site. A 1992 draft environmental audit of the site by Environmental Science Associates included the following findings:

- In 1980, an oil spill occurred in the paved parking lot immediately northeast of the Central Plant (West); cleanup and soil remediation were implemented to remove oil residue and contamination in the area.

- Previous investigations (from 1989) in an area north of General Hospital indicated that volatile fuel hydrocarbons (VFH) and BTEX were present in soil and groundwater as a result of releases from USTs, which had been removed from the area.
- The *Site Assessment Proposal* by Calscience Engineering, dated April 1992, noted soil sampling near a UST located northwest of the medical examiner's building.
- The *Final Workplan Pre-construction Evaluation Report* by Dames & Moore, dated February 25, 1994, indicated the presence of TPH at approximately 30 to 60 feet bgs in the southern portion of the site for the new hospital; the TPH is possibly due to the presence of naturally occurring crude oil beneath the site.
- Oil-stained ground surfaces were observed between Chicago Street and Cummings Street.
- Low concentrations of methane were detected during a soil vapor survey within an alleyway between Cummings and Chicago Streets. Elevated concentrations of TRPH (resulting from severely degraded crude oil) and inorganic lead were recorded in subsurface soil. Gasoline and diesel were not present in soils. Also, significant VOCs and SVOCs were not present in soils.

Additionally, the *Interim Report of Findings for the Leak Detection Investigation and Tank Monitoring Plan at LAC+USC Medical Center*, prepared by Toxguard Systems in 1992, included the following findings:

- Site 1 – Tank Cluster on the North Side of the Steam Plant (Building 516)

  The site contained nine tanks in a cluster; the tanks were constructed of concrete and lined with steel. The cluster included three fuel tanks, a condensate tank, and five clarifier tanks. The leak test found that petroleum hydrocarbons are present in the soil between the filler inlets on the north side of the tank wall; free diesel is present on the surface of the water table.

- Site 2 – 1,000-gallon Diesel Fuel Tank on the South Side of the Steam Plant (Building 516)

  The site has a 1,000-gallon single-wall UST for diesel fuel on a concrete foundation slab, It has been backfilled with sand. The leak test found no petroleum hydrocarbon leakage. According to records, the tank was removed in December 1998.

- Site 3 – South Side of the Outpatient Clinic (Building 121)

  The site has a 500-gallon single-wall UST for diesel fuel on a reinforced concrete foundation slab. It has been backfilled with sand. The leak test found no petroleum hydrocarbon leakage.

- Site 4 – Two 10,000-gallon Diesel Fuel Tanks North of the General Hospital Emergency Room Entrance (Building 101)

  The site contained two single-wall 10,000-gallon tanks for diesel fuel. According to records, the tanks were removed in December 1998 and replaced with two USTs.

- Site 5 – General Storage Area, 4,000-gallon Gasoline Tank (Building 120)

  The site has a 4,000-gallon single-wall UST for unleaded gasoline, a dispenser, and related piping. The tank is capped with concrete, and the area is paved with asphaltic concrete and concrete. Results of the leak detection test indicated that soil and water were affected by gasoline and BTEX in excess of State Action Levels; the probable source was the tank or related piping. Hydrocarbon-contaminated soil and groundwater were not delineated by the investigation.

1129 North State Street

Ninyo & Moore reviewed a letter dated July 25, 1986, pertaining to pesticide evaluations at the residential properties east of Cummings Street. The letter indicated that the pesticide evaluations were conducted at the request of the LADPH.

1104 North Mission Road

Hazardous Material Incident Report, dated May 31, 2002: According to the incident report, an undetermined solid material was released at the site, which required "hazmat" attention. A second incident report, dated September 25, 2002, indicated that a liquid acid spill occurred at the site. The spill was subsequently cleaned up.

The review of files at the LADPH found that the presence of contaminants in groundwater and soil is a PEC for the project site. The review of documents at the LAFD found that the historic presence of USTs and the current remediation activities represent PECs for the project site. The complete review summary is included as Table 13 in the HMA (see Appendix E).

3.7.4 Environmental Impact Analysis

3.7.4.1 Methods

The following analysis evaluates potential impacts related to hazards and hazardous materials that could result from implementation of the proposed project. The assessment of impacts is based on existing conditions. The analysis, which is based on conclusions in the HMA prepared for the proposed project by Ninyo & Moore in June 2014, will determine if the impacts would exceed any of the thresholds listed below.

3.7.4.2 Thresholds of Significance

For the purposes of the analysis in this EIR, in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

- **HAZ-1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- **HAZ-2:** Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- **HAZ-3:** Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- **HAZ-4:** Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- **HAZ-5:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The County, as the CEQA lead agency, determined in the NOP/IS (see Appendix A) for this EIR that the proposed project would not result in impacts in the areas listed below. Therefore, no further analysis of these issues is required. Please refer to the NOP/IS for additional information regarding these issue areas.

- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.
- For a project located within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including in areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

3.7.4.3 Impacts and Mitigation Measures

Impact HAZ-1: Would the Proposed Project Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials?

Construction

Project construction would involve the routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and caulking. Given that the proposed project would be required to comply with applicable regulations, such as the RCRA, Department of Transportation Hazardous Materials Regulations, and local CUPA regulations, and given the small amounts of hazardous materials that would be used during the construction phase, the proposed project would not be expected to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Given the implementation of the master plan over a 25-year period, site buildings designated for future demolition or renovation may contain ACM and LBP. The presence of ACM and LBP is a PEC. The presence of thermal system insulation (TSI), which is in fair condition within the tunnel, is also a PEC. Additionally, indications of USTs were observed during site reconnaissance near General Hospital, Central Plant (East), Central Plant (West), and the Women's and Children's Hospital. The presence of USTs at the site is a PEC. Monitoring wells, indicating groundwater contaminated with petroleum hydrocarbons, were observed north of General Hospital in an area with a known open remediation process. This is indicative of a PEC.

Clarifiers were observed at the site south of the telephone exchange, within Central Plant (East), north of Central Plant (West), and east of the medical examiner's building. Clarifiers at the site are indicative of a PEC. A list of elevators, including their type of mechanical operation (i.e., hydro, traction, gearless), was provided. Hydraulic oil used in hydro elevators is indicative of a PEC for the project site.

Two gas stations were found formerly occupying the southeast portion of the project site during historical document review. The presence of gas stations indicates the potential for releases from USTs at the sites, which represents a PEC for the project site.

Construction activities could result in a potentially significant impact on construction personnel due to exposure to hazardous wastes that may be encountered or disturbed during construction. Implementation of mitigation measures MM-HAZ-1 through MM-HAZ-3 would be required to reduce the potential impacts to a less-than-significant level.

Operation

The proposed project consists of a master plan that would guide development of the campus over a period of approximately 25 years (2015–2040).

The land uses envisioned under the master plan are not generally associated with the routine use, storage, transport, or disposal of substantial quantities of hazardous materials, including biomedical waste. The use of non-acutely hazardous chemicals is anticipated, as is the use of chemicals in relatively small quantities and concentrations by medical personnel and the office staff. The chemicals would include those typically found at hospitals and in offices or used for grounds maintenance. The chemicals could include fuels to power equipment and vehicles, fertilizers, paints, detergents, solvents, and other cleaners. The uses for such materials are considered common. Furthermore, it would not be likely for such materials to be stored or used in quantities that would be considered potentially harmful.

All hazardous waste, including biomedical waste, would be transported, used, and disposed of according to applicable local and regional regulations. Such activities already take place at the LAC+USC Medical Center, and facilities for the proper handling of these materials are already present on the site. Consequently, no significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous waste during operation of the proposed project is anticipated. Impacts would be less than significant.

Mitigation Measures

The following measures are proposed to mitigate Impact HAZ-1 (construction), above:

MM-HAZ-1: In order to minimize exposure, prior to demolition activities, asbestos-containing materials and lead-based paint surveys and evaluations shall be conducted in buildings that are to be demolished or renovated. Abatement measures shall be implemented in accordance with the recommendations of these evaluations. Asbestos surveys shall be conducted in accordance with SCAQMD Rule 1403, which specifies that all surveys are to be carried out by a Cal/OSHA-certified asbestos consultant and will follow established survey protocols, notification, and work practice requirements. Lead-based paint surveys shall be carried out by California Department of Public Health(CDPH)-certified inspector/assessor. If necessary, a lead abatement plan would be prepared by the CDPH-certified project monitor or supervisor, and demolition activities would be performed by CDPH-certified workers.

MM-HAZ-2: Prior to start of construction, an additional investigation of the leaking underground storage tank site at 1200 North State Street (according to SWRCB's GeoTracker website, groundwater is currently being monitored at the address) shall be conducted to determine its potential impact on project site development. In the event that environmental concerns are discovered, a certified geologist or industrial hygienist will specify an appropriate course of action, which may involve removal and disposal of contaminated materials, and remediation of the area of concern.

MM-HAZ-3: As part of a Phase II Environmental Site Assessment, prior to construction, additional investigations at the former and suspected locations of underground storage tanks (both abandoned in place and those where no records of removal have been found) and the former locations of boilers and powerhouse shall be conducted to evaluate their potential impact on project site development. In the event that environmental concerns are discovered, a certified geologist or industrial hygienist will specify an appropriate course of action, which may involve removal, disposal, and remediation of the area of concern.

Level of Significance after Mitigation

Less than significant.

Impact HAZ-2: Would the Proposed Project Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment?

Construction

As described under Impact HAZ-1, typical construction-related hazardous materials would be used during construction of the proposed project, including gasoline, oil, other vehicle-related fluids, paints, solvents, and metals. As noted in Impact HAZ-1, ACM and LBP in buildings at the site could be released during construction if the buildings are demolished or renovated under the master plan. However, compliance with federal, state, and local regulations, in combination with construction BMPs implemented as part of a Stormwater Pollution Prevention Plan (described in Section 3.8, Hydrology and Water Quality), would ensure that impacts would be less than significant. Implementation of MM-HAZ-1 through MM-HAZ-3 would also ensure that all hazardous materials would be used, stored, and disposed of properly, which would minimize potential impacts related to hazardous materials releases. Furthermore, any accidental spills of materials considered hazardous would be confined immediately, with the materials removed and disposed of in accordance with all applicable safety regulations and disposal methods.

Operation

The proposed project consists of a master plan that would guide future development on the campus over a period of approximately 25 years (2015–2040). Operation of future facilities and buildings on the campus could result in the use of solvents, cleaning agents, paints, pesticides, diesel, petroleum fuels, and batteries. These products would be used in small amounts, and any spills that may occur would be limited in scope and cleaned up soon after the occurrence. Additionally, all hazardous materials would be handled in accordance with all applicable rules and regulations. Biomedical wastes would be handled and transported for disposal during operation of future facilities. Current safety protocols for such materials at the Medical Center Campus would be carried forward into the operation of future facilities, and the risk due to the release of biomedical wastes into the environment would be minimal. Therefore, operation of the proposed project would result in a less-than-significant impact related to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

Mitigation Measures

Please see MM-HAZ-1 through MM-HAZ-3, above.

Level of Significance after Mitigation

Less than significant.

Impact HAZ-3: Would the Proposed Project Emit Hazardous Emissions or Involve Handling Hazardous or Acutely Hazardous Materials, Substances, or Waste within 0.25 Mile of an Existing or Proposed School?

Construction

The northeastern boundary of the Medical Center Campus is within 0.15 mile of the Bravo Medical Magnet High School, at 1200 North Cornwell Street. The LAC+USC Children's Center, which has an enrollment of 12 infants and 60 preschoolers, is located on the western edge of the Medical Center campus on the site bounded by Griffin Avenue, Mission Road, and rail lines. In addition, the East Los Angeles Occupational Center, an adult and career education facility, is located adjacent to the southeastern corner of the Medical Center campus.

As previously discussed under Impacts HAZ-1 and HAZ-2, site buildings designated for future demolition or renovation may contain ACM and LBP. Additionally, excavation activities in the vicinity of the PECs identified in the Environmental Setting section may disturb or result in the release of other hazardous materials. However, impacts due to exposure to or disturbance of hazardous materials or wastes would generally be limited to the project site. Furthermore, any hazardous waste being hauled to and from the project site would have to be secured and contained to prevent its release, in accordance with existing federal and state regulations for the hauling of such waste. Given this fact, and because the proposed project would comply with all applicable regulations, impacts on nearby schools would be less than significant. Additionally, implementation of mitigation measures MM-HAZ-1 through MM-HAZ 3 would ensure that no adverse impacts on nearby schools would occur.

Operation

Operation of the proposed project could result in the use of solvents, cleaning agents, paints, pesticides, diesel, petroleum fuels, and batteries. Although the project boundary is within 0.25 mile of the Bravo Medical Magnet High School, hazardous materials would generally be used in small amounts, and any spills that may occur would be limited in scope and cleaned up soon after the occurrence. Additionally, it is expected that all hazardous materials would be handled in accordance with all applicable rules and regulations. Therefore, operation of the proposed project would result in a less-than-significant impact.

Mitigation Measures

Please see MM-HAZ-1 through MM-HAZ-3, above.

Level of Significance after Mitigation

Less than significant.

Impact HAZ-4: Would the Proposed Project Be Located on a Site that Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, Create a Significant Hazard to the Public or the Environment?

Construction

As previously stated, the project site is listed in several databases, including the RCRA Generators, State LUST, UST Registration, CA FID UST, HIST UST, SWEEPS UST, CHMIRS, HIST CORTESE, HAZNET, and RGA LUST. The site that is listed as an open remediation case on the LUST database is a PEC for the project site. The site and associated addresses listed in the UST database do not represent a PEC for the site; however, the lack of information regarding removal, abandonment, closure, and location of some four USTs represents a PEC for the site. Additionally, fifteen facilities in the site vicinity and within the searched radius were listed in the LUST database, including one facility adjacent to and south of the site, which is listed as an open remediation case. Hazard Reservoir, located northeast of the site, is suspected of being a source of chloroform in groundwater beneath the site due to chlorinated water leakage from the facility. The location of Hazard Reservoir, at a higher elevation than the site, is indicative of a PEC for the site.

Review of the DOGGR online system found an active oil well along the south margin of the site, north of Marengo Street and west of North State Street. The presence of an active oil well on the south end of the site is indicative of a PEC.

Twelve addresses that were historically associated with the project site were listed in the SCAQMD database. The listings included registration for gasoline pumps and an active permit for a petroleum tank. Active permits for petroleum tanks and pumps are indicative of a PEC for the project site.

Previous reports prepared for the site include Phase II assessments, environmental assessments and impact reports, tunnel assessments, and Phase I ESAs. Observed RECs noted in the reports that have not been further evaluated or remedied are indicative of PECs for the site.

As noted under Impact HAZ-1, construction activities could result in a potentially significant impact on construction personnel due to exposure to hazardous wastes that may be encountered or disturbed during construction. Implementation of mitigation measures MM-HAZ-1 through MM-HAZ-3 would be required to reduce the potential impacts to a less-than-significant level.

Operation

The PECs identified in the Environmental Setting section generally do not pose a significant hazard to the campus or occupants of existing buildings on the campus unless the sites are disturbed during construction and hazardous materials are released into the environment. Therefore, operation of future facilities is not expected to result in significant increased hazards to the public or the environment due to the proximity of those facilities to existing hazardous materials sites.

Mitigation Measures

Please see MM-HAZ-1 through MM-HAZ-3, above.

Level of Significance after Mitigation

Less than significant

Impact HAZ-5: Would the Proposed Project Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan?

Construction

Construction activities could temporarily impair and/or interfere with emergency response access in the vicinity of the project site because of possible lane closures, detours, and construction-related traffic. This impact would be a temporary but nonetheless potentially significant impact. However, the County would coordinate with local emergency response providers during construction to minimize potential traffic and access impacts and ensure continued emergency access to the project site and nearby properties (see mitigation measures in Section 3.12, Public Services, and Section 3.14, Transportation/Traffic).

Operation

No impacts during project operation would be expected because the the proposed project would allow for adequate access through and to the project site. No mitigation measures would be required during project operation.

Mitigation Measures

For construction-related impacts identified, mitigation measures MM-PS-1 in Section 3.12, Public Services, and MM-TRAF-1 in Section 3.14, Transportation/Traffic apply.

Level of Significance after Mitigation

Less than significant.

3.7.5 Cumulative Impacts

The study area for cumulative hazardous materials impacts has been defined as the area within approximately 0.25 mile of the boundariesof the project site because it is unlikely that the hazardous materials impacts of the proposed project would extend beyond the immediate project vicinity. Construction associated with ongoing and future projects in the project area could result in cumulative impacts through the release of hazardous materials to soil and/or groundwater during site excavation and grading as well as building demolition and renovation. Based on the proposed Medical Center Campus' compliance with applicable hazardous waste laws and regulations, the limited potential for impacts to extend beyond the boundaries of the site, and implementation of the mitigation measures described above, development of the master plan would not contribute to a cumulatively considerable impact related to hazardous materials.

It is anticipated that operation of the related projects in the study area and the proposed project would comply with all applicable hazardous materials regulations governing the transport, use, and disposal of hazardous materials. Consequently, operation of the related and proposed projects would not pose a significant cumulative hazard to the public or the environment.

If construction of related projects occurs concurrently with construction of individual projects proposed under the master plan, there is the potential for multiple simultaneous lane or road closures, and increased construction traffic could have a cumulative impact on emergency response and access to the area. However, the significance of potential cumulative impacts cannot be predicted with any certainty at this time because the exact extent and timing of construction of the

related projects and development under the master plan is not known. Additionally, implementation of mitigation measures MM-PS-1 and MM-TRAF-1 would minimize the proposed project's contribution to any significant cumulative emergency plan impacts.

3.8 Hydrology/Water Quality

3.8.1 Introduction

This section of the environmental impact report describes the affected environment and regulatory setting for hydrology and water quality. It also describes impacts on hydrology and water quality that would result from implementation of the proposed project as well as proposed mitigation measures to reduce such impacts. The information in this section is based on available literature, including *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR* (Appendix F), which was prepared for the proposed project by Watearth (2014a).

3.8.2 Regulatory Setting

3.8.2.1 Federal

Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. It is based on the principle that all discharges into the nation's waters are unlawful unless specifically authorized by a permit. Permit review is the CWA's primary regulatory tool. The CWA requires states to adopt water quality standards for receiving waters. Water quality standards designate beneficial uses for receiving waters and include the criteria required to support such uses. Water quality criteria are either narrative statements related to the quality of the water that support a particular use or maximum concentration levels for pollutants (i.e., bacteria, etc.). As part of the CWA, when monitoring data indicate that a concentration level for a pollutant has been exceeded, the receiving water is classified as *impaired* and placed on the CWA Section 303(d) List of Water Quality–Limited Segments Requiring TMDLs (303[d] list). A Total Maximum Daily Load (TMDL) is then developed for the pollutant(s) that caused the impairment. The purpose of the TMDL is to limit the volume of pollutants discharged into the receiving water from all sources (i.e., stormwater runoff, wastewater, agriculture).

National Pollutant Discharge Elimination System General Construction Permit

The National Pollutant Discharge Elimination System (NPDES) was established per 1972 amendments to the Federal Water Pollution Control Act to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a section devoted to stormwater permitting (Section 402[p]), with individual states designated for administration and enforcement of the provisions of the CWA and the NPDES permit program. The State Water Resources Control Board (SWRCB) issues both Construction General Permits and Individual Permits under this program.

Projects that will disturb more than 1 acre of land during construction are required to file a Notice of Intent (NOI) with the SWRCB to be covered under the NPDES Construction General Permit for discharges of stormwater associated with construction activity. The project proponent must develop measures that are consistent with the Construction General Permit. Furthermore, a Stormwater

Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered under the Construction General Permit. The SWPPP describes the best management practices (BMPs) the discharger will use to protect stormwater runoff and reduce potential impacts on surface water quality through the construction period.

The SWPPP must contain the following:

- A visual monitoring program,
- A chemical monitoring program for nonvisible pollutants (to be implemented if a BMP failure occurs), and
- A sediment monitoring plan if the site discharges directly to a water body on the 303(d) list for sediment.

The area that would be disturbed under the proposed project exceeds 1 acre; therefore, the project would be required to comply with the Construction General Permit.

3.8.2.2 State

Porter-Cologne Water Quality Control Act of 1969

The Porter-Cologne Water Quality Control Act (Porter-Cologne or the Act) established the SWRCB and divided the state into nine regional basins, each with a Regional Water Quality Control Board (RWQCB). The SWRCB is the primary state agency with responsibility for protecting the quality of the state's surface water and groundwater.

The Act authorizes the SWRCB to draft policies regarding water quality in accordance with CWA Section 303. In addition, the Act authorizes the SWRCB to issue waste discharge requirements (WDRs) for projects that would discharge to state waters. Porter-Cologne requires the SWRCB or the RWQCB to adopt water quality control plans, otherwise referred to as basin plans, for the protection of water quality.

A basin plan must:

- Identify beneficial uses for the water to be protected,
- Establish water quality objectives for the reasonable protection of the beneficial uses, and
- Establish an implementation program for achieving the water quality objectives.

Basin plans also provide the technical basis for determining WDRs, taking enforcement actions, and evaluating clean water grant proposals. Basin plans are updated and reviewed every 3 years in accordance with Article 3 of Porter-Cologne and CWA Section 303(c).

3.8.2.3 Local

Water Quality Control Plan, Los Angeles Region

The Los Angeles RWQCB, which has jurisdiction over the project area, adopted the most recent amendments to the *Water Quality Control Plan, Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) in 2010 (Los Angeles RWQCB 1994, amended 2007) and currently has multiple proposed amendments to the plan under consideration.

State policy for water quality control aims to achieve the highest quality and maximum benefit for the people of the state. To develop water quality standards that are consistent with uses associated with a particular water body, the Los Angeles RWQCB attempts to classify historic, present, and future beneficial uses as part of its Basin Plan.

3.8.3 Environmental Setting

3.8.3.1 Surface Water Quality

The project site is currently fully developed. Land cover on-site consists primarily of buildings and pavement, with the existing impervious cover amounting to 95%. Although limited, site vegetation includes trees, shrubs, and turf grass, with denser planting (i.e., trees and groundcover) in the northeastern portion of the site ("the hill"). Land uses at the site include a mix of commercial, transportation, institutional, and landscape uses.

Site reconnaissance was conducted on June 14, 2014, as part of Watearth's *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR*. The project site does not appear to include water quality or stormwater controls, such as stormwater BMPs, low-impact development (LID) features, or hydromodification management facilities. Additionally, stormwater detention or other flood control features were not observed on-site. Instead, rainfall and stormwater runoff are managed with vertical roof drains, catch basins, drain inlets, underground reinforced concrete pipes, curbs, gutters, overland sheet flows, driveways, or other means of conveyance to the on- and off-site storm drain system.

Stormwater Runoff (Typical Pollutants from Project Site)

Stormwater runoff from the site is typical of urbanized areas and includes pollutants from motor vehicles as well as transportation-related land uses (e.g., parking areas). These pollutants include hydrocarbons, oil, grease, sediment, and heavy metals. Nutrients from fertilizers as well as herbicides and pesticides associated with landscape maintenance are also likely to be present in stormwater runoff from the site.

Vegetative cover is established throughout the site. The northeastern portion of the site ("the hill") includes steep slopes and denser plantings. The concrete-lined conveyance swales along the upper perimeter of "the hill" concentrate and direct runoff perpendicular to the natural slope of the land. Because of pedestrians, adjacent bus stops, and the high volume of visitors to the existing LAC+USC Medical Center, trash is expected to be a potential pollutant. Many of the drainage inlets in the roadways adjacent to the site include screens or grates to prevent trash from entering the storm drain system and discharging to the receiving water (i.e., the Los Angeles River). Fecal coliform bacteria and other pollutants are typically found in stormwater runoff from land uses similar to those at the site.

Table 3. 8-1 summarizes typical pollutants of concern according to land use. The majority of the pollutants listed are from the February 2014 County of Los Angeles Department of Public Works *Low-Impact Development Standards Manual*. Also included in this table are other pollutants that EPA recognizes as typically associated with the land uses present on the project site.

Table 3.8-1: Pollutants of Concern by Land Use

	Pollutants of Concern													
Land Use	**Suspended Solids[2]**	**Total Phosphorus[2]**	**Total Nitrogen[2]**	**Total Kjedahl Nitrogen[2]**	**Cadmium, Total[2]**	**Chromium, Total[2]**	**Copper Total[2]**	**Lead Total[2]**	**Zinc, Total[2]**	**Biological Oxygen Demand (BOD)[5]**	**Chemical Oxygen Demand (COD)[5]**	**Fecal Coliform[5]**	**Hydrocarbons[5]**	**Trash[5]**
Commercial	X	X	X	X	[4]	[4]	X	X	X					
Industrial	X	X	X	X	[4]	[4]	X	X	X					
Streets, Roads	X	X	X	X	[4]	[4]	X	X	X					
Educational Facilities	X				[4]	[4]	X		X					
Project Site	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[1] Adapted from Table A-3 of the *Technical Manual for Stormwater Best Management Practices in the County of Los Angeles* (February 2004) and the Southern California Coastal Water Research Project Land Use–Specific Stormwater Monitoring Data. X= exceedance of "standard" by observed median/average concentration; blank = no exceedance of "standard" by observed median/average concentration.

[2] Derived from Table 11 of the 2012 Los Angeles County MS4 Permit (page 104).

[3] Critical facilities include automobile dismantling (SIC 50xx), automobile repair (SIC 75xx), metal fabrication (SIC 34xx), motor freight (SIC 42xx), automobile dealerships (SIC 55xx), chemical manufacturing (SIC 28xx), and machinery manufacturing (SIC 35xx).

[4] No available data to determine if these pollutants of concern originate from this land use. Pollutant is assumed to be produced by this land use unless otherwise proven by the project applicant.

[5] Based on 2006 EPA *Guide to Stormwater Pollutant Concentrations*.

Source: Watearth 2014.

Pollutants of Concern Based on Receiving Water Impairment

There are several pollutants of concern related to the receiving body of water. The pollutants include those with a developed TMDL requirements, those on the 303(d) list, and those of concern for the Los Angeles River watershed management area. The project site is located within Reach 2 of the Los Angeles River. Data from the SWRCB for Reach 2 of the Los Angeles River (see Table 3.8-2) are based on the combined California 2010 303(d) list and include pollutants that have a completed TMDL, pollutants that require development of a TMDL, and pollutants that are being addressed by actions other than a TMDL.

Table 3.8-2: Los Angeles River Reach 2 303(d) List

Pollutant	Pollutant Category	Potential Source	Source Category
Ammonia	Nutrients	Point Source	Unspecified Point Source
Ammonia	Nutrients	Non-point Source	Unspecified Non-point Source
Coliform Bacteria	Pathogens	Point Source	Unspecified Point Source
Coliform Bacteria	Pathogens	Non-point Source	Unspecified Non-point Source
Copper	Metals/Metalloids	Source Unknown	Source Unknown
Lead	Metals/Metalloids	Point Source	Unspecified Point Source
Lead	Metals/Metalloids	Non-point Source	Unspecified Non-point Source
Nutrients (Algae)	Nutrients	Point Source	Unspecified Non-point Source
Nutrients (Algae)	Nutrients	Non-point Source	Unspecified Non-point Source
Source: Watearth, 2014.			

Multiple TMDLs are in effect for the Los Angeles River for the following pollutants:

- Bacteria
- Metals
- Trash
- Nutrients

Table 3.8-3 lists the pollutants of concern for the Los Angeles River watershed management area, which includes the project site.

Table 3.8-3: Tier 3 Pollutants of Concern for the Los Angeles River Watershed Management Area

Parameter
pH
E. coli Bacteria
Total Coliform Bacteria[1]
Fecal Coliform Bacteria[1]
Enterococcus Bacteria[1]
Chloride
Nitrite Nitrogen, Total (as N)
Sulfate
Total Dissolved Solids
Turbidity
Aluminum, Total Recoverable
Cyanide, Total Recoverable
Copper, Total Recoverable
Mercury, Total Recoverable
Selenium, Total Recoverable
[1] Applies only to discharges to estuaries and the ocean.
Source: Watearth, 2014.

Table 3.8-4 summaries potential pollutants at the site based on land use along with pollutants of concern from the various sources described above.

Table 3.8-4: Summary of Pollutants and Pollutions of Concern

Nutrients	Metals	Organics	Other	Pathogens	Sediment/Solids
Algae Ammonia Kjedahl Nitrogen Total Nitrogen Total Phosphorous	Aluminum Cadmium Chromium Copper Cyanide Lead Mercury Selenium Zinc	BOD COD	Chloride Hydrocarbons pH Sulfate Trash	Coliform Bacteria	Suspended Solids Total Dissolved Solids Turbidity
Source: Watearth, 2014a.					

Water Supply

Based on the information included in the master plan, water service for the *LAC+USC Medical Center* is provided by the Los Angeles Department of Water and Power (LADWP). Reclaimed water does not appear to be used at the site, and irrigation demand is not separated from overall demand at the campus. According to the data included in the *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR* prepared by Watearth (2014a), approximately 15% of the water comes from groundwater within the San Fernando Basin and approximately 60% comes from the eastern Sierra Nevada through the Los Angeles Aqueduct and the Metropolitan Water District's Colorado and Feather River supplies.

Hydrology

Elevations within the LAC+USC Medical Center range from a low of approximately 320 feet in the southwestern portion of the site to a high of approximately 450 feet in the northeastern portion of the site. Overland flow within the site is generally from the northeast to the southwest. The northeast corner of the site includes "the hill," which is vegetated with a mix of trees and understory vegetation; it drains from north to south. Off-site flows into or through the site are minimal.

Slopes within the three "off-site" tracts at the intersection of North Mission Road and Zonal Avenue are relatively flat, with elevations of approximately 330 feet; overland flow is generally directed toward the adjacent roadways.

The Los Angeles River is approximately 1 mile west of the project site; overland flows in the vicinity are generally to the west (toward the river). Surface water drainage in the vicinity is generally toward the Los Angeles River. Stormwater runoff from extreme storm events that exceed the capacity of the on-site and public storm drain systems flows to the west/southwest and toward the Los Angeles River. The confluence of Rio Hondo with the Los Angeles River is approximately 1 mile west of the project site.

As discussed, the site does not appear to include water quality or stormwater controls, such as stormwater BMPs, LID features, or hydromodification[1] management facilities. Additionally, stormwater detention and other flood control features were not observed on-site. Instead, rainfall and stormwater runoff are managed with vertical roof drains, catch basins, drain inlets, underground reinforced concrete pipes, curbs, gutters, overland sheet flows, driveways, or other means of conveyance to the on- and off-site storm drain system.

For an undeveloped site, the water budget would include much higher amounts of infiltration and evapotranspiration[2] from naturally vegetated pervious areas with depressions and other low spots for temporary rainfall ponding. The amount of impervious cover and the improved conveyance systems on-site have resulted in stormwater runoff that contributes to hydromodification within natural receiving systems.

Because the Los Angeles River is concrete lined in the vicinity of the project site, hydromodification is limited. However, changes in the water budget associated with the project site may have affected areas farther downstream with sediment deposits and natural features that can be disturbed by increases in flows or changes in the flow regime.

Stormwater runoff from the project site under assumed undeveloped conditions is estimated to be 46.6 inches (1.3 inches per year) based on continuous simulation analysis of the period of record (1970–2006). Under existing conditions, stormwater runoff is 494.9 inches (13.4 inches per year) for the same time frame because of the high level of impervious cover. Appendix F includes a hydrology memorandum prepared by Watearth (2014b) for the project as well as additional details regarding runoff rates and modeling assumptions.

Storm Drainage

Visual observations made during site reconnaissance found that the LAC+USC Medical Center relies on vertical roof drains, underground reinforced concrete pipes, overland sheet flows, curbs, gutters, catch basins, and driveways to convey stormwater runoff to the public storm drain system, which is owned and operated by Los Angeles County Flood Control District.

The eastern and southern portions of the campus are served by a private system of isolated storm drain laterals. These range in size from 6-inch lines to an 11- by 18-inch corrugated metal pipe. The small-diameter storm drain system discharges into a 36-inch reinforced concrete pipe, which is part of the public storm drain system, along Marengo Street.

The private storm drain laterals in the north-central portion of the campus range in size from 10 to 18 inches. These reinforced concrete pipes, with diameters ranging from 18 to 36 inches, discharge into the public system along Zonal Avenue. The Zonal Avenue system flows to the west and discharges into an on-site public storm drain system. A 4.5- by 4-foot reinforced concrete box (RCB), which runs from north to south through the western portion of the campus, is located between State Street and North Mission Road.

[1] Hydromodification: Any activity that increases the velocity and volume (flow rate), and often the timing, of runoff. Such activities can include construction and maintenance associated with channels, levees, dams, and other impoundments; dredging; filling; the removal of vegetation; or the development of impervious surfaces.

[2] Evapotranspiration: Loss of water from the soil both by evaporation and transpiration from plants growing in the soil.

The western portion of the campus drains through private storm drain laterals, ranging in size from 4 to 6 inches, to an on-site public 8- by 2-foot, 9-inch RCB that flows from north to south through the western portion of the campus between State Street and North Mission Road. This RCB is parallel to and east of the 4.5- by 4-foot RCB. Both on-site public RCBs eventually join together off-site, south of Interstate 10, and convey stormwater runoff to the Los Angeles River.

The Los Angeles River in the vicinity of the project site is a concrete-lined trapezoidal channel with a low-flow section. The configuration of the river in the vicinity of the site outfall provides an efficient conveyance system with minimal floodplain storage, habitat/ecology, recreational, or aesthetic benefits.

In the event that sheet flow leaves the project site, regularly spaced inlets are provided along the public roadways that border the campus. Some of these inlets include grates to keep trash from entering the storm drain system or the Los Angeles River watershed.

Groundwater

The project site is located on the northern edge of the Los Angeles Forebay of the Central Basin, which is a sub-basin of the Los Angeles Coastal Plain. The site is not located nearexisting stormwater spreading grounds, as shown in Figure 3.8-1. As such, stormwater runoff from the site would not recharge the existing stormwater spreading grounds or introduce pollutants into the spreading grounds.

Information from the LAC+USC Medical Center Replacement Project Environmental Assessment/EIR Seismic Hazard Mitigation Program for Hospitals (LAC+USC Medical Center Seismic EIR June 2000) indicates that "Within the forebay, the site is situated along the southern edge of the Elysian Park-Repetto Hills, which are bisected by Los Angeles Narrows, a north/south-trending valley underlain by Quaternary-age alluvium deposited by the Los Angeles River. Quaternary-age water-bearing deposits of the forebay area pinch out northward against Tertiary-age sedimentary, including the Puente Formation." The groundwater flow in the vicinity of the site is generally to the southwest.

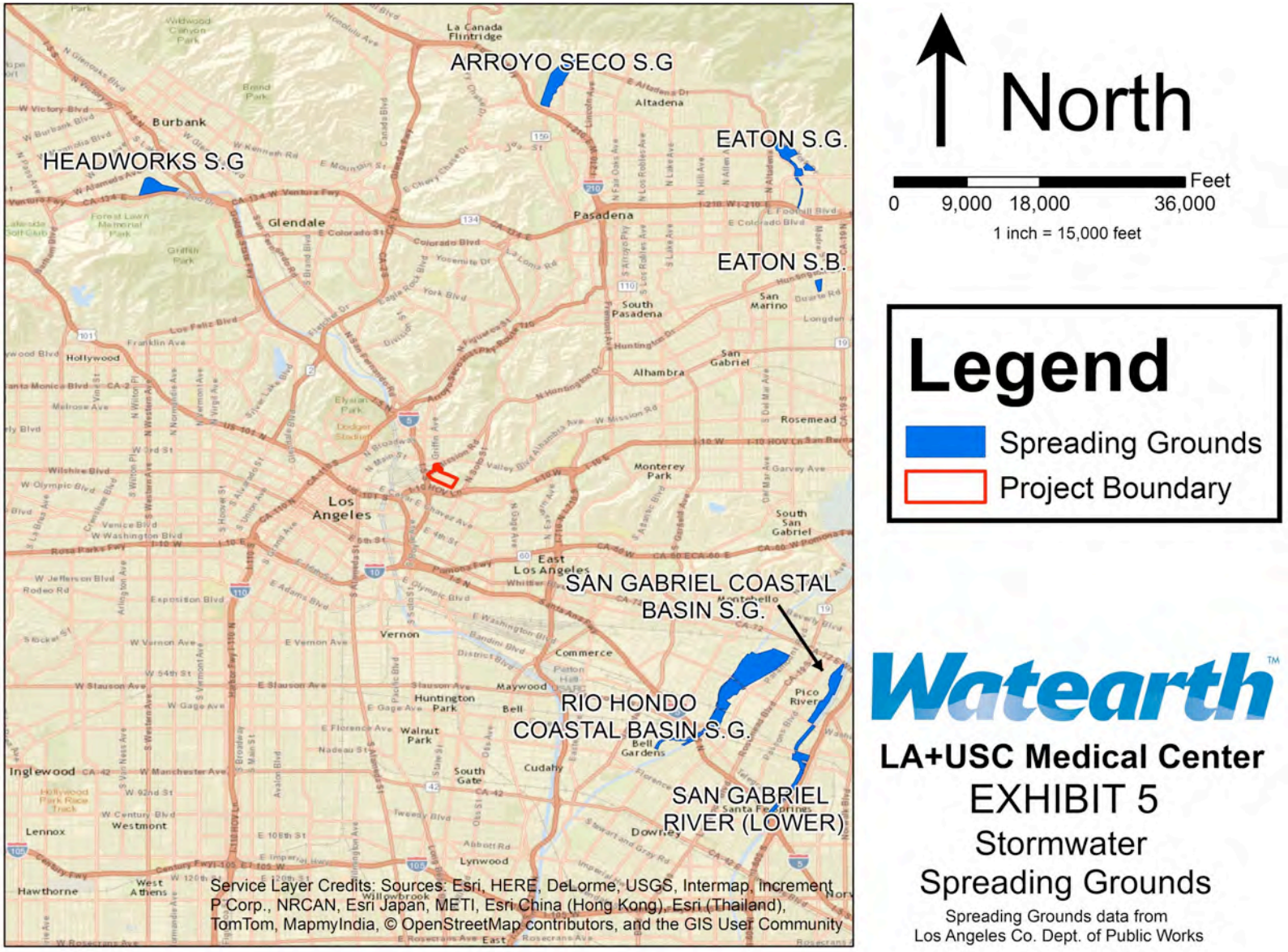
According to Watearth's *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR*, the historic underground Arroyo de La Pasa River flowed southwesterly from an area near the existing clinical research building to an area near the existing Central Plant and central laboratory buildings.

Depth to Groundwater

As part of the October 2013 Phase I environmental site assessment prepared by Kimley Horn & Associates for 1744 Zonal Avenue, which is within the project site, it was noted that water table depths greater than 6 feet are common. The report also states that "Liquefaction played a significant role in the damage sustained by the medical center during the Northridge earthquake. Wherever water table levels are less than 10 feet, the potential for liquefaction is high. Conversely, where the water table is greater than 30 feet below land surface, the risk for liquefaction is low." This statement seems to imply that the depth to groundwater may be less than 30 feet below the land surface in parts of the project site.

The *LAC+USC Medical Center Seismic EIR* references subsurface borings where groundwater was encountered on the site at depths ranging from approximately 20 to 45 feet at most borings. It was also noted that groundwater was found in the underlying bedrock and alluvial units. Groundwater was typically encountered in steeply dipping sandstone beds under the semi-confined conditions

Figure 3.8-1: Stormwater Spreading Grounds



of the bedrock. According to the geotechnical study for that project, groundwater seepage was found at depths ranging from 12 to 14 feet below the natural ground in a portion of the site. In a prior geotechnical study in 2002, groundwater seepage was found between 5 and 14.5 feet below the natural ground. The EIR also references the California Geotechnical Survey's Seismic Hazard Zone Report, which indicates that the highest groundwater level recorded at the site was approximately 25 feet below the natural ground.

Groundwater Contamination

According to the October 2013 Phase I environmental site assessment prepared by Kimley Horn & Associates for 1744 Zonal Avenue, two locations with groundwater contamination from petroleum were found within the greater LAC+USC Medical Center site. No other sources or locations of groundwater contamination were found as part of the data review for this project.

Recharge

Soils within the project site are generally classified as loam or clay loam, according to the *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR* prepared by Watearth. According to this report, soil textures are in the Type C soil group. This classification typically has low saturated hydraulic conductivity rates, normally in the range of 0.04 to 0.13 inch per hour. With the site's impervious cover amounting to approximately 95%, minimal recharge to the Central Basin or the San Fernando Basin occurs.

Dam Failure/Tsunamis/Seiches

According to the *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR* prepared for the proposed project, the project site is not located within a potential inundation area resulting from a dam failure, a tsunami inundation area, or a seiche or landslide/mudslide hazard zone. A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The project site is located approximately 19 miles inland from the Pacific Ocean. A seiche is a wave that oscillates in enclosed water bodies such as reservoirs, lakes, or ponds. Hazard Reservoir, a historic reservoir that is no longer in use, is located just east of the project site.

3.8.4 Environmental Impact Analysis

3.8.4.1 Methods

The following analysis evaluates potential hydrology and water quality impacts that could result from implementation of the proposed project. It assesses impacts under existing conditions and determines whether they would exceed any of the thresholds listed below. The analysis is based on the conclusions found in the *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR* prepared for the project by Watearth (2014a).

3.8.4.2 Thresholds of Significance

For the purposes of the analysis in this EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

HYD-1 Violate any water quality standards or waste discharge requirements.

HYD-2 Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).

HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site.

HYD-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

HYD-5 Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

HYD-6 Otherwise substantially degrade water quality.

HYD-7 Contribute to inundation by seiche, tsunami, or mudflow.

Los Angeles County, as the CEQA lead agency, determined in the NOP/IS (see Appendix A) that the proposed project would not result in impacts in the following areas.

HYD-8 Place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary Map or Flood Insurance Rate Map or other flood hazard delineation map.

HYD-9 Place within a 100-year flood hazard area structures that would impede or redirect flood flows.

HYD-10 Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Therefore, no further analysis of these issues is required. Please refer to Appendix A of this EIR for a copy of the NOP/IS and additional information regarding these issue areas.

3.8.4.3 Impacts and Mitigation Measures

Impact HYD-1: Would the Proposed Project Violate Any Water Quality Standards or Waste Discharge Requirements?

Construction

During construction, site grading activities and exposed soil could temporarily increase the amount of suspended solids (sediment) in sheet flow or runoff, which would enter the existing storm drain system. Thus, surface water quality could be temporarily affected by construction activities. However,

the proposed project would be required to obtain and comply with the Construction General Permit from the SWRCB. This permit and associated NPDES requirements include development and implementation of a SWPPP, with associated monitoring and reporting. Stormwater BMPs are required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during construction activities. Additional source-control BMPs would also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-stormwater discharges.

Compliance with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters.

Construction-related activities could include the use of materials such as fuels, lubricating fluids, solvents, and other materials that could result in polluted runoff. However, the potential consequences of any spill or release of these types of materials would generally be small because of the localized, short-term nature of the releases. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and protocols for actions taken if a spill or release does occur (see mitigation measure MM-HYD-1). Therefore, impacts associated with these types of pollutants would be less than significant with mitigation incorporated.

Operation

Plans call for the use of low-maintenance vegetation, which would be maintained by staff members who are trained to work with native California landscapes. The proposed project would avoid the use of pollutants, chemicals, or soil amendments that could harm human or ecological health. Organic maintenance methods or Integrated Pest Management may be used.

Vegetation and other materials would be composted on-site for use as a soil amendment in degraded soils. This practice would enhance infiltration and the storage capacity of soils, thereby reducing runoff. Provided that animal manure and animal products are not included in the mulch or compost used on-site, these materials would have a beneficial impact on runoff from the site.

Standard Urban Stormwater Mitigation Plan (SUSMP) requirements would be implemented, including source-control BMPs, treatment-control BMPs, and requirements regarding erosion control. Non-structural BMPs may include storm drain stenciling and signage, properly designed outdoor material storage areas, properly designed trash storage areas, proof of ongoing BMP maintenance, and other items relevant to operations on the site.

Similar to existing conditions, stormwater runoff from the site after project implementation would be typical of urbanized areas and would include pollutants such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash.

LID features included under the proposed project would meet the requirements found in the County's *Low-Impact Development Standards Manual*. The LID features would provide treatment control through physical, biological, and chemical processes to remove pollutants from stormwater runoff. An important consideration in the design of bioretention is the leaching of nutrients from the growing media to stormwater runoff. Because nutrients are pollutants of concern with respect to discharges from the site, the design of bioretention features on-site must include modifications to address the potential leaching of nutrients.

Provided that LID features (especially the design of bioretention features) include modifications to address the potential leaching of nutrients, compliance with the County LID criteria and other state and local regulations that require post-construction BMPs would ensure that operations on the site would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. Operations on the site would not result in a violation of any water quality standards or waste discharge requirements, would not create substantial additional sources of polluted runoff, and would not substantially degrade water quality. Operational impacts on surface water quality would be less than significant.

Once the project is operational, materials such as fuels or solvents may be stored on-site, similar to existing conditions. This is not anticipated to be a source of polluted stormwater runoff or dry-weather runoff. As under existing conditions, the medical center would continue to adhere to all applicable regulations. Consequently, impacts would be less than significant.

Mitigation Measures

The following measures are proposed to mitigate Impact HYD-1, above.

MM-HYD-1: Construction activity (clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement) resulting in a land disturbance of one or more acre, or less than one acre but part of the larger master plan for the campus must obtain the Construction Activities Storm Water General Permit.

Prior to beginning any construction activity, the County shall require the contractor(s) to develop the SWPPP, Construction Activities Storm Water General Permit, erosion/sediment control plan, and submit these plans for approval by the governing regulatory agency. The contractor(s) shall then perform all construction activity in accordance with the recommendations in the SWPPP, the Construction Activities Storm Water General Permit, and erosion/sediment control plan. The contractor's erosion control plan must comply with the *California Stormwater Best Management Practices Handbook* and meet the requirements of the statewide Construction General Permit.

MM-HYD-2: LID features shall be designed to improve water quality and minimize the leaching of nutrients from growing media. Best design practices based on the latest monitoring and research recommendations shall be incorporated. In addition to avoiding the use of growing media, mulch, and compost containing animal products, which may leach nutrients, design modifications may include incorporation of an internal storage zone. With an internal storage zone, the underdrain is elevated and anaerobic conditions are created, causing denitrification to occur, provided that a carbon food source is provided for the denitrifying bacteria. Additionally, due to the large area of proposed landscaping, phosphorous is a likely pollutant in stormwater runoff from the site. s Phosphorous can be minimized through organic maintenance methods, Integrated Pest Management, and avoiding products containing animal manure or other animal products.

Although these practices apply specifically to bioretention, they should also be considered for other landscape-based LID features that could be included in the final design. If phosphorous is added to the 303(d) list for the Los Angeles River Reach 2 or the Tier 3 Pollutants of Concern for the Los Angeles River Watershed Management Area, then it becomes a pollutant of concern for the receiving water body and the specialized design measures shall be incorporated at the landscape-based LID features proposed for the site.

Level of Significance after Mitigation

Less than significant.

Impact HYD-2: Would the Proposed Project Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge?

Construction

Construction activities could require excavation below normal or seasonally high groundwater levels. Therefore, seepage may be encountered because of the depth to groundwater at the site, and dewatering may be necessary. However, any seepage encountered during construction would be mitigated, as needed, by constructing small drainage swales from the base of the excavations to temporary sump pits or stormwater/LID features on-site.

Any discharges of groundwater during construction would be in compliance with applicable NPDES permit requirements. The project would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for a release of contaminants into the groundwater as a result of project construction. Thus, construction activities would not degrade groundwater quality or interfere with recharge. Water use may temporarily increase to a limited extent during the construction phase. Therefore, construction-phase impacts would be less than significant.

Operation

Under the proposed project, water demand at the site is projected to increase. This increase would most likely result from increased utilization of facilities at the LAC+USC Medical Center as well as an increase in irrigation demand with the additional landscaped areas.

Regional water demand is primarily a function of population growth. Although the project would most likely lead to increases in indoor water demand at the site, it would not significantly increase the overall population within the region. Additionally, indoor fixtures would comply with Los Angeles Municipal Code requirements related to reducing indoor water consumption. The City of Los Angeles Plumbing Code (Chapter IX, Article 4, of the Los Angeles Municipal Code) references the California Plumbing Code, which establishes maximum flow rates for indoor water fixtures. City Ordinance No. 180,822 further establishes water efficiency requirements for renovation, redevelopment, and new development and mandates the installation of high-efficiency plumbing fixtures in residential and commercial buildings (Los Angeles Municipal Code, April 2012). These requirements would limit potential increases in indoor water usage at the project site.

As part of the project, impervious surfaces are proposed to be reduced from approximately 95% to 75% or less (see the hydrology memorandum in Appendix F). Although multiple design and maintenance principles to reduce the use of potable water for irrigation are planned, as discussed below, the increase in landscaped areas at the site is likely to result in increased use of groundwater for irrigation. Although infiltration and groundwater recharge at the site are expected to increase by approximately 657% (see the hydrology memorandum in Appendix F) because of the increase in the amount of pervious area and the incorporation of LID features, recharge is to the Central Basin, and groundwater supplies are obtained from the San Fernando Basin.

According to the master plan, drought-tolerant and California native plants would be used at the site. The use of plant species with high to moderate water needs would be limited. Although lawn areas would be limited in area, agricultural crops would be encouraged. Furthermore, low-

maintenance vegetation would be used, with maintenance performed by a well-trained staff that is familiar with California native landscapes. The use of compost, soil amendments, and mulch is planned to enhance infiltration and store stormwater runoff within the landscape, thus reducing the project's reliance on irrigation.

According to the General Landscape Guidelines contained in the master plan, reclaimed water will be used for irrigation, if available. If not available, use of an on-site reclaimed water treatment system will be investigated. Although the master plan states that, where appropriate, the use of captured rainwater (stormwater) or gray water shall be considered, the percentage or amount of irrigation to be met by these sustainable alternatives to potable water is not specified. Wasted irrigation water is to be reduced through proactive maintenance of the irrigation system and best irrigation practices, such as seasonally reprogramming the system and irrigating at appropriate times of the day.

Water use would increase during project operation because of the increase in the number of persons who would use the LAC+USC Medical Center facilities and the increase in landscape maintenance. Although the project would increase indoor water demand at the site, it would not lead to a significant increase in the demand for potable water for indoor use in the region. The project would increase use of potable water and groundwater for irrigation. By incorporating reclaimed water, gray water, and harvested rainwater for irrigation, the increased demand for groundwater for irrigation could be reduced. For these reasons, water demand associated with the proposed project would not deplete groundwater supplies substantially. The project would increase groundwater recharge by approximately 657% (see the hydrology memorandum in Appendix F)and would not interfere substantially with recharge. Therefore, the impacts on groundwater supplies or recharge during operation would be less than significant. Additionally, to further reduce potential impacts, irrigation water demand above existing irrigation demands would be met by alternative supply sources to the maximum extent possible as included in MM HYD-3.

Mitigation Measures

The following measures are proposed to minimize potential groundwater impacts identified in Impact HYD-2, above.

MM-HYD-3: Where groundwater seepage is expected, permanent monitoring wells shall be installed during construction within and around the perimeter of each building to monitor the groundwater level and evaluate the performance of the dewatering system. Before starting dewatering operations, a baseline conditions survey shall be made of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures. All signs of existing distress shall be recorded.

MM-HYD-4: Irrigation water demands above existing irrigation demands shall be met by alternative supply sources to the maximum extent technically feasible. The use of alternative water supply sources for irrigation shall be maximized to reduce the use of potable water for irrigation and approximate existing irrigation demands. Alternative water supply sources include, but are not limited to, reclaimed water, gray water, harvested rainwater (stormwater), and air-conditioning condensate (although not specifically mentioned in the master plan, this could represent a significant source of clean irrigation water).

Level of Significance after Mitigation

Less than significant.

HYD-3: Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, in a Manner that Would Result in Substantial Erosion or Siltation On- or Off-Site?

Construction

Grading and excavation would be required for building foundations, which could affect drainage on the project site. However, careful design would prevent substantial alterations to drainage patterns and/or erosion within the project site.

The project would not substantially alter the existing drainage pattern of the site or result in substantial erosion or siltation on- or off-site. Standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance associated with construction of the project. In addition, standard construction practices related to erosion and sediment control would be required as part of the permitting process.

Potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary (i.e., during construction). The project applicant would implement measures to minimize and contain erosion and sedimentation and be required to submit a grading plan to the County for approval prior to the commencement of any construction activities. In addition, because the project would disturb more than 1 acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, the project proponent would develop a SWPPP and comply with regional requirements to meet state water quality objectives. Pending revisions, the NPDES permitting process may require development of a rain-event action plan prior to permit approval. Construction-related erosion and sedimentation impacts resulting from soil disturbance would be less than significant after implementation of the SWPPP (see mitigation measure MM-HYD-1) and the BMPs required to control erosion and sedimentation.

Operation

The proposed project would use drought-tolerant and California native plants within pervious areas of the project site. Additionally, proposed stormwater and LID features (i.e., bioretention and wetland/detention areas) would include vegetation. Although the proposed lawn areas would be limited in area, agricultural crops would be encouraged, and a green roof is proposed for use as an urban farm. The use of plant species with high to moderate water needs, according to *Water Use Classifications of Landscape Species III*, would be limited and restricted to similar water-use areas.

Routine structural BMPs that could be used as part of the master plan include filtration, runoff-minimizing landscaping for common areas, energy dissipaters, inlet trash racks, and water quality inlets. Therefore, long-term impacts on drainage patterns across the project site that could result in substantial erosion and siltation on- or off-site would be less than significant after implementation of mitigation measure MM-HYD-1 and BMPs to control erosion and sedimentation.

Mitigation Measures

Mitigation measure MM-HYD-1, above, is proposed to mitigate Impact HYD-3.

Level of Significance after Mitigation

Less than significant.

HYD-4: Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner that Would Result in Flooding On- or Off-Site?

The rate and amount of surface runoff is determined by multiple factors, including topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater. The project would not alter the amount or intensity of precipitation, nor would it require significant amounts of additional water to be imported to the project site.

As previously described, surface runoff from the site under existing conditions is 494.9 inches but would be reduced to 323.4 inches under proposed conditions. Existing infiltration and evaporation rates are 25.4 and 51.5 inches, respectively. Proposed conditions with the planned LID features would result in infiltration and evaporation rates of 192.3 and 56.7 inches, respectively, over the 37-year period of analysis. Modeling details and results are reported in the hydrologic analysis memorandum prepared by Watearth (2014b) and included in Appendix F.

Construction

Although grading would occur throughout the site, the resultant ground disturbance would be spread over the site and would not alter the overall topography. Vegetation may be removed on the project site; however, as previously described, the project site is completely developed with the existing LAC USC Medical Center. Water would be used during the temporary construction phase of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate or evaporate. Therefore, the rate or amount of surface runoff resulting from project construction activities would be similar to the amount under existing conditions. During construction, the pervious nature of the project site would not be significantly altered. As such, the project would not result in a substantial increase in the rate or amount of surface runoff or flooding on- or off-site. Impacts would be less than significant.

Operation

The project would not substantially alter the existing drainage pattern of the site, area, or receiving waters, or result in substantial erosion or siltation on- or off-site. This is because with the increased pervious (landscape) areas (increase from 5% pervious to 25% pervious on the campus) and use of LID features, the amount of stormwater runoff via surface sheet flow and the storm drain system is anticipated to decrease as a result of the project. As such, the project would not result in a substantial increase in the rate or amount of surface runoff or result in flooding on- or off-site. Impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

HYD-5: Would the Proposed Project Create or Contribute Runoff Water that Would Exceed the Capacity of Existing or Planned Stormwater Drainage Systems or Provide Substantial Additional Sources of Polluted Runoff?

Construction and Operation

In addition to the proposed LID features, drainage from proposed site improvements would be handled through a new storm drain system that would be sized for stormwater runoff from the site. The on-site storm drain system would drain into detention/retention areas located at the approximate center of new development on the west campus. These basins would discharge into the public storm drain systems. Peak flow rates and runoff volumes from the campus would be the same or lower than existing rates/volumes and would not affect the capacity or hydraulic integrity of the existing public storm drain system.

Peak flow rates and runoff volumes during construction would generally be less than they are under existing conditions. This is because the existing site is 95% impervious cover. Stormwater drains into the storm drain system and receiving waters (i.e., Los Angeles River) directly from improved conveyance systems. The amount of impervious cover would not increase during construction, and at various stages of construction, it would even be less than the existing amount. This would be considered a less-than-significant impact.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

HYD-6: Would the Proposed Project Otherwise Substantially Degrade Water Quality?

Construction

Impacts HYD-1 to HYD-5 discuss potential impacts associated with the degradation of water quality during construction. During construction, the project would be required to adhere to the NPDES Construction General Permit to control erosion and protect water quality. In addition, the project would be required to adhere to County requirements and guidelines pertaining to on-site drainage flow requirements. Therefore, the project would not create or contribute runoff that would exceed the capacity of drainage systems or provide substantial additional sources of polluted runoff.

There are no other methods by which water quality could be degraded as a result of construction on the project site. This would be considered a less-than-significant impact with mitigation incorporated.

Operation

Impacts HYD-1 to HYD-5 discuss potential impacts associated with the degradation of water quality during operation. Prior to the commencement of construction activities, the project proponent would be required to prepare and submit drainage plans to the city or County, which would include post-construction structural and nonstructural BMPs. Routine structural BMPs are intended to address water quality impacts related to drainage, which are inherent in development.

There are no other methods by which water quality could be degraded as a result of operations on the project site. Therefore, with implementation of mitigation measures MM-HYD-1 through MM-HYD-6, impacts associated with degrading water quality during operation would be less than significant.

Mitigation Measures

The following measures are proposed to mitigate Impact HYD-6, above.

MM-HYD-5: During and after construction, positive drainage shall be provided to direct water away from buildings and foundations. Where positive drainage is not provided, area drains shall be used to drain depressions or low spots that are not part of the designed LID features. Area drains shall not be placed next to buildings or in contact with buildings. All area drains and LID features shall be located, at a minimum, 8 feet away from building foundations or as directed in the International Building Code or other regulatory requirements. Roof drainage shall be controlled and directed to proper drainage devices in an acceptable manner or to LID features.

MM-HYD-6: An Operations and Maintenance Plan shall be developed for LID features at the site during the design of the initial development projects and expanded as development progresses and different LID features are added. The plan shall consider impacts on water quality and address issues related to Integrated Pest Management or organic maintenance practices, including those for hand weeding. The use of fertilizers, pesticides, herbicides, and products containing animal manure or animal products shall be avoided within any LID features at the project site. Outside of the LID features, Integrated Pest Management and organic maintenance practices shall be used.

Level of Significance after Mitigation

Less than significant.

HYD-7: Would the Proposed Project Contribute to Inundation by Seiche, Tsunami, or Mudflow?

Construction and Operation

As previously noted, the project site is not located within a potential inundation area resulting from a dam failure. Additionally, the project site is approximately 19 miles inland from the Pacific Ocean. It is not within a potential tsunami inundation area or seiche or landslide/mudslide hazard zone. No impact would occur during construction or operation.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

3.8.5 Cumulative Impacts

The geographic scope for cumulative impacts related to water quality and hydrology encompasses the project site and the land uses within a 1-mile radius of the project site. Other projects in the general vicinity include a variety of mixed-use, retail, and institutional developments, including the

USC Health Sciences Campus (USC HSC) projects. All of these projects have the potential to result in construction-period water quality impacts, which could result in cumulatively significant impacts. However, compliance with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. Construction would not result in a violation of any water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality.

The proposed amount of impervious cover would be less than the existing amount of impervious cover at the LAC+USC Medical Center and the adjacent USC HSC projects. Additional landscaping (i.e., pervious areas) is planned for both projects, and the LAC+USC Medical Center would incorporate LID features to reduce stormwater runoff (peak flows and volumes) from the site. LID features would shift the water budget at the site closer to the historical, undeveloped water budget. With the LID features and additional landscaping, higher infiltration levels and lower runoff volumes would occur compared with existing conditions.

Compliance with County LID criteria as well as state and local regulations that require post-construction BMPs would ensure that the operation of related projects would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. Projects would also be required to comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for the release contaminants into groundwater as a result of project construction. Thus, construction activities would not degrade groundwater quality or interfere with recharge. Water use may temporarily increase for a limited extent during the construction phase. Therefore, construction-phase impacts would be less than significant at both sites.

Related projects would increase groundwater recharge; they would not interfere substantially with groundwater recharge. Compliance with construction-phase permits and standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance associated with construction of the project. During construction, the amount of stormwater runoff is also anticipated to be less than or equal to the amount under existing conditions. Therefore, the cumulative effects would be less than significant.

3.9 Land Use/Planning

3.9.1 Introduction

This section describes the land use impacts of the proposed project, including any conflicts with applicable land use plans, policies, or regulations. To assess potential land use impacts, an overview of existing land uses, land use designations, and applicable land use plans and policies is provided. All land use decisions pertaining to the proposed project fall under the jurisdiction of Los Angeles County because the land upon which the LAC+USC Medical Center site is situated on is owned and maintained by the County.

3.9.2 Regulatory Setting

3.9.2.1 Federal and State

No federal or state land use regulations are applicable to the proposed project and the land use impact analysis.

3.9.2.2 Regional

Southern California Association of Governments Regional Comprehensive Plan

The Southern California Association of Governments (SCAG) is designated by the federal government as the Metropolitan Planning Organization and Regional Transportation Planning Agency for the Southern California region. SCAG's jurisdiction includes Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura Counties. SCAG has sought to address regional planning concerns through various plans and programs, including the 2008 *Regional Comprehensive Plan* (RCP). The RCP addresses regional issues related to housing, traffic/transportation, water, and air quality. It serves as an advisory document that local agencies in the Southern California region can use when preparing local plans and handling local issues of regional significance.

The RCP contains the following land use and air quality goals, which are relevant to the project:

- Land Use and Housing

  Successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing the Compass Blueprint 2% Strategy, which includes the following:[1]

  - Focusing growth in existing and emerging centers and along major transportation corridors;
  - Creating significant areas of mixed-use development and walkable, "people-scaled" communities;

[1] The Compass Blueprint 2% Strategy is a guideline for how and where the Growth Vision for Southern California's future can be implemented. It calls for changes to current land use and transportation trends on only 2% of the land area of the region.

- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations;
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings, and building new businesses and housing on vacant lots;
- Preserving existing stable, single-family neighborhoods; and
- Protecting important open space, environmentally sensitive areas, and agricultural lands from development.

- Air Quality
  - Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM10, PM2.5, ultrafine), and carbon monoxide; and
  - Expand green building practices to reduce energy-related emissions from developments to increase economic benefits to business and residents.

SCAG 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy

SCAG's RTP/SCS presents the transportation vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura Counties. The RTP/SCS identifies priorities for transportation planning within the Southern California region, sets goals and policies, and identifies performance measures for transportation improvements to ensure that future projects are consistent with other planning goals for the area (Southern California Association of Governments 2012a). All projects constructed within the SCAG region must be listed in the RTP/SCS.

The 2012 RTP/SCS goals are as follows:

- Align plan investments and policies with improving regional economic development and competitiveness;
- Maximize mobility and accessibility for all people and goods in the region;
- Ensure travel safety and reliability for all people and goods in the region;
- Preserve and ensure a sustainable regional transportation system;
- Maximize the productivity of our transportation system;
- Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking);
- Actively encourage and create incentives for energy efficiency, where possible;
- Encourage land use and growth patterns that facilitate transit and non-motorized transportation; and
- Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

3.9.2.3 Local

County of Los Angeles General Plan

The County of Los Angeles General Plan, adopted in 1980, serves as an advisory document to provide decision-makers with a policy framework towards achievement of the Plan's stated goals and policies. The Los Angeles County 2035 General Plan, currently in draft form (2014 draft plan) provides the policy framework for how and where the unincorporated County will grow through the year 2035, while recognizing and celebrating the County's wide diversity of cultures, abundant natural resources, and status as an international economic center. The Los Angeles County 2035 General Plan accommodates new housing and jobs within the unincorporated areas in anticipation of population growth in the County and the region. The general plan update effort includes goals, policies, implementation programs, and ordinances. The Los Angeles County 2035 General Plan will replace the adopted general plan, including all of the elements (excluding the Housing Element), land use distribution maps, and circulation maps.

City of Los Angeles General Plan

The City of Los Angeles General Plan is a comprehensive, long-term declaration of purposes, policies, and programs for the development of the City of Los Angeles (City of Los Angeles n.d.). It sets forth goals, objectives, and programs to provide a guideline for day-to-day land use policies and meet the existing and future needs and desires of the community while integrating a range of state-mandated elements, including transportation, noise, safety, housing, and conservation. In place of a Land Use Element, the City of Los Angeles includes community plans that establish policy and standards for each of the 35 geographic areas in the city. As such, the community plans are oriented toward specific geographic areas of the city, locally defining the general plan's more general citywide policies and programs.

The project site is located within the Lincoln Heights neighborhood of the Northeast Los Angeles Community Plan area. The Boyle Heights Community Plan area borders the medical center campus on the south. The Northeast Los Angeles Community Plan, adopted in 1999, recognizes the LAC+USC site's potential for revitalization. The area around the LAC+USC Medical Center is further defined by the City of Los Angeles as being part of a "Community Center" land use area. This land use designation recommends the following sizes and densities for buildings:

- Building Height: two to six stories
- Floor Area Ratio: 1.5:1 to 3:1

The following goals and objectives are applicable to the proposed project:

Objective 1-1 To preserve and enhance existing residential neighborhoods.

Objective 1-4 To preserve and enhance neighborhoods with a distinctive and significant historical or architectural character.

Objective 4-2 To preserve existing open space resources and, where possible, encourage acquisition.

Objective 5-1 To conserve, expand, maintain, and better utilize existing recreation and park facilities to address the recreational needs of the community.

Objective 8-1 To provide adequate police facilities and personnel to correspond with population and service demands.

Objective 9-1 Ensure that fire facilities and protective services are sufficient for the existing and future population and land uses.

Objective 10-1 To comply with citywide performance standards for acceptable levels of service and ensure that necessary road access and street improvements are provided to accommodate traffic generated by all new development.

Objective 14-1 To ensure that the plan area's significant cultural and historical resources are protected, preserved, and/or enhanced.

Objective 14-3 To enhance and capitalize on the contribution of existing cultural and historical resources in the community.

The land on the LAC+USC Medical Center campus is owned by the County and is therefore not subject to regulation by the City of Los Angeles General Plan. However, since the city's general plan is applicable to offsite impacts or offsite improvements that might be required to mitigate project impacts, they are included in this section.

City of Los Angeles General Plan Framework

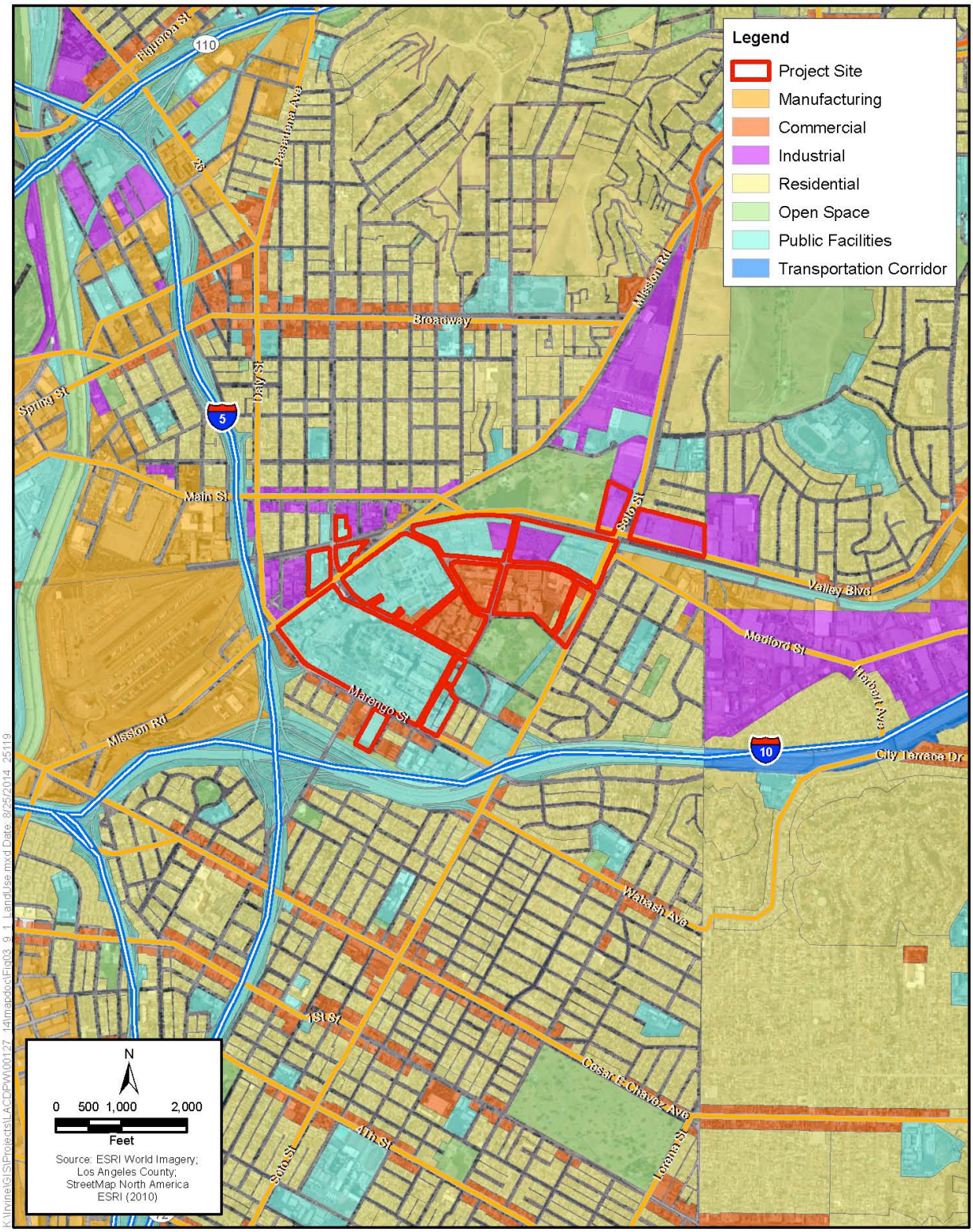
The city's general plan's Framework Element is a strategy for long-term growth. It sets a citywide context to guide updates to the community plan and citywide elements. The element responds to state and federal mandates to plan for the future. In planning for the future, the City of Los Angeles uses population forecasts provided by SCAG. The Framework Element does not mandate or encourage growth. The element is based on the population forecasts provided by SCAG. The project site is located within the Metro Los Angeles Geographical Area of the general plan's Framework Element and designated a Community Center (City of Los Angeles 2003). This designation is considered a focal point for surrounding residential neighborhoods that contain a diversity of uses, such as small offices and overnight accommodations, cultural and entertainment facilities, and schools and libraries, in addition to neighborhood-oriented services.

City of Los Angeles Zoning Code

The City of Los Angeles Planning and Zoning Code includes standards for different land uses and identifies which land uses are allowed in various zoning districts. Specifically, the zoning code consolidates and coordinates all existing zoning regulations and provisions to designate, regulate, and restrict locations and land uses. The project site has a City of Los Angeles zoning designation of Public Facilities – PF (City of Los Angeles n.d.). The PF zoning district allows public health facilities, including clinics and hospitals. PF-1 zoning does not have restrictions regarding the heights of buildings or any specific front-, side-, or rear-yard setbacks.

The County's development of County-owned land on the LAC+USC Medical Center campus is not subject to regulation by the City of Los Angeles Zoning Code. However, as noted above, any offsite improvements required to mitigate project impacts would be subject to city regulations. Figure 3.9-1 shows the city's zoning for the project site and the surrounding area.

Figure 3.9-1: Zoning Designations of the Project Site and Surrounding Area



3.9.3 Environmental Setting

The project site is located within the Lincoln Heights neighborhood of the City of Los Angeles, approximately 3 miles northeast of the Los Angeles civic center and 19 miles east of the Pacific Ocean. The site is located in the easternmost portion of the city in the Northeast Los Angeles Community Plan area. It is bordered by the City of Los Angeles Silver Lake-Echo Park-Elysian Valley Community Plan area to the west, the City of Los Angeles Boyle Height Community Plan area to the south, and the cities of Alhambra and Monterey Park to the northeast and east. The site is generally bordered by Marengo Street, Chicago Street, Zonal Avenue, and North Mission Road.

The 86-acre project site, which is owned by Los Angeles County, is located in a completely developed area that supports a variety of land uses, as described below.

Project Site

The LAC+USC Medical Center campus occupies the project site, which is developed with medical and office uses, parking facilities, open spaces, and maintenance facilities. Currently, the main campus area east of State Street is heavily utilized for outpatient and hospital functions. This area contains the original General Hospital, the LAC+USC Replacement Hospital and Central Plant, the older OPD building, and the Clinic Tower, built in 2008. Also located east of State Street is the former Interns and Residents building, currently used for hospital administrative offices, and Parking Structure #12.

Most of the site west of State Street is under-utilized and contains a large amount of open space. Many buildings in this area are not fully functional, and several campus programs are currently being housed in temporary buildings or trailers.

There are 28 permanent buildings and 29 modular structures on the LAC+USC campus. These are located between Marengo Street, Mission Road, Zonal Avenue, and Chicago Street. Additionally, there are seven buildings and 14 modular structures on the site northwest of Zonal Avenue and Mission Road. Major building clusters include the historic General Hospital, which sits on top of the hill just east of State Street. General Hospital was built in 1933, along with two administrative buildings, a gatehouse, and a utility tunnel and bridge. Several modular structures have been added at the historic entry plaza as well as north, east, and south of General Hospital.

The decommissioned Women's and Children's Hospital, which was built in 1958 and is currently vacant, and red-tagged due to safety concerns, is located at the southeast corner of Mission Road and Zonal Avenue. Across the street, to the northwest, a cluster of Spanish Colonial buildings house administrative, counseling, social work, facilities support, and clinical support functions. The Replacement Hospital project, which was completed in 2008, consists of four contemporary buildings that provide inpatient, outpatient, diagnostic and treatment, and facilities support functions.

Surrounding Land Uses

A variety of land uses are located in the surrounding area, including County/public, residential, commercial, industrial, medical, and institutional uses. Residential neighborhoods are located to the east, along Chicago Street and north of Alhambra Avenue, and to the southwest on the south side of Marengo Street west of State Street. The USC Health Sciences campus, which includes the Keck

School of Medicine, USC School of Pharmacy, Keck Hospital, and the USC Norris Comprehensive Cancer Center, is located just north of the project site across Zonal Avenue. Various commercial uses as well as the St. Camillus Catholic Center and the Los Angeles County Juvenile Court are also located north of the project site across Zonal Avenue. Hazard Park and Reservoir are located 0.6 mile to the northeast. Francisco Bravo Medical Magnet High School is located at the southwest corner of Zonal Avenue and Cornwell Street. Several County-operated services are located in the immediate area. Commercial uses line Marengo Street to the south, and commercial and industrial uses are located west of the main campus.

Figure 3.9-2 shows the land uses of the project site and the surrounding area.

3.9.4 Environmental Impact Analysis

3.9.4.1 Methods

Local plans and policies (including general plans, specific plans, zoning ordinances, land use and zoning maps, etc.) were reviewed to analyze the consistency of the proposed project with such plans. Existing and proposed land uses were analyzed to determine land use compatibility.

3.9.4.2 Thresholds of Significance

For the purposes of this EIR and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

LU-1 Physically divide an established community; or

LU-2 Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

The lead agency determined in the NOP/IS (see Appendix A) that the proposed project would not result in an impact in the following area, which was therefore screened from further review in this EIR. Please refer to Appendix A of this EIR for a copy of the NOP/IS and additional information regarding this issue area.

LU-3 Conflict with any applicable habitat conservation plan or natural community conservation plan.

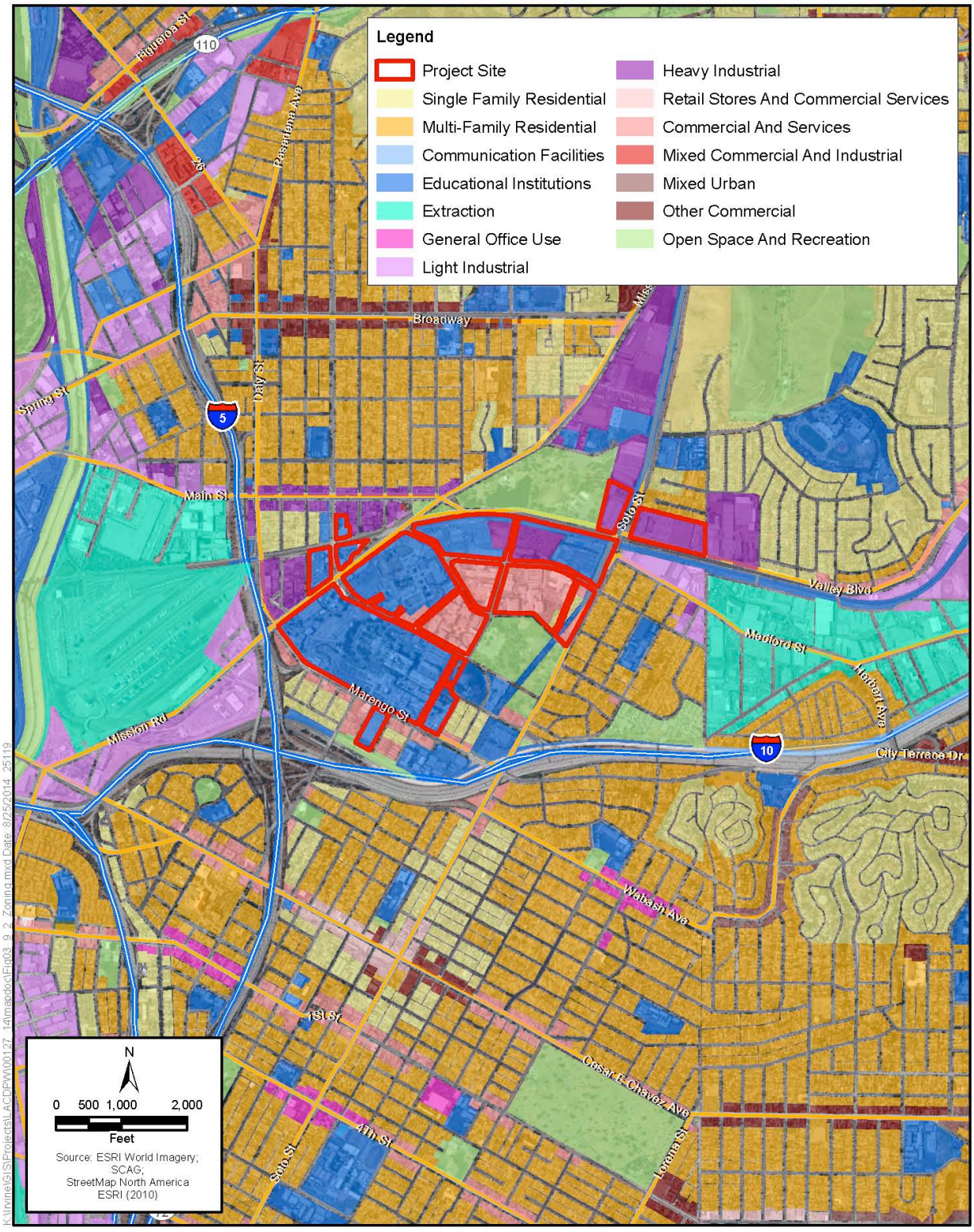
3.9.4.3 Impacts and Mitigation Measures

Impact LU-1: Would the Proposed Project Physically Divide an Established Community?

Construction

Projects under the master plan could include development of new or renovation of existing office space for medical uses, retail space, open space, parking facilities, and possibly some workforce housing on the medical center campus. Construction activities could include demolition of some on-site buildings and structures, site preparation and grading, and construction of new and renovated facilities. These types of construction activities, while temporary, localized, and site specific, could result in adverse impacts on surrounding land uses in the area, including diminished access due to

Figure 3.9-2 Land Uses of the Project Site and Surrounding Area



lane closures and increased congestion from truck traffic, increased levels of noise and vibration, and increased air pollutant emissions. Medical and other sensitive uses, such as residential uses, would be most affected by the temporary construction impacts. Best management practices and mitigation measures are proposed to reduce impacts on sensitive receptors (see Sections 3.2, Air Quality, and 3.10, Noise, for specific mitigation measures to reduce temporary construction impacts). Although construction activities on the medical center campus could result in off-site impacts, all proposed development and facilities that could occur under the master plan would be constructed within the existing boundaries of the medical center campus. No new structures are proposed that would result in the demolition of residential uses in the surrounding neighborhood or divide an established neighborhood. Therefore, the temporary land use construction impacts would be less than significant.

Operation

The proposed facilities are medically related in nature and would be generally compatible with existing uses on the campus as well as land uses in the surrounding area. Additionally, proposed retail services and medically related services and open spaces would benefit the surrounding community, especially nearby residential neighborhoods. As noted above, proposed new development and facilities would be limited to the existing boundaries of the medical center campus. No surrounding residential neighborhoods would be divided, and no off-site residential buildings would be displaced as a result of implementation of the proposed master plan. Therefore, no significant impacts would occur during operation.

Mitigation Measures

No mitigation measures are required (also see Sections 3.2, Air Quality, and 3.10, Noise, of this EIR for a discussion of construction impacts on land uses in the vicinity of the project site and proposed mitigation measures).

Impact LU-2: Would the Proposed Project Conflict with any Applicable Land Use Plan, Policy, or Regulation of an Agency with Jurisdiction over the Project Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect?

Construction and Operation

The discussion below describes the proposed project's potential conflicts with any applicable land use plans, policies, or regulations. The reader is also referred to other sections in this chapter for descriptions of potential adverse impacts (including air quality, greenhouse gas emissions, aesthetics, biological resources, noise, cultural resources, geology and soils, hazards and hazardous materials, public services, utilities and transportation/traffic) on land uses in the vicinity of the project site and any conflicts with the applicable regulations governing those impacts.

Consistency with SCAG RTP/SCS and the RCP

The proposed project would be consistent with the goals of the RTP/SCS and the RCP, as show in Table 3.9-1. Goals of the proposed project include enhancing the value of the campus; strengthening LAC+USC's image, place, and presence in the community; and promoting sustainable development. Additionally, construction and implementation of the proposed project would be consistent with the 2012 RTP/SCS goals of encouraging land use and growth patterns that facilitate non-motorized transportation.

Consistency with Local Plans and Policies

As described above, the project site is owned by Los Angeles County, and the facilities at LAC+USC Medical Center are exempt from local land use regulations. Specifically, the proposed project would not be required to be consistent with the city's general plan land use designation and zoning. Nonetheless, proposed construction, renovation, and additions included under the proposed master plan would be consistent with the current land use designation of Public Facilities and zoning designation of Public Facilities – PF. The Public Facilities land use designation allows for public facilities such as fire stations, libraries, and schools. The PF zone allows public health facilities, including clinics and hospitals. As shown in Table 3.9-1, below, the proposed project would be generally supportive of, or consistent with, the relevant policies and objectives included in the adopted County of Los Angeles General Plan Land Use Element and the Northeast Los Angeles Community Plan. Specifically, the proposed project would be consistent with most applicable Northeast Community Plan objectives. However, buildout of the proposed master plan would result in significant impacts to historical resources (see section 3.4 of this EIR) and traffic (see section 3.14) and consequently would conflict with the relevant goals of the Northeast Community Plan (see Table 3.9-1 below). Nonetheless, given the master plan would be consistent with most local land use plan policies and because the medical center campus is not subject to the city's land use regulations, the proposed master plan would not result in a significant land use impact due to conflicts with applicable land use plans, policies, or regulations.

Table 3.9-1: Proposed Project's Consistency with Applicable Land Use Plans

Policy/Objective Number	Discussion	Consistency
SCAG RTP		
Align the plan investments and policies with improving regional economic development and competitiveness.	The proposed project consists of a master plan that would be implemented over a period of approximately 25 years (2015–2040), which would guide future development of the campus and influence the delivery of health care services and health-related community programs to the region. Proposed development would improve the delivery of health care services to the region.	Consistent
Maximize mobility and accessibility for all people and goods in the region.	One of the goals of the proposed project is to maximize access to the medical center by the community. Additionally, the proposed master plan would guide future development of the campus and improve the delivery of health care services to the region.	Consistent
Ensure travel safety and reliability for all people and goods in the region.	Development under the master plan would include construction of new and renovated medically related office, retail, open space, and parking uses as well as demolition of existing buildings and structures to accommodate new development. No improvements to transportation infrastructure or operations in the region are proposed as part of the project.	Not applicable
Preserve and ensure a sustainable regional transportation system.	The proposed project consists of a master plan that would be implemented over a period of approximately 25 years (2015–2040), which would guide future development of the campus and influence the delivery of health care services and	Not applicable

Policy/Objective Number	Discussion	Consistency
	health-related community programs. No improvements to transportation infrastructure or operations in the region are proposed as part of the project.	
Maximize the productivity of our transportation system.	The proposed project consists of a master plan that would be implemented over a period of approximately 25 years (2015–2040), which would guide future development of the campus and influence the delivery of health care services and health-related community programs. No improvements to transportation infrastructure or operations in the region are proposed as part of the project.	Not applicable
Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	The proposed project would include a series of open space components, including a newly created north/south pedestrian circulation spine and a new pedestrian mall. Additionally, the proposed bike depot would improve access to the site and encourage alternative modes of transportation. The proposed bike depot would be equipped with items such as bicycle storage options, a bike maintenance area, transportation information (e.g., maps, schedules), and a rest area.	Consistent
Actively encourage and create incentives for energy efficiency, where possible.	The proposed project would include sustainable design practices. Specifically, it would promote efficient energy and water use and provide for comprehensive on-site water management systems. Other energy efficiency measures would include the implementation of LEED and CALGreen program goals.	Consistent
Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	Construction and operation of the proposed project would encourage land use and growth patterns that would facilitate bicycle and pedestrian use. As previously stated, a pedestrian mall and bicycle depot would be included under the proposed project.	Consistent
Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	The proposed project consists of a master plan that would be implemented over a period of approximately 25 years (2015–2040), which would guide future development of the campus and influence the delivery of health care services and health-related community programs. No improvements to transportation infrastructure, operations, or security in the region are proposed as part of the project.	Not applicable
County of Los Angeles General Plan		
Land Use Objectives		
To provide for land use arrangements that take full advantage of existing public services and facility capacities.	As described in Section 3.12, Public Services, the proposed project would require the implementation of mitigation measure PS-1 to ensure that impacts on police services would be less than significant. Please see Section 3.12 for further discussion of impacts on police and fire services.	Consistent

Policy/Objective Number	Discussion	Consistency
To maintain and enhance the quality of existing residential neighborhoods.	The proposed project would not substantially disrupt or physical divide existing residential neighborhoods located in the surrounding area. Rather, implementation of the proposed project would include community facilities and new open spaces that would benefit the surrounding community.	Consistent
To coordinate land use with existing and proposed transportation networks.	Construction and operation of the proposed project would encourage land use and growth patterns that would facilitate bicycle and pedestrian use. As previously stated, a pedestrian mall and bicycle depot would be included under the proposed project	Consistent
To encourage high quality design in all development projects, compatible with and sensitive to the natural and manmade environment.	The proposed project consists of a master plan that would be implemented over a period of approximately 25 years (2015–2040), which would guide future development of the campus and influence the delivery of health care services and health-related community programs. Specifically, it would promote efficient energy and water use and provide for comprehensive on-site water management systems. Other energy efficiency measures would include the implementation of LEED and CALGreen program goals.	Consistent
To foster compatible land use arrangements that contribute to reduced energy consumption and improved air quality.	The proposed project would include sustainable design practices. Specifically, it would promote efficient energy and water use and provide for comprehensive on-site water management systems. Other energy efficiency measures would include the implementation of LEED and CALGreen program goals.	Consistent
To provide a land use decision-making process supported by adequate information and citizen participation.	The proposed project involved citizen participation throughout the master plan selection process and throughout the EIR process, in the form of scoping and public meetings.	Consistent
To encourage more efficient use of land, compatible with and sensitive to natural ecological, scenic, cultural and open space resources.	The proposed project consists of a master plan that would be implemented over a period of approximately 25 years (2015–2040), which would guide future development of the campus. The proposed project would include a series of open space components, including a newly created north/south pedestrian circulation spine and a new pedestrian mall. Additionally, the proposed bike depot would improve access to the site and encourage alternative modes of transportation. See Sections 3.1 Aesthetics, 3.3 Biology and 3.4 Cultural Resources for impacts and mitigation measures.	Consistent

Policy/Objective Number	Discussion	Consistency
City of Los Angeles Northeast Community Plan		
Objective 1-1: To preserve and enhance existing residential neighborhoods.	The proposed project would not substantially disrupt or physical divide existing residential neighborhoods located in the surrounding area. Rather, implementation of the proposed project would include community facilities and new open spaces that would benefit the surrounding community.	Consistent
Objective 1-4: To preserve and enhance neighborhoods with a distinctive and significant historical or architectural character.	See response to Objective 1-1. No residential uses would be removed or altered. See Section 3.4, Cultural Resources, for a discussion of impacts on individual historical resources on the campus.	Consistent
Objective 4-2: To preserve existing open space resources and, where possible, encourage acquisition of new open space.	The proposed landscape and open space areas are intended to encourage outdoor recreation (primarily passive in nature), increase mobility and facilitate access to and through the site, and promote a sense of community with use of outdoor spaces that would be accessible to residents of the adjacent community.	Consistent
Objective 5-1: To conserve, expand, maintain, and better utilize existing recreation and park facilities to address the recreational needs of the community.	See the response to Objective 4-2, above.	Consistent
Objective 8-1: To provide adequate police facilities and personnel to correspond with population and service demands.	As described in Section 3.12, Public Services, the proposed project would require the implementation of mitigation measure PS-1 to ensure that impacts on police services would be less than significant. Please see Section 3.12 for further discussion of impacts on police and fire services.	Consistent
Objective 9-1: Ensure that fire facilities and protective services are sufficient for the existing and future population and land uses.	Direct increases to the permanent resident population in the neighboring communities are not anticipated as a result of the proposed project. Additionally, the proposed project is not expected to result in net increases in the employee or residential populations, beyond SCAG's long-term population growth projectionsSee Section 3.12, Public Services, for a discussion of impacts on police and fire services.	Consistent
Objective 10-1: To comply with citywide performance standards for acceptable levels of service and ensure that necessary road access and street improvements are provided to accommodate traffic generated by all new development.	As described in Section 3.14, during operation of the proposed project, upgrades to the campus would improve design features for campus visitors and employees. These upgrades would include improved sidewalks and safe, pleasant pedestrian walking paths throughout the campus. Project improvements to access, wayfinding, and the general orientation of campus facilities would also improve safety for motorists, pedestrians, and bicyclists as they travel to and around the campus. Traffic, mitigation measures are proposed to mitigate	Inconsistent

Policy/Objective Number	Discussion	Consistency
	the traffic impacts of potential development under the master plan on the surrounding street system. Mitigation measures MM-TRAF-2 and MM-TRAF-3 are subject to LADOT's acceptance and approval. If LADOT determines that one or more of these proposed improvements are not feasible, the impacts at the affected intersections would remain significant and unavoidable. See Section 3.14 for further discussion of traffic impacts anticipated to occur under the proposed project.	
Objective 14-1: To ensure that the plan area's significant cultural and historical resources are protected, preserved, and/or enhanced.	As described in Section 3.4, Cultural Resources, impacts on General Hospital/Acute Unit (including the retaining walls, State Street elements, and viaduct/tunnel), the old Administration Building, and the Pharmacy/Service Building are expected to be reduced to a level of less than significant with implementation of the proposed mitigation measures. However, demolition of a historical resource is a substantial adverse change. If demolition of the Women's and Children's Hospital and the associated gatehouse is not avoided, implementation of the mitigation measures above would not reduce the impact to a less-than-significant level. Therefore, demolition of this resource would result in a significant unavoidable impact.	Inconsistent
Objective 14-3: To enhance and capitalize on the contribution of existing cultural and historical resources in the community.	See the response to Objective 14-1 above.	Inconsistent
Source: City of Los Angeles Northeast Los Angeles Community Plan; ICF International 2014.		

Mitigation Measures

No mitigation measures are required.

3.9.5 Cumulative Impacts

As described above, the proposed project would not divide an established neighborhood. It would not conflict with most applicable land use plans, policies, or regulations; therefore, it would not contribute to any cumulative land use impacts. For a discussion of the cumulative impact of the proposed and related projects on historical resources and other sensitive resources, please see the relevant sections in this chapter.

The reader is also referred to the cumulative discussions in Section 3.2, Air Quality, and Section 3.10, Noise, as well as other sections in this chapter, for a discussion of the cumulative adverse impacts on land uses in the vicinity of the project site due to the combined effects of the proposed project and related growth and cumulative development.

3.10 Noise

3.10.1 Introduction

This section describes the potential noise and vibration impacts of the proposed project. It includes a discussion of existing regulatory requirements, the existing noise setting within the project area, and noise and vibration impacts that would result from implementation of the proposed project.

3.10.1.1 Noise Fundamentals

Noise is commonly defined as unwanted sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is disturbing or annoying.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

Technical acoustical terms used in this section are defined in Table 3.10-1.

Table 3.10-1: Definitions of Acoustical Terms

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound equal to 20 times the logarithm to base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micropascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals in air). Sound pressure level is the quantity that is measured directly by a sound level meter.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz, and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average A-weighted noise level during the measurement period. The hourly L_{eq} used for this report is denoted as dBA L_{eq}[h].

Term	Definition
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, which is obtained by adding 5 dB to sound levels in the evening from 7 p.m. to 10 p.m. and 10 dB to sound levels between 10 p.m. and 7 a.m.
Day/Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, which is obtained by adding 10 dB to sound levels measured at night between 10 p.m. and 7 a.m.
L_2, L_8, L_{25}. L_{50}, L_{90}	A-weighted noise levels that are exceeded 2%, 8%, 25%, 50% and 90% of the time during the measurement period.
Maximum Sound Level (Lmax)	The maximum sound level measured during the measurement period.
Minimum Sound Level (Lmin)	The minimum sound level measured during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Source: ICF, 2014.	

Sound Descriptors

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micropascals (µPa). One µPa is approximately one hundred-billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 µPa. Because of this large range of values, sound is rarely expressed in terms of µPa. Instead, a logarithmic scale is used to describe the sound pressure level (also referred to simply as the sound level) in terms of decibels. The threshold of hearing for young people is about 0 dB, which corresponds to 20 µPa.

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on human sensitivity to those frequencies. The A-weighted sound level (expressed in units of dBA) can be computed on the basis of this information.

The A-weighting scale approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Table 3.10-2 describes typical A-weighted sound levels for various noise sources.

Table 3.10-2: Typical A-Weighted Sound Levels

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing
Source: California Department of Transportation 2009.		

Decibel Addition

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one excavator produces a sound pressure level of 80 dBA, two excavators would not produce 160 dBA. Rather, they would combine to produce 83 dBA. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition.

Noise Descriptors

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations is utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time varying events. This energy-equivalent

sound/noise descriptor is called Leq. A common averaging period is hourly, but Leq can describe any series of noise events of arbitrary duration. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within approximately plus or minus 1 dBA. Two metrics describe the 24-hour average, Ldn and CNEL (defined in Table 3.12-1). Both include penalties for noise during nighttime hours; CNEL also penalizes noise during the evening. CNEL and Ldn are normally within one dBA of each other and used interchangeably in this section.

Human Response to Noise

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of one dBA. In the normal environment, the healthy human ear can detect changes of about two dBA; however, it is widely accepted that changes of three dBA in the normal environment are considered just noticeable to most people. A change of five dBA is readily perceptible, and a change of ten dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) resulting in a three-dB increase in sound would generally be barely detectable.

Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the following important factors:

Geometric Spreading

Sound from a single source (i.e., a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of six dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., a "line" source) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The change in sound level (i.e., attenuation) from a line source is three dBA per doubling of distance.

Ground Absorption

Usually the noise path between the source and the observer is very close to the ground. The excess noise attenuation from ground absorption occurs due to acoustic energy losses on sound wave reflection. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically "hard" sites (i.e., sites with a reflective surface, such as a parking lot or a smooth body of water, between the source and the receptor), no excess ground attenuation is assumed because the sound wave is reflected without energy losses. For acoustically absorptive or "soft" sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

Atmospheric Effects

Research by Caltrans and others has shown that atmospheric conditions can have a major effect on noise levels. Wind has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, also have major effects. Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation, with cooler air near the surface, where the sound source tends to be and the warmer air above which acts as a cap, causing a reflection of ground level–generated sound).

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor with the specific purpose of reducing noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A higher barrier may provide as much as 20 dB of noise reduction.

3.10.1.2 Groundborne Vibration Fundamentals

Groundborne vibration is an oscillatory motion of the soil with respect to the equilibrium position and can be quantified in terms of velocity or acceleration. Groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment (such as blasting and pile driving), steel-wheeled trains, and heavy trucks on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible.

Groundborne vibration can be described in terms of peak particle velocity (PPV). PPV is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is inches per second (in/s). For transient vibration sources (single isolated vibration events such as blasting), the human response to vibration varies from barely perceptible at a PPV of 0.04 in/s, to distinctly perceptible at a PPV of 0.25 in/s, and severe at a PPV of 2.0 in/s. For continuous or frequent intermittent vibration sources (such as impact pile driving or vibratory compaction equipment), the human response to vibration varies from barely perceptible at a PPV of 0.01 in/s, to distinctly perceptible at a PPV of 0.04 in/s, and severe at a PPV of 0.4 in/s (Caltrans, 2013). If a person is engaged in any type of physical activity, vibration tolerance increases considerably.

3.10.2 Regulatory Setting

3.10.2.1 State

California Green Building Standards Code (CALGreen)

Section 5.507 of the California Green Building Standards Code (CALGreen) identifies mandatory exterior-to-interior noise control standards for non-residential construction, which apply to buildings that are located within the 65 dB CNEL noise contour of an airport, freeway, expressway, railroad, industrial source, or fixed-guideway source as determined by the Noise Element of the general plan.

Two alternative methods for demonstrating compliance with the standards are provided in the CALGreen Code. These are: (1) the prescriptive method, and (2) the performance method. Under the prescriptive method, the project applicant must show that the wall and roof-ceiling assemblies making up the building envelope that is exposed to the noise source meet a composite sound transmission class (STC) rating of at least 50, or a composite outdoor-indoor transmission class (OITC) rating of no less than 40, with exterior windows that provide a minimum STC of 40 or OITC of 30. The performance method of compliance requires that an acoustical analysis be prepared demonstrating that the walls and roof-ceiling assemblies making up the building envelope that are exposed to the noise source shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (1-hour Leq) of 50 dBA in occupied areas during any hour of operation. It should be noted that the noise standards do not apply to "buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings."

3.10.2.2 Local

Los Angeles County Code

Construction noise is addressed in Section 12.08.440 of the Los Angeles County Code, as follows:

12.08.440 Construction Noise

A. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.

B. Noise Restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:

    1. At Residential Structures.

        a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

	Single-Family Residential	Multi-Family Residential	Semiresidential/ Commercial
Daily, except Sundays and legal holidays, 7 a.m. to 8 p.m.	75 dBA	80 dBA	85 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	Single-Family Residential	Multi-Family Residential	Semiresidential/ Commercial
Daily, except Sundays and legal holidays, 7 a.m. to 8 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

2. At Business Structures.

a. Mobile equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment:

Daily, including Sunday and legal holidays, all hours: maximum of 85dBA.

C. All mobile or stationary internal-combustion-engine powered equipment or machinery shall be equipped with suitable exhaust and air-intake silencers in proper working order.

D. In case of a conflict between this chapter and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities shall control.

The County code includes the following standard, in Section 12.08.560, related to groundborne vibration:

12.08.560 Vibration

Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz.

Section 1207 of Title 26 (Building Code), includes standards for interior noise levels within new hotels, motels, dormitories, long-term care facilities, apartment houses, dwellings, private schools, and places of worship. The noise limits are specified in Section 1207.11.2, as follows:

1207.11.2 Allowable Interior Noise Levels

Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable rooms, classrooms, and all rooms used in patient care and worship. The noise metric shall be either the day-night average sound level (Ldn) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

County of Los Angeles General Plan

The Noise Element of the County's general plan provides a number of policies related to community noise, but does not provide any quantitative standards for regulating acceptable noise levels.

City of Los Angeles CEQA Thresholds Guide

The *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006) defines noise-sensitive land uses as residences, transient lodgings, schools, day-care facilities, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks, and provides noise/land use compatibility guidelines, as summarized in Table 3.10-3.

Table 3.10-3: Land Use Noise Compatibility Guidelines

Land Use	Community Noise Exposure CNEL, dB			
	Normally Acceptable	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Single-Family, Duplex, Mobile Homes	50–60	55–70	70–75	above 70
Multifamily Homes	50–65	60–70	70–75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Transient Lodging – Motels, Hotels	50–65	60–70	70–80	above 80
Auditoriums, Concert Halls, Amphitheaters	—	50–70	—	above 65
Sports Arena, Outdoor Spectator Sports	—	50–75	—	above 70
Playgrounds, Neighborhoods Parks	50–70	—	67–75	above 72
Golf Courses, Riding Stables, Water, Recreation, Cemeteries	50–75	—	70–80	above 80

Normally Acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction and without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air-conditioning, will normally suffice.
Normally Unacceptable: New construction or development generally should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable: New construction or development generally should not be undertaken.
Source: City of Los Angeles, 2006.

The *L.A. CEQA Thresholds Guide* also establishes significance criteria for four different types of noise sources (construction, operational, railroad, and airport), as summarized below:

Construction Noise

A project would normally have a significant impact on noise levels from construction if:

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;
- Construction activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or
- Construction activities would exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at anytime on Sunday.

Operational Noise (including project-generated traffic)

A project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5-dBA or greater noise increase.

Railroad Noise

A project would normally have a significant impact with regard to exterior noise levels resulting from railroad operations if the project causes noise measured at the property line of a noise-sensitive receptor to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or “clearly unacceptable” category, or any 5-dBA or greater noise increase.

Airport Noise

A significant impact on ambient noise levels would normally occur if noise levels at a noise-sensitive use attributable to airport operations exceed 65 dB CNEL and the project increases ambient noise levels by 1.5 dB CNEL or greater.

City of Los Angeles Municipal Code

Construction Noise

Section 41.40 (a) of the City of Los Angeles Municipal Code prohibits the use, operation, repair, or servicing of construction equipment, as well as job-site delivery of construction materials between the hours of 9:00 p.m. and 7:00 a.m. where such activities would disturb “persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence.” Construction noise emanating from property zoned for manufacturing or industrial uses is exempted from the Section 41.40 (a) standards. In addition, Section 41.40 (c) prohibits construction, grading, and related job site deliveries on or within 500 feet of land developed with residential structures before 8:00 a.m. or after 6:00 p.m. on any Saturday or national holiday or at any time on Sunday.

Section 112.05 of the municipal code places limits on the maximum noise levels (75 dBA at a distance of 50 feet for typical construction equipment) that may be produced by powered equipment or tools in, or within 500 feet of, any residential zone between the hours of 7 a.m. and

10 p.m. The proscribed limits shall not apply where compliance is technically infeasible but the burden of proving that compliance is technically infeasible is on the person or persons charged with a violation of the standard. Technical infeasibility shall mean that the noise limit cannot be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment.

Operational Noise

Chapter XI, "Noise Regulation," of the City of Los Angeles Municipal Code regulates noise from non-transportation noise sources such as commercial or industrial operations, mechanical equipment, or residential activities. It is noted that while these regulations do not apply to vehicles operating on public rights-of-way, they do apply to noise generated by vehicles on private property – such as truck operations at commercial or industrial facilities. The exact noise standards vary depending on the type of noise source, but the allowable noise levels are generally determined relative to the existing ambient noise levels at the affected location. Section 111.01 (a) defines the ambient noise as "the composite of noise from all sources near and far in a given environment, exclusive of occasional and transient intrusive noise sources and of the particular noise source or sources to be measured. Ambient noise shall be averaged over a period of at least 15 minutes…" Section 111.03 provides minimum ambient noise levels for various land uses, as described in Table 3.10-4, below. In the event that the actual measured ambient level at the subject location is lower than that provided in the table, the level in the table shall be assumed.

Table 3.10-4. City of Los Angeles Assumed Minimum Ambient Noise Levels

Zone	Assumed Minimum Ambient Noise (L_{eq}), dBA	
	Daytime (7 a.m.–10 p.m.)	Nighttime (10 p.m.–7 a.m.)
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65
Source: City of Los Angeles, 2013.		

At the boundary line between two zones, the allowable noise level of the quieter zone shall be used. The allowable noise levels are then adjusted if certain conditions apply to the alleged offensive noise, as follows:

- For steady tone noise with an audible fundamental frequency or overtones (except for noise emanating from any electrical transformer or gas metering and pressure control equipment existing and installed prior to September 8, 1986) – reduce allowable noise level by 5 dB(A).
- For repeated impulsive noise – reduce allowable noise level by 5 dB(A).
- For noise occurring less than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 a.m. and 10:00 p.m. – increase allowable noise level by 5 dB(A).

The city's noise ordinance is not explicit in defining the length of time over which an average noise level should be assessed. However, based on the noted reference to "60 consecutive minutes," above, it is concluded that the 1-hour Leq metric should be used.

Section 112.02 of Chapter XI addresses noise from air conditioning, refrigeration, heating, pumping, and filtering equipment. It states that such equipment may not generate noise that would exceed the ambient noise level at any adjacent property by more than 5 dBA.

Section 114.02 of Chapter XI addresses noise from motor driven vehicles (it is noted that the code only addresses vehicles on private property and does not address vehicles while operated on public highways). It states that such vehicles may not generate noise that would exceed the ambient noise level at any occupied residential property by more than 5 dBA.

City of Los Angeles Noise Element

The Noise Element of the city's general plan defines the following land uses to be noise-sensitive: single- and multi-family dwellings, long-term care facilities (including convalescent and retirement facilities), dormitories, motels, hotels, transient lodgings and other residential uses; houses of worship; hospitals; libraries; schools; auditoriums; concert halls; outdoor theaters; nature and wildlife preserves; and parks.

The Noise Element contains the following polices that are relevant to the proposed project:

Policy 5 – Continue to enforce, as applicable, city, state and federal regulations intended to abate or eliminate disturbances of the peace and other intrusive noise.

Policy 6 – When processing building permits, continue to require appropriate project design and/or insulation measures, in accordance with the California Noise Insulation Standards (Building Code Title 24, Section 3501 et seq.), or any amendments thereto or subsequent related regulations, so as to assure that interior noise levels will not exceed the minimum ambient noise levels, as set forth in the city's noise ordinance (LAMC Section 111 et seq., and any other insulation related code standards or requirements) for a particular zone or noise-sensitive use, as defined by the California Noise Insulation Standards.

Policy 11 – For a proposed development project that is deemed to have a potentially significant noise impact on noise-sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with California Environmental Quality Act and city procedures.

Policy 12 – When issuing discretionary permits for a proposed noise-sensitive use (as defined by this chapter) or a subdivision of four or more detached single-family units and which use is determined to be potentially significantly impacted by existing or proposed noise sources, require mitigation measures, as appropriate, in accordance with procedures set forth in the California Environmental Quality Act.

3.10.3 Environmental Setting

3.10.3.1 Existing Noise Environment

The primary source of noise that currently affects the project vicinity is traffic on surrounding streets and the Interstate 5 (I-5) and I-10 freeways. Existing noise levels due to these roadways are estimated as part of the analyses provided in Section 3.10.4, below. Secondary sources of noise

include operations at nearby commercial and industrial properties, aircraft overflights, operations at the existing LAC+USC Medical Center (including mechanical and utility plant equipment, parking lots and structures, ambulance sirens, and occasional heliport operations for air ambulances), freight trains on the Union Pacific (UP) railroad north of the project site, and day-to-day neighborhood noise such as landscaping activities and barking dogs.

The closest noise-sensitive receptors to the project site include homes (multi- and single-family) located approximately 30 feet east, 125 feet south, and 70 feet northwest of the boundaries of the medical center campus; Saint Camillus Center for Spiritual Care on Zonal Avenue, which is located 65 feet north of the campus; Hazard Park, which is located 200 feet to the east; and a Budget Inn motel on Marengo Street, approximately 65 south of the project site.

Noise Monitoring

In order to document the existing noise environment short-term (ST) measurements were obtained at six locations throughout the study area on Thursday July 31, 2014, between 10 a.m. and 3 p.m. The locations are identified in Figure 3.10-1; additional details and a summary of the measurement results are provided in Table 3.10-5. Each measurement was conducted over a period of approximately 15 minutes.

Table 3.10-5. Summary of Noise Measurements

	Measured Noise Levels, dBA							
Location #, Description (Date, Time)	**L_{eq}**	**L_{max}**	**L_{min}**	**L_2**	**L_8**	**L_{25}**	**L_{50}**	**L_{90}**
ST-1, On sidewalk east of single-family residence at 3033 N Main Street (7/31/2014, 11:32 a.m. – 11:47 a.m.)	67.0	77.4	46.7	73.4	71.3	68.3	64.8	56.0
ST-2, On sidewalk east of single-family residence at 1035 Clement Street (7/31/2014, 1:22 p.m. – 1:37 p.m.)	61.7	82.7	54.3	67.2	63.0	60.5	58.7	56.0
ST-3, On sidewalk north of Budget Inn Motel, 2050 Marengo Street (7/31/2014, 2:37 p.m. – 2:52 p.m.)	70.1	83.3	58.6	76.7	73.5	70.5	67.3	61.0
ST-4, Adjacent to multi-family residence at 1110 N Chicago Street (7/31/2014, 1:54 p.m. – 2:09 p.m.)	65.6	73.4	64.1	68.4	66.4	65.6	65.2	64.7
ST-5, South side of apartments at 2101 Charlotte Street (7/31/2014, 2:11 p.m. – 2:26 p.m.)	59.9	70.8	55.9	64.2	61.6	60.0	59.1	58.1
ST-6, On sidewalk north of single-family residence at 2400 Lancaster Avenue (7/31/2014, 10:51 a.m. – 11:06 a.m.)	69.1	83.5	50.3	77.2	73.6	69.0	65.9	55.5
Source: ICF, 2014.								

3.10.4 Environmental Impact Analysis

This noise impact analysis evaluates the temporary noise and groundborne vibration associated with proposed project construction activities, the changes in noise levels in the study area that would occur as a result of the proposed project (including on-site operations and project-generated traffic), and the effects of noise on the proposed project.

3.10.4.1 Methods

Potential noise and vibration impacts associated with project construction activities were evaluated using an assumed construction equipment schedule, and noise and vibration source levels and modeling methodologies provided by the Federal Transit Administration (FTA, 2006) and the Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA, 2008). Traffic noise was analyzed using a proprietary traffic noise model with calculations based on data from the FHWA Traffic Noise Model (TMN) Version 2.5 Look-Up Tables (FHWA, 2004). The inputs used in the traffic noise modeling included average daily traffic (ADT) volumes derived from data provided in the traffic study for the project and by Caltrans (Caltrans, 2012); traffic speeds based on the posted speed limits; and traffic mix (the percentage of automobiles versus medium trucks and heavy trucks) based on published data for typical roadways (County of Riverside, 2012) and freeways (Caltrans, 2012).

Additional noise sources related to the project were analyzed qualitatively or based on noise measurements of existing or similar facilities, or applicable published noise data.

3.10.4.2 Thresholds of Significance

Because the project site is a County of Los Angeles facility, the County's noise and vibration standards will take precedence in establishing thresholds of significance for potential on-site impacts. The surrounding community is within the City of Los Angeles, so the city's noise and vibration standards will take precedence in establishing thresholds of significance for potential off-site impacts. With this in mind, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact on the environment if it:

NOI-1 Exposes persons to or generates noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. This impact will occur if:

1. Any project construction activity takes place outside the hours of 7 a.m. to 7 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays (based on the permitted construction hours specified by the city and County government codes); or,
2. Any project construction activity generates maximum noise levels that exceed 75 dBA at any off-site residential receptor (based on the City of Los Angeles Municipal Code); or,
3. Any project construction activity generates maximum noise levels that exceed 85 dBA at on-site medical center buildings that house patients (based on County code); or,

4. New non-residential buildings constructed as part of the proposed project fail to comply with the exterior-to-interior noise control standards of the California Green Building Standards Code (see Section 5.507); or,

5. New residential buildings constructed as part of the proposed project fail to comply with the allowable interior noise level standards of the County of Los Angeles Building Code (45 dB L_{dn} or CNEL); or,

6. Project operations generate noise levels at any off-site noise-sensitive receptors in excess of those permitted by the City of Los Angeles Noise Ordinance (see Section 111.02).

NOI-2 Exposes persons to or generates excessive groundborne vibration or groundborne noise levels. This impact will occur if vibration from construction activities exceeds a PPV of 0.01 at any sensitive building, including on-site medical center buildings that house patients (based on County code).

NOI-3 Results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Based on the *L.A. CEQA Thresholds Guide*, this impact will occur if:

1. Project traffic or on-site operations increase the CNEL at any off-site noise-sensitive receptor by 3 dB or more to or within the "normally unacceptable" or "clearly unacceptable" noise level range for the receptor's land use, as summarized in Table 3.10-3); or,

2. Project traffic or on-site operations increase the CNEL at any off-site receptor by 5 dB or more.

NOI-4 Results in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Based on the *L.A. CEQA Thresholds Guide*, this impact will occur if the 1-hour L_{eq} from project construction activities would exceed existing ambient exterior noise levels by 5 dB(A) or more at a noise-sensitive use.

NOI-5 Is located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels.

The County of Los Angeles Department of Public Works determined in the NOP/IS prepared for this EIR (see Appendix A) that the proposed project would result in no impacts in the area listed below; therefore, this issue was not carried forward for further analysis in this EIR.

NOI-6 Is located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and exposes people residing or working in the project area to excessive noise levels.

The project site is more than 9 miles from the nearest public airport, San Gabriel Valley (El Monte) Airport. Therefore, no impacts are anticipated under this threshold and it is not considered further in this section.

Figure 3.10-1: Noise Monitoring Locations

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3.10.4.3 Impacts and Mitigation Measures

Impact NOI-1: Would the Proposed Project Expose Persons to or Generate Noise Levels in Excess of Standards Established in a Local General Plan or Noise Ordinance or Applicable Standards of other Agencies?

Construction

In accordance with the County and City of Los Angeles government codes, construction would take place between the hours of 7 a.m. to 7 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays. There are no known plans to construct outside of these hours or at any time on Sundays or legal holidays. If, during development of the final construction schedule, it is deemed necessary to work outside of the permitted hours, the County will follow the necessary procedures to obtain an appropriate variance. All internal-combustion-engine powered equipment or machinery would be equipped with suitable exhaust and air-intake silencers in proper working order. Project construction would be broken down into phases. The phases of construction and anticipated construction equipment are summarized in Table 3.10-6, along with the associated maximum noise levels at a reference distance of 50 feet. As noted previously, the thresholds of significance, which

Table 3.10-6. Construction Phasing and Equipment Noise Levels

Construction Phase	Equipment Item	Maximum Noise Level (L_{max}) at 50 feet, dBA*	Distance Required to Reduce L_{max} to 85 dBA, feet	Distance Required to Reduce L_{max} to 75 dBA, feet
Demolition	Concrete/Industrial Saws	90	85	270
	Excavator	85	50	150
	Rubber Tired Dozer	85	50	150
Site Preparation	Rubber Tired Dozer	85	50	150
	Tractor/loader/backhoe	85	50	150
Grading	Excavator	85	50	150
	Grader	85	50	150
	Rubber Tired Dozer	85	50	150
	Scraper	89	85	240
	Tractor/loader/backhoe	85	50	150
Building Construction	Crane	88	70	215
	Forklift	80	30	85
	Generator Set	81	30	95
	Tractor/loader/backhoe	85	50	150
	Welder	74	15	45
Paving	Paver	89	85	240
	Paving equipment	80	30	85
	Roller	74	15	45
Architectural Coating	Air compressor	81	30	95

*Obtained or estimated from FTA 2006 and/or FHWA 2008 (RCNM).
Source: ICF, 2014.

were established based on the County and city noise standards, are 85 dBA at on-site medical center buildings that house patients and 75 dBA at off-site residential receptors. Therefore, the maximum distance from each piece of equipment at which these noise levels would occur are also provided in the table. The analysis of construction noise impacts assumed that construction of individual projects under the master plan could overlap and was based on the same construction assumptions used in the air quality impact analysis (see Section 3.2). .

In addition to the equipment shown in Table 3.10-6, it is possible that pile driving would be necessary at some point in the construction process. Typical maximum pile driving noise levels are 101 dBA at 50 feet, and would be reduced to 85 dBA or 75 dBA at distances of 300 feet and 945 feet, respectively.

For construction of facilities that do not involve pile driving and are located toward the interior of the project site, the noise levels at off-site residential properties would be below the applicable Lmax threshold of 75 dBA. However, for construction that involves pile driving and/or occurs close to the project boundaries that are in the vicinity of residences (such as homes across Marengo Street or on Sichel Street), maximum noise levels would exceed 75 dBA. In addition, construction of new onsite facilities would occur in close proximity to existing medical center buildings that house patients and would exceed 85 dBA at these locations. These would be significant impacts.

Operation

Project operational noise sources would include additional traffic on the surrounding streets and on-site noise sources such as mechanical equipment, parking lot activities, and activities at proposed outdoor spaces such as the Adventure Courtyard and Central Plaza.

Traffic Noise

As required by the *L.A. CEQA Thresholds Guide*, potential impacts at off-site sensitive receptors due to project-related traffic are to be assessed with respect to noise increases (rather than solely based on absolute noise levels). Therefore, the off-site traffic noise analysis is conducted under Impact NOI-3, below, which specifically addresses permanent increases in ambient noise levels in the project vicinity. However, in order to analyze potential traffic noise impacts on the project site itself, future noise levels from the adjacent streets and nearby freeways were analyzed. The results of this analysis is summarized in Table 3.10-7.

Referring to the table, any new buildings on the project site (excluding "buildings with few or no occupants or where occupants are not likely to be affected by exterior noise") constructed within 129 feet of Marengo Street, 172 feet of Mission Road, 46 feet of Zonal Avenue, 590 feet of I-5, or 482 feet of I-10 would be exposed to a noise level of 65 dB CNEL or greater, and would be required to comply with the CALGreen exterior-to-interior noise control standards for non-residential construction. Failure of any non-residential on-site buildings to comply with these standards would be a significant impact.

The project also proposes to locate new residential buildings (workforce housing) on parcels adjacent to Mission Road; these buildings would be subject to the interior noise standard of 45 dB Ldn or CNEL established by the County's Building Code. Compliance with these standards would ensure the noise impact on these residences would be less than significant.

Table 3.10-7. Distance to Traffic Noise Contours from Roadways Affecting the Project Site

Roadway	Segment Location	Distance to CNEL Noise Contour from Roadway Centerline (feet)*			
		75 dB	70 dB	65 dB	60 dB
Charlotte Street/N Cummings St	West of Soto St	-	-	-	82
Chicago St	Marengo St - Charlotte St	-	-	-	-
Marengo St	Mission Rd - State St	-	39	123	350
Marengo St	State St - Brittania St	-	40	125	356
Marengo St	Brittania St - Chicago St	-	41	129	366
Mission Rd	Marengo St - Workman St	-	55	173	465
Mission Rd	Workman St - Sichel St	-	55	172	465
Mission Rd	Sichel St - Zonal Ave	-	55	171	461
Zonal Ave	East of Mission Rd	-	-	46	145
I-5 future	West of project site	198	342	590	>980
I-10 future	South of project site	171	283	482	822

Notes:
* Where no value is shown, the noise contour does not extend beyond the roadway's right-of-way.
Source: ICF, 2014.

Parking Lot Activity

Based on trip generation data provided in the project traffic study, there could be up to 711 vehicle trips (total including both inbound and outbound trips) during the daily peak hour at the project site at project build out. Noise generated by these vehicles while on site would not be sufficient to exceed city noise standards for the following reasons:

- These vehicles would be spread out between various parking facilities throughout the project site, including aboveground and underground parking structures, and a relatively limited number of surface park spots.
- Typical noise sources within parking lots are of very short duration (engines starting, doors slamming, etc.) and do not contribute significantly to overall noise levels when averaged over a 1-hour period.
- The parking structures and other intervening buildings would provide acoustical shielding.
- Based on the conceptual master plan layout, the average distance between each proposed parking facility and the nearest noise-sensitive receptor would be at least 100 feet and in many cases the distance would be much greater. (It is considered appropriate to use the average source-to-receiver distance, rather than the closest distance to each parking facility because such facilities represent a distributed noise source that is spread across the entire parking area.)

Therefore, noise impacts from the parking lots associated with the project would be less than significant.

Mechanical Equipment

The project would introduce a variety of new mechanical equipment throughout the project site. This would include rooftop heating, ventilation and air conditioning (HVAC) equipment, ventilation fans for subterranean parking, and new central plant equipment. Due to the size of the project site, much of this equipment would be located at large distances from off-site sensitive receptors and/or would be shielded by intervening structures, and would not be expected to exceed the applicable noise standards of the City of Los Angeles Municipal Code. However, because the master plan is conceptual and programmatic in nature, the final type, location, and configuration of mechanical equipment is unknown and the possibility exists that some on-site mechanical equipment would increase ambient noise levels and exceed the applicable daytime and/or nighttime noise standards at off-site sensitive receptors, which would be a significant impact.

Emergency Vehicles

Sirens from emergency vehicles (i.e., ambulances) are an existing source of daytime and nighttime noise associated with the LAC+USC Medical Center. Emergency vehicles currently access the site from Marengo Street using a dedicated driveway, just west of Brittania Street, to take patients directly to the emergency room doors. While sirens generate very high short-term noise levels (measurements conducted adjacent to the project site indicated maximum noise levels of 103 dBA at a distance of approximately 40 feet), they are generally excluded from local noise standards and would not be considered a violation of the city's municipal code. Furthermore, implementation of the project would not expand on-site emergency room facilities and is not anticipated to increase the number of ambulances accessing the hospital (relative to numbers existing without the project) or alter their routes to the hospital (they would continue to use the same access driveway). Therefore, the project would not cause an increase in emergency vehicle noise levels, or the frequency of their occurrence, in the surrounding community and the impacts would be less than significant.

Outdoor Events

The project includes a number of outdoor spaces that would provide for a variety of uses ranging from walking, biking, and informal gatherings to organized events such as outdoor markets with street vendors, organized weekly farmers markets, and summer concerts and health marches. Noise generated by passive day-to-day use of the outdoor spaces would be limited primarily to the intermittent sounds of people talking, laughing, yelling etc. and would not be expected to exceed the applicable noise standards of the City of Los Angeles Municipal Code at off-site noise sensitive receptors. However, noise generated by large organized events would have the potential to increase ambient noise levels and exceed the applicable standards, especially during concerts or when other forms of amplified sound are used (public address systems, bullhorns, etc.), which would be a significant impact.

Mitigation Measures

The following measures are proposed to mitigate the construction and operations impacts identified under Impact NOI-1, above.

MM-NOI-1: Reduce Construction Noise to the Extent Possible. The County shall implement the following noise reduction measures during construction:

- Construction activities should be limited to between the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays, and should not occur at any time on Sundays or legal holidays. Construction personnel should not be permitted on the job site, and material or equipment deliveries and collections should not be permitted outside of these hours.
- To the fullest extent practicable, the quietest available type of construction equipment should be used. Newer equipment is generally quieter than older equipment. The use of electric powered equipment is typically quieter than diesel or gasoline powered equipment, and hydraulic powered equipment is typically quieter than pneumatic power.
- Where possible, impact pile driving should be replaced with other piling techniques, such as vibratory pile driving or drilled and poured-in-place piles.
- All mobile and fixed noise-producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of project activity.
- All construction equipment should be properly maintained. Poor maintenance of equipment typically causes excessive noise levels.
- All construction equipment, stationary and mobile, should be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- All noisy equipment should be operated only when necessary, and should be switched off when not in use.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. To the extent practicable, temporary barriers should be employed around the project site and/or around noisy construction equipment. For barriers to be effective they should break the line-of site between the equipment and any noise-sensitive receiver. These barriers may be constructed as follows:
    - From commercially-available acoustical panels lined with sound absorbing material (the sound absorptive faces of the panels should face the construction equipment).
    - From common construction materials such as plywood and lined with sound absorptive material (the sound absorptive material should face the construction equipment).
    - From acoustical blankets hung over or from a supporting frame. The blankets should provide a minimum sound transmission class (STC) rating of 28 and a minimum noise reduction coefficient (NRC) of 0.80 and should be firmly secured to the framework with the sound absorptive side of the blankets oriented towards the construction equipment. The blankets should be overlapped by at least 6" at seams and taped so that no gaps exist. The largest blankets available should be used in order to minimize the number of seams. The blankets shall be draped to the ground to eliminate any gaps at the base of the barrier.

- Construction employees shall be trained in the proper operation and use of the equipment.
- Storage, staging, parking, and maintenance areas shall be located away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies should be positioned in a manner that will function as a noise barrier to the closest sensitive receivers.
- Stationary noise sources such as generators and compressors shall be positioned as far away as possible from noise sensitive areas.
- Construction equipment shall be stored on the project site while in use. This will eliminate noise associated with repeated transportation of the equipment to and from the site.
- To the extent possible haul roads should not be designated through noise-sensitive areas.

MM-NOI-2: Design Non-Residential Project Buildings to Comply with CALGreen Exterior-to-Interior Noise Control Standards. During the architectural and engineering design phase of each new non-residential building that would be located within the 65 dB CNEL contour of any of the surrounding roadways (i.e., within 129 feet of Marengo Street, 172 feet of Mission Road, 46 feet of Zonal Avenue, 590 feet of I-5, or 482 feet of I-10), and prior to the issuance of any building permits for the building, the County shall retain an acoustical consultant to evaluate the design and provided recommendations, as necessary, to comply with the State of California Green Building Standards Code. Such mitigation measures may include, but are not limited to: installation of sound-rated windows or upgrades to façade wall elements. It is noted that this mitigation measure does not apply to "buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings."

MM-NOI-3: Design Residential Project Buildings to Comply with the County of Los Angeles Building Code's Interior Noise Standards. During the architectural and engineering design phase of each new residential building to be developed as part of the project, and prior to the issuance of any building permits for the building, the County shall retain an acoustical consultant to evaluate the design and provided recommendations, as necessary, to comply with the County of Los Angeles Building Code's interior noise standard of 45 dB Ldn or CNEL. Such mitigation measures may include, but are not limited to: installation of sound-rated windows or upgrades to façade wall elements.

MM-NOI-4: Design Project Facilities to Ensure All Mechanical Equipment Complies with Chapter XI of the City of Los Angeles Municipal Code. During the architectural and engineering design phase of each new facility (building, central plant, parking structure, etc.) that would introduce new mechanical equipment to the project site, and prior to the issuance of any building permits for the facility, the County shall retain an acoustical consultant to evaluate the design and provided recommendations, as necessary, to ensure that the mechanical equipment complies with Chapter XI of the City of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: changes in equipment locations, upgrades to central plant buildings, rooftop parapet walls, acoustical louvers or screens, or intake and exhaust silencers.

MM-NOI-5: Design and Manage Outdoor Use Areas to Ensure Organized Outdoor Events Comply with Chapter XI of the City of Los Angeles Municipal Code. Prior to the issuance of any building permits for outdoor use areas that are anticipated to host organized events such as outdoor markets, farmers markets, summer concerts and health marches, etc. the County shall

retain an acoustical consultant to evaluate the design (event layout, sound system design, etc.) and operational event details (crowd sizes, times of operation, etc.) to ensure that such events will comply with Chapter XI of the City of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: controls on crowd sizes and event times, and limits on sound system power levels.

Level of Significance after Mitigation

While MM-NOI-1 will reduce construction noise levels, it will not eliminate the predicted noise impacts entirely; therefore, construction noise impacts are considered significant and unavoidable.

All operational noise impacts are considered to be less than significant after mitigation.

Impact NOI-2: Would the Proposed Project Expose Persons to or Generate Excessive Groundborne Vibration or Groundborne Noise Levels?

Heavy construction equipment has the potential to produce groundborne vibration levels that are perceptible to people in the surrounding area.

Referring to the equipment schedule provided above, in Table 3.10-6_, various pieces of heavy equipment such as graders and excavators would be used at the project site. Based on data published by the FTA (FTA, 2006), this type of equipment typically produces PPV vibration levels of 0.089 in/s at a distance of 25 feet. If pile driving is conducted at the project site, source vibration levels would be increased to 0.644 in/s at 25 feet.

Vibration levels from construction equipment attenuate as they radiate from the source. The equation to determine vibration levels at a specific distance states that

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

where PPV_{ref} is the PPV at a reference distance of 25 feet, and D is the distance from the equipment to the sensitive receptor (FTA, 2006).

Using this equation, it was calculated that heavy construction equipment (graders, excavators, etc.) would generate groundborne vibration levels of 0.01 in/s or greater at distances of up to 111 feet. If pile driving is used, this impact distance would increase to 403 feet. Due to the proximity of proposed construction areas to both off-site and on-site sensitive receptors, it does not appear practical to avoid the operation of heavy construction equipment within 111 feet of these receptors, therefore the impact would be significant.

Mitigation Measures

The following measure is proposed to mitigate Impact NOI-2, above.

MM-NOI-6: Reduce Construction-Generated Groundborne Vibration to the Extent Possible. The County shall implement the following vibration reduction measures during construction:

- Where possible, impact pile driving should be replaced with other piling techniques, such as vibratory pile driving or drilled and poured-in-place piles.
- To the extent possible, heavy construction equipment should not be operated within 111 feet of on-site or off-site sensitive receptors.

Level of Significance after Mitigation

While MM-NOI-6 would reduce construction vibration levels, it would not eliminate the predicted impacts entirely; therefore, construction vibration impacts are considered significant and unavoidable.

Impact NOI-3: Would the Proposed Project Result in a Substantial Permanent Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project?

Construction

Construction noise would be temporary and limited to the period of construction activities. Therefore, substantial permanent increases in ambient noise levels would only occur once individual projects under the master plan are implemented and operational.

Operation

Traffic Noise

In order to analyze noise increases associated with project-generated traffic, four different traffic scenarios were analyzed: (1) existing, (2) existing-with-project, (3) future-without-project, and (4) future-with-project. Using the results of these analyses, it was possible to determine the effects of the project by comparing the existing noise levels to the existing-with-project noise levels, and the future-without-project noise levels to the future-with-project noise levels. The traffic noise modeling results are summarized in Table 3.10-8. Referring to the table, project-generated traffic would increase traffic noise levels in the project vicinity by less than 3 dB CNEL adjacent to all roadways. Therefore, the impact would be less than significant.

Table 3.10-8. Estimated Traffic Noise Levels

	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline, dB CNEL					
Roadway/Segment	**Existing**	**Existing-with-Project**	**Increase Over Existing**	**Future-Without-Project**	**Future-with-Project**	**Increase Over Future-Without-Project**
Cesar E. Chavez Avenue						
State St - I-5 NB Off-Ramp	67.6	67.7	0.1	68.0	68.1	0.1
Charlotte/N Cummings Street						
W of Soto St	61.9	61.9	-0.1	62.3	62.2	-0.1
Chicago Street						
Marengo St - Charlotte St	58.3	57.3	-0.9	58.6	57.7	-0.9
Daly Street						
Main St - Mission Rd	66.9	67.1	0.2	67.3	67.4	0.2
Main Street						
Daly St - Mission Rd	68.5	68.5	0.0	68.9	69.0	0.0
Marengo Street						
Mission Rd - State St	68.5	68.6	0.1	68.9	69.0	0.1
State St - Brittania St	68.3	68.7	0.3	68.8	69.1	0.3
Brittania St - Chicago St	68.5	68.8	0.3	68.9	69.2	0.3
Chicago St - Soto St	68.6	69.1	0.4	69.0	69.4	0.4

	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline, dB CNEL					
Roadway/Segment	**Existing**	**Existing-with-Project**	**Increase Over Existing**	**Future-Without-Project**	**Future-with-Project**	**Increase Over Future-Without-Project**
Mission Road						
I-5/I-10 Ramps - Marengo St	70.8	70.8	0.1	71.2	71.2	0.1
Marengo St - Workman St	70.2	70.0	-0.1	70.6	70.5	-0.1
Workman St - Sichel St	70.2	70.0	-0.1	70.6	70.5	-0.1
Sichel St - Zonal Ave	70.1	70.0	-0.1	70.5	70.4	-0.1
Zonal Ave - Valley Blvd	68.9	68.9	0.1	69.3	69.4	0.1
Valley Blvd - Main St	68.9	69.0	0.1	69.3	69.4	0.1
Soto Street						
Wabash Ave - Marengo St	69.8	69.9	0.2	70.3	70.5	0.2
Marengo St - Charlotte St	70.1	70.2	0.1	70.7	70.7	0.1
Charlotte St - Alcazar St	69.7	69.7	0.0	70.3	70.3	0.0
Cesar E. Chavez Ave – I-10 EB Ramps	66.5	66.8	0.3	67.0	67.3	0.3
I-10 EB Ramps - I-10 WB Ramps	66.7	67.1	0.4	67.2	67.5	0.3
I-10 WB Ramps - Pomeroy Ave	66.4	66.9	0.5	66.9	67.3	0.5
Pomeroy Ave - Marengo St	64.5	65.3	0.8	65.0	65.7	0.7
N of Marengo St	62.3	64.3	2.0	62.7	64.6	1.8
Valley Boulevard						
Mission Rd - San Pablo St	71.1	71.1	0.0	71.6	71.5	0.0
Zonal Avenue						
W of Mission Rd	63.4	63.6	0.2	63.7	63.8	0.2
E of Mission Rd	63.6	64.4	0.8	63.9	64.6	0.8
Source: ICF, 2014.						

Mechanical Equipment

As discussed previously under Impact NOI-1, new on-site mechanical equipment has the potential to produce a substantial permanent increase in ambient noise levels at nearby off-site noise-sensitive receptors, which would be a significant impact.

Other Operational Noise Sources

Other operation noise sources consist of parking lot activity, emergency vehicles, and outdoor events. As discussed previously under Impact NOI-1, neither parking lot activity nor emergency vehicles are expected to generate substantial permanent increases in ambient noise levels. Therefore, impacts from these sources would be less-than-significant. Noise from outdoor events would be periodic in nature and, as such, is discussed under Impact NOI-4, below.

Mitigation Measures

See mitigation measure MM-NOI-4 above.

Level of Significance after Mitigation

Less than significant.

Impact NOI-4: Would the Proposed Project Result in a Substantial Temporary or Periodic Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project?

Construction

In accordance with County code and the City of Los Angeles Municipal Code, construction would take place between the hours of 7 a.m. to 7 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays, and would not occur at any time on Sundays or legal holidays. Furthermore, all internal-combustion-engine powered equipment or machinery would be equipped with suitable exhaust and air-intake silencers in proper working order. Project construction would be broken down into phases. The phases of construction and anticipated construction equipment are summarized in Table 3.10-9. The table also summarizes the calculation of the Leq for each construction phase at a reference distance of 50 feet.

Referring to the ambient noise measurement data provided in Table 3.10-5, the average (Leq) ambient noise levels at noise-sensitive receptors in the immediate vicinity of the project site (ST-2, ST-3, ST-4, and ST-5) range from approximately 60 to 70 dBA.

Throughout the development of the project site, construction activity would be concentrated at various locations as individual buildings and facilities are constructed. Based on the conceptual plans for the project, it is estimated that some of the nearby noise-sensitive receptors, such as homes on Sichel Street, would be located within 300 feet of the center of the closest construction zone. Table 3.10-10 provides the estimated Leq for each construction phase at a distance of 300 feet. The table also compares the resulting Leq with the upper and lower range of measured ambient Leq's and calculates the resulting noise increase due to construction. The analysis indicates that construction activity would generate noise increases of up to 14 dBA at nearby sensitive receptors. This exceeds the threshold of 5 dBA and, therefore, is a significant impact. It is noted that, if pile driving is used during construction, the noise increases could be up to 5 dBA greater than those estimated in the table.

Operation

As discussed previously under Impact NOI-1, proposed outdoor events at the project site have the potential to produce a substantial periodic increase in ambient noise levels at nearby off-site noise-sensitive receptors, which would be a significant impact.

Mitigation Measures

Mitigation measures MM-NOI-1 and MM-NOI-5 above are proposed to mitigate Impact NOI-4.

Level of Significance after Mitigation

While MM-NOI-1 would reduce construction noise levels, it would not eliminate the predicted noise impacts entirely; therefore, construction noise impacts are considered significant and unavoidable.

All operational noise impacts are considered to be less than significant after mitigation.

Table 3.10-9. Construction Phasing and Equipment Noise Levels

Construction Phase/Equipment Item	Maximum Noise Level (L_{max}) at 50 feet, dBA[1]	Usage Factor[1,2]	Number of Each Equipment Item	L_{eq} at 50 feet
Demolition				
Concrete/Industrial Saws	90	0.2	1	83
Excavator	85	0.4	3	86
Rubber Tired Dozer	85	0.4	2	84
Combined				*89*
Site Preparation				
Rubber Tired Dozer	85	0.4	3	81
Tractor/loader/backhoe	85	0.4	4	81
Combined				*84*
Grading				
Excavator	85	0.4	2	81
Grader	85	0.4	1	81
Rubber Tired Dozer	85	0.4	1	81
Scraper	89	0.4	2	85
Tractor/loader/backhoe	85	0.4	2	81
Combined				*88*
Building Construction				
Crane	88	0.16	1	80
Forklift	80	0.4	3	76
Generator Set	81	0.5	1	78
Tractor/loader/backhoe	85	0.4	3	*81*
Welder	74	0.4	1	70
Combined				*83*
Paving				
Paver	89	0.5	2	86
Paving equipment	80	0.4	2	76
Roller	74	0.2	2	67
Combined				*86*
Architectural Coating				
Air compressor	81	0.4	1	77
Combined				*77*

Notes:
1. Obtained or estimated from FTA 2006 and/or FHWA 2008 (RCNM).
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use.
Source: ICF, 2014.

Table 3.10-10. Estimated Noise Increases Due to Project Construction

Construction Phase	Leq at 50 feet, dBA	Leq at 300 feet, dBA	Existing Ambient (lower range upper range)	Combined Leq, dBA	Increase Due to Construction, dBA
Demolition	89	74	60	74	14
			70	75	5
Site Preparation	84	68	60	69	9
			70	72	2
Grading	88	72	60	72	12
			70	74	4
Building Construction	83	67	60	68	8
			70	72	2
Paving	86	71	60	71	11
			70	73	3
Architectural Coating	77	61	60	64	4
			70	71	1
Source: ICF, 2014.					

Impact NOI-5: Would the Proposed Project be Located in the Vicinity of a Private Airstrip and Expose People Residing or Working in the Project Area to Excessive Noise Levels?

Construction and Operation

The existing LAC+USC Medical Center includes two helipads for the transportation of patients to the emergency room by air ambulance. One helipad is on the roof top of the medical center building and one is on grade on the west portion of the campus. Typical flight operations are summarized as follows: a helicopter lands on the roof-top helipad and the flight staff takes the patient down the trauma elevators to the emergency room; after the patient and flight staff are in the hospital, the helicopter moves to the on-grade helistop to wait for the flight staff; flight staff departs the Emergency Department and walks to the on-grade helistop. On occasion, when there is already a helicopter on the roof, a patient is landed at the on-grade helipad and an ambulance takes them to the Emergency Room. Based on data from 2010, there are an average of approximately 27 landings per month.

As part of the proposed project, the at-grade helipad would be located to an as-yet unidentified new location within the campus. However, it is not anticipated that this change would lead to any increases in the overall number of landings at the site, or to the typical flight paths utilized by incoming helicopters. In addition, individual landings and on-site helicopter movements would be relatively short in duration. For these reasons, the long-term average noise levels generated by helicopters are expected to be relatively low compared to other existing noise sources and are not expected to change significantly as a result of the project. Therefore, the noise impacts associated with the helipads would be less-than-significant.

Mitigation Measures

No mitigation measures are required.

3.10.5 Cumulative Impacts

The study area for cumulative noise and vibration impacts consists of the area in the general vicinity of the medical center campus that could be affected by the combined effects of the proposed project and other nearby related projects. For the purposes of this analysis, a radius of 1,000 feet from the project site boundaries was considered.

3.10.5.1 Construction

The only related project within 1,000 feet of the project site is the Marengo Center mixed use development at 1902 E. Marengo Street, directly southwest of the project site. Construction of related projects further than 1,000 feet from the project site has not been analyzed because the noise levels would be significantly attenuated by both the distance and the shielding effects of intervening buildings. In the event that construction of Marengo Center coincides with construction at the LAC+USC Medical Center site, it is possible that it could increase overall construction noise levels at nearby sensitive receptors. Assuming the construction methods and equipment used at the Marengo Center site are similar to those identified for the Medical Center project, then noise levels could be increased by approximately 3 dB (for a doubling of the number of sources). However, construction noise impacts for the project have already been identified as significant and unavoidable under Impact NOI-1 and NOI-4, therefore, the proposed project could result in significant cumulative construction noise impacts.

3.10.5.2 Operational Noise

Traffic

The traffic data used in the analysis of future-with- and without-project conditions includes growth attributable to cumulative projects in the area that would increase traffic over time. Therefore, the cumulative operational project impacts have already addressed under Impact NOI-1, which was found to have a less-than-significant impact.

On-site Operations

No new impacts associated with onsite operations are expected as a result of the cumulative effects of related projects, for the following reasons:

- The only related project within 1,000 feet of the project site is the Marengo Center mixed-use development. Operations at related projects further than 1,000 feet from the project site would typically be inaudible due to both the distance and the shielding effects of intervening buildings.
- As a new development, the Marengo Center would be expected/required to comply with all the same noise standards that are applicable to the Medical Center project.
- The uses at the Marengo Center are generally consistent with the existing mix of residential and commercial properties in the area and would, therefore, not be expected to produce significant changes in the noise environment of the broader surrounding area that might be affected by noise from the medical center project.

3.11 Population/Housing

3.11.1 Introduction

This section provides information regarding general neighborhood population and housing characteristics, as well as projected population growth, within the study area, which includes areas of the City and County of Los Angeles. Potential population and housing impacts due to development that could occur under the proposed master plan are described, and mitigation measures, if required, are identified.

3.11.2 Regulatory Setting

3.11.2.1 Federal

There are no federal regulations that apply to the project.

3.11.2.2 State

CEQA Guidelines Section 15126.2(d)—Growth-Inducing Effects

Pursuant to Section 15126.2(d) of the State CEQA Guidelines, an EIR must discuss whether a project will directly or indirectly foster growth (Association of Environmental Professionals 2014). Section 15126.2(d) reads as follows:

> An EIR shall discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to population growth. Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, the EIR shall discuss the characteristics of some projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

3.11.2.3 Local

Southern California Association of Governments

The RCP, a major advisory plan prepared by SCAG, addresses important regional issues and responds to the SCAG Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's inter-related housing, traffic, water, air quality, and other challenges. The RCP serves as an advisory document to local agencies in the Southern California region for their information and voluntary use when preparing local plans and handling local issues of regional significance. It also includes goals and outcomes to measure progress toward a more sustainable region.

The most recent RCP from 2008 includes a chapter on land use and housing. The Compass Blueprint growth vision, the 2% Strategy, and the goals, outcomes, and action plan outlined in that chapter promote sustainable planning for land use and housing in Southern California, which maximizes the

efficiency of the existing and planned transportation network, provides the necessary amount and mix of housing for our growing population, enables a diverse and growing economy, and protects important natural resources (Southern California Association of Governments 2009).

SCAG is also responsible for developing regional and subarea growth forecasts. Therefore, SCAG makes projections related to three major growth indicators in the region: population, the number of households, and employment. The regional growth forecast represents the most likely future growth scenario for the Southern California region, taking into account a combination of recent and past trends, reasonable key technical assumptions, and regional growth policies. The regional growth forecast is the basis for the Regional Transportation Plan, Sustainable Communities Strategy, Program Environmental Impact Report, and the Regional Housing Needs Assessment (Southern California Association of Governments 2012).

For subareas, SCAG develops socioeconomic estimates and growth projections pertaining to population, the number of households, and employment for cities and transportation analysis zones in the SCAG region. These estimates and projections provide the analytical foundations for SCAG's transportation planning and other programs (Southern California Association of Governments 2012).

Los Angeles County General Plan

The County of Los Angeles General Plan, adopted in 1980, serves as an advisory document to provide decision-makers with a policy framework towards achievement of the Plan's stated goals and policies. The Los Angeles County General Plan 2035, currently in draft form (2014 draft plan) provides the policy framework for how and where the unincorporated County will grow through the year 2035, while recognizing and celebrating the County's wide diversity of cultures, abundant natural resources, and status as an international economic center. The Los Angeles County General Plan 2035 accommodates new housing and jobs within the unincorporated areas in anticipation of population growth in the County and the region. The general plan update effort includes goals, policies, implementation programs, and ordinances. The Los Angeles County General Plan 2035 will replace the adopted general plan, including all of the elements (excluding the Housing Element), land use distribution maps, and circulation maps.

As discussed in the Housing Element of the draft 2035 general plan, denser and more compact housing types are necessary in unincorporated areas to accommodate the housing needs of the growing senior citizen population, younger individuals who live alone, low-income households, and others who need and/or desire apartments, condominiums, and smaller, more affordable housing units (County of Los Angeles 2014a).

City of Los Angeles General Plan

The City of Los Angeles General Plan is a comprehensive, long-range declaration of purposes, policies, and programs for the development of the City of Los Angeles. The Housing Element of the city's general plan is a strategy for short-term housing development, establishing a citywide context that guides all housing activities in the city. The primary goal of the Housing Element is to provide a range of housing opportunities for all income groups (City of Los Angeles 2002b).

Northeast Los Angeles Community Plan

The Northeast Los Angeles Community Plan area encompasses the hills and valleys east of the Los Angeles River and north of the Boyle Heights Community Plan area within the City of Los Angeles. The 15,000-acre area, with roughly 250,000 inhabitants in a diverse collection of communities and neighborhoods, serves as a transition area between the downtown center of Los Angeles and the neighboring cities of Glendale, Pasadena, South Pasadena, and Alhambra to the north and east. The general purpose of the plan is to preserve and enhance the character of northeast Los Angeles by strengthening the viability and identity of its neighborhoods and communities and improving the quality of life for all its residents. More specifically, the plan serves to preserve and enhance the positive characteristics of residential neighborhoods while providing a variety of compatible new housing opportunities (City of Los Angeles 1999).

3.11.3 Environmental Setting

The LAC+USC Medical Center campus is located entirely within the City of Los Angeles, on County-owned land. According to the 2010 census, the population of the City of Los Angeles that year was 3,792,621. Of that population, no one racial group held a majority. The census found that 49.8% of the population identified themselves as White, 9.6% as African-American, and 11.3% as Asian. American Indian/Alaska Native, Native Hawaiian/Pacific Islander, Other, and Two or More Races were also represented, accounting for 0.7%, 0.1%, 23.8%, and 4.6% of the gross population, respectively. Hispanic or Latino, however, is considered the largest ethnic group in the City of Los Angeles, with 1,838,822 individuals, or 48.5% of the total population, identifying themselves as such. These statistics are relatively consistent with County data from 2010.

The majority of the population in the City of Los Angeles is female, with males representing just under 50% of residents.

The majority of the population within the city is over the age of 18 (77%). The city maintains a normal distribution of ages within its population, with 29.7% between the ages of 35 and 49, 22.8% between the ages of 25 and 34, and 22% between the ages of 50 and 64. Of the remaining population over the age of 18, 11.2% of the population is between the ages of 20 and 24, and 14.2% is over the age of 65.

The project site is located entirely within Census Tract 2033. Population information regarding race and ethnicity for the City of Los Angeles, the County of Los Angeles, Census Tract 2033, and the adjacent census tracts was used to create Table 3.11-1, which summarizes the characteristics of the regional and local population in 2010. Data regarding Census Tract 2033 are fairly consistent with city- and County-wide demography, although, in this area, 68.8% of respondents identified themselves as belonging to the Hispanic or Latino group compared with 47.7% and 48.5% within the County and city, respectively.

The project site and surrounding census tracts, as identified in Table 3.11-1, are depicted in Figure 3.11-1.

Figure 3.11-1: Census Tracts

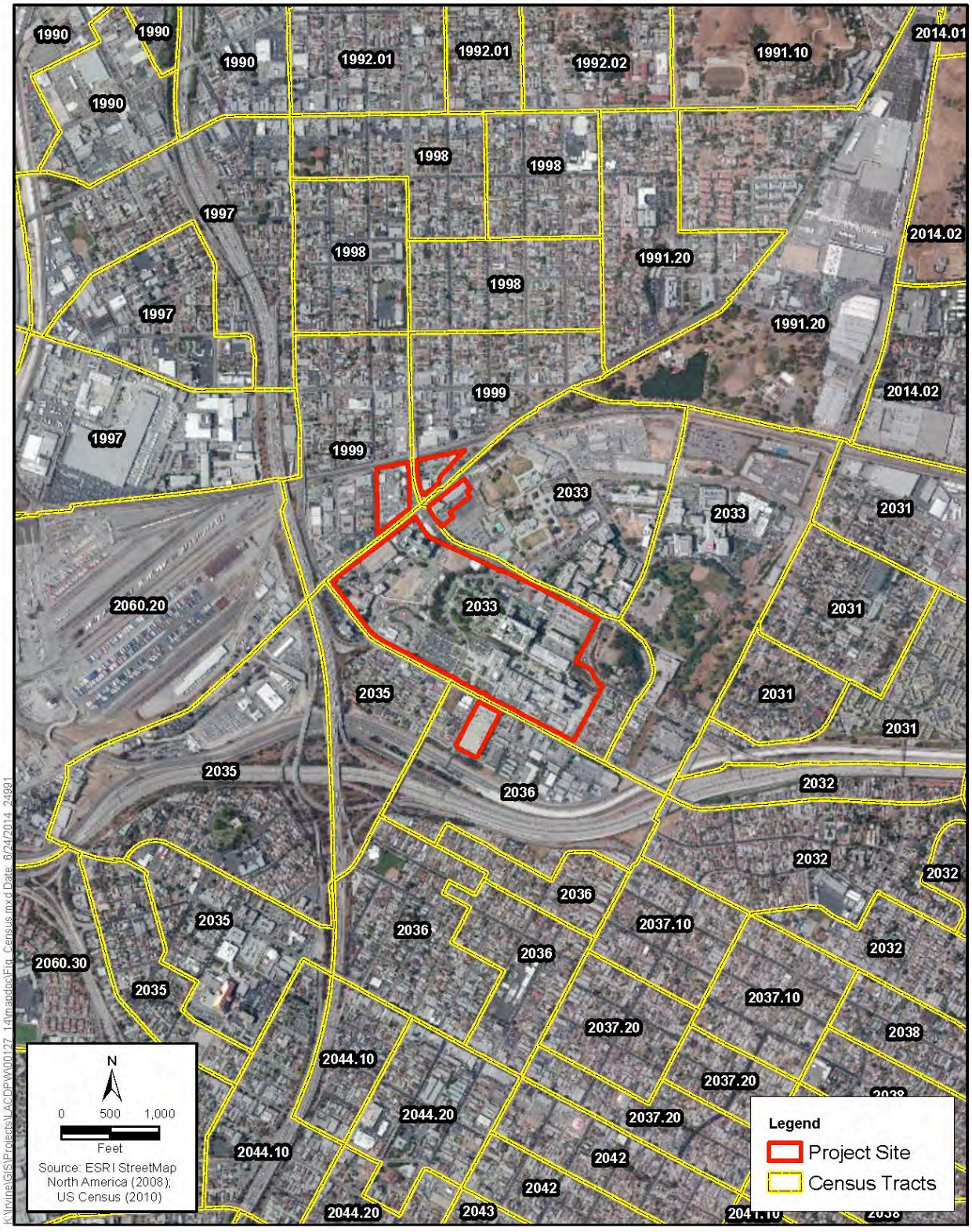


Table 3.11-1: Existing (2010) Regional and Local Population Characteristics—Race and Ethnicity

Area	Total	White	%	African-American	%	Asian	%	American Indian and Alaska Native	%	Native Hawaiian and Other Pacific Islander	%	Some Other Race	%	Two or More Races	%	Hispanic or Latino	%
County of Los Angeles	9,818,605	4,936,599	50.3%	856,874	8.7%	1,346,865	13.7%	72,828	0.7%	26,094	0.3%	2,140,632	21.8%	438,713	4.5%	4,687,889	47.7%
City of Los Angeles	3,792,621	1,888,158	49.8%	365,118	9.6%	426,959	11.3%	28,215	0.7%	5,577	0.1%	902,959	23.8%	175,635	4.6%	1,838,822	48.5%
Tract 2033	2,607	1,011	38.8%	298	11.4%	282	10.8%	16	0.6%	0	0.0%	914	35.1%	86	3.3%	1,794	68.8%
Tract 2031	4,839	2,142	44.3%	78	1.6%	79	1.6%	70	1.4%	3	0.1%	2,245	46.4%	222	4.6%	4,636	95.8%
Tract 2032	4,844	2,118	43.7%	35	0.7%	57	1.2%	58	1.2%	1	0.0%	2,422	50.0%	153	3.2%	4,699	97.0%
Tract 2035	3,064	1,297	42.3%	30	1.0%	329	10.7%	39	1.3%	0	0.0%	1,281	41.8%	88	2.9%	2,608	85.1%
Tract 2036	5,394	2,624	48.6%	20	0.4%	41	0.8%	57	1.1%	5	0.1%	2,439	45.2%	208	3.9%	5,255	97.4%
Tract 1999	2,683	948	35.3%	39	1.5%	476	17.7%	55	2.0%	6	0.2%	1,082	40.3%	77	2.9%	2,128	79.3%
Tract 1991.20	4,086	1,371	33.6%	70	1.7%	941	23.0%	43	1.1%	1	0.0%	1,478	36.2%	182	4.5%	2,964	72.5%
Tract 2014.02	4,311	1,961	45.5%	32	0.7%	811	18.8%	58	1.3%	2	0.0%	1,307	30.3%	140	3.2%	3,303	76.6%

Source: U.S. Census Bureau. 2011. *2010 Census Summary File 1.*

Housing information regarding occupancy rates and types for the City of Los Angeles, the County of Los Angeles, Census Tract 2033, and the adjacent census tracts was also used to create the two tables below. Table 3.11-2 summarizes the occupancy rates for the study areas in 2010; Table 3.11-3 summarizes the occupancy type (i.e., owner- versus renter-occupied) for the study areas in 2010. For the City of Los Angeles, there were approximately 1,413,995 housing units within the city limits, of which 93.2% were occupied. Of the occupied units, 38.2% were owner occupied, and the remaining 814,305 units (61.8%) were occupied by renters. The renter-occupied percentage at the County level is somewhat lower (52.3%) but substantially higher within Census Tract 2033 (82.8%). Most of the percentages in the adjacent census tracts were similar. Persons per household was also tabulated, with the County average at 2.98 persons, the city average at 2.81 persons, and the Census Tract 2033 average at 3.21 persons.

Table 3.11-2: Existing (2010) Regional and Local Housing Characteristics—Occupancy Rate

Area	Total Units	Occupied Units	%	Vacant Units	%	Persons Per Household
County of Los Angeles	3,445,076	3,241,204	94.1%	203,872	5.9%	2.98
City of Los Angeles	1,413,995	1,318,168	93.2%	95,827	6.8%	2.81
Tract 2033	479	438	91.4%	41	8.6%	3.21
Adjacent Tract 2031	1,212	1,165	96.1%	47	3.9%	4.15
Adjacent Tract 2032	1,279	1,216	95.1%	63	4.9%	3.98
Adjacent Tract 2035	1,013	922	91%	91	9%	3.30
Adjacent Tract 2036	1,439	1,374	95.5%	65	4.5%	3.92
Adjacent Tract 1999	813	771	94.8%	42	5.2%	3.47
Adjacent Tract 1991.20	1,094	1,010	92.3%	84	7.7%	3.73
Adjacent Tract 2014.02	1,385	1,335	96.4%	50	3.6%	3.23
Source: U.S. Census Bureau. 2011. *2010 Census Summary File 1.*						

Table 3.11-3: Existing (2010) Regional and Local Housing Characteristics—Occupancy Type

Area	Occupied Units	Owner-Occupied Units	%	Renter-Occupied Units	%
County of Los Angeles	3,241,204	1,544,749	47.7%	1,696,455	52.3%
City of Los Angeles	1,318,168	503,863	38.2%	814,305	61.8%
Tract 2033	438	78	17.8%	360	82.8%
Adjacent Tract 2031	1,165	182	15.6%	983	84.4%
Adjacent Tract 2032	1,216	386	31.7%	830	68.3%
Adjacent Tract 2035	922	179	19.4%	743	80.6%
Adjacent Tract 2036	1,374	319	23.2%	1,055	76.8%
Adjacent Tract 1999	771	120	15.6%	651	84.4%
Adjacent Tract 1991.20	1,010	233	23.1%	777	76.9%
Adjacent Tract 2014.02	1,335	868	65%	467	35%
Source: U.S. Census Bureau. 2011. *2010 Census Summary File 1.*					

In accordance with the policies of the RCP, SCAG has adopted forecasts regarding the estimated and projected future population, housing, and employment numbers for Southern California cities. The estimates are for the years 2008, 2020, and 2035. For the City of Los Angeles, the population is expected to grow by 5.9% between 2008 and 2020 and by 14.6% from the 2008 baseline estimate to 2035.

Information regarding the County of Los Angeles and its projected growth was used for comparative purposes (see the summarized forecasts in Table 3.11-4). The percentages for housing growth are larger than the population percentages. Both population and housing are expected to outpace employment growth, which is forecast to be 5.0% and 11.2% under the 12- and 27-year projections, respectively.

Table 3.11-4: Projected Regional Population, Housing and Employment

Area	Data Type	2008	2020	% Growth (Decline)	2035	% Growth (Decline)
County of Los Angeles	Population	9,778,000	10,404,000	6.4%	11,353,000	16.1%
	Housing	3,228,000	3,513,000	8.8%	3,852,000	19.3%
	Employment	4,340,000	4,558,000	5.0%	4,827,000	11.2%
City of Los Angeles	Population	3,770,500	3,991,700	5.9%	4,320,600	14.6%
	Housing	1,309,900	1,455,700	11.1%	1,626,600	24.2%
	Employment	1,735,200	1,817,700	4.8%	1,906,800	9.9%
Source: Southern California Association of Governments. 2012. *2012 Growth Forecast.*						

As proposed, the project site encompasses 86 acres of County-owned land in a completely developed area that supports a variety of land uses.

Currently, the LAC+USC Medical Center staff includes more than 700 full-time physicians from the Keck School of Medicine, with approximately 900 medical interns and residents and about 2,600 nurses at all levels, including 900 registered nurses (County of Los Angeles. 2014b).

3.11.4 Environmental Impact Analysis

3.11.4.1 Methods

Potential population and employment increases due to development that could occur under the master plan were calculated and compared with existing and projected population data to determine potential project impacts.

The analysis presented below discusses whether the proposed project would displace existing housing and residents.

3.11.4.2 Thresholds of Significance

For the purposes of this EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would result in a significant environmental impact if it would:

POP-1 Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure).

POP-2 Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.

POP-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

3.11.4.3 Impacts and Mitigation Measures

Impact POP-1: Would the Proposed Project Induce Substantial Population Growth in an Area, either Directly (e.g., by Proposing New Homes and Businesses) or Indirectly (e.g., through the Extension of Roads or Other Infrastructure)?

Construction

The proposed project would include development of new or renovated office space for medical uses, retail space, open space, parking facilities, and possibly some workforce housing on the medical center campus. Construction activities would include demolition of some on-site buildings and structures, site preparation and grading, and construction of new and renovated facilities. The number of construction workers employed and working on-site would vary over the course of the construction period and over the lifetime of the master plan. The County has a large pool of construction labor from which to draw within commuting distance of the project site. Additionally, because of the highly specialized nature of most construction projects, workers are likely to be employed on the job site only for as long as their skills are needed to complete a particular phase of the construction process. For those reasons, it is reasonable to assume that most construction workers would not relocate their households to work on proposed master plan development and improvement projects. Therefore, construction activities would not induce substantial population growth. Impacts would be less than significant.

Operation

The proposed master plan would include new and renovated facilities and could result in a net increase in the square footage of medical office, retail, and other building space. Given the net increase in square footage (see Table 3.15-6), it is estimated that the proposed master plan could generate a net increase of 2,416 employees through 2040 (see Table 3.11-5 below).

The proposed project may include the development of on-campus housing units to accommodate the biomedical research staff and temporary employees, thereby increasing the on-campus residential population.

One of the guiding principles of the master plan is to maximize access to LAC+USC Medical Center facilities. Accordingly, the project is likely to attract additional visitors and consequently may indirectly increase growth in the surrounding area.

Table 3.11-5. Employee Projections

Type Description	Employee Generation Factor	Building Size	Number of Employees
Existing Uses to Be Demolished			
Offices	3.29 employees/1,000 sq. ft.	197,288 sq. ft.	(649)
Medical Offices	4.83 employees/1,000 sq. ft.	457,727 sq. ft.	(2,211)
Maintenance Facilities	2.16 employees/1,000 sq. ft.	31,000 sq. ft.	(67)
Utility Plant and Cooling Tower	2.16 employees/1,000 sq. ft.	20,938 sq. ft.	(45)
Warehouse and Storage	1.28 employees/1,000 sq. ft.	15,756 sq. ft.	(20)
Total			(2,992)
Proposed Uses			
Hospital	3.65 employees/bed	450 beds	1,642
Retail	2 employees/1,000 sq. ft.	55,000 sq. ft.	110
Utility Plant and Maintenance	2.16 employees/1,000 sq. ft.	40,000 sq. ft.	86
Medical Offices	4.83 employees/1,000 sq. ft.	200,000 sq. ft.	966
Administrative Offices	3.29 employees/1,000 sq. ft.	265,000 sq. ft.	872
Offices	3.29 employees/1,000 sq. ft.	50,000 sq. ft.	164
Research Space	2.47 employees/1,000 sq. ft.	635,000 sq. ft.	1,568
Total			5,408
Net Increase			2,416
Note: Employee Generation Factor for employees/bed uses Structural and Geographical Information for Large Hospitals provided by the U.S. Energy Information Administration. Source(s): Institute of Transportation Engineers Trip Generation Handbook; U.S. EIA; ICF, 2014.			

The SCAG projections anticipate citywide population growth of 14.6% by 2035. As estimated, the increases in the employee population that could occur with anticipated development under the master plan would represent a relatively small percentage of the employment growth SCAG has projected in its regional and city forecasts. Additionally, the proposed project does not include the extension of roads or other infrastructure improvements in undeveloped areas outside the boundaries of the campus that would indirectly induce substantial population growth in those areas. Therefore, growth impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact POP-2: Would the Proposed Project Displace Substantial Numbers of Existing Housing Units, Necessitating the Construction of Replacement Housing Elsewhere?

Construction and Operation

As mentioned above, all development and facilities proposed under the master plan would be constructed within the existing boundaries of the medical center campus. There are currently no permanent housing units on campus. Thus, no displacement of existing housing would occur as a result of anticipated development under the master plan.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact POP-3: Would the Proposed Project Displace Substantial Numbers of People, Necessitating the Construction of Replacement Housing Elsewhere?

Construction and Operation

As mentioned above, all development and facilities proposed under the master plan would be constructed within the existing boundaries of the medical center campus. No displacement of existing housing would occur; therefore, no persons would be displaced as a result of the proposed project.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

3.11.5 Cumulative Impacts

The study area for the cumulative growth-inducement impacts analysis encompasses the census tracts identified in Table 3.11-1. The LAC+USC Medical Center is located in Census Tract 2033; the surrounding area includes adjacent census tracts 2031, 2032, 2035, 2036, 1999, 1991.20, and 2014.02. A list of related projects in the area is provided in Table 2-2 of Chapter 2, Project Description.

There are nine related projects in the surrounding area at various stages of conceptual planning and development. Of these nine, three fall within the study area for this cumulative impacts analysis. The projects are the USC Health Sciences Campus Master Plan Project (585,000 to 765,000 square feet of floor area), the Marengo Center Community Building – Mixed-Use Project (27,235 square feet of commercial and retail development), and a medical office expansion project at 1828 East Cesar Chavez Avenue (49,543 square feet). These projects are located in census tracts 2033, 2036, and 2035, respectively.

Although the proposed and related projects would increase employee and residential populations within the study area and this growth could result in impacts on the environment (see the discussions in other sections of Chapter 3 of this EIR as well as the environmental documents for the related projects referenced above), the cumulative growth would occur within a highly developed urban area and would be within SCAG's city and regional population projections. Additionally, the cumulative growth due to the proposed and related projects would be consistent with local and regional general plans and subject to existing zoning regulations that regulate the density of development. Therefore, the proposed and related projects would not result in significant growth-inducement impacts.

3.12 Public Services

3.12.1 Introduction

This section discusses the public services (fire, police, schools, libraries, and parks) that serve the project site. Public service providers are identified and potential impacts on public services that could occur as a result of construction and operation of the proposed project are evaluated.

3.12.2 Regulatory Setting

The following subsections discuss the various codes, regulations, and policies applicable to public service agency operations at the federal, state, regional, and local levels.

3.12.2.1 Federal

There are no federal regulations that apply to the project.

3.12.2.2 State

California State Fire Code

By State law, the State Fire Marshal (SFM) is responsible for coordination of the state's fire and life safety codes. The SFM must review the proposed regulations of state agencies that promote fire and life safety before the regulations can be submitted for approval. The SFM Code Development and Analysis Program staff regularly reviews Title 19 of the California Code of Regulations, titled Public Safety (which discusses fire safety standards), for relevancy, necessity, conflict, duplication, and overlap. They also implement legislative mandates to develop regulations related to fire and life safety involving the various occupancy classifications under the authority of the California SFM. This encompasses the actual administrative processing of regulations from concept to promulgation in the California Code of Regulations (California Building Standards Commission 2014).

3.12.2.3 Local

City of Los Angeles Municipal Code

The City of Los Angeles Municipal Code, last amended in June 2014, contains 19 chapters, including a chapter on fire and police protection, titled Public Safety and Protection (Chapter 5) (City of Los Angeles 2013). Article 2, titled Police and Special Officers, contains regulations governing administrative issues, such as requirements for police badges and uniforms, and Article 7, titled Fire Protection and Prevention, contains the fire code for the city. The Los Angeles Fire Code prescribes laws that may be enforced by the Los Angeles Fire Department (LAFD) to help safeguard life and property from fire, explosion, panic, or other hazardous conditions that may arise in the city. The fire code includes information pertaining to administrative issues, such as the requirements for filling out and submitting Hazardous Materials Release Response Plans and Inventory Statements, and technical requirements associated with the storage, management, and disposal of hazardous materials, such as underground chemical storage tanks, asbestos-containing materials/asbestos-containing building material, and various other combustible and flammable materials. (City of Los Angeles 2014).

City of Los Angeles General Plan

The general plan, approved by the City of Los Angeles Planning Commission and the mayor and adopted by the City Council, is a comprehensive, long-range declaration of purposes, policies, and programs for development in the City of Los Angeles.

The Safety Element of the City of Los Angeles General Plan sets forth specific policies and objectives related to safety. These policies and objectives emphasize hazard mitigation, emergency response, and disaster recovery. Fire prevention, fire protection, and emergency medical services within the city operate under the Fire Protection and Prevention Plan, which is an element of the general plan. The Fire Protection and Prevention Plan serves as a guide for the construction, maintenance, and operation of fire protection facilities in the city. It sets forth policies and standards for fire station distribution and location, fire suppression water flow (or "fire flow"), fire hydrant standards and locations, firefighting equipment access, emergency ambulance services, and fire prevention activities. Population density, nature of on-site land uses, and traffic flow are also considered by LAFD in evaluating the adequacy of fire protection services for a specific area or land use.

The City of Los Angeles General Plan also includes a Public Recreation Plan. This element defines the various park types and sets forth guidelines to develop and locate public facilities to provide the greatest benefit to the greatest number of people with the least cost and environmental impact. An overall provision of 10 acres of land per 1,000 persons for total recreational facilities is recommended (City of Los Angeles 2002c).

Northeast Los Angeles Community Plan

As part of the City of Los Angeles General Plan, the Northeast Los Angeles Community Plan is one of 35 community plans that compose its Land Use Element. It was established to encompass the hills and valleys lying east of the Los Angeles River and north of the Boyle Heights Community Plan area within the City of Los Angeles. The 15,000-acre area, occupied by roughly 250,000 inhabitants living in a diverse collection of communities and neighborhoods, serves as a transition between the downtown center of Los Angeles and the neighboring cities of Glendale, Pasadena, South Pasadena, and Alhambra to the north and east. The general purpose of the plan is to preserve and enhance the character of northeast Los Angeles by strengthening the viability and identity of its neighborhoods and communities and improving the quality of life for all its residents. The plan contains specific goals, objectives and policies for park and recreation facilities, schools, libraries, and police protection and fire protection to ensure a livable community environment and the adequate provision of public services and facilities for its resident population (City of Los Angeles 1999).

Los Angeles County General Plan

The Los Angeles County General Plan provides the policy framework for how and where the unincorporated areas will grow through 2035 and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities (County of Los Angeles 2014a). As a County-run facility operated on County-owned land, the LAC+USC Medical Center is subject to elements of the Los Angeles County General Plan.

Chapters 10, 12, and 13 of the Los Angeles County General Plan address Parks and Recreation, Safety, and Public Services and Facilities, respectively. The purpose of Chapter 10, the Parks and Recreation Element, is to assess existing park acreage and future recreation needs; identify goals, objectives, and policies for appropriate future actions; and provide recommendations based on

needs, goals and public involvement to guide the future direction of parks and recreation (County of Los Angeles 2014b). For example, pursuant to the Parkland Development goal, Policy P/R 3.9 states that new parks should be sited near schools, libraries, senior centers and other community facilities where possible. Chapter 12, the Safety Element, identifies the goals and policies that serve reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards (County of Los Angeles 2014c). Also, the State Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive document for wildland fire protection in California. The Forestry Division's Fire Plan Unit is in charge of implementing the California Fire Plan in Los Angeles County. Chapter 13, the Public Services and Facilities Element, provides a summary of some of the major public services and facilities that serve the unincorporated areas, and establishes policies that guide the provision of public services and facilities in conjunction with projected growth (County of Los Angeles 2014d).

3.12.3 Environmental Setting

Public services for the proposed project site and the surrounding communities are provided by LAFD, the Los Angeles Police Department (LAPD), Los Angeles County Sheriff's Department (LASD), Los Angeles Unified School District (LAUSD), Los Angeles Public Library (LAPL), and the Los Angeles Department of Recreation and Parks. Public services have been actively developing in concert with growth in the communities and the region. A discussion of the current provisions to deliver public services within the LAC+USC Medical Center and surrounding areas is provided below, along with any planning efforts to accommodate increases in demand due to future growth.

Figure 3.12-1 identifies the location of the fire stations, police stations, libraries, and parks in the vicinity of the proposed project. Figure 13.2-2 provides the locations of all public schools within the vicinity of the proposed project.

3.12.3.1 Fire Protection and Prevention and Emergency Services

LAFD provides fire protection and prevention and emergency services to and around the project site.

Los Angeles Fire Department

LAFD is a full-spectrum life-safety agency that serves people who live and work in the City of Los Angeles. Its 3,586 uniformed fire personnel and 353 professional support personnel are responsible for fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education and community service (Los Angeles Fire Department 2014a). A total of 1,104 uniformed firefighters (including 242 serving as Firefighter/Paramedics) are always on duty at fire department facilities across the city (Los Angeles Fire Department 2014a). LAFD maintains 106 fire stations across the department's 471 square-mile jurisdiction, and has continued to see rise in emergency responses, both pertaining to fire and emergency medical services (EMS) (Los Angeles Fire Department 2014a).

Fire stations with proximity to the LAC+USC Medical Center are listed in Table 3.12-1. The primary responding fire station for the proposed project site would be LAFD Fire Station 2.

The National Fire Protection Association (NFPA) is a voluntary association of fire and emergency service organizations that seeks to establish and maintain standards for organizational, deployment and operational activities as well as recommended practices and benchmarks. NFPA maintains that the response time standard (turnout + travel) for the first fire resources is 5 minutes and 20 seconds (City of Los Angeles 2012).

Figure 3.12-1: Public Service Locations Map

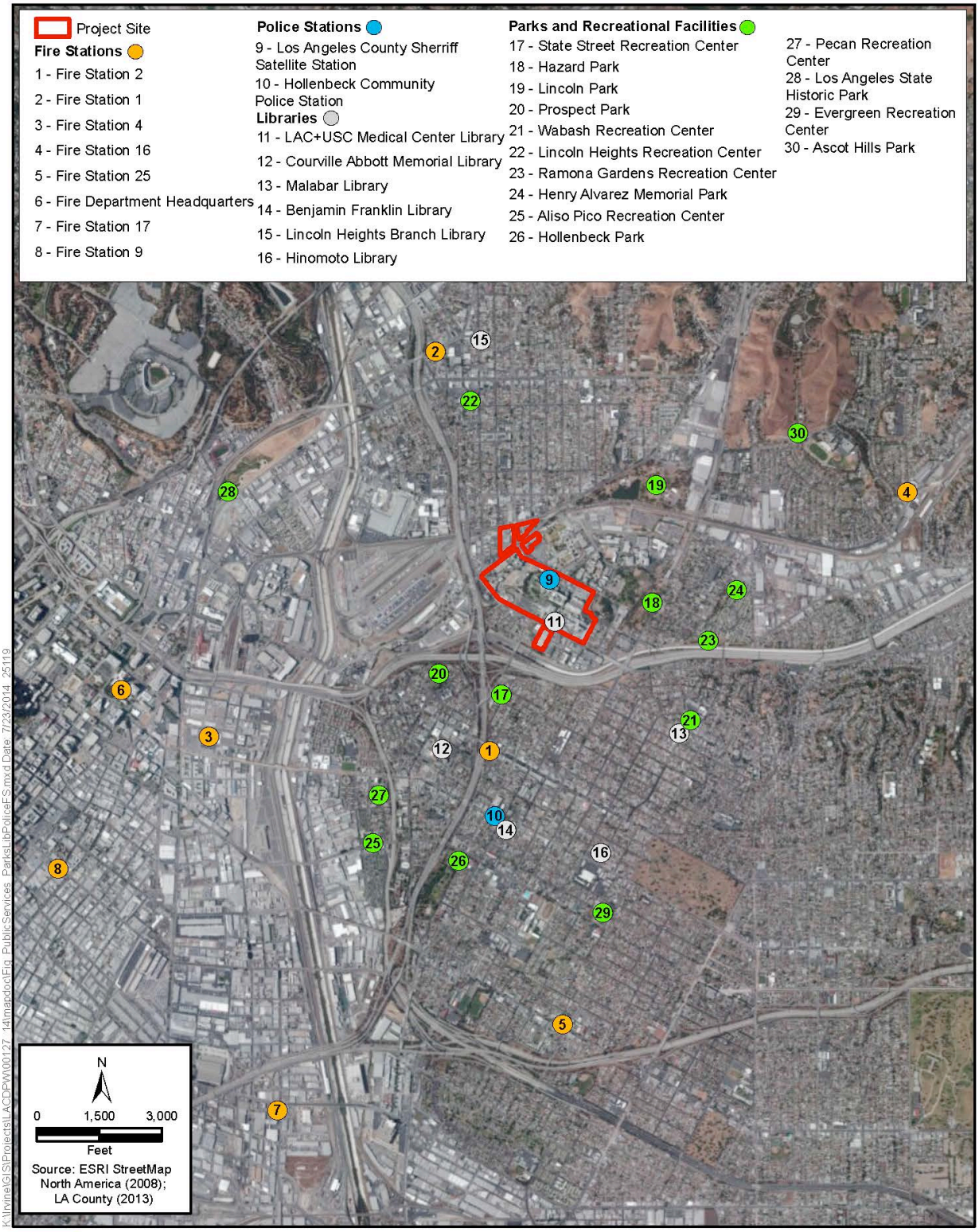


Figure 3.12-2: Public School Locations Map

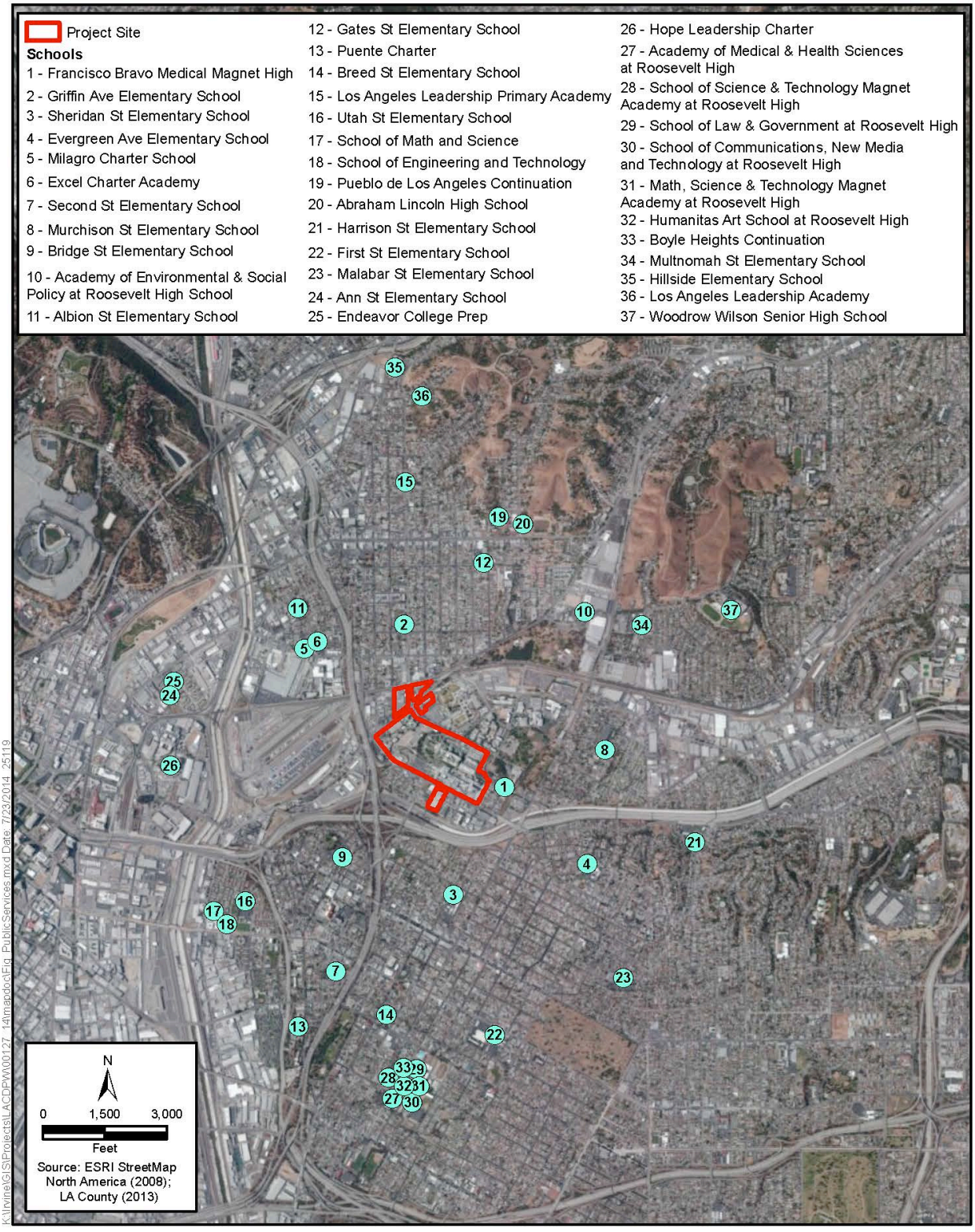


Table 3.12-1: Fire Stations in the Vicinity of the Proposed Project

Map ID	Facility Name	Address	Distance from Project Site
1	Fire Station 2	1962 East Cesar E Chavez Ave. Los Angeles, CA 90033-1751	0.8 mi
2	Fire Station 1	2230 Pasadena Ave. Los Angeles, CA 90031-2212	1.6 mi
3	Fire Station 4	450 E Temple St. Los Angeles, CA 90012	2.2 mi
4	Fire Station 16	2011 North Eastern Ave. Los Angeles, CA 90032-3813	2.4 mi
5	Fire Station 25	2927 Whittier Blvd Los Angeles, CA 90023-1528	2.5 mi
6	Fire Department Headquarters	200 North Main St. Los Angeles, CA 90012-4110	2.6 mi
7	Fire Station 17	1601 South Santa Fe Ave. Los Angeles, CA 90021-2932	3.0 mi
8	Fire Station 9	430 East 7th St. Los Angeles, CA 90014-2312	3.3 mi
Note: The Distance from Site metric in the table represents the driving distance between facilities rather than the actual distance. Source: LAFD Fire Station Locator, 2014b.			

Table 3.12-1 lists the fire stations that serve the project site and provides their locations and respective distance(s). For the purposes of this analysis, fire stations serving the project site and surrounding communities (El Sereno, Boyle Heights, Lincoln Heights, Chinatown, and Downtown) were identified. The locations of each station are shown in Figure 3.12-1.

As mentioned, Fire Station 2, located on 1962 East Cesar E Chavez Avenue is the primary response station for the project site. In terms of available resources, Station 2 currently maintains one engine, one pump, one ladder truck, and one Advanced Life Support (ALS) rescue ambulance. The station has two captains, two paramedics, one apparatus operator, two engineers, and five firefighters, for a total of 12 first responders (Fliegel pers. comm.). Of these 12, four are assigned to the engine, six are assigned to the ladder truck, and two are assigned to the ambulance. In 2013, Station 2 received 6,281 calls (Fliegel pers. comm.). Of these, the departmental staff responded to 739 fire-related incidents. Among them were 229 auto accidents and 67 structure fires (Fliegel pers. comm.). Of the 4,272 non fire-related EMS calls, the departmental staff responded to 479 traffic accidents, 551 reported illnesses, and 265 falls (Fliegel pers. comm.). A summary of the emergency and non-emergency calls and average response times for Fire Station 2 is provided in Table 3.12-2.

Fire Station 2's average emergency response time is consistent with both the NFPA's 5 minute and 20 second national benchmark as well as the 4- to 6-minute average response time suggested for all LAFD stations (Fliegel pers. comm.).

Table 3.12-2: LAFD Station 2 Response Times (2013)

Call Type	Total Number of Calls	Average Response Time (WRS to ONS)
Emergency	4,268	00:04:31
Non-emergency	743	00:08:51
Note: WRS = Time when dispatch is sent to fire station; ONS = Time when response team arrives on scene Source: Personal Communication with Battalion Chief 1, Phillip Fliegel, 2014.		

3.12.3.2 Police Protection

Both, LASD, with an on-site station and personnel, and LAPD provide police protection to the project site.

Table 3.12-3 lists police stations that serve the project site and provides their addresses and respective distances from the LAC+USC Medical Center campus. For the purposes of this analysis, police stations serving the project site and surrounding communities (El Sereno, Boyle Heights, Lincoln Heights, Chinatown, and Downtown) were identified. The locations of each station are shown in Figure 3.12-1.

Los Angeles County Sheriff's Department

Headquartered in Monterey Park, LASD maintains 23 stations across the Southern California region to patrol the unincorporated areas of Los Angeles County as well as the 42 cities that have contracted policing services (Los Angeles County Sheriff's Department 2014). Its 9,935 sworn members are responsible for providing protection and service to more than 9 million people within a 4,500-square-mile area (Los Angeles County Sheriff's Department 2014).

Table 3.12-3: Police Stations in the Vicinity of the Proposed Project

Map ID	Facility Name	Address	Distance from Project Site
9	LASD Satellite Station	2051 Marengo St. Los Angeles, CA 90033	On campus
10	Hollenbeck Community Police Station	2111 E. 1st St. Los Angeles, CA 90033	1.3 mile
Note: The "distance from site" metric in the table represents the driving distance between facilities rather than the actual distance. Source: LAPD Community Police Station Address Directory (2014b).			

The LASD station is located on campus at 2051 Marengo Street, and has two radio cars that patrol the campus with two deputies assigned foot patrol in the emergency room areas (Kennison pers. comm.). The station maintains five squad cars, 15 sworn officers, and oversees an additional 150 non-sworn private security staff, 10 of whom are Sheriff's Security Officers (SSO) that can detain but not arrest (Kennison pers. comm.). These personnel operate 24 hours per day in three separate shifts. Each shift includes three deputies and two SSO's that serve over 8,000 County employees, 4,000 contracted employees, and patients and visitors. In 2013, they responded to 8,371 calls with an average response time of 3 to 5 minutes (Kennison pers. comm.). The performance standard maintained for police services is a response time of three minutes for emergency calls and five minutes for priority calls (Kennison pers. comm.).

Los Angeles Police Department

LAPD's 21 community police stations and 10,000 sworn officers are the responsible local law enforcement agency for the City of Los Angeles's 3.8 million people (Los Angeles Police Department. 2014d). The community police station situated closest to the LAC+USC Medical Center is the Hollenbeck Community Police Station, located at 2111 E. 1st Street. It is 1.3 miles from the project site at 2051 Marengo Street.

The Hollenbeck Community Police Station serves an area that has a population of roughly 200,000 and is 15.2 square miles in size. It encompasses the communities of El Sereno, Lincoln Heights, and Boyle Heights and is under the jurisdiction of the LAPD's Central Bureau (Los Angeles Police Department 2014a). A summary of recent crime statistics for the Hollenbeck area is shown in Table 3.12-4.

Table 3.12-4: 2014 Hollenbeck Area Crime Statistics (through May 24, 2014)

Crime Type	YTD 2012	YTD 2013	YTD 2014	% Change (2012–2014)
Total Violent	326	281	250	-23.3%
Total Property	1,177	1,143	1,004	-14.7%
Source: COMPSTAT, Hollenbeck Area Profile (2014c).				

There are approximately 291 sworn officers and 15 civilian support staff deployed in the Hollenbeck area (Tsap pers. comm., 2014). For this area, LAPD calculated that there were 37 crimes per 1,000 persons during 2013 (Tsap pers. comm., 2014). The average response time to emergency calls for service was 6.5 minutes, above the citywide average of 5.9 minutes and below the 7-minute response time set as a departmental standard (Tsap pers. comm., 2014).

3.12.3.3 Schools

LAUSD and Los Angeles County Office of Education (LACOE) provide facilities and resources for K–12 education and supplemental programming to the community surrounding the LAC+USC Medical Center.

The Los Angeles County Office of Education

LACOE is a regional provider of services to students within the communities surrounding the proposed project site and throughout Los Angeles County. LACOE oversees educational programs and supports 80 local school districts and other agencies with academic, business, administrative, and consulting services related to special education, computer applications, and teaching strategies (Los Angeles County Office of Education 2011).

In addition to providing educational services to the County's two million preschool and school-age children, LACOE administers programs that benefit those who are unable to attend conventional school facilities, such as the physically and mentally disabled, wards of the juvenile court, preschool children, and students in job training programs (Los Angeles County Office of Education 2011).

Los Angeles Unified School District

The LAUSD area of service spreads over 720 square miles and includes the City of Los Angeles as well as some parts of smaller municipalities and unincorporated areas within Los Angeles County. More than 640,000 students in kindergarten through 12th grade are enrolled in the district, which is comprised of more than 900 schools and 197 public charter schools (Los Angeles Unified School District 2014). There are 36 LAUSD campuses and one LACOE campus located within the vicinity of the project site. The total combined enrollment for the LAUSD schools in the area is 20,730, or 13.2% of the district's total enrollment.

Table 3.12-5 lists schools near the project site and provides the addresses, school type, and most recent enrollment information for each individual facility. For the purposes of this analysis, educational facilities serving the project site and surrounding communities (El Sereno, Boyle Heights, Lincoln Heights, Chinatown, and Downtown) were identified. Their locations are shown in Figure 3.12-2.

Table 3.12-5: Educational Facilities

School Name	Address	School Type	2011–2012 Enrollment	Distance
Francisco Bravo Medical Magnet High	1200 North Cornwell St. Los Angeles, CA 90033	9–12	1,861	0.7 mi
Griffin Avenue Elementary	2025 Griffin Ave. Los Angeles, CA 90031	K–5	602	0.8 mi
Sheridan Street Elementary	416 North Cornwell St. Los Angeles, CA 90033	K–6	1,085	0.8 mi
Evergreen Avenue Elementary	2730 Ganahl St. Los Angeles, CA 90033	K–6	899	1.0 mi
Milagro Charter	1855 North Main St. Los Angeles, CA 90031	K–5	285	1.0 mi
Excel Charter Academy	1855 North Main St. Los Angeles, CA 90031	6–8	335	1.0 mi
Second Street Elementary	1942 East Second St. Los Angeles CA 90033	KG-6	429	1.1 mi
Murchison Street Elementary	1501 Murchison St. Los Angeles, CA 90033	KG-6	554	1.3 mi
Bridge Street Elementary	605 North Boyle Ave. Los Angeles, CA 90033	KG-5	316	1.3 mi
Academy of Environmental and Social Policy	3921 Selig Place Los Angeles, CA 90031	9-12	337	1.3 mi
Albion Street Elementary	322 South Avenue 18 Los Angeles, CA 90031	KG-6	350	1.3 mi
Gates Street Elementary	3333 Manitou Ave. Los Angeles, CA 90031	KG-5	712	1.3 mi
Puente Charter	501 South Boyle Ave. Los Angeles, CA 90033	KG	113	1.4 mi
Breed Street Elementary	2226 East Third St. Los Angeles, CA 90033	KG-6	483	1.4 mi
Los Angeles Leadership Primary Academy	2670 Griffin Ave. Los Angeles, CA 90031	KG-5	78	1.4 mi
Utah Street Elementary	255 Gabriel Garcia Marquez St. Los Angeles, CA 90033	KG-8	439	1.5 mi
School of Math and Science	1200 Plaza Del Sol Los Angeles, CA 90033	9-12	359	1.5 mi
School of Engineering and Technology	1200 Plaza Del Sol Los Angeles, CA 90033	9-12	440	1.5 mi
Pueblo de Los Angeles Continuation	2506 Alta St. Los Angeles, CA 90031	9-12	83	1.5 mi
Abraham Lincoln Senior High	3501 N. Broadway Los Angeles, CA 90033	9-12	2,045	1.6 mi
Harrison Street Elementary	3529 City Terrace Dr. Los Angeles, CA 90063	KG-6	576	1.6 mi

School Name	Address	School Type	2011–2012 Enrollment	Distance
First Street Elementary	2820 East First St. Los Angeles, CA 90033	KG-6	830	1.8 mi
Malabar Street Elementary	3200 E Malabar St. Los Angeles, CA 90063	KG-6	775	1.8 mi
Ann Street Elementary	126 East Bloom St. Los Angeles, CA 90012	KG-6	150	1.8 mi
Endeavor College Preparatory Charter	126 Bloom St. Los Angeles, CA 90012	4-8	260	1.8 mi
Hope Leadership Charter	450 Bauchet St., 8th Floor Los Angeles, CA 90012	9-12	n/a	1.8 mi
Academy of Medical and Health Sciences at Roosevelt High	456 South Mathews St. Los Angeles, CA 90033	9-12	482	1.9 mi
School of Science, Technology, Engineering and Math at Roosevelt High	456 South Matthews St. Los Angeles, CA 90033	9-12	484	1.9 mi
School of Law and Government at Roosevelt High	456 South Mathews St. Los Angeles, CA 90033	9-12	478	1.9 mi
School of Communications, New Media and Technology at Roosevelt High	456 South Mathews St. Los Angeles, CA 90033	9-12	480	1.9 mi
Math, Science and Technology Magnet Academy at Roosevelt High	456 South Mathews St. Los Angeles, CA 90033	9-12	376	1.9 mi
Humanitas Art School at Roosevelt High	456 South Mathews St. Los Angeles, CA 90033	9-12	489	1.9 mi
Boyle Heights Continuation	544 South Mathews St. Los Angeles, CA 90033	9-12	76	1.9 mi
Multnomah Street Elementary	2101 North Indiana Ave. Los Angeles, CA 90032	KG-5	514	1.9 mi
Hillside Elementary	120 East Avenue 35 Los Angeles, CA 90031	KG-5	392	2.0 mi
Los Angeles Leadership Academy	234 East Avenue 33 Los Angeles, CA 90031	6-12	523	2.0 mi
Woodrow Wilson Senior High	4500 Multnomah St. Los Angeles, CA 90032	9-12	2,040	2.2 mi

Note: The "distance from site" metric in the table represents the driving distance between facilities rather than the actual distance.
Source: National Center for Education Statistics (U.S. Department of Education 2012).

3.12.3.4 Parks

Within the vicinity of the project site, there is one state park, six neighborhood and community parks, and seven recreation centers (City of Los Angeles Department of Recreation and Parks 2014b). The California Department of Parks and Recreation and the City of Los Angeles Department of Recreation and Parks are in charge of facility maintenance. They also provide a wide variety of recreational and community services, including early childhood classes, special interest classes, workout classes, adult sports leagues and tournaments, recreation for people with special needs, senior recreation, and fine arts programs.

Table 3.12-6 lists the parks and recreational facilities near the proposed project site and provides their addresses, amenities, and respective distances to the LAC+USC Medical Center campus. For the purposes of this analysis, parks serving the project site and surrounding communities (El Sereno, Boyle Heights, Lincoln Heights, Chinatown, and Downtown) were identified. Their locations are shown in Figure 3.12-1.

Table 3.12-6: Parks

Park or Recreational Facility	Address	Amenities	Distance from Project Site
State Street Recreation Center	716 N. State St. Los Angeles, CA 90033	Auditorium, baseball diamond (lighted), basketball courts (lighted/outdoor), children's play area, community room	0.5 mi
Hazard Park	2230 Norfolk St. Los Angeles, CA 90033	Auditorium, barbecue pits, basketball courts (lighted/indoor), children's play area, community room, handball courts (unlighted), indoor gym (without weights), picnic tables, tennis courts (lighted)	0.7 mi
Lincoln Park	3501 Valley Blvd. Los Angeles, CA 90031	Auditorium, barbecue pits, baseball diamond (lighted), basketball courts (lighted/indoor), children's play area, indoor gym (with weights), picnic tables, soccer field (unlighted), tennis courts (unlighted)	0.9 mi
Prospect Park	Echandia and Judson St. Los Angeles, CA 90033	Children's play area	1.0 mi
Wabash Recreation Center	2765 Wabash Ave. Los Angeles, CA 90033	Auditorium, basketball courts (lighted/outdoor), children's play area, community room, indoor gym (without weights)	1.0 mi
Lincoln Heights Recreation Center	2303 Workman St. Los Angeles, CA 90031	Auditorium, basketball courts (lighted/indoor), basketball courts (lighted/outdoor), children's play area, indoor gym (without weights)	1.2 mi
Ramona Gardens Recreation Center	2830 Lancaster Ave. Los Angeles, CA 90033	Auditorium, baseball diamond (lighted), basketball courts (lighted/ indoor, unlighted/outdoor)	1.2 mi

Park or Recreational Facility	Address	Amenities	Distance from Project Site
Henry Alvarez Memorial Park	2830 Lancaster Ave. Los Angeles, CA 90033	Basketball courts (unlighted/ outdoor), children's play area, picnic tables, soccer field (unlighted)	1.2 mi
Aliso Pico Recreation Center	4th and Gless St. Los Angeles, CA 90033	Auditorium, basketball courts (lighted/indoor/outdoor), children's play area, indoor gym (without weights), volleyball courts (lighted), baseball diamond (lighted), tennis courts (lighted), computer labs, kitchens, music room	1.5 mi
Hollenbeck Park	415 S. St. Louis St. Los Angeles, CA 90033	Auditorium, barbecue pits, children's play area, community room, picnic tables, outdoor exercise equipment around lake	1.6 mi
Pecan Recreation Center	127 S. Pecan St. Los Angeles, CA 90033	Basketball courts (lighted/indoor/ outdoor), children's play area, community room, handball courts (lighted), indoor gym (without weights), picnic tables, restroom(s), seasonal pool (outdoor/unheated), volleyball courts (lighted)	1.7 mi
Los Angeles State Historic Park	1245 North Spring St. Los Angeles, CA 90012	32 acres of open space	1.9 mi
Evergreen Recreation Center	2844 E. 2nd St. Los Angeles, CA 90033	Auditorium, basketball courts (lighted/outdoor), children's play area, community room, indoor gym (without weights), picnic tables	2.0 mi
Ascot Hills Park	4371 Multnomah St. Los Angeles, CA 90032	N/A	2.0 mi

Note: The "distance from site" metric in the table represents the driving distance between facilities rather than the actual distance.
Source: City of Los Angeles Department of Recreation and Parks (2014a); California Department of Parks and Recreation (2014).

3.12.3.5 Library Facilities

LAPL, with support from the Library Foundation of Los Angeles, maintains the Central Library and its 72 branches. With 6.2 million books, audiobooks, periodicals, DVDs, and CDs, the LAPL system hosts more than 17 million visitors annually who check out more than 18 million items (Los Angeles Public Library 2009). There are five public libraries within the vicinity of the LAC+USC Medical Center. The LAPL branch closest to the proposed project site is the Malabar Library, which is located at 2801 Wabash Avenue (1.1 miles away).

Table 3.12-7 lists the libraries in the vicinity of the proposed project site and provides their addresses and respective distances from the LAC+USC Medical Center campus. For the purposes of this analysis, libraries serving the project site and surrounding communities (El Sereno, Boyle Heights, Lincoln Heights, Chinatown, and Downtown) were identified. Their locations are shown in Figure 3.12-1.

Table 3.12-7: Libraries in the Vicinity of the Proposed Project

Map ID	Facility Name	Address	Distance from Project Site
11	LAC+USC Medical Center Library	2051 Marengo St. Los Angeles, CA 90033	On campus
12	Courville Abbott Memorial Library	1720 East Cesar E Chavez Avenue Los Angeles, CA 90033	0.9 mi
13	Malabar Library	2801 Wabash Avenue Los Angeles, CA 90033	1.1 mi
14	Benjamin Franklin Library	2200 E 1st St. Los Angeles, CA 90033	1.3 mi
15	Lincoln Heights Branch Library	2530 Workman St. Los Angeles, CA 90031	1.5 mi
16	Hinomoto Library	129 North Saratoga St. Los Angeles, CA 90033	1.7 mi
Note: The "distance from site" metric in the table represents the driving distance between facilities rather than the actual distance. Source: Los Angeles Public Library (2014b).			

3.12.4 Environmental Impact Analysis

3.12.4.1 Methods

The proposed project was evaluated to determine if fire protection, police, schools, libraries, and parks and recreation facilities are staffed and located so that they could continue to serve the proposed project site and surrounding communities in an adequate manner without the need for additional facilities. Emergency services agencies (fire and police) were contacted to obtain information regarding their existing and projected service capacity, as well as the projected impacts that could result from implementation of the proposed project. Potential impacts were assessed through significance criteria established for this project based on the State CEQA Guidelines.

3.12.4.2 Thresholds of Significance

For the purposes of the analyses in this EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if:

PS-1: The project would require new or physically altered government facilities, the need for new or physical altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response times, or other performance objectives for any of the public services:

- Fire Protection
- Police Protection
- Schools
- Parks
- Other Public Facilities

3.12.4.3 Impacts and Mitigation Measures

Impact PS-1: Would the Proposed Project Require New or Physically Altered Government Facilities, the Need for New or Physical Altered Government Facilities, the Construction of Which Could Cause Significant Environmental Impacts, in Order to Maintain Acceptable Services Ratios, Response Times, or Other Performance Objectives for Any of the Public Services?

Fire Protection

Construction

The proposed project would include development of new and renovation of existing office space for medical uses, retail space, open space, parking facilities, and possibly workforce housing on the medical center campus. Construction activities would include demolition of some on-site buildings and structures, site preparation and grading, and construction of new and renovated facilities. During construction, LAFD would respond to any incidents on-campus, as they do now. Thus, while construction could temporarily increase demand for fire protection services, it is unlikely that it would result in the need for new or altered fire protection facilities to provide fire protection services to the campus during construction. Therefore, the temporary increased demand for fire protection services during construction would be a less-than-significant impact.

However, emergency access to the project site could be affected by construction. Temporary lane closures and construction related-traffic could delay or obstruct the movement of emergency vehicles, therefore resulting in a potentially significant impact. In order to ensure emergency access, traffic flow, and the LAFD's ability to maintain an adequate response time between four and six minutes, the County would implement mitigation measure MM-PS-1.

Operation

LAFD provides fire protection for existing on-campus structures. Proposed development under the master plan would be generally consistent with current use(s) and is not planned to occur outside the existing campus boundaries. As a result, the proposed project would not require the construction of new or altered fire facilities at Station 2 or any of the stations in the area that serve the surrounding communities.

Increases in building square footage (see Table 3.15-6) and the number of campus employees (see Table 3.11-5) and visitors that could occur under the proposed master plan could result in increased demand for fire protection services. However, new development would be constructed in accordance with current building and fire/life/safety codes including all applicable city and County code requirements related to construction, access, water mains, fire flows, and hydrants. As part of the standard project approval process, LAFD would review and approve all project plans to ensure compliance with applicable fire codes and standards, thereby minimizing the risk of increased operational fire hazards. Additionally, under the proposed master plan, older vacant or underutilized buildings that pose an increased risk of fire hazard would be demolished. As a consequence, the proposed project is not expected to require construction of new or altered facilities to maintain acceptable service ratios, response times, or other public facility performance objectives. Therefore, operational impacts to fire services as a result of the proposed project would be less than significant.

Mitigation Measures

The following measure is proposed to mitigate the construction impacts described in Impact PS-1.

> **MM-PS-1:** The Los Angeles County project manager and construction contractor shall regularly notify and coordinate with the LAFD, LASD, and LAPD on project construction design, activities, and scheduling, including any on- and off-campus street or lane closures related to proposed development projects before construction begins.

Level of Significance after Mitigation

Less than significant.

Police Protection

Construction

The proposed project would include development of new or renovation of existing campus facilities. During construction, the construction site(s) will be protected by fencing, lighting, and security patrol. The LASD is responsible for patrolling existing on-campus structures. Thus, while construction activities could temporarily increase the demand for police protection services, it is unlikely that it would result in the need for new or altered LASD facilities to maintain acceptable performance objectives.

During construction, emergency access to the project site could be affected by temporary lane closures to accommodate construction activities and construction related-traffic could delay or obstruct the movement of emergency vehicles, a potentially significant impact. In order to ensure emergency access, traffic flow, and the LASD and LAPD's ability to maintain adequate response times and other performance objectives, mitigation measure MM-PS-1 is proposed.

Operation

The projected level of development that could occur under the master plan would result in an estimated increase of 2,416 on-campus employees, in addition to increased visitors to the campus. Increases in the number of employees and visitors could result in an increase in the number of incidents requiring an LASD response. Although staffing is of concern to LASD authorities on the campus (Kennison pers. comm.), it is not expected that new or altered facilities, the construction of which would result in significant impacts, would be necessary to maintain adequate service levels. Additionally, the LAPD indicated that a project of this size would not have a significant impact on police services in the Hollenbeck Area (Tsap pers. comm., 2014). Therefore, operational impacts on police services would be less than significant.

Mitigation Measures

See MM-PS-1 above for measures to mitigate the construction impacts to police protection services.

Level of Significance after Mitigation

Less than significant.

Schools

Construction

Given the large pool of construction workers within commuting distance of the project site, it is unlikely that construction workers would choose to permanently relocate their households to the area, thereby increasing local school enrollment. Thus, construction activities are not expected to result in the need for new or altered schools or school facilities to maintain acceptable personnel ratios or other performance and learning objectives. Construction impacts to educational facilities would be less than significant.

For a discussion of construction-period air quality and noise impacts on local schools and school children, please see Section 3.2, Air Quality, and Section 3.10, Noise, in this EIR.

Operation

The projected development that could occur under the master plan could result in an increase of 2,416 employees on the campus. Given the campus' proximity to the freeway network and transit facilities, it's anticipated that these new employees would be dispersed over a wide geographic area within commuting distance of the campus. Thus, the new households formed by these new employees are not likely to result in significant increases in student enrollment at any one school in the region. Therefore, the indirect impact of these employees on student enrollment is not expected to result in new or altered schools or school facilities to maintain acceptable personnel ratios or other performance and learning objectives. Operational impacts to educational facilities would be less than significant.

Mitigation Measures

The impacts would be less than significant. No mitigation measures are required.

Parks

Construction

Given the large pool of construction workers within commuting distance of the project site, it is unlikely that construction workers would choose to permanently relocate to the area. Additionally, construction workers have limited opportunities to use local parks during the workday. Therefore, it's not anticipated that construction workers would result in a significant increase in demand for local park facilities. Construction impacts would be less than significant.

For additional information regarding potential construction-related impacts to parks and recreational facilities, please see the Section 3.13 -Recreation of this EIR.

Operation

The projected level of development under the master plan could increase the campus employee population by an estimated 2,416 employees and also attract new visitors to the campus. Given the proposed project includes enhanced native grassland landscapes, lightly programmed terrain, and other developments intended to create accommodating open space for campus employees, patients, and visitors it is unlikely the proposed master plan would result in a significant increase in the use of and demand for local, off-campus park facilities. Thus, development that could occur under the master plan is not expected to require new or altered off-campus parks and recreation facilities to maintain acceptable service ratios or other performance objectives. Operational impacts to parks would be less than significant.

For additional information regarding potential operation-related impacts to parks and recreational facilities, please see Section 3.13, Recreation, of this EIR.

Mitigation Measures

The impacts would be less than significant. No mitigation measures are required.

Other Public Facilities

Construction

Another potentially affected public service and facility considered for the purposes of this EIR is libraries. Given the large pool of construction workers within commuting distance of the project site, it is unlikely that construction workers would choose to permanently relocate to the area, and thereby increase the demand for local library services. Also, construction workers would have limited opportunities to use local libraries during the workday while working on campus. Thus, new or altered library facilities to maintain acceptable service ratios or other performance objectives are not anticipated and construction impacts to libraries would be less than significant.

Operation

The estimated increase in the campus employee population and increased visitors could result in an increased demand for local library services. However, this increase is not expected to be significant given the limited opportunity for employees to use local libraries during the work day and the fact that visitors to the campus are more likely to use campus facilities, than use the closest off-campus library, which is located approximately 1 mile from the medical center campus. Additionally, employees are likely to reside within a large geographic area within commuting distance of the campus, thus no one library in the surrounding region is expected to experience a significant increase in demand as a result of the proposed master plan. Therefore, operational impacts to libraries would be less than significant.

Mitigation Measures

The impacts would be less than significant. No mitigation measures are required.

3.12.5 Cumulative Impacts

The public facilities that currently serve the LAC+USC Medical Center campus are the ones most likely to experience adverse cumulative impacts due to the proposed and related projects. Therefore, the study area, for the purposes of this cumulative impacts analysis generally encompasses the service areas of those facilities, which roughly correspond to an area within a 2-mile radius of the campus. For police protection services, the study area would consist of the 15-square-mile service area of the LAPD Hollenbeck Community Police Station. The list of related projects provided in Table 2-2 of Chapter 2-Project Description of this EIR includes seven projects within that 2-mile study area radius and 9 projects in total. The seven projects within a 2-mile radius include 238,000 sf of student housing; 300 condominiums; a 250,000-sf hotel; 481,842 sf of research, medical, and non-clinical facilities; and 42,347 sf of commercial/retail uses. The remaining two projects propose up to 9,800 dwelling units and approximately 900,000 sf of office and retail space. These nine projects are at various stages of conceptual planning and development.

3.12.5.1 Fire Protection

The cumulative increases in study area employee and residential populations and area visitors would increase the demand for public services, which may or may not require the construction of new facilities to meet that cumulative demand. However, the County and fire service providers require payment of development fees for new development as part of the permitting and approval process, which is intended to offset some of these cumulative effects resulting from new development. For this reason, and because current fire protection services are adequate and it is not known what, if any new facilities would need to be constructed to maintain acceptable service ratios, the cumulative impacts due to the proposed and related projects are not considered to be significant.

3.12.5.2 Police Protection

Cumulative increases in study area employee, residential, and visitor populations would result in increased demand for police protection services. In order to maintain acceptable service ratios and response times, reallocation of staff resources or construction of new facilities to meet that cumulative demand may be required. However, the proposed project would not require the construction of new LASD facilities on the campus to maintain acceptable service ratios and would likely result in a minor increase in demand for offsite LAPD police protection services. Additionally, it's not known whether new LAPD police facilities would need to be constructed to accommodate increased demand for police services in the study area and whether construction of needed facilities would result in significant impacts to the environment. Therefore, the cumulative impacts of the proposed and related projects on police protection services are not considered to be significant.

3.12.5.3 Schools

The seven related projects within an approximately 2-mile radius of the medical center campus include a 300-condominium development project that could increase student enrollment at local schools. It's not known, however, whether the proposed and related projects, including the 300-condominium development project, would require expansion of existing or construction of new schools to accommodate increased student enrollment. However, it should be noted that LAUSD is currently engaged in a multi-year capital improvement program to construct 131 new schools to accommodate projected growth. Additionally, pursuant to Government Code Section 65995, the payment of the requisite school impact fees under the provisions of SB 50 would be deemed to be full mitigation of a project's impacts on school facilities. Therefore, for those reasons, the cumulative impacts on schools due to the proposed and related projects are considered to be less than significant.

3.12.5.4 Parks

The 300-condominium development project and 285,500 sf of graduate student housing would likely result in increased demand for and use of local parks. However, given the proposed master plan would include significant new open space areas for passive recreational use that would be accessible to the surrounding community as well as the on-campus employee and visitor populations, it's not expected that the proposed and related projects would require the expansion or construction of new park space. The cumulative impacts on parks would be less than significant.

3.12.5.5 Other Public Facilities

The proposed residential development projects in the cumulative impacts study area, which is defined as the area within an approximately 2-mile radius of the medical center campus, are limited to a 300-condominium development project at 1101 N. Main and 285,500 sf of graduate student housing on the USC Health Sciences campus. Although the increase in the residential population would likely result in an increased use of local libraries, the impact is not expected to be significant given the relatively modest increase in the residential populations and the fact that it is unlikely that new library facilities would be required to meet this demand. For that reason and because the proposed project is expected to have a less than significant impact on libraries, the cumulative impact of the proposed and related projects would be less than significant.

3.13 Recreation

3.13.1 Introduction

This section identifies existing park and recreational facilities in the project vicinity and evaluates potential recreational impacts that could occur as a result of construction and operation of the proposed LAC+USC Medical Center Campus Master Plan.

3.13.2 Regulatory Setting

3.13.2.1 State

Public Park Preservation Act of 1971

The California Public Park Preservation Act of 1971 provides that no city, city and county, public district, agency of the state government, or public utility may acquire any real property, which is in use as a public park at the time of acquisition, for the purpose of utilizing the property for any non-park purpose, unless the acquiring entity pays or transfers to the legislative body of the entity operating the park sufficient compensation or land, or both, to enable the operating entity to replace the park land and its facilities. This act authorizes changes in the general character and location of the park if certain requirements are met.

3.13.2.2 Local

County of Los Angeles General Plan

The County of Los Angeles General Plan was prepared in 1980; however, several elements were revised and updated in subsequent years. Under the existing general plan, policies related to recreation are contained in the Conservation and Open Space Element. As described in the Conservation and Open Space Element, the primary recreation goal of the general plan is the provision of additional outdoor recreation areas to serve increasing demands of the urban and tourism populations of the County. The 2014 draft general plan, which the County has made available, contains guidelines for the major planning areas, with the goal of linking countywide policies to the policies of cities and unincorporated communities. The Parks and Recreation Element of the 2014 draft general plan provides policy direction for the maintenance and expansion of the County's parks and recreation system. Applicable policies from the Parks and Recreation Element include the following:

- **Policy P/R 1.2:** Provide additional active and passive recreational opportunities based on a community's setting as well as its recreational needs and preferences.
- **Policy P/R 1.3:** Consider emerging trends in parks and recreation when planning new parks and recreational programs.
- **Policy P/R 1.5:** Ensure that County parks and recreational facilities are clean, safe, inviting, usable, and accessible.
- **Policy P/R 3.4:** Provide additional parks in communities with insufficient local parkland, as identified through the gap analysis.

- **Policy P/R 3.9:** Site new parks near schools, libraries, senior centers, and other community facilities, where possible.
- **Policy P/R 5.7:** Integrate a range of cultural programs into existing activities, and partner with multicultural vendors and organizations.

City of Los Angeles General Plan

The City of Los Angeles General Plan establishes standards for the city's parks and recreation system in the following three areas:

1. The city ensures that sufficient land is reserved for parks and recreation,
2. The city ensures an appropriate distribution of park and recreational facilities throughout the city, and
3. The city provides a full complement of park and recreational facility types (i.e., active and passive recreation for all age groups) to accommodate a wide variety of users.

Facilities are to be provided at the neighborhood, community, and regional levels and managed by the City of Los Angeles Department of Recreation and Parks (LADRP).

- **Neighborhood Parks** provide at least 2 acres of parkland per 1,000 persons within a 0.5-mile service radius. LADRP tries to locate parks so that users do not have to cross major roadways to access the parks and provide facilities and programs that are tailored to the clientele served.
- **Community Parks** are also under the 2-acres-per-1,000-residents standard. However, the ideal park should contain at least 20 acres, and the facilities or programs offered should reach a larger service radius, which is usually 2 miles. Community parks may offer swimming pools; community buildings; tennis, shuffleboard, and basketball courts; baseball diamonds; or senior citizen facilities.
- **Regional Parks** should have more than 50 acres and provide specialized facilities such as lakes, golf courses, campgrounds, wilderness areas, and museums; they should serve people from beyond the city boundaries.

Framework Element

The Framework Element of the City of Los Angeles General Plan contains goals, objectives, and policies for the provision, management, and conservation of the City of Los Angeles' open space resources. The goals, objectives, and polices address issues related to the outdoor recreational needs of the city's residents. They are also intended to guide amendments to the general plan's Open Space and Conservation Element.

The following objectives and policies related to open space and conservation are applicable to the proposed project:

- **Objective 6.2:** Maximize use of the city's existing open space network and recreational facilities by enhancing those facilities and providing connections, particularly from targeted growth areas, to the existing regional and community open space system.
- **Objective 6.4:** Ensure that the city's open spaces contribute positively to the stability and identity of the communities and neighborhoods in which they are located or through which they pass.
    - **Policy 6.4.1:** Encourage and seek to provide usable open space and recreational facilities throughout the city.

- **Policy 6.4.8:** Maximize use of existing public open space resources at the neighborhood scale and seek new opportunities for private development to enhance the open space resources of the neighborhood.

Boyle Heights Community Plan

The community of Boyle Heights is situated at the eastern boundary of the City of Los Angeles. It also borders the LAC+USC Medical Center campus, which is to the north. Boyle Heights is surrounded by the City of Vernon to the south, the unincorporated community of East Los Angeles to the east, the communities of Lincoln Heights and El Sereno to the north, and the Los Angeles River and downtown to the west.

The Boyle Heights Community Plan has adopted the following objectives and policies, which are applicable to park and recreational facilities within the plan area:

Objectives

1. Provide adequate park and recreational facilities to meet the needs of residents in the community.
2. Conserve, maintain, and better utilize existing park and recreational facilities to promote the recreational experience.

Policies

1. Preserve and improve the existing park and recreational facilities and park space.

Northeast Los Angeles Community Plan

The Northeast Los Angeles Community Plan area encompasses the hills and valleys east of the Los Angeles River and north of the Boyle Heights Community Plan area within the City of Los Angeles.

According to the Northeast Los Angeles Community Plan, to provide adequate park and recreational facilities that meet the needs of residents, the following objectives and policies, which are applicable to park and recreational facilities within the plan area, have been adopted:

- **Objective 4-2:** Preserve existing open space resources and, where possible, encourage the acquisition of new open space.
  - **Policy 4-2.1:** Accommodate and promote active use of parklands and open space and promote and preserve greenways.
- **Objective 5-1:** To conserve, expand, maintain, and better utilize existing park and recreational facilities to meet the recreational needs of the community.
  - **Policy 5-1.1:** Preserve the existing recreational facilities and park space.

3.13.3 Environmental Setting

The LAC+USC Medical Center campus is located between the Boyle Heights and Lincoln Heights neighborhoods of the City of Los Angeles. Therefore, park and recreational facilities in the communities immediately surrounding the campus are under the jurisdiction of the Los Angeles Department of Recreation and Parks (LADRP), which owns and operates public park and recreational facilities throughout the city and administers more than 15,700 acres of parkland with 39 neighborhood and regional parks, 11 lakes, 176 recreation centers, nine dog parks, seven skate

parks, 13 golf courses, 61 swimming pools, and 31 senior centers. Included in these parklands are facilities such as horticulture centers, museums, and historic sites. (City of Los Angeles Department of Recreation and Parks 2014c). According to the California State Parks Community Fact Finder, the population within a 0.5-mile radius of the project site totals 8,413, and the 16.78 acres of park space equates to 1.99 acres per 1,000 residents (86.6 square feet per person) (California Department of Parks and Recreation 2013).

Although the campus is located in a dense urban area with multiple industrial, commercial, and residential zones, the study area has a total of nine park and recreational facilities within 1 mile of the project site. These locations are identified and described in Table 3.13-1 and shown in Figure 3.13-1. Beyond passive open space areas such as courtyards and landscaped building frontage, there are no existing recreational resources located on the project site.

Hazard Park and Lincoln Park, both of which can be accessed from existing streets, are the closest open space areas to the project site (300 feet and 0.3 mile from the LAC + USC Medical Center campus, respectively). These two parks are also the largest open space areas in the vicinity of the project site.

3.13.4 Environmental Impact Analysis

3.13.4.1 Methods

The impacts analysis presented below is based on a desktop inventory that was conducted to identify recreational uses that might be affected by construction and operation of the facilities that would be developed under the proposed LAC+USC Medical Center Campus Master Plan. Information was compiled from regional/local maps and planning documents, including the Los Angeles County General Plan, City of Los Angeles General Plan, Boyle Heights Community Plan, and the Northeast Los Angeles Community Plan, which were reviewed to provide insight into recreational goals and regulations for the surrounding community. The analysis evaluated the proposed master plan's consistency with applicable city and County plans and policies related to recreation as well as any potential impacts resulting from construction and operation of the project.

3.13.4.2 Thresholds of Significance

For the purposes of the analysis in this EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed master plan would have a significant environmental impact if it would:

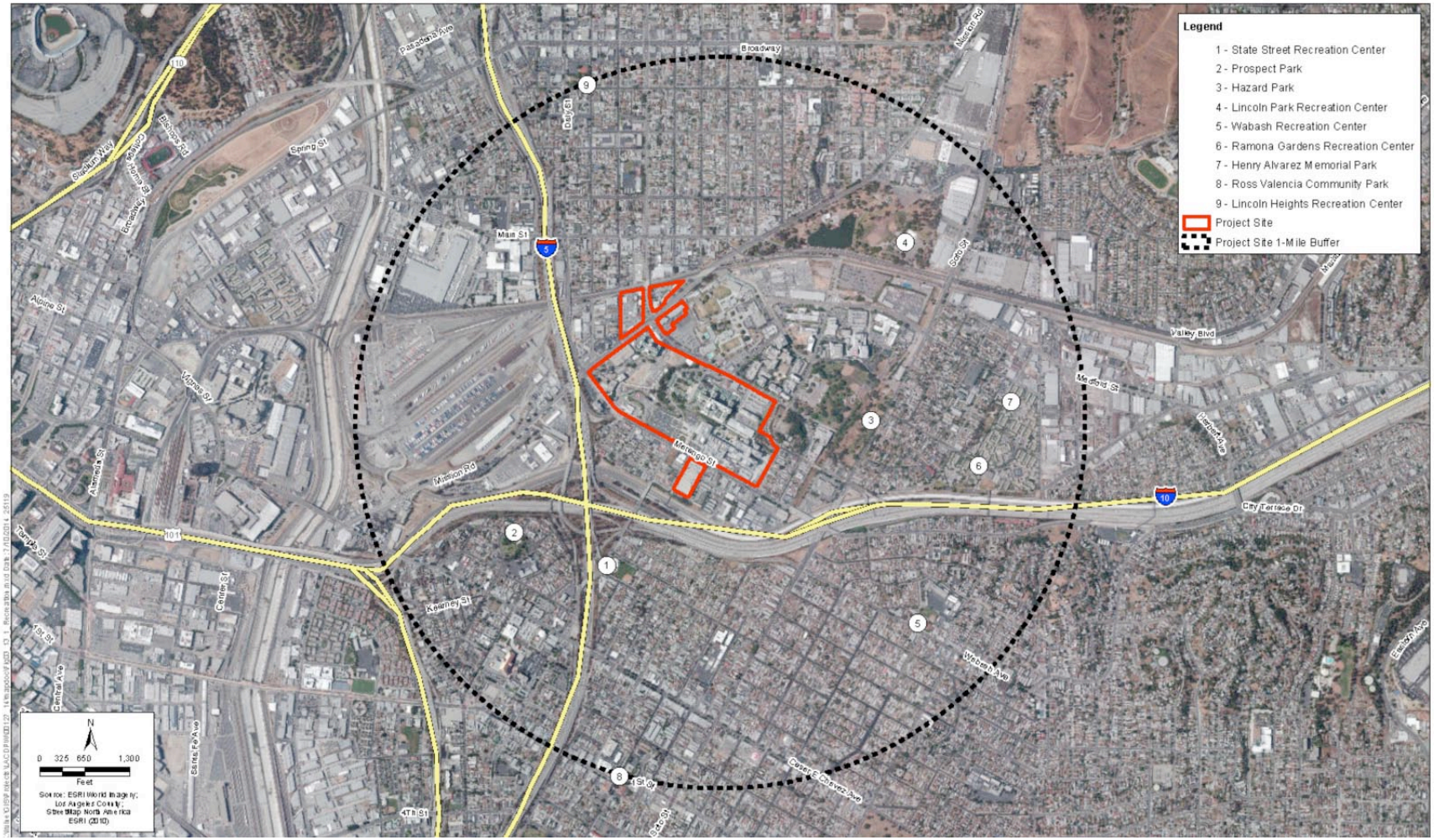
REC-1 Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

REC-2 Include recreational facilities or require the construction or expansion of recreational facilities that would have a substantial adverse physical effect on the environment.

Table 3.13-1. Park and Recreational Facilities in the Study Area

Map ID	Park Name	Address	Park Features	Distance from Project Site
1	State Street Recreation Center (2.5 acres)	716 N. State St.	Auditorium, baseball diamond (lighted), basketball courts (lighted/outdoor), children's play area, community room.	0.4 mile
2	Prospect Park (2.7 acres)	Echandia St. and Judson St.	Pocket park with a children's play area.	0.5 mile
3	Hazard Park and Recreation Center (26.5 acres)	2230 Norfolk St.	Auditorium, barbecue pits, basketball courts (lighted/indoor), children's play area, community room, handball courts (unlighted), indoor gym (without weights), picnic tables, tennis courts (lighted).	0.1 mile
4	Lincoln Park and Recreation Center (41 acres)	3501 Valley Blvd.	Auditorium, barbecue pits, baseball diamond (lighted), children's play area, indoor gym (with weights), picnic tables, soccer field (unlighted), tennis courts (unlighted), restroom(s), kitchen, lake with fishing, multipurpose sports field, pre-school room, skate park, stage, summer pool.	0.6 mile
5	Wabash Recreation Center (1.34 acre)	2765 Wabash Ave.	Auditorium, basketball courts (lighted/outdoor), children's play area, community room, indoor gym (without weights).	0.8 mile
6	Ramona Gardens Recreation Center	2830 Lancaster Ave.	Auditorium, baseball diamond (lighted), basketball courts (lighted/indoor, unlighted/outdoor)	0.9 mile
7	Henry Alvarez Memorial Park (1.8 acres)	2830 Lancaster Ave.	Basketball courts (unlighted/outdoor), children's play area, picnic tables, soccer field (unlighted).	0.9 mile
8	Ross Valencia Community Park (formerly LANI Vest Pocket Park) (0.08 acre)	E. 1st St. and Chicago St.	Pocket park.	0.9 mile
9	Lincoln Heights Recreation Center (1.5 acres)	2303 Workman St.	Auditorium, basketball courts (lighted/indoor and outdoor), children's play area, community room, indoor gym (without weights), kitchen, stage, TV area.	1.0 mile
Source: City of Los Angeles Department of Recreation and Parks, 2014c.				

Figure 3.13-1. Recreational Facilities and Parks with a 1-mile Radius of the Project Site



3.13.4.1 Impacts and Mitigation Measures

Impact REC-1: Would the Proposed Master Plan Increase the Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities such that Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated?

Construction

Construction of the proposed project facilities would require a number of construction workers on the medical center campus over a period of years. The exact number of workers on-site will not be known until the schedules for the individual development projects proposed under the master plan are determined. Given the general accessibility of the project site and availability of construction workers, it is unlikely that a substantial numbers of construction workers would relocate to the immediate vicinity of the project such that use of existing parks or recreational facilities would increase to the point that substantial deterioration would occur. Construction activities in and of themselves would not significantly affect parks or recreational facilities surrounding the project site. Users of Hazard Park, the nearest park to the project site, would likely notice construction activities on the project site. Noticeable impacts to park users would include noise, dust, and traffic disruptions; however, none of these disruptions would result in the physical deterioration at Hazard Park or any of the other parks or recreational facilities listed in Table 3.13-1. Therefore, construction-period impacts due to park use would be less than significant.

Mitigation Measures

No significant impacts on parks or recreational facilities would occur. Therefore, no mitigation measures are required.

Operation

As described in Section 3.11, the proposed master plan does not include a substantial residential development component that would directly result in substantial population increases (the area of the campus that would be the location for biotech research facilities may contain some workforce housing). Therefore, the proposed master plan would not result in a significant increase in the number of residents who would use local park and recreational facilities. Implementation of the master plan could result in increases in the number of campus patients, visitors, and employees, all of whom may use local recreational facilities. The increase in patients, visitors, and employees is not likely to result in a substantial increase in the use of local parks. The proposed master plan includes the development of five new landscaped and open space areas on the campus to provide a variety of accessible outdoor experiences for public use and residents of adjacent communities. The provision of these additional active and passive recreational opportunities in the Northeast Los Angeles and Boyle Heights Community Plan areas would meet the needs of the residents in the community and be consistent with the goals and objectives outlined in the County and city general plans. Therefore, it is not expected that growth in on-campus patient, visitor, or employee populations would result in a significant increase in the use of existing local parks or substantial physical deterioration of park facilities. Additionally, the increase in the number of households associated with increased on-campus employee populations would most likely be dispersed over a wide geographic area within commuting distance of the campus; therefore, a concentrated or substantially intensified use of local parks is unlikely. Impacts would be less than significant.

Mitigation Measures

No significant impacts on parks or recreational facilities would occur. Therefore, no mitigation measures are required.

Impact REC-2: Would the Proposed Master Plan Include Recreational Facilities or Require the Construction or Expansion of Recreational Facilities that Would Have a Substantial Adverse Physical Effect on the Environment?

Construction

The proposed master plan includes new landscaped and open space areas, which are intended to encourage outdoor recreation (primarily passive in nature), increase mobility, facilitate access to and through the site, and promote a sense of community, with outdoor spaces that would be accessible to residents of the adjacent community. Construction of these proposed landscaped and open areas would involve site preparation activities, including demolition, grading and excavation, and construction of permanent facilities. These activities would be limited to the project site and would not restrict parking for or access to nearby off-campus recreational facilities. Staging for construction equipment and activities would not occur within any off-campus parkland or recreational facility. However, construction activities could result in noise and air quality impacts on nearby sensitive receptors, including local residents, hospital patrons, or possibly users of local park and recreational facilities. These impacts could be potentially significant. Construction activities could also result in other impacts, such as traffic impacts. The reader is referred to Sections 3.2, Air Quality; 3.10, Noise; and 3.14, Traffic, for detailed descriptions of the proposed project's potential construction impacts as well as the BMPs and mitigation measures that are proposed to be implemented to minimize any adverse or potentially significant impacts.

Operation

As noted above, the proposed master plan includes new landscaped and open space areas, which are intended to encourage outdoor recreational activities. It is not expected that routine daily use of these open space areas would result in significant operational impacts on the environment. However, the use of outdoor passive recreational spaces at the campus for special events that would attract a substantial number of attendees beyond what is typical for the site may result in intermittent, short-term traffic, noise, or air quality impacts. Because these events would be infrequent and short term in nature they are unlikely to have a substantial adverse physical effect on the environment. However, noise generated by large organized events would have the potential to exceed applicable noise standards, a potentially significant impacts (see Section 3.10 of this EIR).

As discussed above, direct effects due to the possibility of some workforce housing on the campus and the indirect effects of the proposed project due to the potential increase in number of households associated with the increased on-campus employee population is unlikely to increase the demand for recreational facilities significantly in any one area and require construction of new recreational facilities because that demand would be dispersed over a wide geographic area. Additionally, implementation of the master plan would result in new landscaped and open space areas, which would offset potential increases in the use of existing recreational facilities associated with increases in population. Therefore, the master plan is not expected to require construction of new or expanded recreational facilities to meet increased demand. Recreation impacts would be less than significant.

Mitigation Measures

No significant impacts on existing parks or recreational facilities would occur. For measures to mitigate the noise impacts from outdoor events held in proposed open space areas on the campus, please see MM-NOI-5 in Section 3.10 of this EIR. Please see Section 3.2 for proposed construction air quality mitigation measures.

Level of Significance after Mitigation

Construction activities could result in unavoidable significant adverse impacts on nearby sensitive receptors.

3.13.5 Cumulative Impacts

The study area for cumulative recreation impacts consists of a 2-mile radius around the project site. The related projects identified in Chapter 2 that are within this study area consist of medical facility expansion, mixed use developments, and a condominium development. Several planned and proposed housing and commercial development projects identified in Chapter 2 are located beyond the cumulative recreation impacts study area. Developments within the study area would increase the residential and employee populations in the project area, which, as a result, could increase use of and demand for recreational areas and facilities. However, residential subdivisions proposed within the City of Los Angeles are required to provide local park space to serve their respective populations, pay a fee in lieu of the provision of such parkland, or do a combination of both in accordance with the local ordinance in the LAMC, which would mitigate the cumulative impacts on park and recreational facilities resulting from residential development in the City of Los Angeles. Given this fact and because the proposed master plan would create additional open space and recreational space on the campus that could be used by campus visitors, employees, and local community residents, the proposed master plan and related projects would not result in significant cumulative impacts on local city recreational and park resources. However, large outdoor events held in the proposed new open space areas on the campus could result in potentially significant noise impacts, and consequently the proposed project could contribute to significant intermittent cumulative noise impacts in the immediate vicinity of the campus. Additionally, construction of proposed open space improvements could result in potentially significant construction air quality impacts after mitigation that would affect local sensitive receptors. Therefore, construction of the open space areas could contribute to significant cumulative air quality impacts on these sensitive receptors.

3.14 Transportation/Traffic

3.14.1 Introduction

This section summarizes the potential transportation and traffic impacts due to construction and operation of the proposed project. The information is based on the traffic study prepared for the project by Fehr & Peers (2014), which is included as Appendix G. This section includes a review of existing conditions, a summary of applicable policies and regulations related to transportation and traffic, and an analysis of existing and cumulative environmental impacts of the project. Where feasible, mitigation measures are recommended to reduce the level of the expected impacts.

3.14.2 Regulatory Setting

There are no relevant federal or state regulations for transportation and traffic. This section summarizes local regulations that apply to the proposed project.

3.14.2.1 Regional Transportation Planning

Federal Transportation Improvement Program

The Federal Transportation Improvement Program (FTIP) is SCAG's compilation of state, federal, and local funded transportation projects. In addition to projects identified in the State Transportation Improvement Program (STIP), the FTIP includes projects that have been funded by federal Congestion Mitigation and Air Quality Improvement and Surface Transportation Program funds, projects that have been funded by other federal funds, and projects that have been entirely funded by local and private funds. The FTIP identifies all transportation projects proposed over a 6-year period in the SCAG region, including highway improvements; transit, rail, and bus facilities; high-occupancy vehicle lanes; signal synchronization; intersection improvements; and freeway ramps.

3.14.2.2 County of Los Angeles

Existing General Plan

Transportation Element

Adopted in November 1980, the Transportation Element of the general plan sets the direction for development of a comprehensive, coordinated, and continuing transportation system for Los Angeles County. The document identifies major locations and corridors of travel according to land use patterns. Informed by the circulation elements from the various cities in the County, the Transportation Element provides background information, objectives, needs and policies, and a sub-element, the Highway Plan. The Bicycle Master Plan (adopted in 2012) and the Scenic Highways Element (adopted in 1974) are both closely related to the adopted Transportation Element, which would be replaced by the Mobility Element upon adoption of the County of Los Angeles General Plan 2035.

Bicycle Master Plan

Adopted in March 2012, the Bicycle Master Plan is an update to the 1975 County Bikeways Plan, a sub-element of the Transportation Element. The Bicycle Master Plan provides direction for improving the mobility of bicyclists and encouraging more bicycle ridership within the County by expanding the existing bikeway network, connecting gaps, addressing issues related to constrained areas, providing for greater local and regional connectivity, and encouraging residents to use bicycles more often. Upon adoption of the County of Los Angeles General Plan 2035, the Bicycle Master Plan will become a component of the Mobility Element.

Draft General Plan 2035

Mobility Element

The Mobility Element provides an overview of the County's transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The element assesses the challenges and constraints for the County's transportation system and offers policy guidance to reach the County's long-term mobility goals. Two sub-elements—the Highway Plan and Bicycle Master Plan—supplement the Mobility Element. These plans, which establish policies for the roadway and bikeway systems in unincorporated areas, coordinate with policies for the roadway and bikeway networks in the County's 88 incorporated cities. The general plan also establishes a program for preparing community pedestrian plans, with guidelines and standards that promote walkability and connectivity throughout the unincorporated areas. The County of Los Angeles General Plan 2035, including the Mobility Element, is scheduled to be completed in late 2014.

Traffic Impact Analysis Report Guidelines

Published in 1997, the County Department of Public Works Traffic Impact Analysis Report Guidelines provides guidelines for the preparation of traffic reports. The purpose of the Guidelines is to establish procedures to ensure consistency of analysis and the adequacy of information presented and timely review by County staff.

Los Angeles County Metropolitan Transportation Authority's Congestion Management Program

The Los Angeles County Metropolitan Transportation Authority (Metro) is responsible for maintaining the performance and standards of the Congestion Management Program (CMP) for the roadway system in Los Angeles County. Metro strives to maintain a level of service (LOS) of E or better on all CMP-monitored facilities. Based on Metro's CMP guidelines (Metro 2010), a Transportation Impact Analysis (TIA) is conducted for the following:

- CMP arterial monitoring intersections, including freeway on-ramps or off-ramps, where a proposed project will add 50 or more vehicle trips during either the AM or PM weekday peak hours.
- CMP mainline freeway monitoring locations where a project will add 150 or more trips in either direction during either the AM or PM weekday peak hours.

3.14.2.3 City of Los Angeles

General Plan

The Transportation Element of the City of Los Angeles General Plan includes specific goals, policies, and actions that have been designed to maintain acceptable traffic operations and reduce congestion. The use of enhanced transit, bicycle, and pedestrian modes and aggressive Transportation Demand Management (TDM) measures to reduce single-occupant vehicle trips is expected to improve circulation. The general plan also includes plans for future bicycle facilities. A draft of the Mobility Plan, which will update and replace the city's existing Transportation Element, was publicly circulated in April 2014 and is scheduled for adoption at the end of 2014.

Traffic Study Policies and Procedures

The Los Angeles Department of Transportation (LADOT) published its Traffic Study Policies and Procedures to establish significant traffic impact thresholds and determine project impacts on operations at intersections and along roadway/freeway segments (City of Los Angeles 2012).

3.14.3 Environmental Setting

The area around the medical center is surrounded by a mature network of freeways and arterial, collector, and local streets that is readily accessible to drivers, both from a local and from a regional perspective. The project site lies approximately 3 miles northeast of the center of downtown Los Angeles.

Major freeways near the medical center include the Golden State Freeway (I-5) and the San Bernardino Freeway (I-10). I-5, with access ramps at State Street and Cesar E. Chavez Avenue, extends along a north/south path throughout the region and provides access to Orange County and the San Fernando Valley as well as areas beyond. I-10, with access ramps at State Street and Soto Street, extends along an east/west path throughout the region, providing access to Santa Monica to the west and the San Gabriel Valley to the east as well as areas beyond. High-occupancy/toll (HOT) lanes, which are available to vehicles with more than one occupant or drivers with pre-paid transponders, are provided on I-10 between Union Station and El Monte, with in-line stations adjacent to the LAC+USC Medical Center and California State University, Los Angeles.

The area around the medical center is served by a network of streets that generally run north/south and east/west, according to local topography and historic development patterns. Mission Road and Soto Street, which are located west and east of the campus, are north/south arterial facilities. Main Street/Valley Boulevard and Cesar E. Chavez Avenue are east/west arterial facilities.

Figure 3.14-1 shows the location of study area and the intersections that were analyzed for the traffic study.

3.14.3.1 Existing Peak-Hour Intersection Levels of Service

Table 3.14-1 summarizes the existing AM and PM peak-hour volume-to-capacity (V/C) ratios and the corresponding levels of service at each of the study intersections. As shown, all 21 study intersections currently operate with fair to good levels of service (LOS D or better) during both the AM and PM peak hours.

Figure 3.14-1: Study Area and Analyzed Intersections

Source: Fehr & Peers, 2014.

Table 3.14-1: Existing Intersection Level-of-Service Analysis[a]

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing 2014	
				V/C[a]	LOS
1	Daly Street	Main Street	AM PM	0.755 0.655	C B
2	I-5 SB ramps/I-10 on-ramp	Mission Road	AM PM	0.750 0.537	C A
3	Daly Street/Marengo Street	Mission Road	AM PM	0.801 0.820	D D
4	Workman Street	Mission Road	AM PM	0.555 0.467	A A
5	Sichel Street	Mission Road	AM PM	0.535 0.402	A A
6	Griffin Avenue/Zonal Avenue	Mission Road	AM PM	0.629 0.515	B A
7	Mission Road	Valley Boulevard	AM PM	0.734 0.779	C C
8	Mission Road	Main Street	AM PM	0.605 0.473	B A
9	State Street	Cesar E. Chavez Avenue	AM PM	0.691 0.769	B C
10	State Street	I-10 EB ramps	AM PM	0.593 0.643	A B
11	State Street	I-10 WB off-ramp	AM PM	0.507 0.239	A A
12	State Street	Pomeroy Avenue	AM PM	0.506 0.378	A A
13	State Street	Marengo Street	AM PM	0.712 0.626	C B
14	I-5 NB off-ramp	Cesar E. Chavez Avenue	AM PM	0.684 0.319	B A
15	Brittania Street	Marengo Street	AM PM	0.407 0.383	A A
16	Chicago Street	Marengo Street	AM PM	0.487 0.335	A A
17	San Pablo Street	Valley Boulevard	AM PM	0.494 0.473	A A
18	Soto Street	I-10 EB off-ramp/Wabash Avenue	AM PM	0.642 0.637	B B
19	Soto Street	Marengo Street	AM PM	0.817 0.710	D C
20	Soto Street	Charlotte Street/I-10 WB ramps	AM PM	0.873 0.882	D D
21	Soto Street	Alcazar Street	AM PM	0.689 0.683	B B

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing 2014	
				V/C[a]	LOS

Notes:
[a] The signalized intersections listed above are currently operating under the Automated Traffic Surveillance and Control (ATSAC) system. A credit amounting to a 0.07 V/C ratio reduction was included in this analysis for all signalized intersections.

Source: Fehr & Peers, 2014.

3.14.3.2 Existing Public Transit Service

More than 20 bus transit lines serve the study area, connecting to various areas of Los Angeles and nearby cities as well as local neighborhoods. In the study area, transit stops are located along Marengo Street, Mission Road, Zonal Avenue, and State Street. Just south of the project site is an in-line stop on the El Monte Busway, an express bus corridor that connects downtown Los Angeles to the City of El Monte. Fixed-route service in the study area is provided by Metro, LADOT, Foothill Transit, and Los Angeles County. Existing transit stops in the project area are shown in Figure 3.1 4-2. Figure 3.14-3 illustrates the bus routes that operate on the streets around the medical center.

3.14.3.3 Existing Bicycle and Pedestrian Facilities

Bicycle Facilities

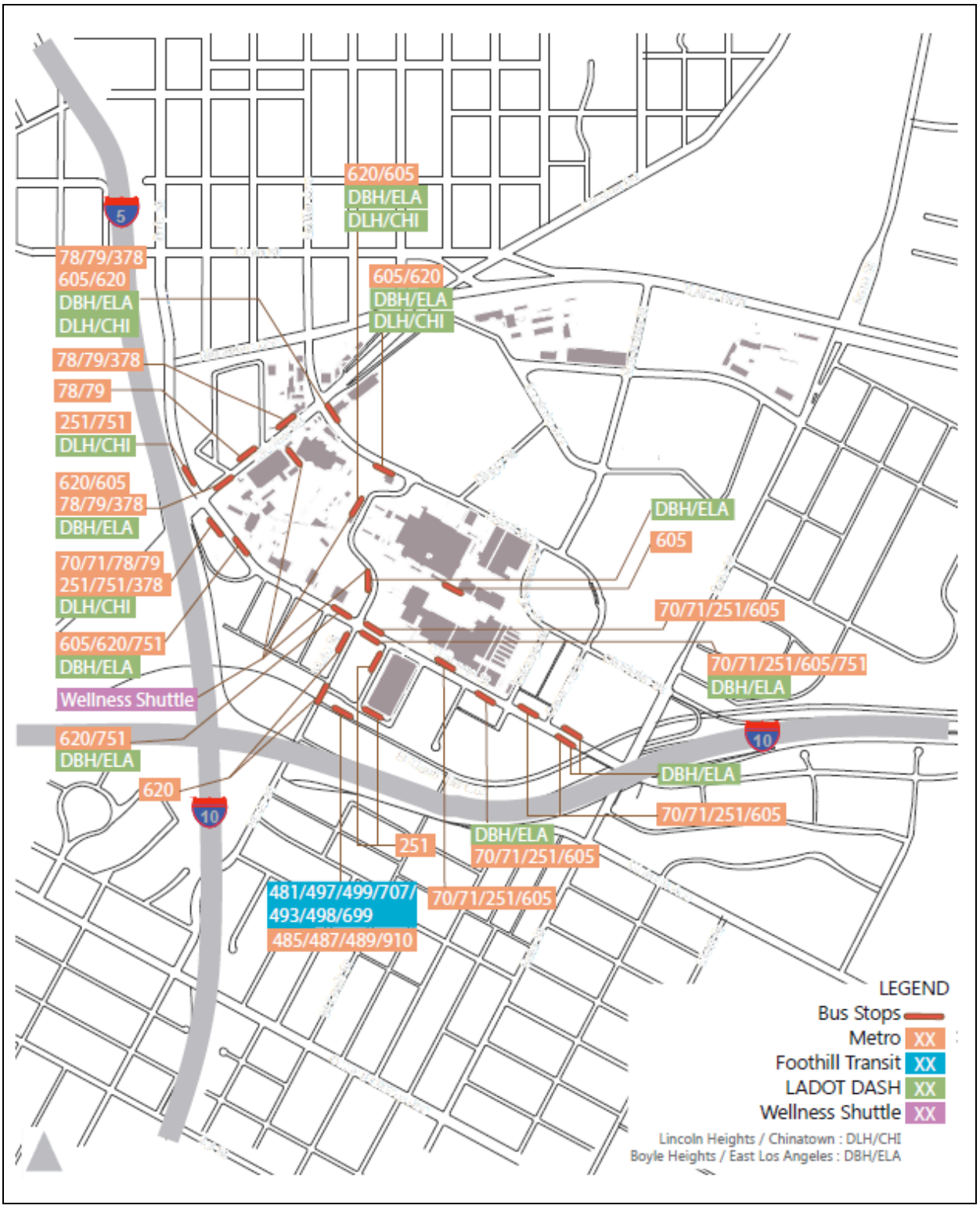
Currently, there is limited dedicated bicycle infrastructure in the study area. The nearest bicycle lanes (Class II facilities) are located on Griffin Avenue/Zonal Avenue west and east of Mission Road and on Mission Road itself. South of the medical center, there is a Class II facility along 1st Street east of Boyle Avenue. In addition, there is a sharrow[1] bicycle route on State Street south of Caesar E. Chavez Avenue. Existing bicycle facilities are illustrated in Figure 3.14-4; planned bicycle facilities are illustrated in Figure 3.14-5.

Pedestrian Facilities

Pedestrian traffic typically enters the campus from one of the parking structures or nearby transit stops. The medical center is located in an older neighborhood with a relatively high population density. All of the streets immediately bordering the medical center and nearly all of the other streets in the vicinity include sidewalks, thereby facilitating pedestrian movement. Marked crosswalks are present at most intersections in the study area. Walk phases at signalized intersections are either automatic or actuated by pedestrians with use of push buttons on the signals.

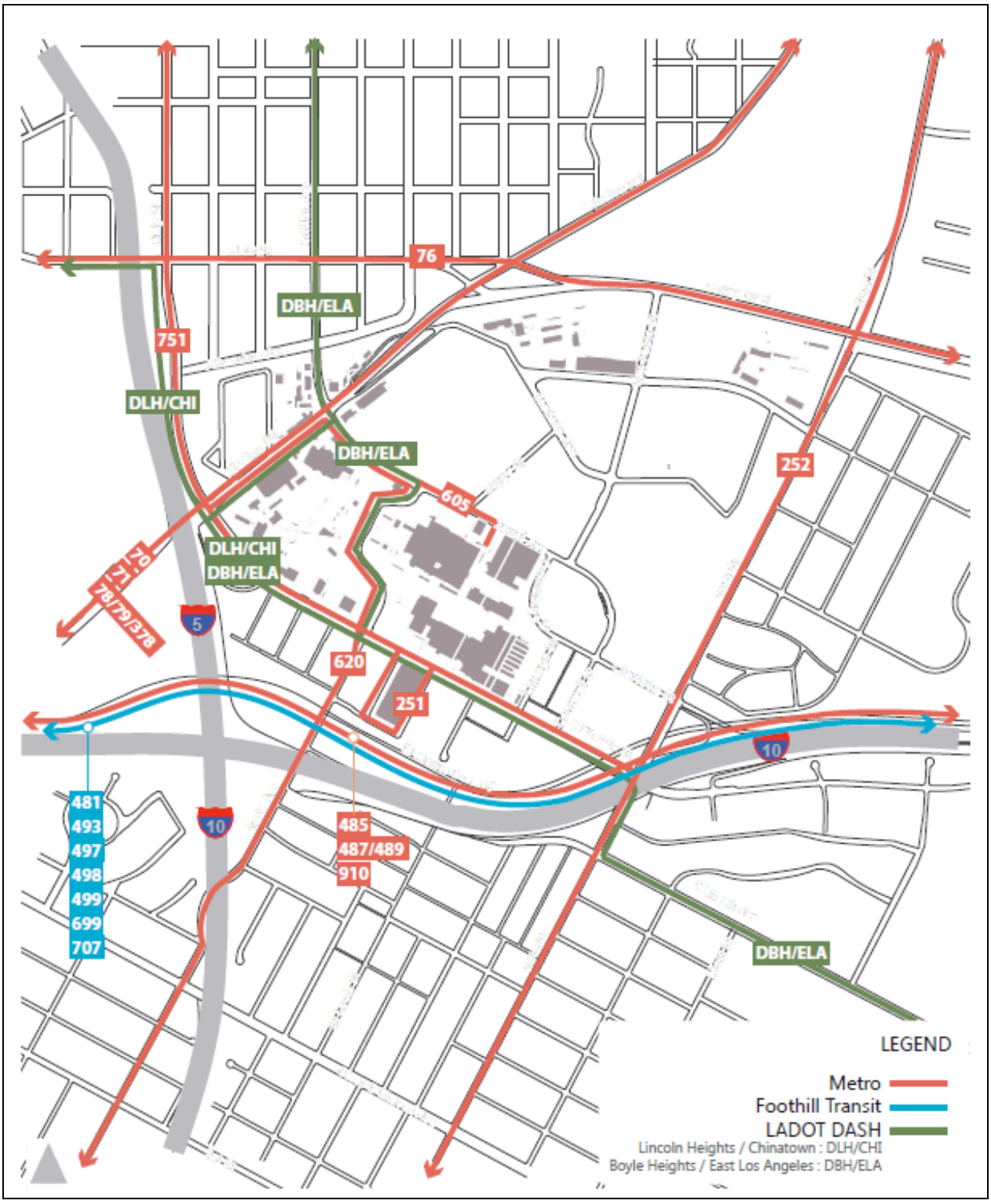
[1] Sharrow: A shared lane marking on a lane of a paved road's surface indicating that bicyclists may use any portion of the full width of the lane.

Figure 3.14-2: Existing Transit Stops in the Project Area



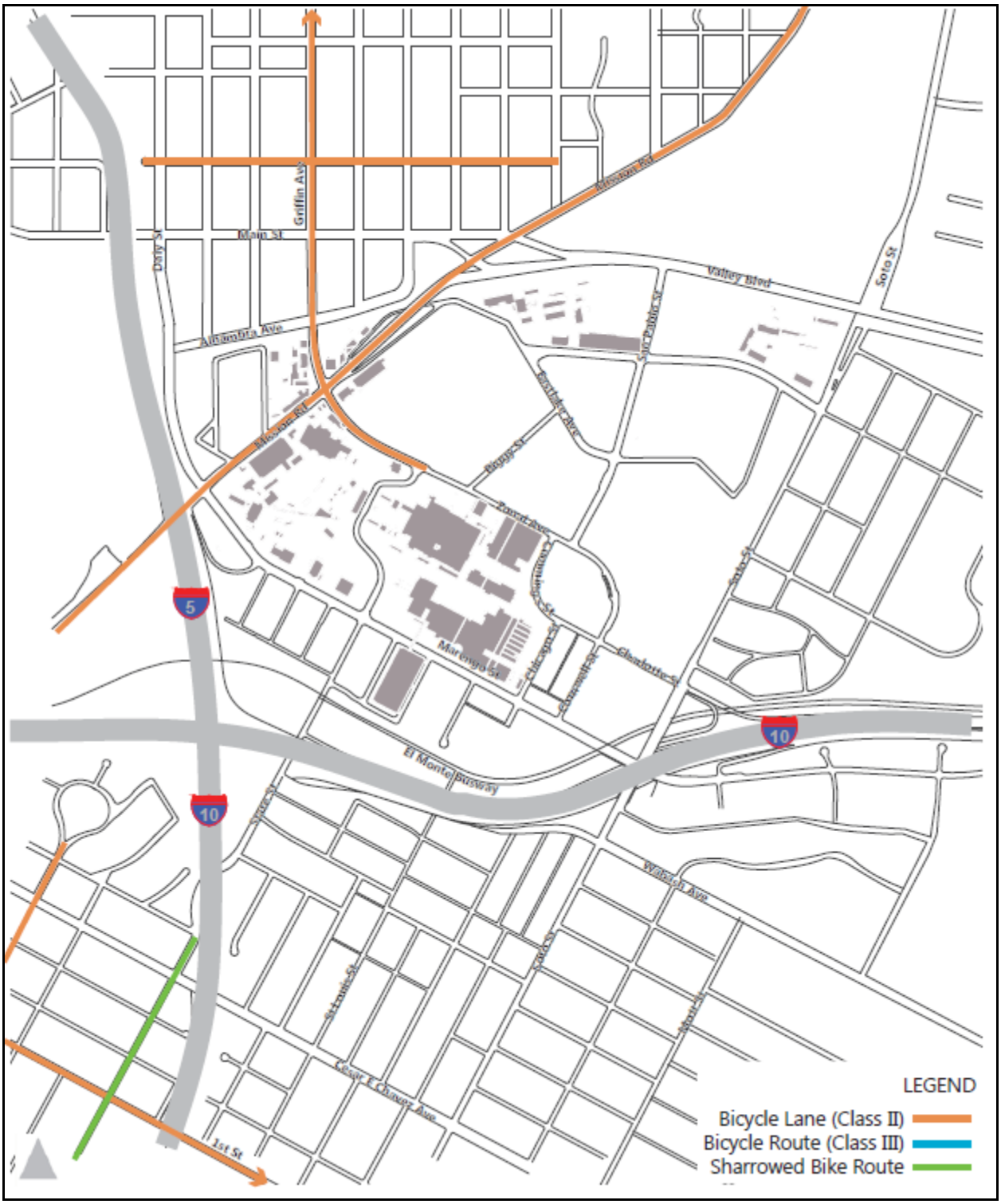
Source: Fehr & Peers, 2014.

Figure 3.14-3: Existing Transit Lines Surrounding the Campus



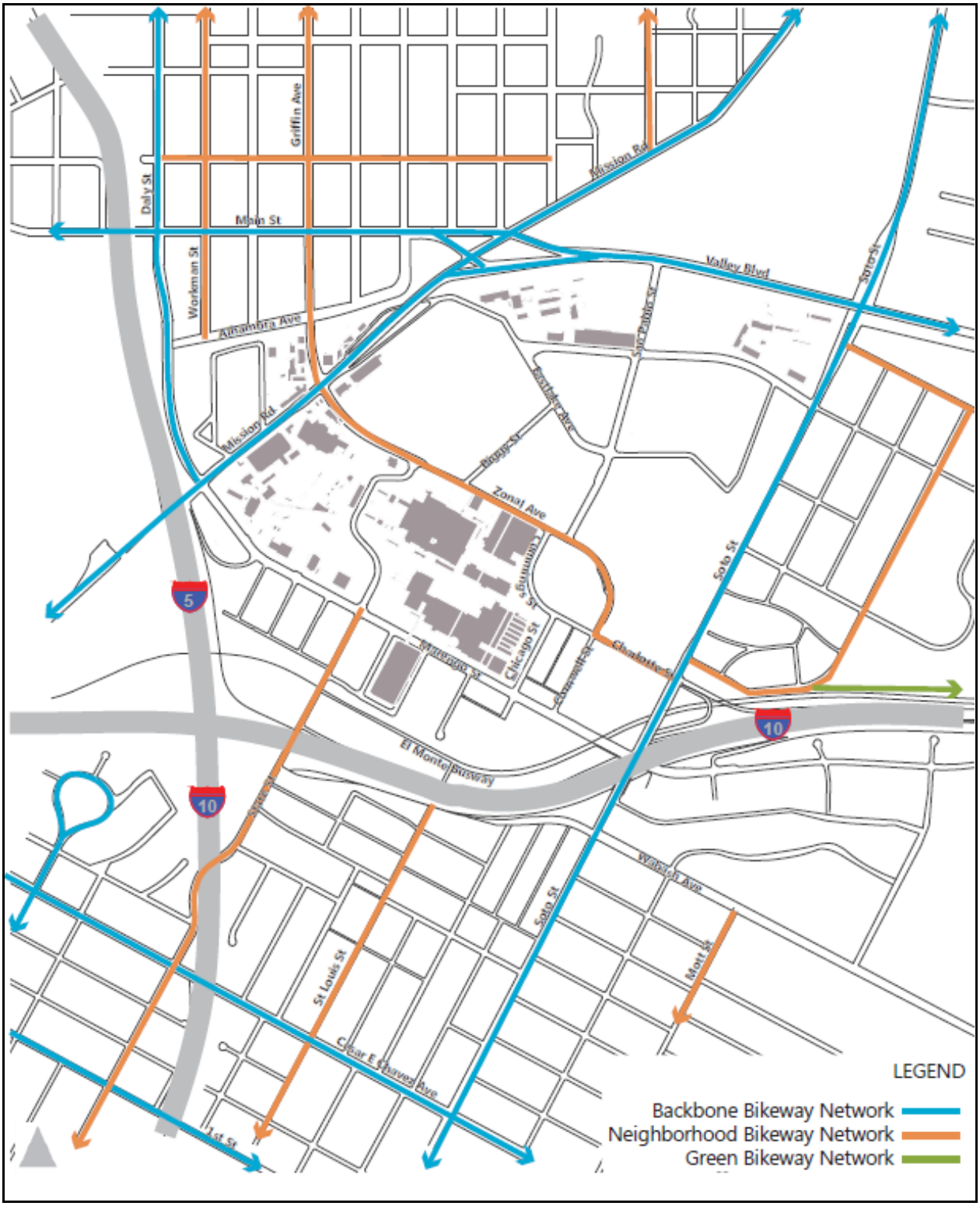
Source: Fehr & Peers, 2014.

Figure 3.14-4: Existing Bicycle Facilities



Source: Fehr & Peers, 2014.

Figure 3.14-5: Planned Bikeway Network



Source: Fehr & Peers, 2014.

3.14.4 Environmental Impact Analysis

This section describes the traffic and transportation impacts that could occur with implementation and buildout of the proposed master plan. It discusses the methods that were used to determine the impacts of the project and lists the thresholds that were considered to determine whether the impacts would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany the impact discussion. When individual development projects are proposed under the master plan, detailed project-level analysis will be conducted in subsequent environmental documents to determine project impacts and the applicability of any mitigation measures.

3.14.4.1 Methods

To evaluate the potential impacts of the proposed project on the street system, it was necessary to develop estimates regarding future traffic conditions in the study area, both with and without the project. Baseline and future traffic volumes were first estimated for the study area without the project. The future forecasts reflect traffic increases due to general regional growth and traffic expected to be generated by other developments in the vicinity of the project, representing cumulative base (no-project) conditions. Because the proposed project would include demolition of some existing parking facilities and the construction of others, travel patterns in the immediate vicinity would change. Trips generated by existing uses that would be removed were estimated and unassigned from the surrounding street system. Project traffic was estimated and separately assigned to the surrounding street system. The sum of existing baseline and project-generated traffic represents the existing plus project scenario. The sum of the cumulative base and project-generated traffic represents cumulative plus project conditions.

Project Traffic Projections

The development of trip generation estimates for the proposed project involves a three-step process that considers trip generation, trip distribution, and traffic assignment.

Project Trip Generation

The proposed master plan will guide future development on the medical center campus. The central and eastern areas of the project site include new and renovated buildings for in-patient and outpatient care, including 450 new hospital beds, medical offices, laboratories, and other supporting functions. Community-oriented and wellness-related community, education, retail opportunities, as well as enhanced outdoor space, are planned for the central and western areas of the site. Under the master plan, the western area would allow for the development of bio-tech research and development facilities. Demolition of some existing buildings and parking structures would be necessary to implement the master plan. Trip generation rates from *Trip Generation*, ninth edition (Institute of Transportation Engineers [ITE] 2012) were used to estimate the number of trips associated with the project (see Table 3.14-2).

The city's Traffic Study Policies and Procedures state that developments within walking distance (i.e., 0.25 mile) of a transit station, or a Rapid Bus stop, may qualify for up to a 15% transit credit. Given the medical center's adjacency to the in-line station on the El Monte Busway, the stops for Rapid Bus 751, and local and express bus service on more than 20 lines in the immediate vicinity, a 15% transit credit was applied to all existing and future land uses.

Marengo Street and Mission Road are both classified as Class II Major Highways, and both are major thoroughfares that carry high traffic volumes within the study area. A small adjustment to the wellness-oriented community retail space (10%) and the other wellness-oriented and community uses (20%) to reflect pass-by trips, which account for intermediate stops on the way from an origin to a primary trip destination without a route diversion, was assumed.

Internal trip credits can be defined as reductions that can be applied to trip generation estimates for individual land uses, thereby accounting for internal trips on the site. These internal trips are usually made by walking within the site.

Many of the activities on the LAC+USC Medical Center campus are related to one another, and this will continue as the master plan adds complementary uses. An internal trip credit of 15% of the daily and peak-hour trips was applied to all land uses on the site.

As shown in Table 3.14-2, the project would increase the number of daily trips by 3,944, including 711 trips during the AM peak hour (547 inbound/164 outbound) and 502 trips during the PM peak hour (131 inbound/371 outbound).

Project Traffic Distribution and Assignment

The geographic distribution of the trips generated by the proposed project reflects the characteristics of the street system that serves the project site, the level of accessibility of routes to and from the project site, and the locations of residential areas from which employees, patients, and other visitors would be drawn.

A trip distribution pattern was developed for the project using two sources. First, home zip code data supplied by the County for existing LAC+USC Medical Center patients and employees were mapped. Second, the data were supplemented with a select zone analysis that used the city's Transportation Demand Model (2010) to inform the general distribution pattern for this study. Taken together, the data showed a distribution of approximately 25% to/from the north, 30% to/from the east, 25% to/from the south, and 20% to/from the west. After considering the data, as well as the locations of local arterial streets and access routes to the regional freeway system, a trip distribution pattern was developed for project-related trips, as illustrated in Figure 3.14-6.

Existing Peak-Hour Traffic Volumes

Weekday AM and PM peak-period (7 to 10 a.m. and 3 to 6 p.m., respectively) intersection turning movement counts were conducted at the 21 study intersections in May 2014. Although local elementary and secondary schools were in normal session, counts were conducted near the end of the spring semester at the USC HSC, which lies immediately north of the LAC+USC Medical Center campus. The medical center functions at all times, but because there may have been less student activity than under normal conditions, trips were estimated for 1,500 university students and assigned to the local street network. Those estimates are shown in Table 3.14-3. The resulting baseline counts were applied in the AM and PM peak hours for the existing weekday analysis and subsequent analysis.

Table 3.14-2: Proposed Project Trip Generation

Land Use	Size		Trip Generation Rates[a]								Estimated Trip Generation						
			ITE Code	Daily Rate	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour			PM Peak Hour		
					Rate	In	Out	Rate	In	Out		In	Out	Total	In	Out	Total
Hospital Addition	450	beds	610	12.94	1.32	72%	28%	1.42	33%	67%	5,823	428	166	594	211	428	639
Less: Internal Trips Credit	-15%	b	Hospital								(873)	(64)	(25)	(89)	(32)	(64)	(96)
Less: Transit Credit	-15%	c									(743)	(55)	(21)	(76)	(27)	(54)	(81)
Net External Vehicle Trips											4,207	309	120	429	152	310	462
Wellness-Oriented Community Meeting Space and Community-Serving Uses	85.000	sf	495	33.82	2.05	66%	34%	2.74	49%	51%	2,875	115	59	174	114	119	233
Less: Internal Trips Credit	-15%	b	Recreational Community Center								(431)	(17)	(9)	(26)	(17)	(18)	(35)
Less: Transit Credit	-15%	c									(367)	(14)	(8)	(22)	(15)	(15)	(30)
Driveway Trips	-20%	d									2,077	84	42	126	82	86	168
Less: Pass-By Credit											(415)	(17)	(8)	(25)	(17)	(17)	(34)
Net External Vehicle Trips											1,662	67	34	101	65	69	134
Wellness-Oriented Community Retail Space[e]	20.000	sf	826	44.32	0.70	62%	38%	2.71	44%	56%	886	9	5	14	24	30	54
Less: Internal Trips Credit	-15%	b	Specialty Retail								(133)	(1)	(1)	(2)	(4)	(4)	(8)
Less: Transit Credit	-15%	c									(113)	(1)	(1)	(2)	(3)	(4)	(7)
Driveway Trips	-10%	d									640	7	3	10	17	22	39
Less: Pass-By Credit											(64)	(1)	0	(1)	(2)	(2)	(4)
Net External Vehicle Trips											576	6	3	9	15	20	35
New Utility Plant and Facilities[f]	40.000	sf	170	[f]	0.80	90%	10%	0.76	45%	55%	124	29	3	32	14	16	30
Less: Internal Trips Credit	-15%	b	Utilities								(19)	(5)	0	(5)	(2)	(3)	(5)
Less: Transit Credit	-15%	c									(16)	(4)	0	(4)	(2)	(2)	(4)
Net External Vehicle Trips											89	20	3	23	10	11	21
Outpatient Clinics	200.000	sf	720	36.13	2.39	79%	21%	3.57	28%	72%	7,226	378	100	478	200	514	714
Less: Internal Trips Credit	-15%	b	Medical Office Building								(1,084)	(57)	(15)	(72)	(30)	(77)	(107)
Less: Transit Credit	-15%	c									(921)	(48)	(13)	(61)	(25)	(66)	(91)
Net External Vehicle Trips											5,221	273	72	345	145	371	516
Professional/Administrative Offices	265.000	sf	710	11.03	[g]	88%	12%	[g]	17%	83%	2,923	367	50	417	64	311	375
Less: Internal Trips Credit	-15%	b	General Office Building								(438)	(55)	(8)	(63)	(10)	(46)	(56)
Less: Transit Credit	-15%	c									(373)	(47)	(6)	(53)	(8)	(40)	(48)
Net External Vehicle Trips											2,112	265	36	301	46	225	271
Partial Buildout (50%) of Biotech Research and Development[h]	635.000	sf	760	8.11	1.22	83%	17%	1.07	15%	85%	5,150	643	132	775	102	577	679
Less: Internal Trips Credit	-15%	b	Research and Development								(773)	(96)	(20)	(116)	(15)	(87)	(102)
Less: Transit Credit	-15%	c									(657)	(82)	(17)	(99)	(13)	(74)	(87)
Net External Vehicle Trips											3,720	465	95	560	74	416	490
Driveway Trips											18,066	1,423	371	1,794	526	1,441	1,967
External Vehicle Trips											17,587	1,405	363	1,768	507	1,422	1,929

Land Use	Size		ITE Code	Trip Generation Rates[a] Daily Rate	AM Peak Hour Rate	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Rate	PM Peak Hour In	PM Peak Hour Out	Estimated Trip Generation Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Existing Trips to Be Removed[i]																	
General Office Space	197.288	sf	710	11.03	[g]	88%	12%	[g]	17%	83%	(2,176)	(290)	(40)	(330)	(51)	(248)	(299)
Laboratory and Clinic Buildings	457.727	sf	720	36.13	2.39	79%	21%	3.57	28%	72%	(16,538)	(864)	(230)	(1,094)	(458)	(1,176)	(1,634)
Carpenter's Mill[j]	31.000	sf	120	1.50	0.51	88%	12%	0.68	12%	88%	(47)	(14)	(2)	(16)	(3)	(18)	(21)
Central Power Plant and Cooling Towers	20.938	sf	170	[f]	0.80	90%	10%	0.76	45%	55%	(66)	(15)	(2)	(17)	(7)	(9)	(16)
Warehouse and Storage Trailers	15.756	sf	150	3.56	0.30	79%	21%	0.32	25%	75%	(56)	(4)	(1)	(5)	(1)	(4)	(5)
Existing Trips to Be Removed	-15%	[b]									(18,883)	(1,187)	(275)	(1,462)	(520)	(1,455)	(1,975)
Less: Internal Trips Credit											2,832	178	41	219	78	218	296
Less: Transit Credit	-15%	[c]									2,408	151	35	186	66	186	252
Total Existing Vehicle Trips to Be Removed											(13,643)	(858)	(199)	(1,057)	(376)	(1,051)	(1,427)
Total Net External Vehicle Trips											3,944	547	164	711	131	371	502

Notes:

[a] Source: *Trip Generation*, ninth edition, Institute of Transportation Engineers (ITE), 2012.

[b] Internal capture represents the percentage of trips between the land uses that occur within the LAC+USC Medical Center. Because of the synergy between the land uses of the proposed project, an internal trips credit has been applied to some of the proposed uses to provide conservative AM and PM peak-hour project traffic volume forecasts as well as a daily project traffic volume forecast. A 15% internal capture trip reduction has been applied to all of the project land use components.

[c] The transit credit is based on LADOT's Traffic Study Policies and Procedures, June 2013. The guidelines state that a 15% transit credit may be taken for projects within 0.25 mile of a transit station.

[d] The pass-by credit is based on Attachment I of LADOT's Traffic Study Policies and Procedures, June 2013.

[e] The ITE rates for the Specialty Retail Land Use 826 were used to estimate trip generation for the wellness-oriented community retail space. No information was provided for AM peak-hour trip generation, so the AM peak-hour trip rate was derived by applying the ratio between the Shopping Center Land Use 820 PM peak-hour trip rate and the Specialty Retail Land Use 826 PM peak-hour trip rate to the Shopping Center Land Use 820 AM peak-hour trip rate. The AM directional distribution assumed is from the Shopping Center Land Use AM peak hour.

[f] The ITE rates for the Utilities Land Use 170 were used to estimate trip generation for the new utility plant, central power plant, and cooling towers. No information was provided for daily trip generation, so daily trips were estimated by doubling the summation of the AM and PM peak trips. The directional distribution for the trip generation per 1 ksf is unavailable for the AM peak hour; therefore, the directional distribution for trip generation per employee was assumed.

[g] ITE General Office trip generation equations used rather than the linear trip generation rate: AM Peak Hour: Ln(T) = 0.80 * Ln(A) + 1.57, where T = trips, A = area in ksf.
PM Peak Hour: T = 1.12 * A + 78.45, where T = trips, A = area in ksf.

[h] The ITE rates for the Research and Development Center Land Use 760 were used to estimate trip generation for the medical offices, professional/administrative offices, and biotech research land uses proposed under Phase 2 and Phase 3. Additionally, the trip generation assumes that only 50% of the proposed medical offices, professional/administrative offices, and biotech research land uses would be built.

[i] Trip generated by existing LAC+USC Medical Center uses to be removed.

[j] The ITE rates for the General Heavy Industrial Land Use 120 were used to estimate trip generation for the carpenter's mill. Both the AM and PM peak hour directional distribution were unavailable, so the General Light Industrial Land Use 110 directional distribution for the AM and PM peak hour were used respectively.

ksf = thousand square feet.

Table Source: Fehr & Peers, 2014.

Figure 3.14-6: Generalized Project Trip Distribution

Source: Fehr & Peers, 2014.

Table 3.14-3: Existing Trip Generation – USC Health Sciences Campus[a]

Land Use	Size	Trip Generation Rates								Estimated Trip Generation						
		ITE Code	Daily Rate	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour			PM Peak Hour		
				Rate	In	Out	Rate	In	Out		In	Out	Total	In	Out	Total
USC HSC[b]	1,500 students	550	1.71	0.17	78%	22%	0.17	32%	68%	2,565	199	56	255	82	173	255
Less: Transit Credit[c]	-15%									*(385)*	*(30)*	*(8)*	*(38)*	*(12)*	*(26)*	*(38)*
TOTAL VEHICLE TRIPS										**2,180**	**169**	**48**	**217**	**70**	**147**	**217**

Notes:

Source: *Trip Generation*, ninth edition, Institute of Transportation Engineers (ITE), 2012.

[a] Existing traffic counts were collected in mid-May 2014 toward the end of the spring semester. The above USC HSC trip estimates were assigned to the existing roadway network to reflect school-year conditions.

[b] According to the Keck School of Medicine website (http://keck.usc.edu/About/About_Keck/Facts_and_Figures.aspx), there were approximately 1,200 students in the 2013–2014 academic year. The number of students at the USC HSC is estimated at 1,500 students to account for the students enrolled in the School of Pharmacy and Independent Health Professions programs.

[c] The transit credit is based on LADOT's Traffic Study Policies and Procedures, June 2013. The guidelines state that a 15% transit credit may be taken for uses within 0.25 mile of a transit station. In addition to public bus services in proximity to the site, USC also offers an inter-campus shuttle service that runs between the USC HSC and the University Park Campus Monday through Friday from 7:30 a.m. to 6:45 p.m.

Table Source: Fehr & Peers, 2014.

Intersection Level-of-Service Standards and Methodology

As required by LADOT's Traffic Study Policies and Procedures and permitted by the County's Traffic Impact Analysis Report Guidelines (County of Los Angeles Department of Public Works 1997), the Critical Movement Analysis (CMA) method was used to determine the LOS grade for signalized intersections (Transportation Research Board 1980). The CMA methodology determines the intersection V/C ratio, which is then used to determine the corresponding LOS grade. LOS is a qualitative measure that is used to describe the condition of traffic flow, ranging from excellent conditions (LOS A) to overloaded conditions (LOS F). The City of Los Angeles typically uses LOS D as a standard, meaning that LOS D or better is considered satisfactory conditions, while LOS E or F is generally considered to be substandard.

Table 3.14-4 provides LOS definitions for signalized intersections per LADOT traffic study guidelines.

Table 3.14-4: Level-of-Service Definitions for Signalized Intersections

Level of Service	V/C Ratio	Definition
A	0.000–0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601–0.700	VERY GOOD. Occasionally, an approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701–0.800	GOOD. Occasionally, drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801–0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to clear developing lines and prevent excessive backups.
E	0.901–1.000	POOR. This represents the maximum number of vehicles the intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent the movement of vehicles out of the intersection approaches. Tremendous delays, with continuously increasing queue lengths.
Sources: Transportation Research Board. 1980. *Transportation Research Circular No. 212, Interim Materials on Highway Capacity*; Transportation Research Board. 2010. *Highway Capacity Manual.*		

The city's Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to manage signal timing and improve traffic flow. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides traffic-adaptive signal control that is based on real-time traffic conditions. All of the 21 signalized intersections in the study area are currently operating under the city's ATSAC

system. Deployment of ATCS control has not yet been completed, though it will be operational by 2016. ATSAC and, where installed, ATCS improve operating conditions. In accordance with City of Los Angeles procedures, a credit amounting to a 0.07 V/C ratio reduction was applied to study intersections to reflect the benefits of ATSAC.

3.14.4.2 Thresholds of Significance

Criteria for Determination of Significant Traffic Impact

Under the LADOT guidelines, an intersection would be significantly affected with an increase in the V/C ratio equal to or greater than 0.04 if operating at LOS C, equal to or greater than 0.02 if operating at LOS D, or equal to or greater than 0.01 if operating at LOS E or F after the addition of project-related traffic. Intersections operating at LOS A or B after the addition of the project-related traffic are not considered significantly affected, regardless of the increase in the V/C ratio.

The following table summarizes the impact criteria:

Table 3.14-5: Intersection Condition with Project Traffic

LOS	V/C Ratio	Project-Related Increase in V/C Ratio
C	> 0.70–0.80	Equal to or greater than 0.04
D	> 0.80–0.90	Equal to or greater than 0.02
E or F	> 0.90	Equal to or greater than 0.01

Regional Transportation System Impact Thresholds

The 2010 guidelines from the County's CMP require the determination of the geographic scope of the study area to be the first issue addressed. The criteria for determining the study area for CMP arterial intersection and freeway monitoring locations are:

- All CMP arterial intersections where the proposed project will add 50 or more trips during either the AM or PM peak hours.
- All CMP mainline freeway locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the following threshold is exceeded:

- The proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02), causing LOS F (V/C > 1.00).
- If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02).

Project impacts on public transit services would be considered significant if the project would result in a substantial increase in ridership on the existing public transit system, thereby creating capacity shortages on the system and necessitating system improvements to accommodate additional transit demand.

In addition to the CMP freeway impact analysis, the *Agreement between the City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures* (City of Los Angeles 2013) sets forth criteria for when a freeway impact analysis should be conducted. Therefore, a freeway screening analysis was conducted to determine whether a freeway impact analysis would be required for the LAC+USC Medical Center Campus Master Plan Project. The methodologies used to conduct the screening analysis for the project, as well as the results of the screening, are described in the traffic study provided in Appendix G. Based on the results of the freeway screening analysis, project-added trips along each freeway mainline segment and ramp that would be likely to be used by project traffic do not meet the screening thresholds. Because the project would not meet the criteria for requiring a freeway impact analysis, there is no need to look at segments located farther away. Overall, no further freeway analysis under the city's agreement with the California Department of Transportation (Caltrans) is required.

State CEQA Thresholds

For the purposes of this EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would result in a significant environmental impact if it would:

TRAF-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and no-motorized travel, and relevant components of the circulation system, including intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

TRAF-2: Conflict with an applicable congestion management program, including LOS and travel demand measures, or other standards established by the County Congestion Management Agency for designated roads or highways.

TRAF-3: Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that would result in substantial safety risks.

TRAF-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

TRAF-5: Result in inadequate emergency access.

TRAF-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle facilities, or pedestrian facilities or otherwise decrease the performance or safety of such facilities.

TRAF-7: Result in inadequate parking capacity.[2]

[2] Although CEQA no longer explicitly requires an analysis of parking, the potential changes to existing parking and the potential effects of the proposed parking changes during construction and operations are being analyzed as part of this EIR.

3.14.4.3 Impacts and Mitigation Measures

Impact TRAF-1: Would the Proposed Project Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System, Taking into Account All Modes of Transportation, Including Mass Transit and Non-motorized Travel, and Relevant Components of the Circulation System, Including Intersections, Streets, Highways and Freeways, Pedestrian and Bicycle Paths, and Mass Transit?

Construction

The proposed project could involve intermittent lane and sidewalk closures during construction of the master plan elements. Traffic operations during these closures would deteriorate. The delays to vehicular traffic, mass transit, bicycle riders, and pedestrians would be temporary but could be significant. The extent of lane and sidewalk closures will not be known until individual development projects are proposed and project plans are developed. Nonetheless, to ensure construction transportation impacts due to projects proposed under the master plan would be minimized and reduced to a less-than-significant level, construction traffic control measures would be developed and implemented (see mitigation measure MM-TRAF-1, below).

Operation

To determine operational traffic impacts in compliance with CEQA, two scenarios were analyzed: 1) existing year (2014) plus project traffic volumes and 2) cumulative year (2040) plus project traffic volumes. Existing baseline plus project traffic volumes were analyzed to determine potential operational conditions and traffic impacts resulting from the incremental addition of project-generated traffic associated with buildout of the LAC+USC Medical Center Campus Master Plan on existing (2104) street conditions. Table 3.14-6 shows the results of this analysis, and analysis sheets are provided as part of the traffic study in Appendix G. As indicated in Table 3.14-6, after applying the city's significant impact criteria, it can be determined that the proposed project would result in significant impacts on the following four intersections under existing baseline plus project conditions:

1. Daly Street and Main Street (PM)
9. State Street and Cesar E. Chavez Avenue (PM)
13. State Street and Marengo Street (AM and PM)
19. Soto Street and Marengo Street (AM)

Table 3.14-7 presents the impacts of cumulative plus project traffic generated in 2040 at the study intersections. As shown in the table, using the criteria for the determination of significant impacts, the proposed project would create significant impacts at the following four analyzed intersections under cumulative year plus project conditions:

9. State Street and Cesar E. Chavez Avenue (PM)
13. State Street and Marengo Street (AM and PM)
19. Soto Street and Marengo Street (AM and PM)
20. Soto Street and Charlotte Street/I-10 westbound on-/off-ramps (AM)

Table 3.14-6: Existing Base and Existing Year (2014) Plus Project Intersection Level-of-Service Analysis

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing (2014)		E+P (2014)		Project Increase	Significant Impact	E+P (2014) plus Mitigation		Project Increase in V/C	Significant Impact
				V/C[a]	LOS	V/C[b]	LOS	In V/C		V/C[a]	LOS		
1	Daly Street	Main Street	AM	0.755	C	0.769	C	0.014	NO	No Feasible Physical Mitigation TDM Mitigation (-5% in Project Trips)			
										0.768	C	0.013	NO
			PM	0.655	B	0.714	C	0.059	YES	0.713	C	0.058	**YES**
2	I-5 SB Ramps/ I-10 On-Ramp	Mission Road	AM	0.750	C	0.759	C	0.009	NO	No Significant Impact			
			PM	0.537	A	0.546	A	0.009	NO				
3	Daly Street/ Marengo Street	Mission Road	AM	0.801	D	0.820	D	0.019	NO	No Significant Impact			
			PM	0.820	D	0.769	C	-0.051	NO				
4	Workman Street	Mission Road	AM	0.555	A	0.555	A	0.000	NO	No Significant Impact			
			PM	0.467	A	0.431	A	-0.036	NO				
5	Sichel Street	Mission Road	AM	0.535	A	0.571	A	0.036	NO	No Significant Impact			
			PM	0.402	A	0.396	A	-0.006	NO				
6	Griffin Avenue/ Zonal Avenue	Mission Road	AM	0.629	B	0.651	B	0.022	NO	No Significant Impact			
			PM	0.515	A	0.581	A	0.066	NO				
7	Mission Road	Valley Boulevard	AM	0.734	C	0.738	C	0.004	NO	No Significant Impact			
			PM	0.779	C	0.795	C	0.016	NO				
8	Mission Road	Main Street	AM	0.605	B	0.616	B	0.011	NO	No Significant Impact			
			PM	0.473	A	0.493	A	0.020	NO				
9	State Street	Cesar E. Chavez Avenue	AM	0.691	B	0.726	C	0.035	NO	No Feasible Physical Mitigation TDM Mitigation (-5% in Project Trips)			
										0.723	C	0.032	NO
			PM	0.769	C	0.804	D	0.035	YES	0.800	C	0.031	NO
10	State Street	I-10 EB Ramps	AM	0.593	A	0.641	B	0.048	NO	No Significant Impact			
			PM	0.643	B	0.673	B	0.030	NO				
11	State Street	I-10 WB Off-Ramp	AM	0.507	A	0.551	A	0.044	NO	No Significant Impact			
			PM	0.239	A	0.277	A	0.038	NO				
12	State Street	Pomeroy Avenue	AM	0.506	A	0.571	A	0.065	NO	No Significant Impact			
			PM	0.378	A	0.409	A	0.031	NO				

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing (2014)		E+P (2014)		Project Increase	Significant Impact	E+P (2014) plus Mitigation		Project Increase in V/C	Significant Impact
				V/C[a]	LOS	V/C[b]	LOS	In V/C		V/C[a]	LOS		
13	State Street	Marengo Street	AM	0.712	C	0.803	D	0.091	YES	Physical Mitigation			
										0.740	C	0.028	NO
										TDM Mitigation (-5% in Project Trips)			
										0.794	C	0.082	**YES**
			PM	0.626	B	0.814	D	0.188	YES	Physical Mitigation			
										0.659	B	0.033	NO
										TDM Mitigation (-5% in Project Trips)			
										0.802	D	0.176	**YES**
14	I-5 NB Off-Ramp	Cesar E. Chavez Ave.	AM	0.684	B	0.715	C	0.031	NO	No Significant Impact			
			PM	0.319	A	0.329	A	0.010	NO				
15	Brittania Street	Marengo Street	AM	0.407	A	0.460	A	0.053	NO	No Significant Impact			
			PM	0.383	A	0.364	A	-0.019	NO				
16	Chicago Street	Marengo Street	AM	0.487	A	0.511	A	0.024	NO	No Significant Impact			
			PM	0.335	A	0.341	A	0.006	NO				
17	San Pablo Street	Valley Boulevard	AM	0.494	A	0.485	A	-0.009	NO	No Significant Impact			
			PM	0.473	A	0.453	A	-0.020	NO				
18	Soto Street	I-10 EB Off-Ramp/ Wabash Ave.	AM	0.642	B	0.666	B	0.024	NO	No Significant Impact			
			PM	0.637	B	0.648	B	0.011	NO				
19	Soto Street	Marengo Street	AM	0.817	D	0.877	D	0.060	YES	No Feasible Physical Mitigation TDM Mitigation (-5% in Project Trips)			
										0.871	D	0.054	**YES**
			PM	0.710	C	0.738	C	0.028	NO	0.734	C	0.024	NO
20	Soto Street	Charlotte Street/I-10 WB Ramps	AM	0.873	D	0.889	D	0.016	NO	No Significant Impact			
			PM	0.882	D	0.866	D	-0.016	NO				
21	Soto Street	Alcazar Street	AM	0.689	B	0.700	B	0.011	NO	No Significant Impact			
			PM	0.683	B	0.692	B	0.009	NO				

Notes:
[a] The signalized intersections listed above are currently operating under the ATSAC system. A credit amounting to a 0.07 V/C ratio reduction was included in this analysis for all signalized intersections.
Source: Fehr & Peers, 2014.

Table 3.14-7: Cumulative Base and Cumulative Year (2040) Plus Project Intersection Level-of-Service Analysis

ID	N/S Street Name	E/W Street Name	Peak Hour	Cumulative Base (2040)		C+P (2040)		Project Increase	Significant Impact	C+P (2040) plus Mitigation		Project Increase In V/C	Significant Impact
				V/C[a]	LOS	V/C[a]	LOS	In V/C		V/C[a]	LOS		
1	Daly Street	Main Street	AM	0.786	C	0.801	D	0.015	No	No Significant Impact			
			PM	0.739	C	0.747	C	0.008	No				
2	I-5 SB Ramps/I-10 On-Ramp	Mission Road	AM	0.809	D	0.820	D	0.011	No	No Significant Impact			
			PM	0.574	A	0.584	A	0.010	No				
3	Daly Street/ Marengo Street	Mission Road	AM	0.842	D	0.861	D	0.019	No	No Significant Impact			
			PM	0.901	E	0.850	D	-0.051	No				
4	Workman Street	Mission Road	AM	0.581	A	0.581	A	0.000	No	No Significant Impact			
			PM	0.512	A	0.476	A	-0.036	No				
5	Sichel Street	Mission Road	AM	0.558	A	0.595	A	0.037	No	No Significant Impact			
			PM	0.442	A	0.436	A	-0.006	No				
6	Griffin Avenue/Zonal Avenue	Mission Road	AM	0.659	B	0.679	B	0.020	No	No Significant Impact			
			PM	0.563	A	0.599	A	0.036	No				
7	Mission Road	Valley Boulevard	AM	0.817	D	0.820	D	0.003	No	No Significant Impact			
			PM	0.826	D	0.842	D	0.016	No				
8	Mission Road	Main Street	AM	0.630	B	0.641	B	0.011	No	No Significant Impact			
			PM	0.492	A	0.511	A	0.019	No				
9	State Street	Cesar E. Chavez Avenue	AM	0.731	C	0.765	C	0.034	No	No Feasible Physical Mitigation TDM Mitigation (-5% in Project Trips)			
										0.763	C	0.032	NO
			PM	0.839	D	0.875	D	0.036	Yes	0.870	D	0.031	**YES**
10	State Street	I-10 EB ramps	AM	0.635	B	0.679	B	0.044	No	No Significant Impact			
			PM	0.691	B	0.720	C	0.029	No				
11	State Street	I-10 WB off-ramp	AM	0.543	A	0.587	A	0.044	No	No Significant Impact			
			PM	0.256	A	0.293	A	0.037	No				
12	State Street	Pomeroy Avenue	AM	0.531	A	0.595	A	0.064	No	No Significant Impact			
			PM	0.391	A	0.436	A	0.045	No				

ID	N/S Street Name	E/W Street Name	Peak Hour	Cumulative Base (2040)		C+P (2040)		Project Increase	Significant Impact	C+P (2040) plus Mitigation		Project Increase In V/C	Significant Impact
				V/C[a]	LOS	V/C[a]	LOS	In V/C		V/C[a]	LOS		
13	State Street	Marengo Street	AM	0.751	C	0.843	D	0.092	Yes	Physical Mitigation			
										0.773	C	0.022	NO
										TDM Mitigation (-5% in Project Trips)			
										0.833	D	0.082	**YES**
			PM	0.686	B	0.859	D	0.173	Yes	Physical Mitigation			
										0.692	B	0.006	NO
										TDM Mitigation (-5% in Project Trips)			
										0.846	D	0.160	**YES**
14	I-5 NB Off-Ramp	Cesar E. Chavez Avenue	AM	0.727	C	0.758	C	0.031	No	No Significant Impact			
			PM	0.331	A	0.341	A	0.010	No				
15	Brittania Street	Marengo Street	AM	0.425	A	0.478	A	0.053	No	No Significant Impact			
			PM	0.415	A	0.369	A	-0.046	No				
16	Chicago Street	Marengo Street	AM	0.510	A	0.535	A	0.025	No	No Significant Impact			
			PM	0.343	A	0.345	A	0.002	No				
17	San Pablo Street	Valley Boulevard	AM	0.518	A	0.509	A	-0.009	No	No Significant Impact			
			PM	0.547	A	0.525	A	-0.022	No				
18	Soto Street	I-10 EB off-ramp/Wabash Avenue	AM	0.705	C	0.729	C	0.024	No	No Significant Impact			
			PM	0.685	B	0.696	B	0.011	No				
19	Soto Street	Marengo Street	AM	0.897	D	0.955	E	0.058	Yes	No Feasible Physical Mitigation TDM Mitigation (-5% in Project Trips)			
										0.949	E	0.052	**YES**
			PM	0.788	C	0.814	D	0.026	Yes	0.811	D	0.023	**YES**
20	Soto Street	Charlotte Street/ I-10 WB ramps	AM	0.966	E	0.976	E	0.010	Yes	No Feasible Physical Mitigation TDM Mitigation (-5% in Project Trips)			
										0.973	E	0.007	NO
			PM	0.967	E	0.952	E	-0.015	No	0.948	E	-0.019	NO
21	Soto Street	Alcazar Street	AM	0.800	C	0.812	D	0.012	NO	No significant impact			
			PM	0.752	C	0.759	C	0.007	NO				

Notes:
[a] The signalized intersections listed above are assumed to operate under both the ATSAC and ATCS system by 2040. A credit amounting to a 0.10 V/C ratio reduction was included in this analysis for all signalized intersections.
Source: Fehr & Peers, 2014.

Mitigation Measures

The following measure is proposed to mitigate potential construction traffic impacts.

MM-TRAF-1: The County shall develop and implement traffic control measures for master plan projects that would result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic control during construction shall meet the requirements of the California Manual on Traffic Control Devices (CA-MUTCD). Daytime closures shall be covered by the applications shown in Chapter 6 of the manual. Overnight closures, long-term closures, and detours shall require a Traffic Control Plan, which shall be prepared as part of the project design package according to CA-MUTCD requirements. The Traffic Control Plan may include, but is not limited to, the elements listed below. Note that some of these elements may not be feasible or appropriate in all circumstances. The project-level environmental analysis shall identify the appropriate measures for each project.

- Provide a roadway layout that shows the locations of construction activity and surrounding roadways to be used as detour routes, including special signage.
- Establish detour routes in coordination with the City of Los Angeles to minimize disturbances to local traffic conditions; review potential detour routes to make sure adequate capacity is available.
- Avoid creating additional delay at intersections that are currently operating under congested conditions either by choosing haul routes that avoid these locations (such as choosing haul routes that avoid the State Street/Marengo Street and State Street/Cesar Chavez Avenue intersections) or constructing during non-peak times of day (peak periods are generally 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m., Monday through Friday).
- Maintain access to existing residences at all times.
- Work with LADOT, LASD, LAFD, and LAPD to coordinate all construction-related plans and minimize disturbances to local EMS providers; ensure that alternative evacuation and emergency routes are designed to maintain response times during construction.
- Provide adequate off-street parking areas at designated staging areas for construction-related vehicles.
- Work with local and regional transit providers to maintain access and circulation routes to existing stops and stations during construction phases and identify appropriate detours to provide traffic rerouting during construction while minimizing disturbance to bus services.
- Work with the City of Los Angeles to maintain continuity and operation of existing pedestrian and bicycle facilities during construction.

The following measures are proposed to mitigate the operational traffic impacts at the State Street and Marengo Street intersection.

MM-TRAF-2: To mitigate the significant traffic impact at the intersection of State Street and Marengo Street (study intersection #13) during the AM and PM peak hours, the southbound approach on State Street (within the LAC+USC Medical Center) shall be widened and reconfigured to provide one left-turn lane, one through lane, and one shared through/right-turn lane. Traffic signal enhancements, such as additional closed-circuit television cameras, should

also be considered. In addition, the existing westbound bus stop at this intersection on Marengo Street shall be relocated eastward to allow for the introduction of a separate westbound right-turn lane. The County shall consult with affected transit providers as well as LADOT to coordinate relocation of this bus stop. All elements of this mitigation measure need to be implemented to mitigate the significant impact.

The aforementioned physical improvements in mitigation measures in MM-TRAF-2 are subject to LADOT's acceptance and approval. If LADOT determines that one or more of these proposed improvements are not feasible, the impacts at the affected intersection would remain significant and unavoidable.

In addition, the LAC+USC Medical Center is long-established at this site and has an ongoing program of transportation demand management (TDM) measures to minimize single-occupant auto trips and to support non-automotive trips. Ongoing measures include regularly scheduled newsletters and rideshare events, rideshare matching services, a transit information center with commuter information kiosks, flexible time schedules for many employees, guaranteed rides home, preferential parking for rideshare commuters and bicycle parking. The proposed Master Plan project supports those measures and includes design features that would be expected to enhance the usage of walking, biking, and transit modes as alternatives to the automobile. Mitigation measure MM-TRAF-3 below identifies potential additional TDM program elements that could reduce vehicle trips.

MM-TRAF-3: The County shall explore implementation of the following TDM measures to further reduce vehicle trips:

- provide bicycle parking for new development that exceeds the County's code requirement;
- provide other bicycle-supportive amenities such as bicycle lockers;
- locate a station of a bicycle-sharing system on-site;
- expand the County-operated Wellness Center Shuttle to include more stops on or near the site; and,
- work cooperatively with other transit providers (Metro, LADOT, Metrolink, Foothill Transit, USC) to establish new transit stops or stations or to upgrade existing transit stops adjacent to the Medical Center or in the local area.

If these actions were to result in a 5% reduction in net new peak hour trips to and from the campus, relative to the what is analyzed in this study, the impact at State Street & Cesar E. Chavez Boulevard (Study Intersection 9) under Existing plus Project conditions would be mitigated, though that intersection would remain significantly affected under Cumulative Year plus Project conditions. In addition, the cumulative impact at Soto Street & Charlotte Street/I-10 Westbound On-/Off-Ramps (Study Intersection 20) under Cumulative Year plus Project conditions would be mitigated. The other locations identified where significant impacts were identified would be partially mitigated through expanded TDM measures, as shown in Tables 3.14-6 and 3.14-7.

Level of Significance after Mitigation

Following the implementation of measures MM-TRAF-2, the significant impacts at the State Street/Marengo Street (study intersection 13) intersection would be reduced to a less-than-significant level. However, as noted above, mitigation measure MM-TRAF-2 is subject to LADOT's acceptance and approval. If LADOT determines that one or more of the proposed improvements are not feasible, the impact at intersection 13 would remain significant and unavoidable.

No feasible mitigation measures have been identified for study intersection 1, 9, 19, and 20, as discussed below. Therefore, impacts at these intersections would be considered to be significant and unavoidable. This is generally due to the intersection being fully built out or otherwise physically constrained or the potential improvement conflicting with current transportation policy.

Daly Street and Main Street (Study Intersection 1)

The intersection of Daly Street and Main Street would experience a significant impact during the PM peak hour under existing plus project conditions. A potential mitigation measure was explored that would reconfigure the eastbound approach and provide a separate right-turn lane, resulting in one shared through/left-turn lane, one through lane, and one right-turn lane. This improvement was determined to be infeasible because of the constrained roadway width (56 feet curb to curb) and the need to maintain sufficient lane widths. Furthermore, the city's Bicycle Master Plan indicates a long-term intent to provide a bicycle lane on this segment of Main Street, which would also limit the ability to reconfigure the roadway and provide additional vehicular capacity. This impact would be considered significant and unavoidable.

State Street and Cesar E. Chavez Boulevard (Study Intersection 9)

The intersection of State Street and Cesar E. Chavez Boulevard has a significant impact during the PM peak hour under the existing plus project conditions and under cumulative plus project conditions. A mitigation measure was explored that would reconfigure the functional right-turn lane on the northbound approach to provide additional through capacity, resulting in one left-turn lane, one through lane, and one shared through/right-turn lane. This was not acceptable to LADOT, however, due to concerns related to intersection geometry and consistency with the plan to maintain and enhance the bicycle-friendly characteristics of State Street in the area. As discussed above, the project impact would be fully mitigated through an expanded TDM program but the cumulative impact would remain significant and unavoidable.

Soto Street and Marengo Street (Study Intersection 19)

The intersection of Soto Street and Marengo Street would experience a significant impact during the AM peak hour under existing plus project conditions and during the AM and PM peak hours under cumulative year plus project conditions. A potential mitigation measure was explored that would provide dual left-turn lanes on the northbound and southbound approaches. These changes would require a signal phasing modification as well. This would change the north/south approaches from split phasing to protected left-turn phasing. The existing raised center medians would need to be modified within the overall 80-foot roadway width. The intersection is entirely on a bridge structure over I-10, and the city's Bicycle Master Plan indicates a long-term intent to create a bicycle lane or other bikeway on Soto Street. Because a similar mitigation measure was proposed for a different project and ultimately determined to be infeasible, this impact would be considered significant and unavoidable.

Soto Street and Charlotte Street/I-10 Westbound On-/Off-Ramps (Study Intersection 20)

The intersection of Soto Street and Charlotte Street/I-10 westbound on-/off-ramps would experience a significant impact during the AM peak hour under cumulative plus project conditions. A potential mitigation measure was explored that would reconfigure the southbound right-turn lane to a shared through/right-turn lane, providing additional though capacity. This was found to be inadequate, however, because the southbound left-turn movement is critical. The possibility of

reconfiguring the southbound approach to provide dual left-turn lanes was explored and found to mitigate the identified impact fully. The resulting configuration would be two left-turn lanes, one through lane, and one shared through/right-turn lane. However, this is not recommended because it would create an entrapment lane (the number one southbound lane on Soto Street) that would not be readily visible to approaching southbound drivers because of the topography at this location. Slightly farther south, the southbound curb lane on Soto Street becomes a dedicated right-turn lane at the intersection with Marengo Street, which would create an undesirable weaving pattern for southbound traffic on this segment of Soto Street. Furthermore, the city's Bicycle Master Plan indicates a long-term intent to create a bicycle lane or other bikeway on Soto Street. For these reasons, the potential improvements appear infeasible, and no other measures were identified. Therefore, this impact would remain significant and unavoidable.

Impact TRAF-2: Would the Proposed Project Conflict with an Applicable Congestion Management Program, Including LOS and Travel Demand Measures, or Other Standards Established by the County Congestion Management Agency for Designated Roads or Highways?

Construction

Construction of the various elements identified in the LAC+USC Medical Center Campus Master Plan could result in a temporary increase in traffic volumes due to construction-generated traffic. In some cases, construction may require temporary road or lane closures, which, in turn, would result in a decrease in roadway capacity and increased congestion. However, the affected roadways would be located immediately adjacent to or in close proximity to the campus. No CMP arterials or freeway mainlines (see discussion below under Operation for the locations of closest CMP facilities) would be significantly affected by project construction activities, and therefore impacts would be less than significant.

Operation

Arterial Monitoring Station Analysis

The CMP arterial monitoring stations closest to the project study area are listed below. Each one is more than 3 miles from the project site.

- Valley Boulevard and I-710 northbound ramps (Arterial Monitoring Station 1)
- Fremont Avenue and Valley Boulevard (Arterial Monitoring Station 68)
- Alameda Street and Washington Boulevard (Arterial Monitoring Station 43)

Based on project trip generation estimates and trip assignments, the project would add fewer than 50 new peak-hour vehicle trips at any of these arterial monitoring stations. Therefore, no further analysis of CMP arterial intersections is required. CMP arterial intersection impacts are considered to be less than significant.

Freeway Mainline Monitoring Station Analysis

The CMP mainline freeway monitoring locations closest to the project site are:

- I-10 at East Los Angeles city limit (Freeway Monitoring Station 1,014)
- I-5 at Ferris Avenue (Freeway Monitoring Station 1,003)

- I-5 at Stadium Way (Freeway Monitoring Station 1,004)
- US 101 south of Vignes Street (Freeway Monitoring Station 1,036)

According to project trip generation estimates and project-only traffic assignments, the proposed project would be expected to add fewer than 150 one-way trips at any freeway monitoring location and therefore would not meet the freeway analysis criteria at these locations. Because incremental project-related traffic in any direction during either peak hour is projected to be less than the criterion of 150 trips in either direction during either the AM or PM peak hours, no further CMP freeway analysis is required. Therefore, CMP freeway impacts are considered to be less than significant.

Mitigation Measures

No measures are required to mitigate impacts at the CMP facilities identified above.

Impact TRAF-3: Would the Proposed Project Result in a Change in Air Traffic Patterns, Including either an Increase in Traffic Levels or Change in Location that Would Result in Substantial Safety Risks?

Construction

The proposed project would relocate the existing at-grade helipad, currently located just west of Parking Lot 5. However, a temporary at-grade helipad would be built adjacent to its existing location prior to removal of the existing helipad to maintain existing air traffic patterns and respond to emergencies at the campus. The emergency department at the Medical Center has been consulted to ensure that the location of the temporary at-grade helipad would not result in substantial safety risks. Therefore, impacts during construction would be less than significant.

Operation

The proposed project would not result in a change in air traffic patterns. Helicopters would use the same routes they use now when landing on top of the new hospital emergency room. The only change would be to the location of the helipad where the helicopter pilot waits for the flight crew to discharge patients. The new location is proposed in the northeast quadrant of the intersection of Mission Road and Zonal Avenue, within the existing campus, and would not result in substantial safety risks. Therefore, impacts would be less than significant.

Mitigation Measures-

No mitigation is proposed. Impacts would be less than significant.)

Impact TRAF-4: Would the Proposed Project Substantially Increase Hazards Due to a Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)?

Construction

Construction activities would increase the mix of heavy construction vehicles and general purpose traffic and could result in an increase in safety hazards due to a higher proportion of heavy trucks. Additionally, the impact of construction-generated traffic on safety could be significant for projects

that would require roadways restrictions, lane closures, and similar actions. However, the traffic control measures proposed in mitigation measure MM-TRAF-1 would reduce any safety impacts to a less-than-significant level.

Operation

During operation of the proposed project, upgrades to the campus would improve design features for campus visitors and employees. These upgrades would include improved sidewalks and safe, pleasant pedestrian walking paths throughout the campus. Project improvements to access, wayfinding, and the general orientation of campus facilities would also improve safety for motorists, pedestrians, and bicyclists as they travel to and around the campus. No sharp curves or dangerous intersections would be created, nor would incompatible uses be introduced. Therefore, impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Impact TRAF-5: Would the Proposed Project Result in Inadequate Emergency Access?

Construction

As mentioned in Impact TRAF-1, above, in some cases, construction could require temporary road or lane closures. This, in turn, would result in a decrease in roadway capacity and increased congestion. However, coordination with EMS providers that serve the campus and surrounding communities, as described in mitigation measure MM-TRAF-1, would ensure that impacts on emergency access during construction would be less than significant.

Operation

Section 3.12, Public Services, discusses in detail the proposed project's potential impacts on the provision of public services, including police and fire protection. Operation of proposed facilities under the master plan would not affect emergency access to the campus. Therefore, impacts would be less than significant.

Mitigation Measures

Mitigation measure MM-TRAF-1 is proposed to mitigate Impact TRAF-5 during construction.

Level of Significance after Mitigation

Less than significant.

Impact TRAF-6: Would the Proposed Project Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle Facilities, or Pedestrian Facilities or Otherwise Decrease the Performance or Safety of Such Facilities?

Construction

Construction of the proposed project could involve intermittent lane and sidewalk closures. These closures would occur for limited periods of time during construction of individual projects proposed under the master plan. Traffic operations during these closures would deteriorate. The delays could

be substantial for vehicular traffic, mass transit, bicycle riders, and pedestrians. To mitigate potential construction traffic impacts, traffic control measures are proposed as part of mitigation measure MM-TRAF-1. Impacts would be less than significant. However, efforts would be made to further minimize these less-than-significant impacts.

Operation

The extensive bus service at the LAC+USC Medical Center campus is currently provided by Metro and other providers. More than 20 bus routes have stops within or adjacent to the site; there is also an in-line station on the El Monte Busway immediately south of the site. Current schedules indicate that, in combination, these bus routes provide hundreds of buses in each direction every weekday. In the AM and PM peak hours (defined by the CMP as 7:30 to 8:30 a.m. and 4:30 to 5:30 p.m.), there are more than 60 buses. Operation of the proposed master plan would not interfere or conflict with this existing transit service.

The proposed project would result in an estimated increase in vehicle trip generation totaling approximately 842 net vehicle trips during the AM peak hour and 598 during the PM peak hour before the transit credit. Applying the average vehicle ridership (AVR) factor of 1.4 to the estimated number of vehicle trips would result in an estimated increase of approximately 1,179 and 837 person trips during the AM and PM peak hours, respectively. With respect to the number of net person trips from a project, the CMP provides that 15% will be designated as transit riders who are traveling to or from various projects, which are primarily commercial and located within 0.25 mile of a transit center, in this case the in-line station on the El Monte Busway. Following this approach, the project would increase the estimated number of transit trips by 177 during the AM peak hour and 126 during the PM peak hour. Therefore, no significant impacts on the transit system are anticipated. Given the frequency and density of existing bus transit service in proximity to the project site, the incremental increase in the number of transit riders (on average, 3 or fewer passengers per bus) resulting from the project is anticipated to result in a less-than-significant impact on the transit lines that serve the area.

Mitigation Measures

See mitigation measure MM-TRAF-1 and MM-TRAF-3 above.

Level of Significance after Mitigation

Less than significant.

Impact TRAF-7: Would the Proposed Project Result in Inadequate Parking Capacity?

Construction

Construction workers could increase parking demand in the project vicinity; such demand could exceed the available parking supply. However, development of the proposed master plan would result in a net increase in the number of parking spaces compared with what is currently available on the campus and the removal of existing parking would be coordinated to ensure that there would be adequate parking for employees, patients, and visitors throughout the construction period. Consequently, the impact on parking demand on the campus during construction would be minimized. Therefore, construction parking impacts would be less than significant.

Operation

Providing access to adequate parking is a current challenge for the LAC+USC Medical Center. The proximity of parking to the campus is another issue, as parking facilities are not located in close proximity to drivers' destination. The master plan proposes additional parking in key locations by:

- Providing a new central drop-off location that would serve the existing hospital and future outpatient facilities by expanding the current drop-off area on the east side of State Street, just north of Marengo Street.
- Providing additional parking in proximity to the new drop-off area.
- Providing parking for future outpatient, community, and office buildings.

The provision of additional parking at the key locations identified above would minimize the project's parking impacts. All parking would be provided at the level required by the Los Angeles County Code and impacts would be less than significant..

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

3.14.5 Cumulative Impacts

The study area for the cumulative traffic impact analysis consists of the 21 intersections shown in Figure 3.14-1 and listed in Table 3.14-1. These intersections are generally located within a 1-mile radius of the campus, were identified in consultation with the County and City of Los Angeles, and represent those study intersections that would most likely be affected by project generated traffic combined with traffic from future cumulative growth and development. The projected cumulative year plus project conditions presented in Table 3.14-7, above, depict the traffic generated by cumulative development and related projects combined with project generated traffic in 2040. Existing (2014) traffic conditions at the 21 study intersections are shown in Table 3.14-1. A comparison of existing (2014) conditions with future cumulative plus project conditions shows a deterioration in LOS at 10 of the 21 study intersections. Additionally, while none of the study intersections is operating at LOS E or F under existing conditions,; two intersections are projected to operate at LOS E or F in the AM or PM peak hour under the cumulative year plus project conditions. Also, as noted above in the discussion for Impact TRAF-1, the proposed project would result in significant and unavoidable traffic impacts at four of the 21 study intersections. Therefore, the project and cumulative development would result in significant cumulative traffic impacts.

Mitigation Measures

See mitigation measure MM-TRAF-2 for measures that would mitigate the project's impacts at the intersection of State Street and Marengo Street (study intersection 13). No mitigation measures were considered feasible for four of the 21 study intersections that would be significantly affected by project generated traffic.

Level of Significance after Mitigation

Significant cumulative impact.

3.15 Utilities/Service Systems

3.15.1 Introduction

This section describes the existing utility systems that serve the project site including water supply, wastewater conveyance and treatment, stormwater conveyance, solid waste generation and disposal, and electrical service and availability and the impacts on those systems that could occur due to implementation of the proposed master plan. Measures that would mitigate potential significant impacts are also identified.

3.15.2 Regulatory Setting

3.15.2.1 Federal

Clean Water Act

Passed in 1972, the Clean Water Act is a federal regulation whose objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands (United States Environmental Protection Agency, 2013). Its NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The Hyperion Treatment Plant (HTP), which treats wastewater generated by the LAC USC Medical Center, is subject to a NPDES permit requirements. On November 22, 2010, the Los Angeles RWQCB and EPA reissued the federal NPDES permit for HTP, which became effective on December 24, 2010 (City of Los Angeles Water Integrated Resources Plan, 2012).

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996, and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. The SDWA applies to every public water system in the United States.

The SDWA authorizes the U.S. EPA to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. The U.S. EPA, states, and water systems work together to make sure that these standards are met.

Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

3.15.2.2 State

California Water Plan

The California Water Plan is prepared by the California Department of Water Resources, most recently updated in 2009. The plan provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses.

The plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the state's water needs. The Plan provides resource management strategies and recommendations to strengthen integrated regional water management. The resource management strategies help regions meet future demands and sustain the environment, resources, and economy, involve communities in decision-making, and meet various goals. A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management.

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the SWRCB shall consider and act upon all applications for permits to appropriate waters. Division 6 of the California Water Code controls conservation, development, and utilization of the state water resources, while Division 7 addresses water quality protection and management.

Senate Bill 610

Senate Bill 610 (Water Code Sections 10910 and 10912) took effect on January 1, 2002. SB 610 seeks to promote more collaborative planning between local water suppliers and cities and counties. It requires that water supply assessments occur early in the land use planning process for all large-scale development projects.[1] The required assessments must include detailed analyses of historic, current, and projected groundwater pumping and an evaluation of the

[1] In accordance with the 2014 CEQA Statute and Guidelines Section 15155, a project is considered to be a "water-demand project" if one of the following definitions applies:

(a) A residential development of more than 500 dwelling units.
(b) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(c) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
(d) A hotel or motel, or both, having more than 500 rooms.
(e) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
(f) A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.
(g) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

sufficiency of the groundwater basin to sustain a new project's demands. It also requires an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries.

Senate Bill 221

Enacted in 2001, SB 221, which has been codified in the California Water Code beginning with Section 10910, requires that the legislative body of a city or county that is empowered to approve, disapprove, or conditionally approve a subdivision map must condition such approval upon proof of sufficient water supply. The term "sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including, but not limited to, agricultural and industrial uses. SB 221 requirements do not apply to the general plans of cities and counties, but rather to specific development projects.

California Urban Water Management Act

The California Urban Water Management Planning Act requires urban water suppliers to prepare and adopt an Urban Water Management Plan (UWMP) every five years. The main goal of the UWMP is to forecast future water demands and water supplies under average and dry year conditions, identify future water supply projects such as recycled water, provide a summary of water conservation best management practices, and provide a single and multi-dry year management strategy. In 2011, LADWP, which is the water supplier to the project site, approved the 2010 UWMP for the Los Angeles metropolitan area.

Health and Safety Code Section 17921.3

Health and Safety Code Section 17921.3 requires low-flush toilets and urinals in the majority of buildings.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) requires each city and county in the State of California and regional solid waste management agencies to enact plans and implement programs to divert 25% of its waste stream by 1995 and 50% by 2000.

Assembly Bill 75

Assembly Bill 75 (Public Resources Code 42920-4297) required all state agencies and large state facilities to divert at least 25 percent of all solid waste from landfills by January 1, 2002 and 50 percent by January 1, 2004. The law also requires each state agency and large facility to submit an annual report to the California Department of Resources Recycling and Recovery (CalRecycle) summarizing its yearly progress in implementing waste diversion programs.

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) was enacted on October 11, 1991 and added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. It required each jurisdiction to adopt an ordinance by September 1, 1994, requiring any "development project" for which an application for a building permit is submitted to provide an adequate storage area for collection and removal of recyclable materials.

California Code of Regulations,Title 24, Part 6

Title 24, Part 6 of the California Code of Regulations (also known as the California Energy Code) establishes energy conservation standards for new construction. These standards relate to insulation requirements, glazing, lighting, shading, and water and space heating systems. Local governmental agencies may adopt and enforce energy standards for newly constructed buildings, additions, alterations, and repairs to existing buildings provided the California Energy Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6. Section 91.1300 of the City of Los Angeles Municipal Code incorporates these state requirements.

2010 California Green Building Standards Code (CALGreen)

CALGreen is a statewide mandatory green building code all cities in California were required to adopt by January 1, 2011. CALGreen requires new standards in materials reuse, locally sourced materials, water/energy efficiency, and indoor air quality. To meet CALGreen requirements, the Los Angeles County Board of Supervisors adopted the Los Angeles County Green Building Standards Code (Title 31), which is designed to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact, or positive environmental impact, and encouraging sustainable construction practices in the following categories (Green Buildings Standards Code, 2013):

1. Planning and design.
2. Energy efficiency.
3. Water efficiency and conservation.
4. Material conservation and resource efficiency.
5. Environmental air quality.

Senate Bill 1078

In 2002, SB 1078 (Public Utilities Code Chapter 2.3 Section 387, 390.1, and 399.25) implemented a Renewable Portfolio Standard, which established a goal that 20% of the energy sold to customers be generated by renewable resources by 2017. The goal was accelerated in 2006 under SB 107 and expanded in 2011 under SB 2, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33% of total procurement by 2020 (LADWP Power Integrated Resource Plan, 2012).

3.15.2.3 Local

Regional

Greater Los Angeles County Integrated Regional Water Management Plan

This Integrated Regional Water Management Plan (IRWMP) reflects the Greater Los Angeles County Region's collaborative efforts to ensure a sustainable water supply through the more efficient use of water, the protection and improvement of water quality, and environmental stewardship. The plan integrates water supply, water quality, flood management, and open space strategies to maximize the utilization of local water resources. The region includes approximately 10 million residents, portions

of four counties, and 84 cities. To make governance and stakeholder involvement manageable, the region is organized into subregions. The subregions include the Lower San Gabriel and Los Angeles Rivers, North Santa Monica Bay, South Bay, Upper Los Angeles River, Upper San Gabriel and Rio Hondo Rivers (Greater Los Angeles County Integrated Regional Water Management Plan, 2014).

The LAC+USC Medical Center at 2051 Marengo Street is located in the Upper Los Angeles River subregion. The Upper Los Angeles River also has a subregional Plan to guide the protection and improvement of its water resources.

County of Los Angeles

Los Angeles County General Plan

The Conservation and Natural Resources Element of the County's General Plan serves to augment the protection, conservation and preservation of natural resource and open space areas in Los Angeles County. This element addresses Open Space Resources, Biological Resources, Local Water Resources, Agricultural Resources, Mineral and Energy Resources, Scenic Resources, and Historical, Cultural and Paleontological Resources (Los Angeles County General Plan, 2002). The primary goals for the Local Water Resources component are to protect and use local surface water, groundwater, and watershed resources. This is proposed to be done through a combination of goals and policies in the Conservation and Natural Resources Element. These include but are not limited to minimizing water pollution; actively engaging with stakeholders in the formulation and implementation of surface water preservation and restoration plans, river master plans, restoration projects and other natural resource conservation aims; requiring compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), General Construction, and point source NPDES permits; actively supporting the design of new and retrofit of existing infrastructure to accommodate watershed protection goals; protecting natural groundwater recharge areas and regional spreading grounds; preventing stormwater infiltration where inappropriate and unsafe; promoting the development of multi-use regional facilities for stormwater quality improvement, groundwater recharge, detention/attenuation, flood management, retaining non-stormwater runoff, and other compatible uses (Los Angeles County General Plan, Conservation and Natural Resources Element, 2002).

Los Angeles County Integrated Waste Management Plan

The California Integrated Waste Management Act (AB 939) mandates jurisdictions to meet a diversion goal of 50 percent by 2000 and thereafter. In addition, each county is required to prepare and administer a Countywide Integrated Waste Management Plan. This plan is comprised of the County's and the cities' solid waste reduction planning documents, an Integrated Waste Management Summary Plan (Summary Plan), and a Countywide Siting Element (CSE) (County of Los Angeles Integrated Waste Management Plan, 2011). In order to assess jurisdiction's compliance with AB 939, the Disposal Reporting System was established to measure the amount of disposal from each jurisdiction and determine if it has met the goals.

City of Los Angeles

LADWP 2010 Urban Water Management Plan

The California Urban Water Management Planning Act requires water suppliers to develop water management plans every five years. LADWP most recently completed this five-year update in 2010. LADWP 's 2010 Urban Water Management Plan describes how water resources are used and

presents strategies that will be used to meet the city's current and future water needs, which focuses primarily on water supply reliability and water use efficiency measures. The plan projects water demand and supplies through 2035; total demand for water is predicted to be 675,604 acre-feet in 2025 and 710,760 acre-feet in 2035 with passive water conservation, and 632,275 acre-feet in 2025 and 641,622 acre-feet in 2035 with passive and active water conservation. LADWP expects it will be able meet their forecasted demand for water resources with a combination of existing supplies, planned supplies, and Metropolitan Water District (MWD) purchases (Los Angeles Department of Water and Power, Urban Water Management Plan, 2010).

City of Los Angeles Water Integrated Resources Plan

Prepared jointly by the Bureau of Sanitation and the Department of Water and Power, the City of Los Angeles adopted its Water Integrated Resources Plan (IRP) in 2006. It contains an implementable facilities plan through the year 2020 that integrates water supply, water conservation, water recycling, runoff management, and wastewater facilities planning using a regional watershed approach. The adopted IRP contains recommendations that would be achieved through a series of projects and policy directions to staff (City of Los Angeles Water Integrated Resources Plan, 2012).

City of Los Angeles Emergency Water Conservation Plan (Ordinance No. 181288)

The city adopted Ordinance No. 181288 (amendment to Chapter XII, Article I of LAMC) to clarify prohibited uses and modify certain water conservation requirements of the City of Los Angeles Emergency Water Conservation Plan. The purpose of the ordinance is to minimize the effect of a water shortage on the customers of the City of Los Angeles and to adopt provisions that will significantly reduce water consumption over an extended period of time.

The revised Water Conservation Ordinance contains five water conservation "phases," which correspond to severity of water shortage, with each increase in phase requiring more stringent conservation measures. Water conservation phases define outdoor watering restrictions, as appropriate, including sprinkler use restrictions and other prohibited water uses.

Industrial Waste Control Ordinance

The Industrial Waste Management Division of the Bureau of Sanitation was established to protect the local receiving waters by regulating industrial wastewater discharge to the city's sewer system and by administering and enforcing the Industrial Waste Control Ordinance (Los Angeles Municipal Code Section 64.30) as well as federal EPA pretreatment regulations.

Industrial facilities and certain commercial facilities that plan to discharge industrial wastewater to the city's sewage collection and treatment system are required to first obtain an industrial wastewater permit. Permits are issued when a determination has been made by the Board of Public Works for the City of Los Angeles that the wastewater to be discharged will not violate any provisions of the ordinance, the Board's Rules and Regulations, the water quality objectives for receiving waters established by the California Water Quality Control Board, Los Angeles Region, or applicable federal or state statutes, rules, or regulations.

City of Los Angeles Sewer Allocation (Ordinance No. 166060)

City Ordinance No. 166,060 (Sewer Allocation) limits the annual increase in wastewater flows discharged into the HTP to 5 million gallons per day (mgd). The Los Angeles Department of Public Works, Bureau of Engineering Special Order No. SO06-0691 changed the design peak dry weather flow for sanitary sewers from three-quarter depth to one-half the sewer diameter to implement the city-adopted goal of no overflows or diversions from the wastewater collection system.

Sewer System Management Plan

On May 2, 2006, the SWRCB adopted the Statewide General WDRs for publicly owned sanitary sewer systems. Under the WDRs, the owners of such systems must implement a written Sewer System Management Plan and make it available to the public.

Los Angeles has one of the largest sewer systems in the world including more than 6,600 miles of sewers serving a population of more than four million in the following three Sanitary Sewer Systems: Hyperion Sanitary Sewer System, Terminal Island Water Reclamation Plant Sanitary Sewer System, and the City of Los Angeles Regional Sanitary Sewer System. To comply with the WDRs, a Sewer System Management Plan was prepared for each of the city's three sanitary sewer systems. The LAC USC Medical Campus is located in the Hyperion Sanitary Sewer System. The Sewer System Management Plan must be updated every five years, where its objectives are to properly fund, manage, operate and maintain all parts of the sanitary sewer system; provide adequate capacity to convey base flows and peak flows; and take all feasible steps to stop and mitigate overflows (Hyperion Sewer System Management Plan, 2014).

LADWP Power Integrated Resources Plan

LADWP is also responsible for the construction, operation, maintenance, and management of electric works and property for the benefit of the city and its habitats. The goal of the Power Integrated Resources Plan is to identify a portfolio of generation resources and power system assets that meets the city's future energy needs at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards (LADWP Power Integrated Resource Plan, 2012). The 2012 Final Draft Power IRP provides a 20-year framework to ensure that current and future energy needs of the city can be met over the next 20 years.

The Power IRP provides objectives and recommendations to reliably supply LADWP customers with power and to meet SB 1078's 33% renewable energy goal by 2020.

3.15.3 Environmental Setting

3.15.3.1 Water Supply

Water service to the project site is provided by LADWP. In addition to LADWP, the two other major water utility providers that serve the area in the vicinity of the project site are the Metropolitan Water District (MWD) and the California Water Service (CWS).

LADWP covers an area of 465 square miles, serving residents and businesses in Los Angeles and its surrounding communities. With over 3.8 million residents, there are 679,000 water customers with active service connections (Los Angeles Department of Water and Power, 2013). Water supply and conveyance structures within the LADWP system include a series of 114 tanks and reservoirs and a network of pipelines, including 7,221 miles of distribution mains. Between 2007 and 2011, LADWP supplied an average of about 197 billion gallons (604,570 Acre-Feet[2]) of water annually, where the average daily use for all customers was 129 gallons per capita per day (89 gallons per capita per day for residential use) (Los Angeles Department of Water and Power, 2013). In terms of acre-feet, the average daily use translates to 0.0004 AF per capita per day.

[2] 1 acre-foot = 325,851 gallons.

The Los Angeles Aqueducts, local groundwater, and supplemental water purchased from MWD are the primary sources of water supply for the City of Los Angeles. The Los Angeles Aqueduct supplies an average of 36% of the city's water, WMD purchases account for about 52%, and local groundwater resources comprise 11% (Los Angeles Department of Water and Power, 2013). In terms of gross volume over the same years, LADWP received 221,289 AFY from the Los Angeles Aqueduct, 326,012 AFY in MWD purchases, and used 71,087 AFY in local groundwater resources (with recycled water contributing an additional 5,072 AFY). The water from MWD is delivered through the Colorado River Aqueduct and the State Water Project's California Aqueduct. These three sources have historically delivered an adequate and reliable supply to serve the city's needs. Implementation of recycled water projects is expected to fill a larger role in Los Angeles' water supply portfolio. Recycled water currently accounts for 1% of the city's water supply (Los Angeles Department of Water and Power, 2013). Stormwater capture projects for groundwater recharge to improve groundwater reliability are also being developed.

The UWMP projects water demand through the year 2035. A summary table of the projected net water demand for their service area through 2035 can be seen in Table 3.15-1.

Table 3.15-1. LADWP Projected Water Demand through Year 2035

Demand Forecast	**Year**		
Total (with Passive Conservation)	**2015**	**2025**	**2035**
	614,794 AFY	675,604 AFY	710,760 AFY
Total (with Active Conservation)	**2015**	**2025**	**2035**
	599,563 AFY	632,275 AFY	641,622 AFY
Source: Los Angeles Department of Water and Power Urban Water Management Plan, 2010.			

The UWMP also predicts that LADWP's reliance on MWD purchases for their water supply will be reduced by half to 24% by Fiscal Year 2034/35 (under average weather conditions) (Los Angeles Department of Water and Power Urban Water Management Plan, 2010).

Using the LADWP UWMP projections, the Greater Los Angeles County Integrated Regional Water Management Plan also makes demand forecasts. For comparative purposes, the projections for the Upper Los Angeles River subregion can be seen in Table 3.15-2.

Table 3.15-2. ULARA Water Demand through Year 2035

Demand Forecast	**Year**		
Total	**2015**	**2025**	**2035**
	439,000 AFY	477,00 AFY	500,000 AFY
Source: Greater Los Angeles County Integrated Regional Water Management Plan, 2014.			

Water demand for FY 2013-2014 at the LAC+USC Medical Center was 539,027 gallons per day, or 196,744,944 gallons per year (Los Angeles County, 2014). This represents a 5.3% increase in water consumption when compared to FY 2012-2013. The existing offsite water infrastructure near the LAC+USC Medical Center campus includes the following pipelines (LAC+USC Medical Center Campus Master Plan Report, 2013):

- A 24-inch transmission water line along North Mission and Zonal Avenue to Marengo Street.
- An 8-inch transmission water line and an 8-inch fire water line along Zonal Avenue from North Cummings Street to North Mission Road.
- A 24-inch water main along Marengo Street from North Cummings Street to North Mission Road; a 12-inch and 8-inch fire water line run from Chicago Street to the existing Diagnostic & Treatment Building.
- A 6-inch water line along North Cummings Street adjacent to the project site.

The current onsite water service infrastructure includes pipelines ranging in size from 1-inch service lines to 8-inch mains. The water distribution system conveys flow from the offsite main system to the medical center campus main facilities, providing flow to meet domestic water service, fire protection, and irrigation demands (LAC+USC Medical Center Campus Master Plan Report, 2013).

3.15.3.2 Sewers and Wastewater Treatment

The existing sanitary sewer system on the LAC-USC campus splits wastewater flows between the north and south regions on campus through a system of cast-iron pipes that connect to service mains composed of vitrified clay pipes. LAC+USC's clay pipes range from 10 to 21 inches in diameter. Connections to service mains occur at various points along Zonal Avenue from North Cummings to North Mission Road and along Marengo Street between North Chicago and North Mission (LAC+USC Medical Center Building & Site Assessment Report, 2013).

Wastewater from the campus is conveyed via public sewer lines that are owned by the City of Los Angeles. These local sewer lines connect to the city's North East Interceptor Sewer (NEIS), a 10-mile sewer in tunnel ranging in diameter from 6 to 8 feet. NEIS connects to other major interceptor and outfall sewers that ultimately convey flows to the Hyperion Treatment Plant, located in Playa del Rey, for treatment. The Hyperion Treatment Plant is part of the Hyperion System, which is the largest of the city's three sanitary sewer systems. Currently, an average of nearly 300 million gallons per day (mgd) is generated in the system. Approximately 60 mgd is treated upstream at the Donald C. Tilman and Los-Angeles Glendale Water Reclamation Plants. All other flow in the Hyperion System, and the biosolids from these reclamation plants, which is returned to the collection system, are treated at the Hyperion Treatment Plant (City of Los Angeles Sewer System Management Plan, 2014). The Hyperion Treatment Plant provides full secondary treatment and has an average dry weather capacity of 450 mgd. Treated effluent is discharged from the Hyperion Treatment Plant into Santa Monica Bay via a 5-mile ocean outfall.

According to the city's Sewer System Management Plan (February 2014), the city's sewer system has sufficient capacity to handle peak dry-weather flows and has not experienced any wet weather overflows since major relief sewers were completed in 2006. Additionally, the city has virtually eliminated dry-weather overflows resulting from power outages or equipment failures at its pump stations.

Wastewater flows include residential, employment, industrial, and groundwater infiltration sources. The most recent city estimates for wastewater flows use SCAG 2008 adjusted data. Using SCAG's population assumptions, the City of Los Angeles Water Integrated Resources Plan from June 2012 estimated wastewater flows to be 458 mgd in the year 2000. Actual wastewater flow for the same year was 425 mgd. Projections are made through the year 2020, and vary between 400 and 500

mgd. Historical data from 2002 to June 2011 showed a significant decrease in wastewater flow, which may be attributed to water conservation, economic downturn, and DWP Tier 1 and Tier 2 rate adjustments (City of Los Angeles Bureau of Sanitation and Department of Water and Power, 2012).

The LAC+USC Medical Center generated 501,393 gallons per day of wastewater or 183,008,672 gallons per year for FY 2013-2014 (Los Angeles County, 2014). This represents a 5.4% increase in sewer consumption when compared to FY 2012-2013. This wastewater is generated on the campus is conveyed to and treated at the Hyperion Treatment Plant.

3.15.3.3 Stormwater

The LAC+USC Medical Center campus is served by the Los Angeles County Flood Control District (LACFCD). Large storm drain systems (D-5999 and D-26567) run north-to-south through the west campus area. These existing drains eventually join together offsite, south of the I-10 freeway, and ultimately carry stormwater to the Los Angeles River.

The existing stormwater management system utilizes a system of vertical roof drains, underground reinforced concrete pipe, overland sheet flow, curb, gutters, catch basins, and driveways to convey stormwater runoff to the existing public system owned and operated by LACFCD.

Historically, urban development and storm drain system design have consisted of streets, driveways, sidewalks, and structures constructed out of impervious materials that directly convey runoff to curb and gutter systems, the storm drain system, and downstream receiving waters. Until recently, conventional storm drainage and flood control systems have been designed to convey stormwater away from developed areas as quickly as possible without thoroughly addressing stormwater quality and/or groundwater discharge. As of January 2009, LACFCD has developed standards to address these issues. Current LACFCD LID standards for stormwater management require limiting storm runoff from redeveloped sites to the pre-development condition. Various measures used to achieve this may include: infiltration, store and reuse (rainwater collection cisterns), bio-retention basins, and filtration systems. To the extent it is technically feasible, a developed site is required to capture, infiltrate, or reuse the difference in volume generated during a 0.75-inch storm event on the developed site versus that generated by the same event on the site in an undeveloped condition. In addition, a developed site may be required to treat the entire 0.75-inch rainfall to remove urban stormwater pollution.

3.15.3.4 Solid Waste

Solid waste generated by facilities on the LAC+USC Medical Center campus is collected by private waste haulers for eventual disposal at one of the designated landfills in the Los Angeles area.

Demand for landfill capacity is continually evaluated by Los Angeles County through preparation of the Los Angeles County Integrated Waste Management Plan (CIWMP) Annual Reports. The total quantity of waste disposed of by the City of Los Angeles in 2000 was reported as 3,859,622 tons (City of Los Angeles Solid Waste Planning Background Studies Summary Report, 2006).

The total quantity of waste diverted for the same year was 5,719,354 tons (City of Los Angeles Solid Waste Planning Background Studies Summary Report, 2006). Based on these numbers, the city's total generation for 2000 was 9.58 million tons and the city's diversion rate was 60%, ten points above the California Integrated Waste Management Act mandates for that year.

Landfills are categorized as one of three classes:

- Class I landfills accept hazardous and non-hazardous wastes
- Class II landfills accept non-hazardous and "designated" wastes, as defined by the State Department of Resources Recycling and Recovery
- Class III landfills accept municipal and other non-hazardous, household waste

Unclassified landfills are defined as facilities that accept inert materials only, such as soil, concrete, asphalt, and other construction and demolition debris. Non-hazardous municipal solid waste is disposed in Class III landfills, while construction waste, yard trimmings, and earth-like waste are disposed in unclassified (inert) landfills.

In 2012, Los Angeles County generated 8.7 million tons of solid waste for disposal (Los Angeles County Integrated Waste Management Plan, 2012). Of those 8.7 million tons, 6.3 million tons went to in-county Class II landfills, 0.6 million tons went to transformation facilities, and 1.8 million were exported to out-of-county landfills (Los Angeles County Integrated Waste Management Plan, 2012). Additionally, the amount of inert waste disposed at permitted inert waste landfills totaled 89,142 tons (Los Angeles County Integrated Waste Management Plan, 2012). On average, the solid waste disposed for 2012 was 27,942 tons per day. The city produced 3.08 million tons of solid waste that same year for disposal. Assuming a diversion rate of 60%, the County generated a total 21.5 million tons (58,987 tpd) and the city generated a total of 7.7 million tons (21,096 tpd) of solid waste.

There are several major landfills in the Los Angeles metropolitan area that may serve the project site. These landfills are classified as major landfills, which are defined as those facilities that receive more than 250,000 tons of solid waste per year. Additionally, these landfills are classified as Class III landfills since they are permitted to accept non-hazardous wastes only.

A list of the existing available Class III solid waste disposal facilities that can serve the project site and their remaining capacity is provided in Table 3.15-3.

Using waste generation rates for hospital facilities provided by the California Department of Resources Recycling and Recovery, the 600-bed hospital facility on the LAC+USC Medical Center campus currently generates an estimated 9,600 pounds per day of solid waste (CalRecycle, 2013).[3]

The waste generated by campus facilities for disposal includes both medical and biohazardous waste. Existing hazardous waste is disposed of at designated Class I facilities. The state of California currently operates three designated Class I landfills (State Water Resources Control Board, 2013). They are the Buttonwillow Hazardous Waste Facility in Kern County, the Kettleman Hills Hazardous Waste Facility in Kings County, and the Imperial (Westmorland) Hazardous Waste Facility in Imperial County. The Buttonwillow facility is 320 acres and operates a permitted drum handling and storage area that can store up to 1,500 drums (Clean Harbors Buttonwillow, LLC, 2013). Their current constructed landfill capacity is 950,000 cubic yards whereas the permitted landfill capacity is 10 million cubic yards (Clean Harbors Buttonwillow, LLC, 2013). The Imperial facility is 640 acres, with a drum capacity of 1,000 drums (50,000 gallons) and a bulk storage capacity of 195 cubic yards (Clean Harbors Westmorland, LLC, 2013). The Kettleman Hills facility is a 1,600-acre property that is permitted to receive a maximum of 2,000 tons of municipal solid waste per day (TPD), but typically receive an average of about 1,350 TPD (Waste Management, 2014).

[3] Based on a solid waste generation factor of 16 pounds/bed/day.

Table 3.15-3. Existing (2012) Available Class III Solid Waste Disposal Facilities

Landfill	Remaining Capacity (millions of tons)	Remaining Life (years)
Sunshine Canyon	74.37	20
Antelope Valley	16.91	30
Lancaster	12.27	13
Chiquita Canyon	3.97	2
Savage Canyon	3.56	13
Scholl Canyon	3.41	16
Burbank	2.95	41
Pebbly Beach	0.09	16
San Clemente	0.04	20
Notes: Landfill remaining life based on 2012 average daily disposal rates and permitted capacity and/or facility restrictions. Source: Los Angeles County Integrated Waste Management Plan, 2012.		

3.15.3.5 Natural Gas

The Southern California Gas Company (SoCalGas), Pacific Region, is the principal distributor of natural gas in Southern California, providing retail and wholesale customers with transportation, exchange and storage services and also procurement services to most retail core customers. As the nation's largest natural gas distribution utility, SoCalGas is responsible for providing safe and reliable energy to its 20.9 million consumers over a 20,000-square-mile service area throughout Central and Southern California (Southern California Gas Company, 2014). They maintain 5.8 million meters in more than 500 communities (Southern California Gas Company, 2014). SoCalGas is a gas-only utility and, in addition to serving the residential, commercial, and industrial markets, provides gas for enhanced oil recovery (EOR) and electric generation (EG) customers in Southern California. As a public utility, the SoCalGas is under the jurisdiction of federal and state regulatory agencies.

According to SoCalGas, there are no current deficiencies in the natural gas supply systems that serve the city (2013 California Gas Report, 2013). SoCalGas regularly assesses and upgrades its systems to meet current and future needs to accommodate future expansion in residential, commercial, and industrial uses.

The 2012 California Gas Report estimates the total annual gas supply taken by SoCalGas was 2,876 million cubic feet per day (MMcf/day) in 2012. SoCalGas projects total gas demand to grow at an annual rate of 0.12% from 2011 to 2030 (2013 California Gas Report, 2013). A summary table of the projected gas supply to be taken through year 2030 is provided in Table 3.15-4.

Table 3.15-4. SoCalGas Projected Gas Supply Taken through Year 2030

Demand Forecast	Year			
Total	2015	2020	2025	2030
	2,615 MMcf/day	2,619 MMcf/day	2,599 MMcf/day	2,619 MMcf/d
Source: 2013 California Gas Report, 2013.				

The report also predicts that the total available capacity for these same years will remain constant at 3,875 MMcf/day (2013 California Gas Report, 2013).

The LAC+USC Medical Center currently consumes an estimated 11,105 cf per year of natural gas[4] (see Appendix H for natural gas consumption assumptions and calculations).

3.15.3.6 Electricity

Existing power and electrical services to the Medical Center campus are provided by LADWP. LADWP supplies more than 26 million megawatt hours (MWh) of electricity per year for its 1.4 million residential and business customers (Los Angeles Department of Water and Power, 2013). They are responsible for the maintenance of 10,000 miles of overhead distribution lines and underground distribution cables and 15,452 transmission towers (Los Angeles Department of Water and Power, 2013). They also maintain 162 distributing stations, 21 receiving stations, and over 50,000 substructures (Los Angeles Department of Water and Power, 2013). Of LADWP's total power resources, about 20% are from renewable sources, 21% from natural gas, 10% from nuclear, and 33% from coal (Los Angeles Department of Water and Power, 2013). About 70% of the electricity in the City of Los Angeles is consumed by business and industry, with the remaining 30% of residents averaging about 5,900 kilowatt hours (5.9 MWh) of usage per year (Los Angeles Department of Water and Power, 2013).

LADWP also prepares energy forecasts as a part of their Power Integrated Resource Plan (PIRP). LADWP's Load Forecast incorporates updates to reflect the latest load forecast, fuel price and projected renewable price forecasts, and other numerous modeling assumptions. The most recent PIRP from 2012 makes projections out to Fiscal Year 2039/40. A summary table of the projected net energy demand for their service area through 2040 are shown in Table 3.15-5.

Table 3.15-5. LADWP Projected Energy Demand through Year 2040

Demand Forecast	Year		
Total	2020	2030	2040
	27,115 GWh	30,101 GWh	33,114 GWh
Source: Los Angeles Department of Water and Power Power Integrated Resources Plan, 2012.			

The LAC+USC Medical Center currently consumes an estimated 11,382,705 kwh per year of electricity (see Appendix H for electricity consumption assumptions and calculations).

3.15.3.7 Transportation Fuels

The CEQA Guidelines, Appendix F, Energy Conservation, state that EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. California is the most populous state in the nation and its total energy demand is second only to Texas (U.S. Energy Information Administration, 2012).

Driven by high demand from California's many motorists, major airports, and military bases, the transportation sector is the state's largest energy-consumer (Luna Glushon, 2009). The majority of transportation energy is currently derived from a wide variety of petroleum products. Automobiles

[4] Conversion from Kbtu to cubic feet uses U.S. EIA Energy Calculator(s).

and trucks consume gasoline and diesel fuel. The transportation sector consumes relatively minor amounts of natural gas or electricity but, propelled mainly by air quality laws and regulations, technological innovations in transportation are expected to increasingly rely on compressed natural gas and electricity as energy sources. Energy consumption by on-road motor vehicles reflects the types and numbers of vehicles, the extent of their use (typically described in terms of VMT), and their fuel economy (typically described in terms of mpg).

Between 2007 and 2030, it is estimated total annual gasoline consumption in California will decrease 13.3 percent in the low-demand case to 13.57 billion gallons, largely as a result of high fuel prices, efficiency gains, and competing fuel technologies. In the high-demand case, the recovering economy and lower relative prices are projected to lead to a gasoline demand peak in 2014 of 16.40 billion gallons before consumption falls to a 2030 level of 14.32 billion gallons, 8.5 percent below 2007 levels (California Energy Commission, 2010).

3.15.4 Environmental Impact Analysis

This section presents a discussion of the potential impacts on utilities services that could result from implementation of the proposed master plan.

3.15.4.1 Thresholds of Significance

For the purposes of this EIR, and in accordance with Appendix F and Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact on utilities and service systems if it would:

UTL-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

UTL-2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

UTL-3: Require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.

UTL-4: Not have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

UTL-5: Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

UTL-6: Be served by a landfill that does not have sufficient permitted capacity to accommodate the project's solid waste disposal needs.

UTL-7: Not comply with federal, state, and local statutes and regulations related to solid waste.

UTL-8: Result in a substantial increase in energy demand that would affect local or regional energy supplies and require additional capacity to meet the increased demand**.**

3.15.4.2 Impacts and Mitigation Measures

Impact UTL-1: Would the Proposed Project Exceed Wastewater Treatment Requirements of the Applicable Regional Water Quality Control Board?

Construction

The proposed project would include development of new or renovation of existing office space for medical uses, retail space, open space, parking facilities, and potential employee housing on the medical center campus. Construction activities would include demolition of some on-site buildings and structures, site preparation and grading, and construction of new and renovated facilities. During construction of individual projects implemented under the master plan, wastewater would be generated by construction workers. The amount, however, would be relatively small and substantially less than the 501,393 gallons per day of wastewater generated by existing uses on the campus and would not exceed the wastewater treatment requirements of the Los Angeles RWQCB or the capacities of the local sewer lines and wastewater treatment facilities that serve the project site (Bureau of Sanitation, 2014). Therefore, construction impacts would be less than significant.

Operation

Wastewater generated by future campus uses would be conveyed via sewer lines to the Hyperion Treatment Plant for treatment to full secondary standards. The treated wastewater, which is discharged via a 5-mile ocean outfall into Santa Monica Bay, is subject to state waste discharge requirements and federal NPDES permit requirements. Therefore, the proposed project would not generate wastewater that would exceed Los Angeles RWQCB's wastewater treatment requirements and impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact UTL-2: Would the Proposed Project Require or Result in the Construction of New Water or Wastewater Treatment Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Impacts?

Construction

Construction of individual projects proposed under the master plan would use water for various purposes, such as mixing and pouring concrete, and other construction-related activities. Additionally, construction workers would consume water and generate wastewater (see discussion above). However, the additional water used by construction activities is expected to be substantially less than the current water consumption on campus of 539,027 gallons per day. The incremental increase in water consumption during construction would not be permanent and new water treatment facilities would not be required to meet this incremental increase in demand. Additionally, as noted above, any incremental increase in wastewater generation due to onsite construction workers would not result in exceedances of the capacities of the existing offsite conveyance and treatment systems. Although new on-campus sewer lines may have to be constructed or existing campus sewer lines relocated to accommodate future master plan projects, no new or expanded offsite water or wastewater treatment facilities would be required as result of development under the master plan and therefore, impacts would be less than significant.

Operation

The proposed master plan provides a framework and vision for development on the Medical Center campus through the year 2040. Future development would result in increased water consumption and wastewater generation. Based on the proposed future uses and demolition of existing facilities that could occur under the master plan, the proposed project could result in a net increase in wastewater generation of 173,382 gpd and water consumption of 192,647 gpd.[5] Projections for on campus wastewater generation are shown in Table 3.15-6.

Table 3.15-6. Projected Wastewater Discharges

Type Description	Wastewater Generation Factors	Building Size	Average Daily Flow (GPD)
Existing Uses to be Demolished			
Offices	120 GPD/1000 SQ.FT	197,288 SQ.FT	(23,675)
Medical Offices	250 GPD/1000 SQ.FT	457,727 SQ.FT	(114,431)
Maintenance Facilities	30 GPD/1000 SQ.FT	31,000 SQ.FT	(930)
Utility Plant & Cooling Tower	170 GPD/1000 SQ.FT	20,938 SQ.FT	(3,559)
Warehouse & Storage	30 GPD/1000 SQ.FT	15,756 SQ.FT	(473)
Total			(143,068)
Proposed Uses			
Hospital	70 GPD/BED	450 BEDS	31,500
Retail	50 GPD/1000 SQ.FT	55,000 SQ.FT	2,750
Utility Plant & Maintenance	30 GPD/1000 SQ.FT	40,000 SQ.FT	1,200
Medical Offices	250 GPD/1000 SQ.FT	200,000 SQ.FT	50,000
Administrative Offices	250 GPD/1000 SQ.FT	265,000 SQ.FT	66,250
Offices	120 GPD/1000 SQ.FT	50,000 SQ.FT	6,000
Research Space	250 GPD/1000 SQ.FT	635,000 SQ.FT	158,750
Total			316,450
Net Increase			173,382

Note: Projected wastewater discharges recalculated based on master plan square footage estimate updates on 9/2/2014.
Source: Poosti, Ali. Division Manager. City of Los Angeles Bureau of Sanitation, Los Angeles, CA. 7/16/2014. Personal Communication.

LADWP provides water services to the Medical Center and the city's Hyperion Sewer System conveys and treats wastewater generated by Medical Center campus facilities. The California Urban Water Management Planning Act requires LADWP to prepare an Urban Water Management Plan to forecast future water demands based on anticipated population growth and ensure a reliable water supply to its service areas. Similarly, the SWRCB adopted Waste Discharge Requirements for publicly owned sanitary sewer systems, and as such, a Sewer System Management Plan is required for each. The Hyperion Sanitary Sewer System management plan ensures that its system is adequately funded, managed, operated, and maintained to provide sufficient capacity to handle flows from its service areas and stop and mitigate overflows. As part of the Integrated Water

[5] Water consumption was calculated based on the assumption(s) that wastewater generation is equal to 90% of water consumption (Source: San Francisco Water Power Sewer, http://www.sfwater.org/index.aspx?page=132; accessed 8/6/2014) and on the net increases in building square footage as shown in Table 3.15-6.

Resources Plan for the City of Los Angeles, both of these plans have been developed to maintain the sustainability of the city's natural resource systems. The proposed project and projected increase in water consumption and wastewater generation is consistent with the Sewer System Management Plan, UWMP, and Integrated Water Resources Plan and, therefore, its operation would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. As a result, impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact UTL-3: Would the Proposed Project Require or Result in the Construction of New Stormwater Drainage Facilities or the Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects?

Construction

Future construction of individual projects under the proposed master plan would result in ground surface disruption during excavation, grading, and trenching that would create the potential for erosion to occur. However, a SWPPP incorporating BMPs for erosion control would be prepared for some projects prior to the start of construction in accordance NPDES permit requirements (for more information, see Section 3.5-Geology and Section 3.8-Hydrology/Water Quality of this EIR). Additionally, a conceptual grading plan and a proposed stormwater management system were developed for the master plan in accordance with Los Angeles County LID Standards. New grading required to construct proposed projects under the master plan would closely follow existing contours and direct stormwater runoff toward the center of the west campus. Therefore, it is not expected that master plan construction activities would substantially increase stormwater runoff from the project site and require new or expanded off-campus stormwater drainage facilities. Potential construction impacts on stormwater facilities would be less than significant.

Operation

The existing stormwater management system utilizes a system of vertical roof drains, underground reinforced concrete pipe, overland sheet flow, curb, gutters, catch basins, and driveways to convey stormwater runoff to the existing public system owned and operated by LACFCD. The LID Ordinance became effective in November 2011 and amends and expands on the existing Standard Urban Stormwater Mitigation Plan requirements (which have been in effect since 2002) by incorporating LID practices and principles and expanding the applicable development categories. To ensure that proposed master plan development projects mitigate runoff in a manner that captures rainwater at its source, a large engineered wetland is proposed along the pedestrian spine at the lowest point on the campus. The wetland would serve as a stormwater treatment strategy and would be designed to be an accessible open space enhancement. As a result of the project and the incorporation of LID features, the amount of impervious cover, currently 95%, would decrease and landscaped areas would increase. Thus, the proposed project would not require or result in the construction of new off-campus stormwater drainage facilities or the expansion of existing facilities. Therefore, impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact UTL-4: Would Sufficient Water Supplies be Available to Serve the Proposed Project from Existing Entitlements and Resources, or Require New or Expanded Entitlements?

Construction

As discussed above, the proposed project would use water during construction for various purposes, such as mixing and pouring concrete, and other construction-related activities. However, the incremental increase in water use as a result of construction activities would be temporary and not substantial and, thus, existing water supplies would be sufficient to meet this demand. Although construction of individual projects could extend throughout the 25 year planning horizon of the current master plan, water use during construction would be a relatively small contribution to the current on campus water consumption of 539,027 gallons per day and would not result in an increase in long-term water demand. Therefore, construction under the proposed project would not require new or expanded entitlements to ensure the availability of sufficient water supplies. Impacts would be less than significant.

Operation

Future development under the master plan would result in a net increase in water consumption compared to the existing baseline condition. Based on the net increases in building square footage on the campus that could occur under the master plan (see Table 3.15-6), the proposed project could result in a net increase in water consumption of 192,647 gpd.

LADWP provides water services to the LAC+USC Medical Center campus. The California Urban Water Management Planning Act requires LADWP to prepare an Urban Water Management Plan to forecast future water demands based on anticipated population growth and ensure a reliable water supply to its service areas. As part of the Integrated Water Resources Plan for the City of Los Angeles, these plans have been developed to maintain the sustainability of the city's natural resource systems. The proposed project is consistent with these plans and, therefore, the potential increase in water consumption is not expected to require new or expanded entitlements to maintain sufficient water supplies. LADWP projected water demand through year 2035 is shown in Table 3.15-1. Additionally, development projects under the master plan would include the installation of low-flush toilets, showerheads, faucets, and urinals in compliance with Administrative and Municipal Code. Compliance with this code, as well as Title 24's energy conservation standards for new construction and the Green Building Standards Code relating to water and energy efficiency, would minimize potential increases in water consumption as a result of the new development that could occur under the master plan. Impacts would be less than significant. However, it should be noted that the UWMP projections end in 2035, while the master plan is intended to provide a framework and vision for development on the medical center campus through the year 2040. For master plan projects that may be proposed far in the future, i.e., beyond the year 2035, it's not known whether sufficient water supplies and entitlements would exist to accommodate those projects' water demand. Therefore, water supply impacts for projects constructed far in the future, i.e., beyond the year 2035, could be potentially significant. Accordingly, as individual development projects under the master plan are proposed and building plans are developed, and prior to the issuance of building permits, LACDPW will coordinate with the water provider, LADWP, to confirm adequate water supplies exist to continue serving master plan projects beyond 2035. Mitigation Measure MM-UTL-1 describes how this will be accomplished throughout the life of the master plan.

Mitigation Measures

The following measure is proposed to mitigate Impact UTL-4 above.

> **MM-UTL-1:** In conjunction with preparation of a subsequent CEQA environmental document for any future individual development project under the master plan that is defined as a "water-demand project" in Section 15155 of the CEQA Guidelines, the County shall request, pursuant to Section 15155, that the water provider determine whether the projected water demand associated with the project was included in the most recently adopted urban water management plan. If required pursuant to Section 15155 and SB 610, the County shall request that LADWP prepare a water assessment for the proposed project. The County shall determine, pursuant to Section 15155, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

Level of Significance after Mitigation

Significant if it's determined that water supplies will not be sufficient to meet future projects' demands.

Impact UTL-5: Would the Proposed Project Result in a Determination by the Wastewater Treatment Provider that Serves or May Serve the Project that it Does Not Have Adequate Capacity to Serve the Project's Projected Demand in Addition to the Provider's Existing Commitments?

Construction

Construction workers on the project site could generate a minor incremental increase in wastewater flows to the city's wastewater system. This increase would be insignificant and, as mentioned, could readily be accommodated by the city's existing wastewater treatment system.

Operation

The City of Los Angeles Bureau of Sanitation (BOS) has conducted a preliminary evaluation of the potential impacts of future development under the master plan on the city's wastewater system. The city's estimates of the net increase in wastewater discharges with implementation of the preliminary list of potential projects that could occur under the master plan are provided in Table 3.15-6, above. As shown in the table, implementation of the master plan could result in a net increase of 173,382 gpd of wastewater, which represents less than 0.06% of the average daily flows in the Hyperion Sewer System.

The sewer infrastructure in the vicinity of the proposed project includes four discharge routes, for which the BOS has obtained approximate flow levels and design capacities. Based on the estimated flows, BOS has concluded the sewer system might be able to accommodate the total flow for the proposed project, but that further detail gauging and evaluation may be needed as part of the permit process for individual projects to identify a specific sewer connection point. A final approval for sewer capacity and connection permit shall be made at that time. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant. To ensure local city sewer lines have sufficient capacity to accommodate future individual development projects, Mitigation Measure MM-UTL-2 below is proposed.

All wastewater generated on the campus would ultimately be conveyed to the Hyperion Treatment Plant, which has sufficient capacity to accommodate the project as well as existing commitments (personal communication with A Poosti, Los Angeles Bureau of Sanitation, July 16, 2014). Consequently, significant impacts on the city's wastewater treatment system are not anticipated.

Mitigation Measures

The following measure is proposed to ensure adequate local city sewer line capacity exists to accommodate future development projects (see Impact UTL-5, above).

> **MM-UTL-2:** Prior to issuance of a building permit for any future development project under the master plan that could result in an increase in wastewater generation, the County shall coordinate with the City of Los Angeles Bureau of Sanitation to conduct further detailed gauging and evaluation to identify a specific sewer connection point with sufficient capacity. If the public sewer has insufficient capacity, then the County shall be required to build a sewer line to a point in the sewer system with sufficient capacity.

Level of Significance after Mitigation

Less than significant if BOS conducts further gauging and evaluation and identifies a sewer connection point with sufficient capacity. Since the County cannot compel another public entity, in this case BOS, to conduct further gauging and evaluation, for the purposes of this EIR, the impacts on local sewer lines are considered to be significant and unavoidable.

Impact UTL-6: Would the Proposed Project be Served by a Landfill that has Sufficient Permitted Capacity to Accommodate the Project's Solid Waste Disposal Needs?

Construction

The proposed project would include development of new or renovation of existing office space for medical uses, retail space, open space, parking facilities, and potential employee housing on the medical center campus. Construction activities would include demolition of some on-site buildings and structures, site preparation, grading and trenching, as well as construction of new and renovated facilities. Construction and demolition activities would generate solid waste requiring disposal at local landfills. There are several major landfills in the Los Angeles metropolitan area that serve the project site. Major landfills are defined as those facilities that receive more than 250,000 tons of solid waste per year. Given demolition debris and solid waste generated by other construction activities would be finite and limited to the construction periods, existing landfills have sufficient long-term permitted capacity to accommodate construction generated solid waste (See Table 3.15-7, below). As a result, construction impacts on solid waste facilities and capacity would be less than significant.

Operation

The new development that may occur under the master plan could result in increased generation of solid waste. Based on waste generation factors provided on the California Department of Resources Recycling and Recovery website and net increases in square footage identified in Table 3.15-6, it is estimated that the proposed master plan could generate a net increase of 10,270 pounds of solid waste per day (see Table 3.15-7 below).

Table 3.15-7. Projected Solid Waste Generation

Type Description	Solid Waste Generation Factor	Building Size	Pounds per Day
Existing Uses to be Demolished			
Offices	6 lbs/1000 SQ.FT./day	197,288 SQ.FT	(1,184)
Medical Offices	6 lbs/1000 SQ.FT./day	457,727 SQ.FT	(2,746)
Maintenance Facilities	6 lbs/1000 SQ.FT./day	31,000 SQ.FT	(186)
Utility Plant & Cooling Tower	6 lbs/1000 SQ.FT./day	20,938 SQ.FT	(126)
Warehouse & Storage	10 lbs/1000 SQ.FT./day	15,756 SQ.FT	(158)
Total			(4,400)
Proposed Uses			
Hospital	16 lbs/bed/day	450 BEDS	7,200
Retail	6 lbs/1000 SQ.FT/day	55,000 SQ.FT	330
Utility Plant & Maintenance	6 lbs/1000 SQ.FT/day	40,000 SQ.FT	240
Medical Offices	6 lbs/1000 SQ.FT./day	200,000 SQ.FT	1,200
Administrative Offices	6 lbs/1000 SQ.FT./day	265,000 SQ.FT	1,590
Offices	6 lbs/1000 SQ.FT./day	50,000 SQ.FT	300
Research Space	6 lbs/1000 SQ.FT./day	635,000 SQ.FT	3,810
Total			14,670
Net Increase			10,270
Source: CalRecyle; http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates; accessed 8/11/2014; ICF, 2014.			

Table 3.15-3 shows the available Class III solid waste disposal facilities in Los Angeles County. Of those, Sunshine Canyon has the largest remaining capacity at 74.37 millions of tons. Its estimated remaining life is 20 years. The closest landfill to the proposed project is Scholl Canyon, which has a remaining capacity of 3.41 millions of tons and an estimated remaining life of 16 years. Additionally, demand for landfill capacity is continually evaluated by Los Angeles County through preparation of the Los Angeles CIWMP Annual Reports. Therefore, it is expected that the project site would be served by a landfill that has sufficient permitted capacity to accommodate the project's solid waste disposal needs. Impacts would be less than significant.

New and renovated medical/research facilities that may be developed under the master plan could result in increases in biomedical or other hazardous wastes. All hazardous waste, including biomedical waste, would be transported, used, and disposed of at designated Class I landfills in accordance with applicable local and regional regulations. Such activities already take place at the LAC+USC Medical Center campus, and facilities for the proper handling of these materials are already present on the site. Consequently, no significant impacts to hazardous waste disposal facilities is anticipated as a result of future development under the proposed master plan.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact UTL-7: Would the Proposed Project Fail to Comply with Federal, State, and Local Statutes and Regulations Related to Solid Waste?

Construction and Operation

Under the California Integrated Waste Management Act (AB 939), the City of Los Angeles adopted the Construction and Demolition Waste Recycling Ordinance (Ordinance 181,519), which requires solid waste haulers and contractors to obtain a permit prior to transporting construction and demolition waste, and stipulates that such waste may only be processed at city-certified construction and demolition waste-processing facilities. The proposed project would comply with this ordinance.

AB 939 also mandates that jurisdictions meet a diversion goal of 50% by the year 2000 and thereafter. The City of Los Angeles initiated a SWIRP in 2007 and is moving towards zero waste by 2030. Similarly, AB 75 requires all state agencies and large state facilities to divert at least 50% of solid waste from landfills. The proposed project would comply with both.

Development under the LAC+USC Medical Center Campus Master Plan would also be subject to other solid waste regulations such as the Industrial Waste Control Ordinance of the Los Angeles Municipal Code, the City of Los Angeles Sewer Allocation (Ordinance No. 166060), and the California Solid Waste Reuse and Recycling Access Act, which governs building permits that oversee the transfer, receipt, storage, and loading of recyclable materials. The proposed project would comply with all three. Thus, the proposed project would comply with federal, state, and local statutes and regulations related to solid waste and its construction and operational impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact UTL-8: Would the Proposed Project Result in a Substantial Increase in Energy Demand that would Affect Local or Regional Energy Supplies and Require Additional Capacity to Meet the increased Demand?

Construction

Construction of individual projects under the master plan would require the use of energy resources including electricity and natural gas and transportation fuels for construction worker vehicles and trucks hauling construction materials or debris. The additional energy consumption from construction activities would be limited in duration and finite. Construction activities would not result in a permanent increase in demand for energy resources and, thus, a substantial direct impact on existing energy supplies and infrastructure is not anticipated. Therefore, construction of projects under the master plan would not require additional energy capacity to meet the increased demand and impacts would be less than significant.

Operation

New and renovated buildings and facilities that may occur under the master plan could result in long-term increases in energy consumption. It is estimated that the net increase in square footage development (see Table 3.15-6) under the master plan could increase electricity consumption by 23,295,307 kWh per year and natural gas consumption by 27,573 cf per year (see Appendix H for

utility consumption assumptions and calculations). Additionally, increased motor vehicle trips to and from the campus as a result of this potential new development could increase energy consumption by 596,385 gallons of gasoline per year (see Appendix H).

As part of their Power Integrated Resources Plan, LADWP prepares energy forecasts to ensure their ability to accommodate the future energy needs of its service areas. The most recent PIRP from 2012 makes projections out to year 2040, which are shown in Table 3.15-5. The anticipated electrical consumption that could occur under the current master plan, which represents 0.0007% of LADWP's projected energy demand for the year 2040, would not result in a substantial increase in electricity demand that would affect local or regional electricity supplies and require additional capacity to meet the increased demand. Additionally, future individual development projects would be required to submit a load schedule to LADWP to more accurately determine the electrical demand associated with site-specific development and the ability for LADWP to serve the electrical demand.

With regards to natural gas, SoCalGas projects their gas supply through year 2030. A summary of these projections is shown in Table 3.15-4. SoCalGas projects total gas demand to grow at an annual rate of 0.12% from 2011 to 2030 (California Gas Report, 2013). It also predicts that the total available capacity for these same years will remain constant at 3,875 MMcf/day (California Gas Report, 2013). In the year 2030, it is estimated that the available capacity will exceed the projected demand by 48%, a total difference of 1,256 MMcf/day. Therefore, potential development under the proposed master plan is not expected to have a significant impact on natural gas supplies or infrastructure. Given projected gas supply and consumption trends, it is likely that there will be sufficient supply beyond 2030, however, SoCalGas has not made projections beyond that year. Therefore, for the purposes of this EIR, the impacts on natural gas supplies due to master plan projects constructed after 2030 are considered to be potentially significant.

The proposed master plan also includes more energy efficient project elements such as solar electric power, solar thermal and hot water, as well as ground source heating energy for various facilities. These efforts, combined with compliance with Title 24's energy conservation standards for new construction, would help to offset any additional energy consumption as a result of the proposed project. As a result, electricity impacts would be less than significant.

The anticipated increase in consumption of transportation fuel as a result of the proposed project, approximately 596,385 gallons of gasoline per year (see Appendix H), would not substantially contribute to the overall consumption of transportation fuel in California, which the California Energy Commission estimates would be 13.57 billion gallons per year in 2030 under the low-demand scenario and 14.32 billion gallons per year in 2030 under the high-demand scenario. As a result, transportation fuel impacts would be less than significant.

Mitigation Measures

No mitigation measures are required for energy impacts that would be less than significant. No feasible mitigation measures have been identified to address long-term impacts on natural gas supplies due to master plan projects developed after 2030.

Level of Significance after Mitigation

Impacts on natural gas supplies are considered to be potentially significant for master plan projects developed beyond the year 2030. Other energy impacts would be less than significant.

3.15.5 Cumulative Impacts

The study areas for cumulative impacts to utilities includes the service areas of the individual utility providers that serve the project site to reflect cumulative regional demand on these providers' utility supplies and infrastructure as well as the immediate area in the vicinity of the project site to take into account cumulative impacts on local utility infrastructure due to the proposed project and nearby related projects (e.g., cumulative impacts on local sewer lines that serve the campus and other development in the immediate area).

The cumulative increases in regional and local study area populations would increase the demand for utilities services. Because the service areas for the various utility providers (water, sewer and wastewater, stormwater, solid waste, natural gas and electricity) varies widely, and, in some cases, covers large geographic areas (e.g. Southern California Gas Company or Los Angeles Department of Water and Power), it is possible that increased demand due to future cumulative development within the service areas could require additional utility capacity and supplies to meet projected future demand and maintain adequate levels of service, notwithstanding future savings resulting from increased energy efficiencies. Although the regional utility providers have planned for long-term increases in demand (see discussions above), new supply and delivery infrastructure facilities could be required to meet increased regional demands, the construction of which could result in impacts to the environment. Where the utility providers have identified specific individual projects that are required to meet future projected regional cumulative demands and determined that construction or operation of those projects would result in significant impacts to the environment, then the cumulative impact of the proposed master plan and other projects in the services areas would be considered significant. Because the planning horizon for the master plan extends well into the future (year 2040), it is possible that yet unidentified improvements to the regional providers utility infrastructure may also be required over the life of the master plan. Therefore, for the purposes of this EIR, it is anticipated that the proposed project and other regional development would result in significant cumulative impacts on utilities and energy.

With regards to localized cumulative utility impacts, a list of related projects in the area is provided in Table 2-2 of the Project Description chapter (Chapter 2 of this EIR). There are nine related projects in the surrounding area at various stages of conceptual planning and development. The list includes several housing and commercial development projects that would increase the residential and daytime employee populations in the study area. The cumulative utility demands of the related and proposed projects may require improvements to local utility infrastructure (e.g., new local sewer or water lines or connections; power substations, etc.), the construction of which could result in impacts to the environment. The details and extent of future local utility infrastructure improvements are not known; therefore, the significance of potential cumulative impacts on local infrastructure cannot be definitively determined. Nonetheless, for the purposes of this EIR, the cumulative local utility infrastructure impacts are considered to be potentially significant.

Chapter 4
Other Analyses Required by CEQA

4.1 Significant Unavoidable Adverse Environmental Impacts

Significant unavoidable impacts would occur as a result of the proposed LAC+USC Medical Center Campus Master Plan in the following resource areas:

Air Quality

The primary source of PM10 and PM2.5 emissions is fugitive dust from on-site clearing and demolition. As shown in Table 3.2-9, implementation of Mitigation Measures AQ -1 and AQ-2 would reduce emissions, but PM10 and PM2.5 levels would remain in excess of SCAQMD thresholds. Compliance with Rule 403 would reduce PM emissions, but not to a level below thresholds. Therefore, this impact would be considered significant and unavoidable.

Aesthetics

Demolition of the Women's and Children's Hospital building, which is aesthetically noteworthy because of its architectural design and is a historical resource, would be a significant unavoidable adverse visual impact of the proposed project.

Cultural Resources

The proposed demolition of the Women's and Children's Hospital building, which has been determined eligible for listing in the California Register of Historical Resources, would be an unavoidable significant adverse historical resources impact.

Greenhouse Gas Emissions

Because project emissions would exceed the 3,000 MT CO_2e annual threshold, project generated GHG emissions would be a significant and unavoidable cumulative impact.

Noise and Vibration

While MM-NOI-1 would reduce construction noise levels, it would not eliminate the predicted noise impacts entirely; therefore, construction noise impacts are considered significant and unavoidable. Construction vibration impacts would be considered significant unavoidable after implementation of mitigation measure MM-NOI-6.

Recreation

Construction of new landscaped open space areas could result in noise and air quality impacts on nearby sensitive receptors (also see Air Quality and Noise and Vibration discussion above). Although mitigation is proposed to reduce these impacts, they would remain significant after mitigation.

Transportation/Traffic

The proposed development under the master plan would generate additional vehicle trips that would result in significant traffic impacts at four study intersections (intersections 1, 9, 13, and 19) under the existing baseline plus-project scenario and four study intersections (intersections 9, 13, 19, and 20) under the cumulative year (2040) plus-project scenario. No feasible mitigation measures have been identified for intersections 1, 9, 19, and 20. As a consequence, the impacts to those intersections would be significant and unavoidable. The proposed mitigation measures at study intersection 13 would reduce the impact to less than significant. However, given the intersection is located within the City of Los Angeles and the mitigation is subject to approval by the City of Los Angeles Department of Transportation (LADOT), if LADOT does not approve the proposed mitigation, the impact at this intersection would be significant and unavoidable.

Utilities

Proposed development under the master plan would increase the consumption of various utilities including water and natural gas. The Los Angeles Department of Water and Power's Urban Water Management Plan identifies future water supply and demand in their service area through the year 2035. Therefore, it's not known whether future water supplies beyond the year 2035 would be sufficient to meet the needs of the master plan projects constructed far in the future, i.e. beyond the year 2035. Therefore future water supply impacts, beyond the year 2035, are considered to be significant and unavoidable. Similarly, existing SoCalGas forecasts of future natural gas supplies and demand extend to the year 2030. If insufficient supplies exist for master plan projects beyond the year 2030, the impact would be significant and unavoidable.

4.2 Impacts Found to Be Less than Significant

The environmental analyses presented in Chapter 3 of this DEIR concluded that the proposed project would result in no impacts in the following areas:

- Aesthetics
  - Scenic Vista (construction and operation)
  - Light and Glare (construction)
- Biological Resources
  - Local Policies (operation)
- Cultural Resources
  - Historical Resources (operation)
  - Archaeological Resources (operation)
  - Paleontological Resources (operation)
- Hydrology
  - Seiche, Tsunami (construction and operation)
- Land Use
  - Physical Division of an Established Community (operation)
- Population and Housing
  - Displacement of Housing and People (construction and operation)

Additionally, Los Angeles County, as the CEQA lead agency, determined in the NOP/IS (see Appendix A) that the proposed project would not result in impacts in the following areas and no further environmental review of those resource areas was conducted as part of this EIR.

- Agricultural and Forestry Resources
- Mineral Resources

The analyses presented in Chapter 3 concluded that the proposed project would result in less than significant impacts in the following categories, and therefore, no mitigation measures are required.

- Aesthetics
  - Scenic Resources (operation)
  - Visual Character (construction and operation)
  - Light and Glare (operation)
- Air Quality
  - Obstruct Implementation of the Applicable Air Quality Plan
  - Violate Air Quality Standard (operation)
  - Expose Sensitive Receptors to Substantial Pollutant Concentrations (operation)
  - Objectionable Odors (construction and operation)
- Biological Resources
  - Habitat Modification (construction and operation)
  - Species (construction and operation)
  - Wetlands (construction and operation)
- Hazards and Hazardous Material
  - Routine Transport (operation)
  - Upset and Accident conditions (construction and operation)
  - Hazards to Schools (operation)
  - Hazardous Materials Sites (operation)
  - Emergency response (operation)
- Hydrology
  - Water Quality Standards (operation)
  - Groundwater Supplies (construction)
  - Drainage and Flooding (construction and operation)
  - Stormwater Runoff (construction and operation)
- Land Use
  - Physical Division of an Established Community (construction)
  - Conflicts with Applicable Plans and Policies (construction and operation)
- Population and Housing
  - Population Growth (construction and operation)

- Public Services
  - Police and Fire services (operation)
  - Schools (construction and operation)
  - Parks (construction and operation)
- Recreation
  - Increased Use of Existing parks (construction and operation)
  - Require Construction of Recreational Facilities (construction and operation)
- Transportation/Traffic
  - Conflict with Congestion Management Agency (operation)
  - Increase Hazards due to Design Feature (operation)
  - Inadequate Emergency Access (operation)
  - Conflict with Adopted Plans Regarding Public Transit, Pedestrian Facilities (operation)
  - Inadequate Parking (construction and operation)
- Utilities
  - Exceed Wastewater Treatment Requirements (construction and operation)
  - Require Expansion of Existing Facilities (construction and operation)
  - Construction of New Stormwater Drainage Facilities (construction and operation)
  - Water Supplies (construction)
  - Adequate Capacity for Wastewater Treatment Provider (operation)
  - Landfill Capacity (construction and operation)
  - Compliance with Solid Waste Regulations (construction and operation)

The following impacts were identified as potentially significant but would be reduced to less than significant with incorporation of proposed mitigation measures.

- Air Quality
  - Violate Air Quality Standard (construction)
  - Increase in a Criteria Pollutant
  - Biological Resources-
  - Migratory Wildlife and/Corridors (construction and operation)
  - Local Policies (operation)
- Cultural Resources
  - Archaeological Resources (construction)
  - Paleontological Resources (construction)
- Geology and Soils
- Hazards and Hazardous Materials
  - Routine Transport (construction)
  - Hazardous Materials Sites (construction)
  - Emergency Response (construction)
  - Schools (construction)

- Hydrology
  - Water Quality Standards (construction)
  - Groundwater Supplies (operation)
  - Drainage (construction and operation)
  - Degrade Water Quality (construction and operation)
- Noise
  - Traffic Noise and Other Operational Sources
- Public Services
  - Police and fire services (construction)
- Transportation/Traffic
  - Conflict with Congestion Management Agency (construction)
  - Change in Air Traffic Patterns (construction and operation)
  - Increase Hazards due to Design Features (construction)
  - Inadequate Emergency Access (construction)
  - Conflict with Adopted Plans Regarding Public Transit, Pedestrian Facilities (construction)
- Utilities
  - Adequate Capacity for Wastewater Treatment Provider (construction)

4.3 Growth-Inducement and Indirect Impacts

According to Section 15126.2 (d) of the CEQA Guidelines, growth-inducing impacts of the proposed project shall be discussed in the EIR. Growth-inducing impacts are those effects of the proposed project that might foster economic or population growth or the construction of new housing, either directly or indirectly, in the surrounding environment. According to CEQA, increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place without implementation of the proposed project. Typically, the growth-inducing potential of a project would be considered significant if it results in growth or population concentration that exceeds those assumptions included in pertinent master plans, land use plans, or projections made by regional planning authorities. However, the creation of growth-inducing potential does not automatically lead to growth, whether it would be below or in exceedance of the projected level. Under CEQA, it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

One of the guiding principles of the proposed master plan is to maximize access to LAC+USC Medical Center facilities. Accordingly, the project is likely to attract additional visitors and consequently may indirectly increase growth in the surrounding area. However, the proposed project would not include the extension of roads or other infrastructure improvements outside the boundaries of the campus that would indirectly induce substantial population growth in the surrounding area. The proposed project would not include a substantial housing component or displace any existing populations.

As stated in Section 3.11, Population and Housing, the increase in the employee population that would occur under the proposed project would fall within SCAG projections, which anticipates a citywide population growth of 16.1% by 2035. The increases in the on-campus employee and residential populations that could occur with buildout of the master plan would not contribute substantially to any population growth in the area beyond what SCAG has projected in its regional and city forecasts. Therefore, the proposed project is not expected to result in significant growth-inducing impacts on the environment.

4.4 Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project, and states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts, and particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Implementation of the proposed project would occur on the existing LAC+USC medical center campus. Proposed development would include the irreversible commitment of natural resources, energy, land, and human resources. Ongoing maintenance and operation of the new developments would entail a further irreversible commitment of energy resources in the form of petroleum products (diesel fuel and gasoline), natural gas, and electricity. Long-term impacts would also result from an increase in vehicular traffic, and the associated air pollutant and noise emissions.

In summary, implementation of proposed project would involve the following irreversible environmental changes:

- Soil erosion associated with grading and construction activities;
- Usage of essential public services (including fire and police protection, solid waste) and utility/service systems (including water, wastewater, electricity, and natural gas) during and after construction of new development;
- Temporary and permanent commitment of energy and water resources as a result of the construction, long-term operation, and maintenance of new development;
- Utilization of various new raw materials (such as lumber, sand, and gravel) for construction; and
- Incremental increases in vehicular activity with resultant air pollutant and noise emissions.

Chapter 5
Alternatives Analysis

5.1 Introduction

State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to a project or to the location of a project that could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant environmental impacts. According to the State CEQA Guidelines, the EIR should compare the merits of the alternatives and determine an environmentally superior alternative. The range of alternatives discussed in an EIR is governed by the "rule of reason," which requires the identification of only those alternatives necessary to permit a reasoned choice between the alternatives and the proposed project. An EIR need not consider an alternative that would be infeasible. State CEQA Guidelines Section 15126.6(f)(1) explains that the evaluation of project alternative feasibility can consider "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site." The EIR is also not required to evaluate an alternative that 1) has an effect that cannot be reasonably identified or that has remote or speculative implementation and 2) would not achieve the basic project objectives.

5.2 CEQA Alternatives

Pursuant to the CEQA requirements identified in Section 5.1 above, alternatives to the proposed master plan were developed for this EIR that would obtain many or most of the objectives of the project and would avoid or substantially lessen one or more of the proposed master plan's significant environmental impacts.

The basic objectives of the master plan are:

- Achieve a community-friendly campus
- Promote healthy lifestyles and wellness
- Maximize access to the medical center by the community
- Provide opportunities for appropriate education and job training
- Incorporate on-campus business opportunities
- Plan for future program development.

The proposed master plan would result in the following significant and unavoidable impacts:

- Aesthetics – demolition of a scenic resource (Women's and Children's Hospital building)
- Air Quality-exposure of sensitive receptors to substantial pollutant concentrations during construction
- Cultural Resources-demolition of a historical resource (Women's and Children's Hospital building)
- Greenhouse Gas Emissions – cumulative impact on climate change

- Noise and Vibration – construction and operational impacts
- Recreation – construction of landscaped open space areas could result in air quality and noise impacts on nearby sensitive receptors
- Transportation/Traffic – significant impact on the level-of-service at four intersections under the existing baseline plus-project and cumulative year (2040) plus-project scenarios
- Utilities – long-term water and natural gas consumption impacts.

Based on the above, the following alternatives to the proposed project have been identified:

- Alternative A: No Project/No-Build Alternative;
- Alternative B: Reduced Development Alternative; and
- Alternative C: Individual Development Zone Construction Alternative.

These alternatives are described below.

5.2.1 Alternative A – No Project

As required by CEQA Guidelines Section 15126.6 (e), under the No-Project Alternative, the proposed master plan would not be implemented. The need for upgraded campus facilities, improved wayfinding, better access/circulation, and open space for visitors, employees, and area residents would not be realized. Under this alternative, there would be no changes and the campus would continue to operate as it does currently.

5.2.2 Alternative B – Reduced Development Alternative

Alternative B would be a reduced development alternative to the proposed master plan. Alternative B would include many of the elements in the proposed master plan, with the exceptions noted below.

Alternative B would only include one of the proposed three new inpatient towers in the area now occupied by the OPD and Interns and Residents buildings.

Alternative B would only include the development of 1/3 of the Biotech Research or workforce housing buildings proposed for the west campus under the proposed master plan. This would result in approximately 211,667 square feet, as opposed to 635,000 square feet of biotech research development.

Under Alternative B, the emphasis would be on meeting the most critical needs of the existing campus, which include improved wayfinding, additional parking to serve the needs under this alternative, and open and inviting spaces for the community, visitors, and employees of the campus. These goals are all accomplished under Alternative B, as are the goals of providing additional inpatient beds, and biotech research opportunity spaces, though not to the same extent as the proposed master plan. This alternative would result in a reduction of 423,333 square feet and 300 new inpatient beds of development compared to what could occur under the proposed master plan.

5.2.3 Alternative C – Individual Development Zone Construction Alternative

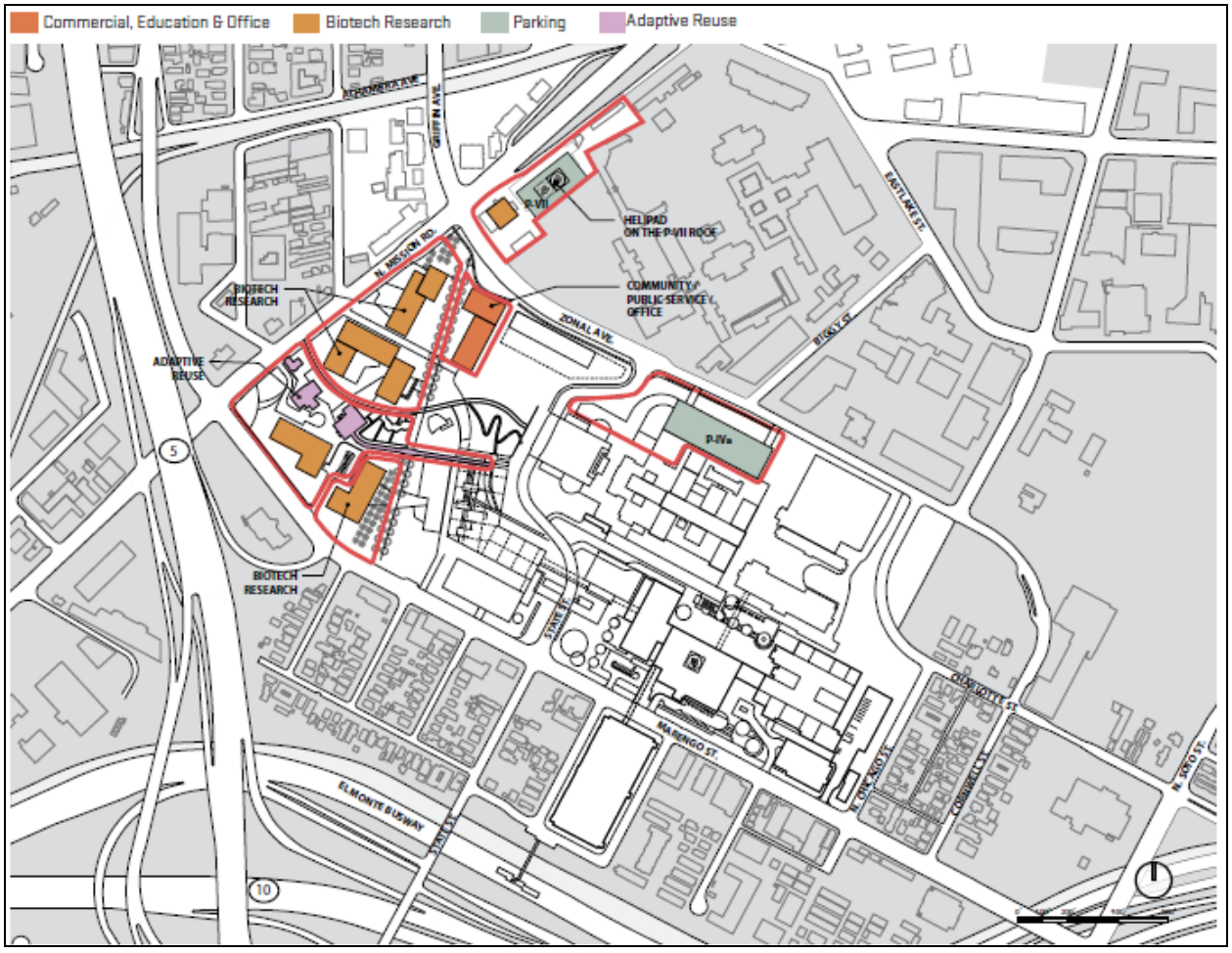
Alternative C identifies distinct development zones as part of the master plan that would be constructed individually, rather than developing elements of the master plan on multiple zones concurrently. While this alternative would include the same elements as the proposed master plan,

the elements would be constructed one zone at a time, but within the same 25-year period as the proposed project. By limiting construction activity to one development zone at a time, this alternative would reduce the potentially significant construction-related impacts of the master plan. The development zones are described below.

5.2.3.1 Main Campus West Development Zone

The Main Campus West Development Zone leverages the remaining under-utilized areas on the western portion of the main campus as a biotechnology research oriented development. Development in this zone would include the construction of the biotech research buildings proposed under the master plan east of Mission Road, In addition, community serving functions along the north-south community spine could be combined with new facilities for the College of Nursing and Allied Health, and some parking facilities. Figure 5-1 illustrates the limits of this development zone.

Figure 5-1: Main Campus West Development Zone

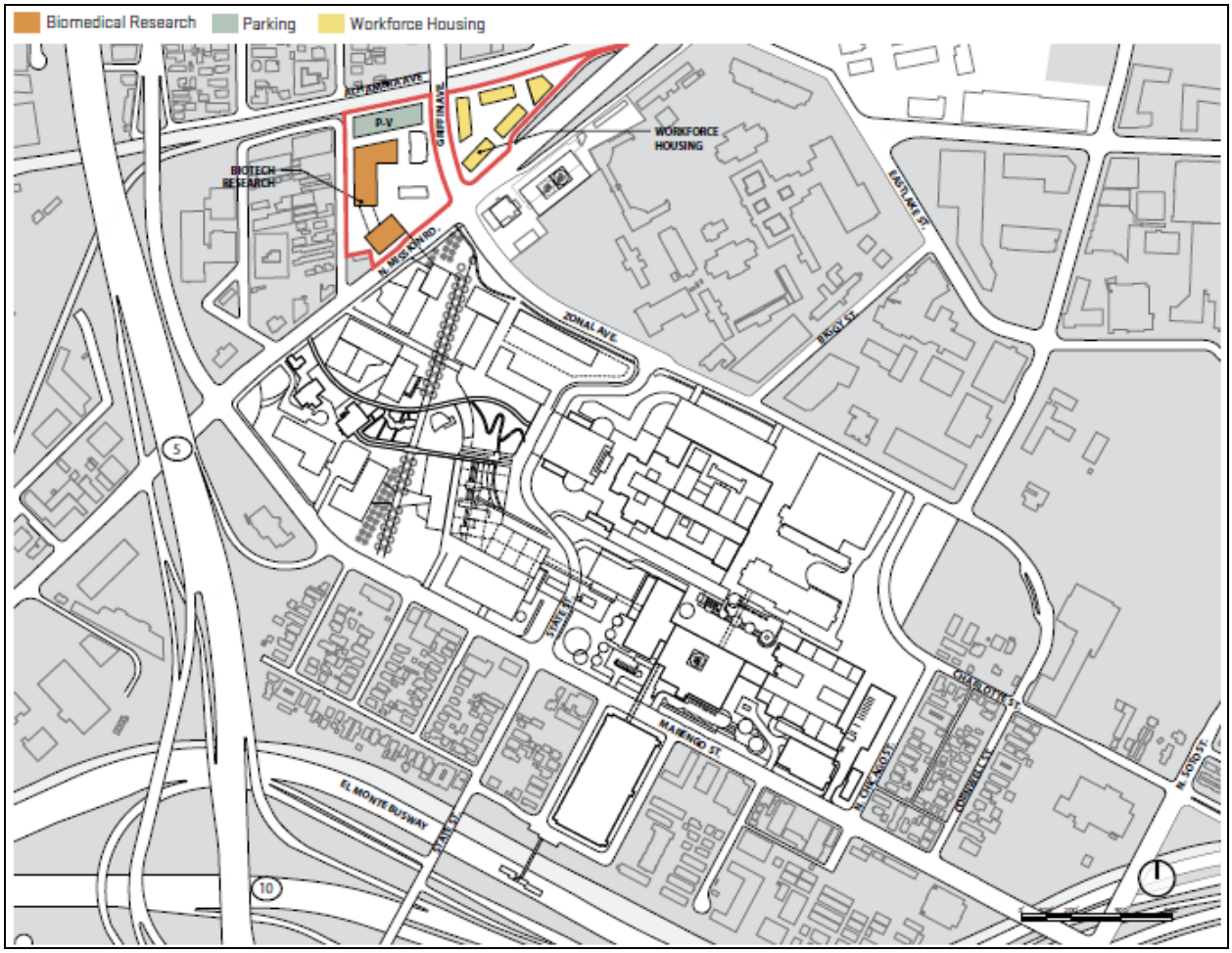


Source: LBL, Inc., 2014.

5.2.3.2 North of Mission Road Development Zone

The area to the north of Mission Road would include additional biotech research facilities, along with the potential for on-campus housing for members of the research and Medical Center community. Figure 5-2 shows the limits of construction for this development zone.

Figure 5-2: North of Mission Road Development Zone

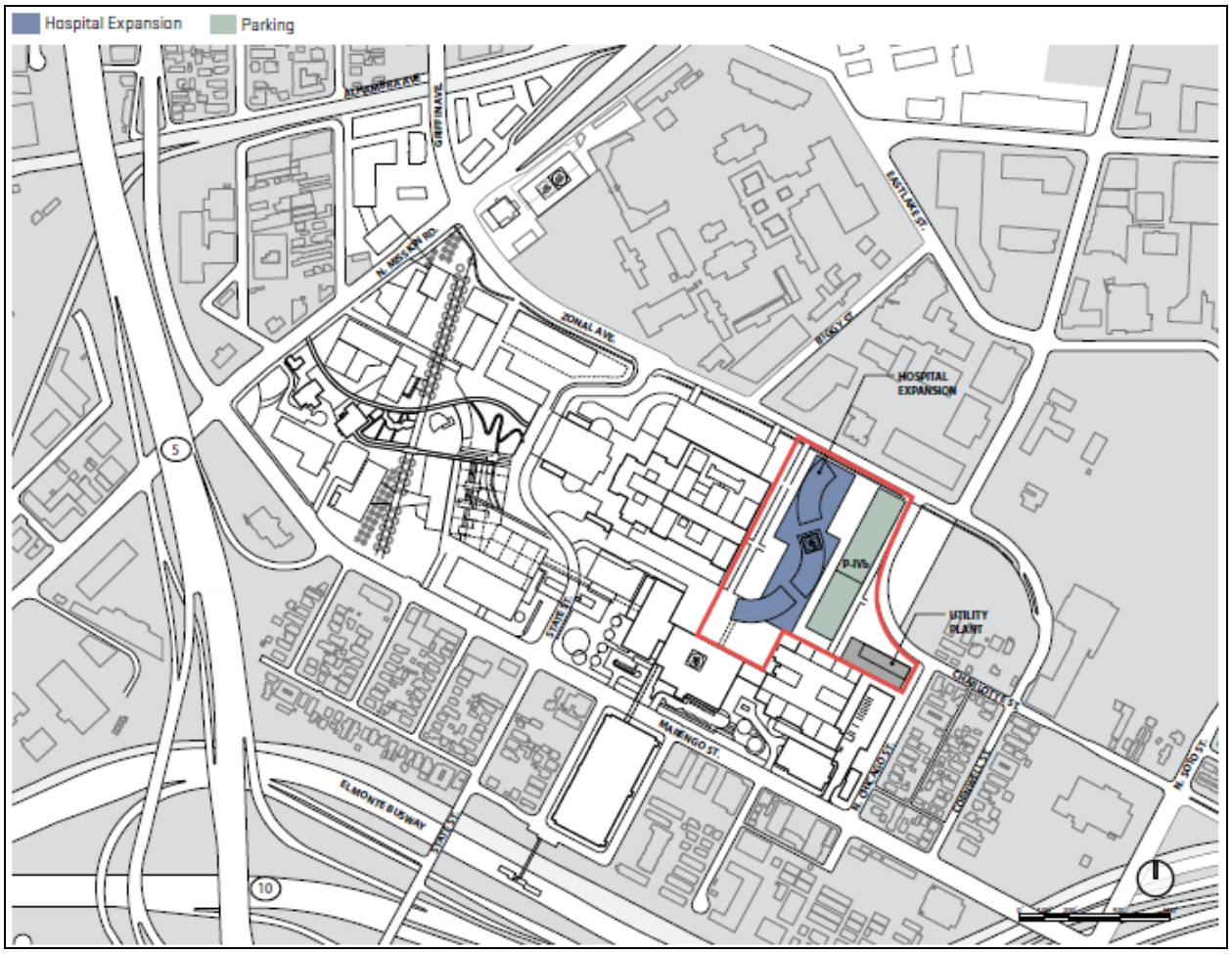


Source: LBL, Inc., 2014.

5.2.3.3 Future Inpatient Bed Expansion Development Zone

Figure 5-3 shows the area of the campus that is intended to be used for construction of future inpatient bed expansion. This general location represents the best and most logical expansion site for future hospital beds. By building new beds in this area, there is the potential for building connectivity to the existing Diagnostic & Treatment Building and possibly to the existing Inpatient Tower. Construction activities for this development zone would include the demolition of the existing Outpatients Building, Interns & Residents Building, and an existing parking structure, followed by construction of the hospital beds expansion, a new parking structure, and a utility plant to support the new development.

Figure 5-3: Future Inpatient Bed Expansion Development Zone



Source: LBL, Inc., 2014.

As discussed above, under Alternative C, construction activities would be limited to occur in each of the identified zones above, one at a time, so as to limit the effects of overlapping construction activities throughout the campus.

5.2.4 Alternatives Considered but Rejected As Infeasible

5.2.4.1 Full Adaptive Re-Use Alternative

This alternative would provide for most of the development under the proposed master plan, but would propose to adaptively re-use the existing vacant Women's and Children's Hospital, in the same way that Tower Hall and Phinney Hall are being re-used as part of the proposed master plan. A Seismic Performance Evaluation was conducted in 2006 for the Women's and Children's Hospital building (Saiful/Bouquet, 2006). The results of this evaluation recommended the building not be used for heavy storage, but that with some upgrades, the building could be used for office or laboratory space. This alternative would require the County to repair the building in accordance with the structural recommendations in the Saiful/Bouquet evaluation at an estimated cost of

approximately $18 million-$31.8 million.[1] Although this alternative would preserve the historic Women's and Children's Hospital building, it would leave less space for new parking, a new Central Utility Plant, and additional community open space proposed under the master plan. Furthermore, similar to the proposed project, this alternative would result in significant unavoidable impacts to air quality, transportation/traffic, greenhouse gas emissions, and noise and vibration.

Under this alternative, some of the objectives of the master plan would be met, such as the construction of 450 additional hospital beds, and the development of increased biotech research capabilities and facilities. In addition, this alternative would also provide improvements to wayfinding, and additional open space and community uses that would occur under the proposed master plan. However, retention of the Women's and Children's Hospital would preclude proposed access and circulation improvements that would link the northwest campus to the main part of the campus and would limit the effectiveness of the north-west pedestrian spine through the proposed pedestrian walk. Under this alternative, the northwestern part of the campus would not be directly connected to the central part of the campus and would require pedestrians navigate to entrances to the campus near the intersections of Zonal Avenue /State Street or Mission Road/Marengo Street in much the same way as now. Thus, opportunities to make this zone of the campus more accessible to pedestrians and bicyclists would not be achieved. Under this alternative the Bike Depot Pocket Park would not be constructed, nor would the underground parking structure proposed for the area at the eastern edge of the existing Women's and Children's Hospital. To meet the parking needs of the rehabilitated Women's and Children's Hospital building under this alternative, an expansion of parking at the existing Parking Lot 10 would have to occur, but would likely be mostly above ground, as this location does not feature the same topographic gradient that would allow the parking structure to be built into the grade in the space between the Women's and Children's Hospital and The Hill.

5.2.5 Initial Master Plan Options

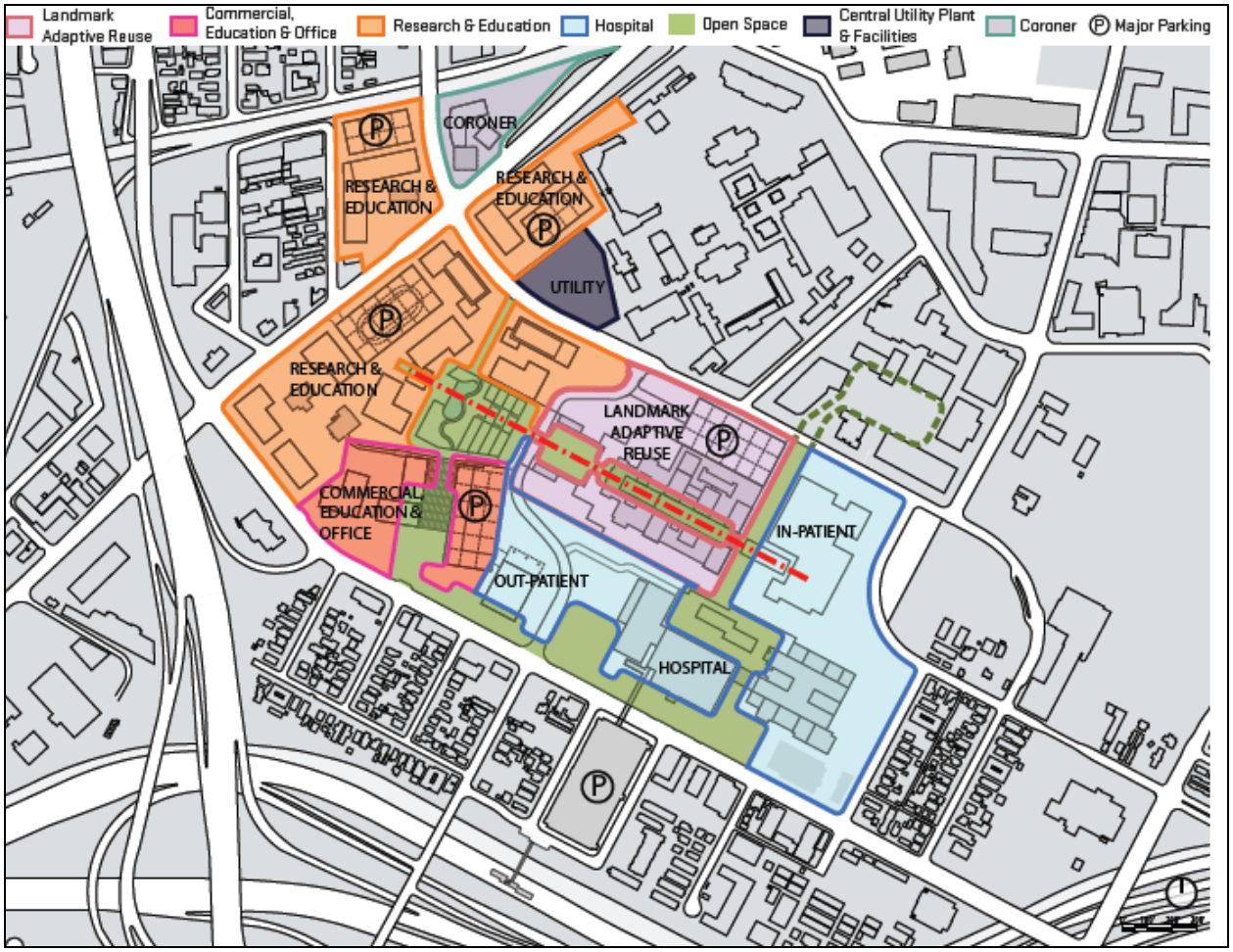
During the master plan planning process, four master plan options were developed based upon the master plan team's evaluation of the existing site, understanding of proposed program development, input from community residents and County stakeholders, and vision for the site. These four master plan options, which are described below, propose different solutions to the inherent challenges of the campus. The pros and cons of each of the master plan options below were taken into account, along with community and stakeholder input. As explained in Section 5.2.5.5, these initial planning options all informed a hybrid option, which is the proposed master plan as described in detail in Chapter 2 of this draft EIR.

[1] This range is a rough order-of-magnitude cost estimate, as provided in Saiful/Bouquet's 2006 *Seismic Performance Evaluation for the LAC+USC Women's & Children's Hospital* with $18 million reflecting the estimated cost for minimum recommended structural upgrades to prevent building collapse, and $31.8 million reflecting the estimated cost for 50-year design life structural upgrades for life safety. Costs are estimates of construction hard costs only (e.g. concrete work, foundation work, demolition, surface preparation, etc.) and do not reflect assumed escalations of 10% per annum to the mid-point of construction. Cost estimates do not include allowance for A/E design fees, project management fees, and other soft costs. Cost estimates do not include allowance for hazardous materials abatement, infrastructure upgrade, or interior renovation work. Cost estimate does not include allowance for design contingency, which can be estimated as an additional 20% of the total hard cost.

5.2.5.1 Path & Place

Path & Place would create a flexible framework for future development by linking a series of outdoor and indoor spaces, including General Hospital, the Wellness Center, the historic plaza, and the existing inpatient and outpatient programs. It would accentuate the strong axial relationship formed by General Hospital and its strong east-west visual impacts. This network of public spaces would allow easy navigation across the site's varied topography. Convenient parking would be integrated throughout the site and located adjacent to proposed functional building development. Like-functions would be grouped together. Where appropriate, open and landscaped areas are designated to preserve the desired open spaces (Figure 5-4).

Figure 5-4: Path & Place Zoning



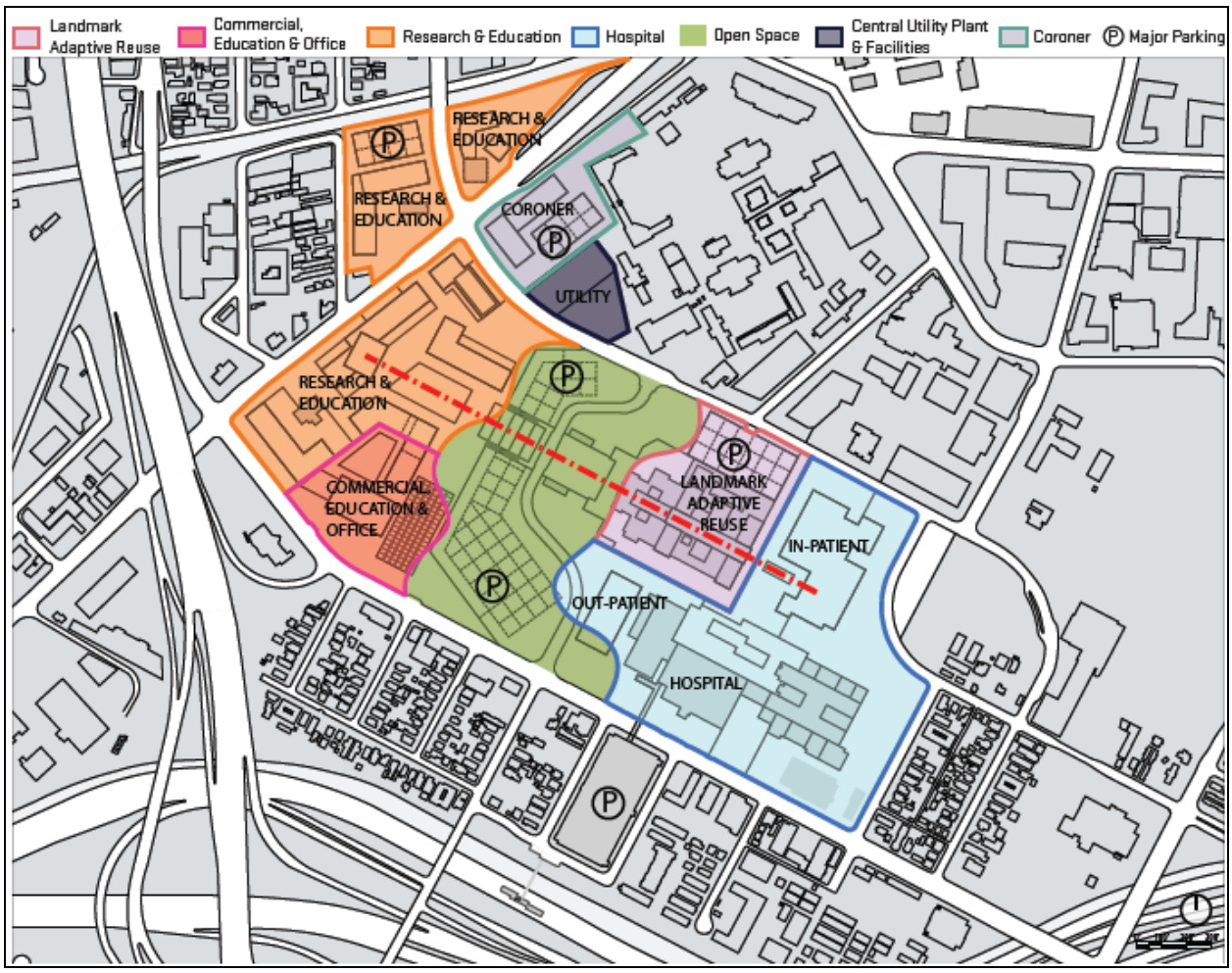
Source: LBL, Inc., 2014.

5.2.5.2 Central Green

The Central Green option would create a grand open space along State Street at the heart of the campus engaging General Hospital, the Wellness Center, the historic plaza, and the plaza area immediately in front of the Clinic Tower. The major open space would be at the heart of the site's most dramatic grade changes and would provide an opportunity to mitigate the elevation challenges

by integrating parking, hillside activities, and walkways to connect the two campuses. Central structural parking with terraces and roof gardens would be integrated into the hillside, and would help create improved access from the lower campus to the west to the main General Hospital Plaza area (Figure 5-5).

Figure 5-5: Central Green Zoning

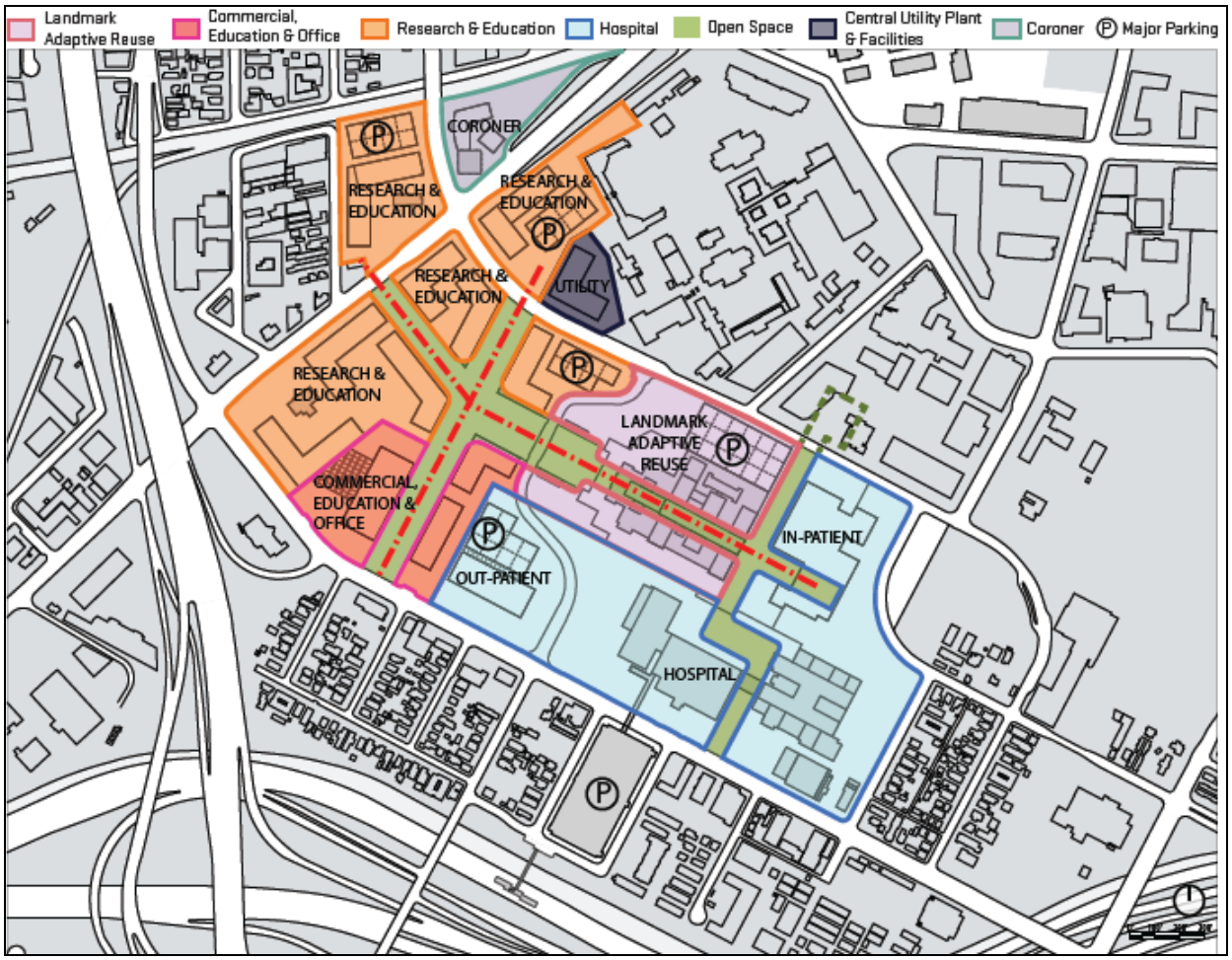


Source: LBL, Inc., 2014.

5.2.5.3 Urban Cross Axis

The Urban Cross Axis would create strong east-west and north-south connections through the site. It would reinforce the main existing axis through General Hospital, the Wellness Center, the historic plaza, and the current pedestrian corridors adjacent to the Replacement Hospital. It would begin to create a concept of "streets," albeit pedestrian and visual streets to complement the existing State Street. In doing so, it attempts to provide visual and possibly functional connections from the site to adjacent neighborhoods. In this option, convenient parking is also planned to be distributed throughout the campus (Figure 5-6).

Figure 5-6: Urban Cross Axis Zoning

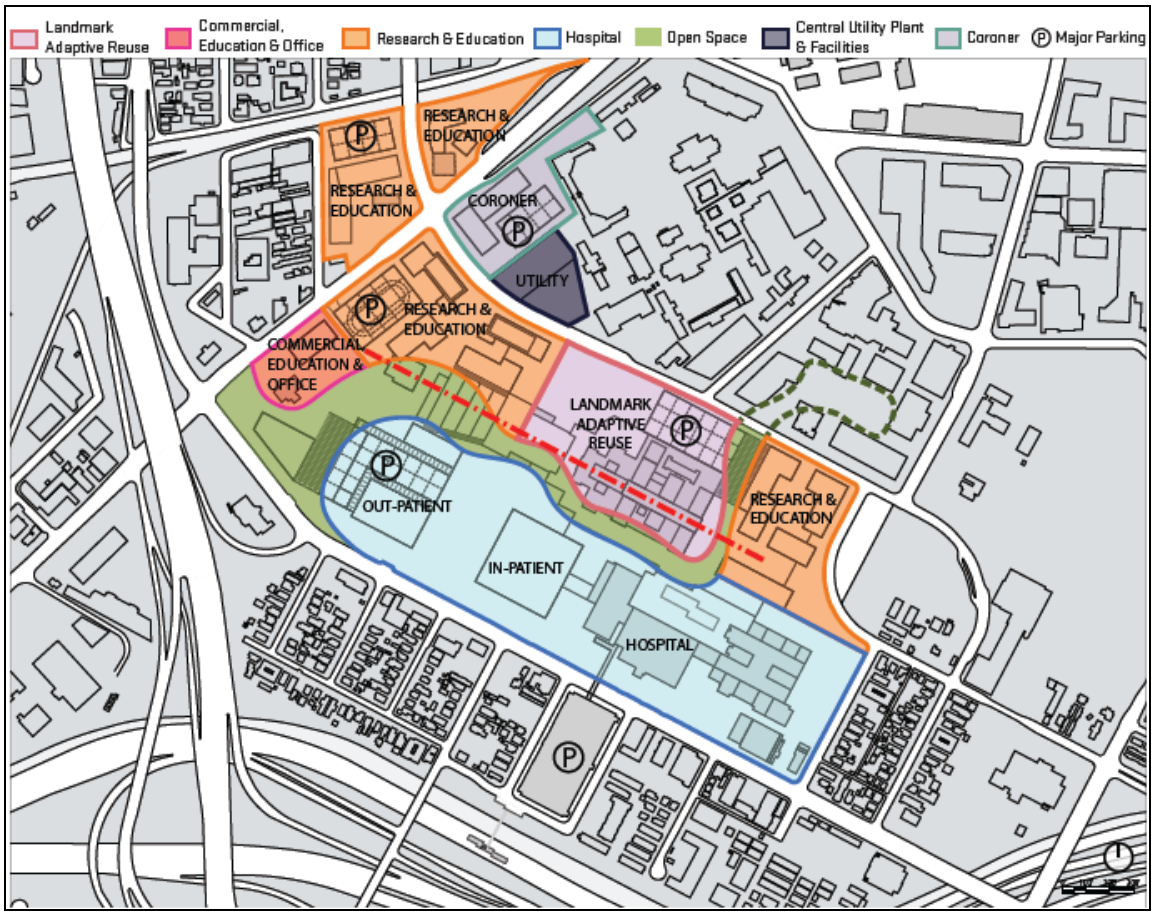


Source: LBL, Inc., 2014.

5.2.5.4 Green Ribbon

The Green Ribbon master plan option would create a series of organic open spaces that begin at the corner of North Mission Road and Marengo Street, moves east around General Hospital and the Wellness Center, and eventually integrates with the Tranquility Court and connects north to the USC campus. In this option, State Street would be deactivated for vehicular circulation and parking areas would be assigned to the campus perimeter. Unlike the previous master plan options, a major healthcare zone would be established along Marengo Street. This effectively would create an entire "medical care presence" along Marengo Street. Biotechnology and research functions would also be bifurcated in this scheme. Parking options would be distributed throughout the site and located adjacent to functions that would generate parking demands (Figure 5-7).

Figure 5-7: Green Ribbon Zoning



Source: LBL, Inc., 2014.

5.2.5.5 Summary

These options were presented for discussion and review at the master plan community outreach meeting held at the Medical Center in January, 2012. Each option was presented to the attendees at that meeting, and specific discussion was focused for each option. Community residents provided their critical comments and views for each of the options, and their ideas and comments were recorded. The objective of obtaining community input was to better understand their expectations and to identify what they viewed as strengths and weaknesses of each alternative.

Similarly, in subsequent meetings with the Project Steering Committee, the public comments and attitudes were shared and additional input was received from members of the committee. This information was then used by the master plan team to refine the options into what is now the proposed master plan that is described in Chapter 2 and evaluated in Chapter 3 of this EIR.

5.3 Evaluation of CEQA Alternatives

The impacts of each of the alternatives are briefly described below and are compared to the impacts of the proposed LAC+USC Medical Center Campus Master Plan. The analysis includes a discussion of a No Project Alternative as required under Section 15126(e)(1) of the State CEQA Guidelines so that decision-makers can compare the impacts of approving the proposed master plan with the impacts of not approving the proposed master plan. Other than the No Project Alternative, each of these alternatives would meet most of the master plan objectives described in Chapter 2, but only the proposed master plan meets them all. In addition, any alternatives that would result in less-than-significant impacts with mitigation that are similar to the proposed project, would be required to comply with the same mitigation measures as would be implemented for the proposed master plan.

5.3.1 Alternative A – No Project Alternative

Since no master plan development would occur under this alternative, none of the unavoidable significant adverse master plan impacts to aesthetics, air quality, cultural resources, transportation/traffic, greenhouse gas emissions, or noise and vibration would occur. However, as described in the Building & Site Assessment Report prepared as part of the master plan process, existing utility infrastructure on the campus is in poor condition and needed upgrades or replacement (LBL Inc., 2013) would not occur under the No Project Alternative. In addition, the proposed improvements to hydrologic conditions through water quality BMPs and increased pervious surface area would not occur under the No Project Alternative. The addition of open spaces throughout the campus would also not be built under this alternative and other benefits to the community would not occur. None of the master plan objectives would be met with this alternative.

5.3.2 Alternative B – Reduced Development Alternative

5.3.2.1 Aesthetics

Under this alternative, changes to the existing visual and aesthetic environment of the campus and surrounding area would be similar but slightly less than under the proposed master plan, because this alternative proposes less development than the proposed project.However, since this alternative would result in demolition of the Women's and Children's Hospital, a scenic resource due to its visually distinct architectural style, both this alternative and the proposed master plan would result in a unavoidable significant adverse visual impact.

5.3.2.2 Air Quality

Under this alternative, there would be less construction activity and fewer vehicle trips generated by new development that would contribute to vehicular emissions. Thus, this alternative would have less of an impact to air quality than the proposed project.

5.3.2.3 Biological Resources

Under this alternative, there would be less construction activity and consequently it could result in the potential removal of fewer trees and less vegetation used by migratory birds. Therefore, this alternative would have less of an impact to biological resources, than the proposed project.

5.3.2.4 Cultural Resources

Under this alternative, impacts to historic architectural resources would be similar as the proposed project, as this alternative still would have a significant unavoidable impact, due to the demolition of the existing Women's and Children's Hospital. However, this alternative would result in less ground disturbance on the western portion of the campus, and thus, would have less of a potential to affect buried archaeological or paleontological resources on parcels on either side of Mission Road and where the existing OPD and Interns and Residents buildings are now located.

5.3.2.5 Geology/Soils

Under this alternative, there would be less soil disturbance and excavation required in the western part of campus and where the OPD and Interns and Residents buildings are now located. Therefore, there would be slightly less potential for impacts to geology/soils, than under the proposed project.

5.3.2.6 Greenhouse Gas Emissions

Under this alternative, there would be less construction activity and fewer trips generated by new development that would contribute to vehicular emissions. Thus, this alternative would have less of an impact to greenhouse gas emissions than the proposed project.

5.3.2.7 Hazards and Hazardous Materials

Under this alternative, there would be less building demolition and excavation in areas with potential hazards and hazardous materials. Therefore, this alternative would have less of an impact with regard to hazards and hazardous materials than the proposed project.

5.3.2.8 Hydrology and Water Quality

Under this alternative, the main hydrologic and water filtration improvement features of the campus would still be built. Therefore, impacts to hydrology and water quality under this alternative would be similar to those of the proposed project.

5.3.2.9 Land Use/Planning

Under this alternative, the impacts to land use/planning would be similar to those under the proposed project since there would be no change to land use designations.

5.3.2.10 Noise

Under this alternative, construction activities for only one new inpatient tower would occur, and therefore this alternative would result in less noise impacts on the existing patients and visitors of the new replacement hospital than would occur due to the proposed project.

5.3.2.11 Population/Housing

Under this alternative, the potential development of workforce housing could still occur, although there is less development anticipated overall for the western portion of the campus under this alternative, accordingly, Alternative B would result in less of an impact to population /housing than the proposed project.

5.3.2.12 Public Services

Under this alternative, there would be less development occurring overall on the campus, and as a consequence, there would be less demand for public services than under the proposed project.

5.3.2.13 Recreation

Under this alternative, less development would result in fewer employees; therefore, the increased demand for recreational facilities generated by new employees, though minor, would be less than the proposed project. However, most of the open space and recreational opportunities included in the proposed project would also be built under this alternative. Therefore, the potential significant impacts that could occur during construction n of the landscaped open space areas on the campus would be similar to the proposed project.

5.3.2.14 Transportation/Traffic

The reduced level of development under this alternative would reduce overall trip generation compared to the proposed master plan and would be expected to avoid the Existing Plus Project impact at State Street & Cesar E. Chavez Boulevard (Study Intersection 9) and the cumulative impact identified for the project at one study intersection – Soto & Charlotte/I-10 Ramps (Study Intersection #20). Therefore, it's expected that the demands on and potential impacts to the existing transportation system would be less than under the proposed project.

5.3.2.15 Utilities and Service Systems

Under this alternative, there would be less development on the campus, and thus less demand for utility services. Therefore, it can be assumed that this alternative's potential for impacts would be less than that of the proposed project with regard to demand for utility services.

5.3.2.16 Project Objectives Met

Under this alternative, four of the six objectives of the master plan would be met, such as increased open space, community space, parking, and improvements to wayfinding and circulation. However, this alternative would include the addition of less inpatient beds and less development of biotech research capabilities and facilities.

5.3.3 Alternative C – Individual Development Zone Construction Alternative

5.3.3.1 Aesthetics

Under this alternative, changes to the existing visual and aesthetic environment of the campus and surrounding area would be similar to those under the proposed master plan. During construction, impacts may be less than could occur under the master plan because less of the campus would be under construction at any one time.

Since this alternative would result in demolition of the Women's and Children's Hospital, a scenic resource due to its visually distinct architectural style, both this alternative and the proposed master plan would result in a unavoidable significant adverse visual impact.

5.3.3.2 Air Quality

Under this alternative, there would be less construction activity and fewer construction vehicle trips generated at any one time by new development that would contribute to vehicular emissions. This is because construction would be limited to specified zones and occur in only one zone at a time. Thus, this alternative would have less of an impact to air quality during construction than the proposed project, though similar impacts during operation of the master plan.

5.3.3.3 Biological Resources

Under this alternative, the potential for removal of vegetation and trees supporting migratory birds would be similar to the proposed project; however this alternative may result in the removal of fewer trees at any one time, since construction would be restricted to distinct zones of development, thereby removing fewer potential nesting sites for birds at any one time during construction.Therefore, this alternative may have slightly less of an impact to biological resources.

5.3.3.4 Cultural Resources

Under this alternative, impacts to historic architectural resources would be similar to the proposed project, as both this alternative and the proposed master plan would result in a significant unavoidable impact due to the demolition of the existing Women's and Children's Hospital. In addition, this alternative would result in the same amount of potential ground disturbance as the proposed project and potential impacts to archaeological resources as would occur under the proposed master plan.

5.3.3.5 Geology/Soils

Under this alternative, the amount of soil excavation and ground disturbance that would occur would be similar to the proposed project. Therefore, this alternative has the same potential for impacts to geology/soils as the proposed project.

5.3.3.6 Greenhouse Gas Emissions

Under this alternative, there would be less construction activity and fewer construction vehicle trips generated at any one time by new development that would contribute to vehicular emissions. This is because construction would be limited to specified zones and occur in only one zone at a time. However, the total amount of construction GHG emissions over time would be similar to the amount that could occur under the proposed master plan. GHG emissions during operation would be similar to the emissions that could occur under the proposed master plan.

5.3.3.7 Hazards and Hazardous Materials

The potential for hazardous materials impacts throughout the campus under this alternative would be similar to the impacts of the proposed project, with the potential for less release of hazardous materials to occur at a given time.

5.3.3.8 Hydrology and Water Quality

Under this alternative, the main hydrologic and water filtration improvement features of the campus would still be built. Therefore, impacts to hydrology and water quality under this alternative would be similar to those of the proposed project.

5.3.3.9 Land Use/Planning

Under this alternative, the impacts to land use/planning would be similar to those under the proposed project since there would be no change to land use designations.

5.3.3.10 Noise

Under this alternative, the potential for noise impacts during construction would not be similar to those of the proposed project, since construction activities would be limited to only one of the three identified major development zones at a given time, rather than construction occurring concurrently at multiple locations throughout the campus. Therefore, this alternative would have less of a noise impact during construction. However, the potential for operational noise impacts would be similar to those that would occur under the proposed project, since operational conditions under this alternative would be the same as those of the proposed project.

5.3.3.11 Population/Housing

Since this alternative would result in the same level of development that would occur under the proposed master plan, the resulting population and housing impacts would also be the similar to the proposed project.

5.3.3.12 Public Services

This alternative would result in a demand for public services similar to what would occur under the proposed project; therefore, the resulting public services impacts would also be similar to those of the proposed project.

5.3.3.13 Recreation

Under this alternative, the development of recreational and open space opportunities would be built; similar to the proposed project, and therefore, Alternative C would also have a significant impact due to construction of these open space/recreational areas.

5.3.3.14 Transportation/Traffic

Under this alternative, the amount of construction activity and vehicle trips generated by planned development would be similar to the proposed project. However, construction activities under Alternative C would be restricted to one of three major development zones at a given time, rather than concurrently throughout the campus as could conceivably occur under the proposed master plan. Therefore, traffic impacts under this alternative would be less, during construction, than could occur under the proposed master plan, but similar to during operation.

5.3.3.15 Utilities and Service Systems

Under this alternative, the demand for utility services would be similar to what would occur under the proposed project; therefore, this alternative would also result in a significant unavoidable impact to utility infrastructure.

5.3.4 Project Objectives Met

Under this alternative, all six of the project objectives are met, similar to the proposed project. The advantage of this alternative is that it would reduce impacts to air quality, greenhouse gas emissions, traffic, and noise during construction, as it would restrict construction activity to only one development zone at a time, rather than concurrent construction throughout the campus. However, this alternative would not reduce the potential for impacts during operations due to increased traffic and noise, nor to aesthetics and cultural resources due to the demolition of Women's and Children's Hospital. Construction activities, and thus construction impacts would be less intense than if construction occurred concurrently at multiple sites and zones as could conceivably occur under the proposed master plan. However, limiting construction to only one zone of the campus at a time may potentially result in construction occurring over a longer period of time within the 25-year timeframe of the master plan,

5.3.5 Comparison of CEQA Alternatives

Table 5-1 summarizes the environmental advantages and disadvantages of the three alternatives analyzed above in comparison to the proposed master plan.

Table 5-1. Comparison of Impacts of the Alternatives to the Proposed Project

Environmental Topic	Proposed Project	Alternative A – No Project	Alternative B – Reduced Development Alternative	Alternative C – Individual Development Zone Construction Alternative
Aesthetics	Significant and Unavoidable Impact	Environmentally Superior	Environmentally Neutral	Environmentally Neutral
Air Quality	Significant and Unavoidable Impact	Environmentally Superior	Environmentally Superior	Environmentally Superior
Biological Resources	Less than Significant Impact with Mitigation	Environmentally Superior	Environmentally Superior	Environmentally Superior during construction. Environmentally Neutral during operation.
Cultural Resources	Significant and Unavoidable Impact	Environmentally Superior	Environmentally Neutral for Historic Architectural Resources	Environmentally Neutral for Historic Architectural Resources

Environmental Topic	Proposed Project	Alternative A – No Project	Alternative B – Reduced Development Alternative	Alternative C – Individual Development Zone Construction Alternative
			Environmentally Superior for Archaeological & Paleontological Resources	Environmentally Neutral for Archaeological & Paleontological Resources
Geology/Soils	Less than Significant Impact with Mitigation	Environmentally Superior	Environmentally Superior	Environmentally Neutral
Greenhouse Gas Emissions	Significant and Unavoidable Impact	Environmentally Superior	Environmentally Superior	Environmentally Neutral
Hazards and Hazardous Materials	Less than Significant Impact with Mitigation	Environmentally Superior	Environmentally Superior	Environmentally Neutral
Hydrology and Water Quality	Less than Signficant with Mitigation	Environmentally Inferior	Environmentally Neutral	Environmentally Neutral
Land Use/Planning	Less than Significant	Environmentally Superior	Environmentally Neutral	Environmentally Neutral
Noise	Significant and Unavoidable Impact	Environmentally Superior	Environmentally Superior	Environmentally Superior during construction of the master plan. Environmentally Neutral during operation of the master plan.

Environmental Topic	Proposed Project	Alternative A – No Project	Alternative B – Reduced Development Alternative	Alternative C – Individual Development Zone Construction Alternative
Population/Housing	Less than Significant	Environmentally Superior	Environmentally Superior	Environmentally Neutral
Public Services	Less than Significant with Mitigation	Environmentally Superior	Environmentally Superior	Environmentally Neutral
Recreation	Significant and Unavoidable Impact	Environmentally Inferior	Environmentally Neutral	Environmentally Neutral
Transportation/Traffic	Significant and Unavoidable Impact	Environmentally Superior	Environmentally Superior	Environmentally Superior during construction of the master plan. Environmentally Neutral during operation of the master plan.
Utilities and Service Systems	Significant and Unavoidable Impact	Environmentally Neutral	Environmentally Superior	Environmentally Neutral
Number of Project Objectives Met	6 of 6	None	4 of 6	6 of 6
Source: ICF International, 2014.				

5.4 Environmentally Superior Alternative

In compliance with CEQA, an EIR must identify an "environmentally superior" alternative. The No Project alternative would be the environmentally superior alternative because it would result in none of the adverse environmental impacts of the proposed master plan. However, it should also be recognized that there could be adverse health, community, and environmental consequences from making no improvements to the existing campus and none of the medical, employment, recreational, and other community benefits that could occur under the proposed master plan, would occur under the No Project Alternative.

Pursuant to CEQA regulations (see CEQA Guidelines Section 15126.6(e)(2)), when the No Project Alternative is identified as the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives. To determine which of the other alternatives would be environmentally superior, the analysis focused on those master plan impacts identified as significant and unavoidable. Alternative C would reduce the impacts during

construction to air quality, biological resources, noise, and traffic, as it would restrict construction activities to only one zone of development at a time. However, similar to the proposed project, Alternative C would result in significant unavoidable impacts to aesthetics (scenic resources), historical resources, transportation/traffic, greenhouse gas emissions, and noise and vibration during operation of the master plan. Under Alternative B, it's possible all impacts could be reduced to less than significant with proposed mitigation, with the exception of significant unavoidable impacts to aesthetic and historic resources due to the demolition of the Women's and Children's Hospital. Therefore, Alternative B is the project alternative that would result in the fewest environmental impacts, and would be the environmentally superior alternative. However, Alternative B would not meet all of the project objectives or provide all of the benefits that could occur under the proposed master plan or under Alternative C.

Chapter 6
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Chapter 7
References

Section 3.1 Aesthetics

California Department of Transportation. 2014. *Caltrans Landscape Architecture Scenic Highways Program*. Available: <http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm>. Accessed: June 2014.

City of Los Angeles Department of Recreation and Parks. 2014. *Descriptions of City Park Facilities*. Available: <http://www.laparks.org/dos/parks/Facility/hazardPk.htm>.

City of Los Angeles. 1999. *City of Los Angeles General Plan*, *Transportation Element.* Available: <http://www.lacity.org/cwd/gnlpln/trans-elt/TE/TEToC.htm>. Accessed: June 2014.

City of Los Angeles. 1999. *Northeast Los Angeles Community Plan*. Department of City Planning. June 15. Available: <http://cityplanning.lacity.org/complan/pdf/nlacptxt.pdf>.

City of Los Angeles. 2011. *Boyle Heights Mixed-Use Community Project EIR*. October.

City of Los Angeles. n.d. *Generalized Land Use, Northeast Los Angeles Map.* Available: <http://cityplanning.lacity.org/complan/central/pdf/genlumap.nla.pdf>. Accessed: May 19, 2014.

County of Los Angeles. 2012. *Los Angeles County Bicycle Master Plan*. Available: <http://dpw.lacounty.gov/pdd/bike/masterplan.cfm>. Accessed: June 2014.

Federal Highway Administration. 1981 (1983 reprint). *Visual Impact Assessment for Highway Projects.* Document DOT-FH-11-9694. Washington, D.C.: U.S. Department of Transportation. March.

Kimley-Horn and Associates. 2013. *LAC+USC Medical Center, 1744 Zonal Avenue, Los Angeles, Phase I Environmental Assessment*. Prepared for Los Angeles County Chief Executive Office and Lee, Burkhart, Liu, Inc. October.

U.S. Bureau of Land Management. 2006. *Visual Resource Management Manual 8410*. Available: <http://www.blm.gov/nstc/VRM/8410.html>. Accessed: April 2006.

Section 3.2 Air Quality

California Air Resources Board. 1998. Scientific Review Panel Findings on the Report: "Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant," as Adopted at the Panel's April 22, 1998, Meeting. Available: <http://www.arb.ca.gov/toxics/dieseltac/combined.pdf>.

California Air Resources Board. 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October. Sacramento, CA.

California Air Resources Board. 2010. California Air Toxics Program – Background. Last Reviewed: April 22, 2010. Available: <http://www.arb.ca.gov/toxics/background.htm>. Accessed: February 5, 2013.

California Air Resources Board. 2013a. Ambient Air Quality Standards. Available: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. June 4

California Air Resources Board. 2013b. Area Designations Maps. Available: <http://www.arb.ca.gov/regact/2013/area13/area13.htm>. Accessed: April 24, 2014.

California Air Resources Board. 2013c. Board Meeting Summary, Agenda No. 26. February 1. Available:<http://www.aqmd.gov/hb/attachments/2011-2015/2013Feb/2013-Feb1-026.pdf>.

California Air Resources Board. 2014. Top 4 Measurements and Days Above the Standard. Available: <http://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed: June 12, 2014.

Fehr & Peers. 2014. Draft Traffic Study for the LAC+USC Medical Center Master Plan Environmental Impact Report. July 16.

Garza, V. J., P. Graney, and D. Sperling. 1997. Transportation Project-Level Carbon Monoxide Protocol. Davis, CA. December.

National Oceanic and Atmospheric Administration. n.d. Climate of Los Angeles. Available: <http://www.wrh.noaa.gov/lox/climate/climate_intro.php>. Accessed: June 13, 2013.

South Coast Air Quality Management District. 1993. CEQA Air Quality Handbook. November.

South Coast Air Quality Management District. 2005. Final Draft – Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. March 18.

South Coast Air Quality Management District. 2006. Final Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds. October. Available: <http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html>.

South Coast Air Quality Management District. 2008a. Localized Significance Threshold Methodology for CEQA Evaluations.

South Coast Air Quality Management District. 2008b. Multiple Air Toxics Exposure Study III, Model Estimated Carcinogenic Risk. Available: <http://www3.aqmd.gov/webappl/matesiii/>.

South Coast Air Quality Management District. 2009. Final Localized Significance Threshold Methodology. October 21.

South Coast Air Quality Management District. 2011a. SCAQMD Rules and Regulations. Last Updated: June 9, 2011. Available: <http://www.aqmd.gov/rules/rulesreg.html>.

South Coast Air Quality Management District. 2011b. Meteorological Sites – Central Los Angeles. Available: <http://www.aqmd.gov/smog/metdata/AERMOD_Table1.html>.

South Coast Air Quality Management District. 2011c. SCAQMD Air Quality Significance Thresholds. March. Available: <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>.

South Coast Air Quality Management District. 2012a. December 7. Final 2012 Air Quality Management Plan. Available: <http://www.aqmd.gov/aqmp/2012aqmp/draft/index.html>.

South Coast Air Quality Management District. 2012b. Lead State Implementation Plan for Los Angeles County. May 4. Available: <http://aqmd.gov/aqmp/Lead_SIP/homepage.htm>.

South Coast Air Quality Management District. 2013. California Emissions Estimator Model (CalEEMod), Version 2013.2.2. Available: <www.caleemod.com>.

South Coast Air Quality Management District. 2014. 2013 Annual Report on AB 2588 Air Toxics Hot Spots Program. Available: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2014/2014-jul11-039.pdf?sfvrsn=2>. July 11.

U.S. Environmental Protection Agency. 2012. Ground-Level Ozone Basic Information. Last Updated: November 1, 2012. Available: <http://www.epa.gov/airquality/ozonepollution/basic.html>. Accessed: February 4, 2013.

U.S. Environmental Protection Agency. 2014a. Criteria Pollutant Area Summary Report. Available: <http://www.epa.gov/oaqps001/greenbk/ancl2.html>. Last Updated: July 2, 2014. Accessed: July 17, 2014.

U.S. Environmental Protection Agency. 2014b. Monitor Values Report. Available: <http://www.epa.gov/air/data/monvals.html>. Accessed: June 12, 2014.

Western Regional Climate Center. 2014. Monthly Climate Summary for Los Angeles Civic Center (045115). Available: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5115>. Accessed: July 21, 2014.

Section 3.3 Biological Resources

California Department of Fish and Wildlife. 2014. *California Natural Diversity Database*. Sacramento, CA: California Department of Fish and Wildlife, Wildlife and Habitat Data Analysis Branch. Data Date: May 14, 2014.

Section 3.4 Cultural Resources

Bean, L. J., and C. R. Smith. 1978. Gabrielino. In *Handbook of North American Indians*, Vol. 8, California, R. F. Heizer (ed.), pp. 538–549. Washington, D.C.: Smithsonian Institution.

Bureau of Land Management. 2007. *Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands.* Available: <http://www.blm.gov/wo/st/en/info/regulations/Instruction>.

Cogstone. 2014. *Paleontological Literature Search of the Los Angeles County and University of Southern California Medical Center Campus Master Plan, Los Angeles County, California.*

Dibblee, T. W., Jr. 1989. *The San Andreas Fault and Major Rock Terranes of California Displaced by It and Its Tectonics.* South Coast Geological Society, Inc. Guidebook Number 17, San Andreas Fault, Cajon Pass to Wallace Creek.

Dillon, B.D. 1994. Alameda District Plan, Los Angeles, California: Prehistoric and Early Historic Archaeological Research. Ms. on file, South Central Coastal Archaeological Information Center, Institute of Archaeology, University of California, Los Angeles. Gebhard, David, and Robert Winter. 1965. A Guide to Architecture in Southern California. The Los Angeles County Museum of Art.

Gebhard, David, and Robert Winter. 1994. *Los Angeles, An Architectural Guide*. Salt Lake City, UT: Gibbs Smith Publishers.

Hay. 1927. *Pleistocene of the Western Region of North America and its Vertebrated Animals.* Carnegie Institution of Washington Publication, 322B:1–345.

Jefferson. 1991a. *A Catalogue of Late Quaternary Vertebrates from California: Part One, Nonmarine Lower Vertebrate and Avian Taxa.* Natural History Museum of Los Angeles, Technical Report #5.

Jefferson. 1991b. *A Catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals*. Natural History Museum of Los Angeles, Technical Report #7.

Kroeber, Alfred. 1925. Handbook of the Indians of California. In *Bulletin 78, American Bureau of Ethnology.* NY: Dover Publications, Inc. Reprinted: 1976.

LACM Invertebrate Paleontology. 2014. Online records search. Department of Invertebrate Paleontology. June.

McLeod. 2014. *Vertebrate Paleontology Records Check for Paleontological Resources for the Proposed Los Angeles County+University of Southern California Medical Center Replacement Project.* Cogstone Project #2787, in the City of Los Angeles, Los Angeles County, California. Appendix B to Cogstone 2014 and on file with Cogstone, Orange CA.

Mellon & Associates. 1999. *National Register Eligibility and Findings of Effects Report, Los Angeles County+University of Southern California Medical Center Replacement Hospital.* February.

Miller. 1971. Pleistocene Vertebrates of the Los Angeles Basin and Vicinity (exclusive of Rancho la Brea). *Bulletin of the Los Angeles County Museum of Natural History #10*, 124 pp.

Moratto, Michael J. 1984. *California Archaeology*. Orlando, FL: Academic Press.

Newmark. 1916. *Sixty Years in Southern California*. New York: The Knickerbocker Press.

Paleobiology Database. 2014. Online records search. June.

Robinson, W. W. 1952. *The Indians of Los Angeles: Story of the Liquidation People*. Los Angeles, CA: Dawson's Books.

Yerkes, Robert F., Campbell, Russell H. 2005. *Preliminary Geologic Map of the Los Angeles 30' x 60' Quadrangle, Southern California.* Menlo Park, CA: U.S. Geological Survey.

Section 3.5 Geology/Soils

California Building Standards Commission. 2013. *California Building Standards Code*. Available: <http://www.bsc.ca.gov/codes.aspx>. Accessed: June 27, 2014.

California Department of Conservation, California Geological Survey. 2007. Fact Sheet, Seismic Hazards Zonation Program Survey. Available: <http://www.conservation.ca.gov/cgs/shzp/Documents/SHZ_FactSheet.pdf>. Accessed: July 31, 2014.

City of Los Angeles. 1996. *Safety Element of the Los Angeles City General Plan.* Available: <http://cityplanning.lacity.org/cwd/gnlpln/SaftyElt.pdf>. Accessed: June 27, 2014.

International Conference of Building Officials. 1994. *Uniform Building Code*. January 1.

Ninyo & Moore. 2014a. *Preliminary Geotechnical Evaluation for the LAC+USC Medical Center Master Plan Project.* June 13.

Section 3.6 Greenhouse Gas Emissions

California Air Pollution Control Officers Association. 2008. CEQA and Climate Change. January. Available: <www.capcoa.org>.

California Air Resources Board. 2008. Climate Change Scoping Plan. December. Available: <http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf>.

California Air Resources Board. 2011. Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document. August 19. Available: <http://www.arb.ca.gov/cc/scopingplan/document/final_supplement_to_sp_fed.pdf>. Released August 19, 2011, and considered at the August 24, 2011, board hearing.

California Air Resources Board. 2012. California Air Resources Board Quarterly Auction 1. Available: <http://www.arb.ca.gov/cc/capandtrade/auction/november_2012/auction1_results_2012q4nov.pdf>.

California Air Resources Board. 2014a. First Update to the AB 32 Scoping Plan. May 22. Available: <http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>.

California Air Resources Board. 2014b. California Greenhouse Gas Emissions Inventory: 2000–2010. February 19. Available: <http://www.arb.ca.gov/cc/inventory/data/data.htm>.

California Energy Commission. 2006. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004. December.

California Environmental Law Blog. 2014. U.S. Supreme Court Declines to Hear Dispute over California Low Carbon Fuel Standard. Posted: June 30, 2013. Available: <http://www.californiaenvironmentallawblog.com/ab-32/us-supreme-court-declines-to-hear-dispute-over-california-low-carbon-fuel-standard/>.

County of Los Angeles. 2014. Unincorporated Los Angeles County Community Climate Action Plan 2020 – Final Draft. June. Available: <http://planning.lacounty.gov/assets/upl/project/ccap_draft.pdf>.

Intergovernmental Panel on Climate Change. 2007. Changes in Atmospheric Constituents and in Radiative Forcing. In Climate Change 2007: The Physical Science Basis (Working Group I Fourth Assessment Report.) Available: <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter2.pdf>.

Intergovernmental Panel on Climate Change. 2013. Climate Change 2013: The Physical Science Basis. Available: <http://www.ipcc.ch/report/ar5/wg1/>.

Myhre, G., D. Shindell, F.-M. Bréon, W. Collins, J. Fuglestvedt, J. Huang, D. Koch, J.-F. Lamarque, D. Lee, B. Mendoza, T. Nakajima, A. Robock, G. Stephens, T. Takemura, and H. Zhang. 2013. Anthropogenic and Natural Radiative Forcing. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Stocker, T. F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex, and P. M. Midgley [eds.]). Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA, pp. 659–740.

National Oceanic and Atmospheric Administration. 2005. *Greenhouse Gases: Frequently Asked Questions*. Available: <http://lwf.ncdc.noaa.gov/oa/climate/gases.html>.

South Coast Air Quality Management District. 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold. October.

Southern California Association of Governments. 2008. Regional Comprehensive Plan and Guide. October 2. Available: <http://scag.ca.gov/rcp/index.htm>.

Southern California Association of Governments. 2012. 2012 Regional Transportation Plan/Sustainable Communities Strategy – Home. April 4. Available: <http://www.scag.ca.gov/rtp2012/index.htm>.

Sutley, Nancy. 2010. Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions. Memorandum for heads of federal departments and agencies. February 18.

U.S. Environmental Protection Agency. 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. August. Available: <http://www.epa.gov/otaq/climate/documents/420f12051.pdf>.

U.S. Environmental Protection Agency. 2014. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2012. April 15. Available: <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>.

Section 3.7 Hazards and Hazardous Materials

Ninyo & Moore. 2014b. *Draft Hazardous Materials Assessment, LAC+USC Medical Center.* June 12.

Section 3.8 Hydrology and Water Quality

County of Los Angeles. 2014c. *Low-Impact Development Standards Manual.* Department of Public Works. February.

Kimley Horn & Associates, Inc. 2013. *Phase I Environmental Site Assessment for 1744 Zonal Avenue.* October.

Los Angeles Regional Water Quality Control Board. 1994 (amended 2007, 2010). *Water Quality Control Plan, Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.*

Watearth, 2014b. *Memorandum of Hydrology Modeling Results for LAC+USC Medical Center EIR.* July 15.

Watearth. 2014a. *Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR.* July 24.

Section 3.9 Land Use/Planning

City of Los Angeles. 2003. *City of Los Angeles General Plan Framework Element*. Available: <http://cityplanning.lacity.org/Cwd/Framwk/chapters/03/F31MtoMp.pdf>. Accessed: May 25, 2014.

City of Los Angeles. 2014 *Generalized Land Use, Northeast Los Angeles Map.* Available: <http://cityplanning.lacity.org/complan/central/pdf/genlumap.nla.pdf>. Accessed: May 19, 2014.

City of Los Angeles. n.d. *City of Los Angeles General Plan.* Department of City Planning. Available: <http://cityplanning.lacity.org/>. Accessed: May 19, 2014.

City of Los Angeles. n.d. *ZIMAS*. Available: <http://zimas.lacity.org/>. Accessed: May 19, 2014.

Los Angeles County Metropolitan Transportation Authority. n.d. *Congestion Management Program, Background.* Available: <http://www.metro.net/projects/congestion_mgmt_pgm/>. Accessed: May 19, 2014.

Southern California Association of Governments. 2012a. *2012 Regional Transportation Plan/Sustainable Communities Strategy.* Available: <http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf>. Accessed: May 19, 2014.

Section 3.10 Noise

California Department of Transportation. 2012. *Traffic Counts*. Traffic volume and truck mix spreadsheets (*2012AADT.xlsx* and *2012Truck.xlsx*). Available: <http://traffic-counts.dot.ca.gov/>. Accessed: August 5, 2014.

California Department of Transportation. 2013. *Transportation and Construction Vibration Guidance Manual*. Final. CT-HWANP-RT-13-069.25.3. September. Sacramento, CA.

Caltrans. 1998. *Technical Noise Supplement*. October. Sacramento, CA: Environmental Program, Noise, Air Quality, and Hazardous Waste Management Office. Available: <http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf>. Accessed: July 19, 2014.

City of Los Angeles. 2006. *L.A. CEQA Thresholds Guide.*

City of Los Angeles. 2013. *City of Los Angeles Municipal Code Chapter XI, Section 111.03*. Available: <http://www.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc>.

County of Riverside. 2012. *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures*. Department of Environmental Health, Office of Industrial Hygiene. July 2. Riverside, CA. Prepared by Steven Hinde, REHS, CIH, Senior Industrial Hygienist.

Federal Highway Administration. 2004. *FHWA Traffic Noise Model.* Version 2.5. Look-Up Tables User's Guide. Final. FHWA-HEP-05-008/DOT-VNTSC-FHWA-0406. December. Washington, D.C.: U.S. Department of Transportation, Research and Special Programs Administration. John A. Volpe National Transportation Systems Center Acoustics Facility. Cambridge, MA.

Federal Highway Administration. 2008. *FHWA Roadway Construction Noise Model.* Version 1.1. December 8.

Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. Final. FTA-VA-90-1003-06. May. Washington, D.C.: U.S. Department of Transportation. Prepared by Harris Miller Miller & Hanson, Inc. Burlington, MA.

State of California. 2003. *General Plan Guidelines.*

Section 3.11 Population/Housing

Association of Environmental Professionals. 2014. *2014 California Environmental Quality Act Statute and Guidelines.* Palm Desert, CA. January 1. Available: <http://resources.ca.gov/ceqa/docs/2014_CEQA_Statutes_and_Guidelines.pdf>.

City of Los Angeles. 1999. *Northeast Los Angeles Community Plan*. Department of City Planning. June 15. Available: <http://cityplanning.lacity.org/complan/pdf/nlacptxt.pdf>.

City of Los Angeles. 2002b. *City of Los Angeles General Plan: Housing Element*. Department of City Planning. February 27. Available: <http://planning.lacity.org/cwd/gnlpln/index.htm>.

City of Los Angeles. 2005. *Draft Environmental Impact Report: USC Health Sciences Campus Project.* Department of City Plannning. May 1. Available: <http://clkrep.lacity.org/onlinedocs/2014/14-0267_misc_h_02-27-2014.pdf>.

County of Los Angeles. 2014a. *Los Angeles County General Plan 2035*. Department of Regional Planning. January 1. Available: <http://planning.lacounty.gov/generalplan/draft2014>.

County of Los Angeles. 2014b. LAC+USC Medical Center (website home page). Department of Health Services. July 17. Available: <http://dhs.lacounty.gov/wps/portal/dhs/lacusc/>.

Southern California Association of Governments. 2009. *2008 Regional Comprehensive Plan: Land Use and Housing.* Los Angeles, CA. February 9. Available: <http://www.scag.ca.gov/NewsAndMedia/Pages/RegionalComprehensivePlan.aspx>.

Southern California Association of Governments. 2012b. *2012 Growth Forecast.* Los Angeles, CA. July 18. Available: <http://www.scag.ca.gov/DataAndTools/Pages/GrowthForecasting.aspx>.

U.S. Census Bureau. 2011. *2010 Census Summary File 1.* Washington, D.C. June 16. Available: <http://www.census.gov/population/www/cen2010/glance/>.

Section 3.12 Public Services

California Building Standards Commission. 2014. *California State Fire Code*. Sacramento, CA. Available: <https://law.resource.org/pub/us/code/bsc.ca.gov/gov.ca.bsc.2013.09.pdf>. Accessed: July 10, 2014.

California Department of Parks and Recreation. 2014. *Los Angeles State Historic Park.* Sacramento, CA. Available: <http://www.parks.ca.gov/?page_id=22272>. Accessed: July 1, 2014.

City of Los Angeles Department of City Planning. 1999. *Northeast Los Angeles Community Plan*. June 15. Available: <http://cityplanning.lacity.org/complan/pdf/nlacptxt.pdf>. Accessed: July 9, 2014.

City of Los Angeles Department of City Planning. 2002a. *City of Los Angeles General Plan: Fire Protection and Prevention Plan.* February 27. Available: <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>. Accessed: July 9, 2014.

City of Los Angeles Department of City Planning. 2002b. *City of Los Angeles General Plan: Housing Element.* February 27. Available: <http://planning.lacity.org/cwd/gnlpln/index.htm>. Accessed: July 9, 2014.

City of Los Angeles Department of City Planning. 2002c. *City of Los Angeles General Plan: Public Recreation Plan.* February 27. Available: <http://cityplanning.lacity.org/Code_Studies/GeneralElement/PublicRecreationPlan.pdf>. Accessed: July 9, 2014.

City of Los Angeles Department of City Planning. 2002d. *City of Los Angeles General Plan: Safety Element.* February 27. Available: <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>. Accessed: July 9, 2014.

City of Los Angeles Department of Recreation and Parks. 2014a. *Park Sites*. Available: <http://www.laparks.org/dos/parks/parks.htm>. Accessed: July 1, 2014.

City of Los Angeles Department of Recreation and Parks. 2014b. *Recreation Centers*. Available: <http://www.laparks.org/dos/reccenter/reccenter.htm>. Accessed: July 1, 2014.

City of Los Angeles Office of the Controller. 2012. *Analysis of the Los Angeles Fire Department's Response Times.* May 18. Available: <http://controller.lacity.org/stellent/groups/electedofficials/@ctr_contributor/documents/contributor_web_content/lacityp_020450.pdf>. Accessed: July 14, 2014.

City of Los Angeles. 2014. *Los Angeles Municipal Code*. June 30. Available: <http://www.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc>. Accessed: July 10, 2014.

County of Los Angeles. 2014a. *Los Angeles County General Plan 2035.* Department of Regional Planning. Available: <http://planning.lacounty.gov/generalplan/draft2014>. Accessed: July 11, 2014.

County of Los Angeles. 2014b. *Los Angeles County General Plan 2035, Chapter 10: Parks and Recreation Element*. Department of Regional Planning. Available: <http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter10_2014.pdf>. Accessed: July 11, 2014.

County of Los Angeles. 2014c. *Los Angeles County General Plan 2035, Chapter 12: Safety Element*. Department of Regional Planning. Available: <http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter12_2014.pdf>. Accessed: July 11, 2014.

County of Los Angeles. 2014d. *Los Angeles County General Plan 2035, Chapter 13: Public Services and Facilities Element.* Department of Regional Planning. Available: <http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter13_2014.pdf>. Accessed: July 11, 2014.

Los Angeles County Office of Education. 2011. *Service Overview*. Available: <http://www.lacoe.edu/AboutLACOE.aspx>. Accessed: July 1, 2014.

Los Angeles County Sheriff's Department. 2014. Department home page. Available: <http://sheriff.lacounty.gov/wps/portal/lasd>. Accessed: July 14, 2014.

Los Angeles Fire Department. 2014a. *Department Overview*. Available: <http://www.lafd.com/administration/97-lafd-administration/320-department-overview>. Accessed: July1, 2014.

Los Angeles Fire Department. 2014b. *City of Los Angeles, Neighborhood Fire Stations*. Available: <http://lafd.org/fsloc.htm>. Accessed: July 2, 2014.

Los Angeles Police Department. 2014a. *About Hollenbeck*. Hollenbeck Community Police Station web page. Available: <http://www.lapdonline.org/hollenbeck_community_police_station/content_basic_view/1649>. Accessed: July 7, 2014.

Los Angeles Police Department. 2014b. *Community Police Station Address Directory*. Available: <http://www.lapdonline.org/inside_the_lapd/content_basic_view/6279>. Accessed: July 14, 2014.

Los Angeles Police Department. 2014c. *COMPSTAT, Hollenbeck Area Profile*. Hollenbeck Community Police Station web page. Available: <http://www.lapdonline.org/assets/pdf/hbkprof.pdf>. Accessed: July 21, 2014.

Los Angeles Police Department. 2014d. Department home page. Available: <http://www.lapdonline.org/>. Accessed: July 14, 2014.

Los Angeles Public Library. 2009. *Annual Report 2008–2009*. December 31. Available: <http://www.lfla.org/annual-report/index.php>. Accessed: July 1, 2014.

Los Angeles Public Library. 2014. *Locations and Hours*. Available: <http://www.lapl.org/branches/>. Accessed: July 1, 2014.

Los Angeles Unified School District. 2014. *District Information*. Available: <http://home.lausd.net/apps/pages/index.jsp?uREC_ID=178745&type=d&pREC_ID=371201>. Accessed: July1, 2014.

U.S. Department of Education. 2012. *Search for Public Schools.* Institute for Education Sciences, National Center for Education Statistics. Washington, D.C. December 31. Available: <http://nces.ed.gov/ccd/schoolsearch/>. Accessed: July 10, 2014.

Personal Communication

Fligiel, Phillip. Battalion Chief 1, Los Angeles Fire Department, Los Angeles, CA. July 9, 2014—personal communication.

Kennison, Martha. Staff sergeant, Los Angeles County Sheriff's Department, Los Angeles, CA. July 8, 2014—personal communication.

Section 3.13 Recreation

California Department of Parks and Recreation. 2013. *California State Parks Community Fact Finder*. Available: <http://www.parks.ca.gov/?page_id=26166>. Accessed: June 2, 2014.

City of Los Angeles Department of Recreation and Parks. 2014. *Who We Are.* Available: <http://www.laparks.org/dos/dept/who.htm>. Accessed: June 2, 2014.

City of Los Angeles. n.d. *City of Los Angeles Department of City Planning, General Plan.* Available: <http://cityplanning.lacity.org/>. Accessed: May 22, 2014.

Section 3.14 Transportation/Traffic

City of Los Angeles. 2012. *Traffic Study Policies and Procedures*. Department of Transportation. May.

City of Los Angeles. 2013. *Agreement between the City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures.*

County of Los Angeles Department of Public Works. 1997. *Traffic Impact Analysis Report Guidelines.* January 1.

County of Los Angeles. 1997. *Traffic Impact Analysis Report Guidelines.*

Crain & Associates. 2014. *Sears Building Adaptive Reuse Project Traffic Study – Memorandum of Understanding.*

Fehr & Peers. 2011. *Traffic Impact Study for the Boyle Heights Mixed-Use Project.*

Fehr & Peers. 2014. *Traffic Study for the LAC+USC Medical Center Master Plan Environmental Impact Report.*

Gibson Transportation Consulting. 2006. *Addendum to the Environmental Impact Report USC Health Sciences Campus Project – Traffic Assessment.*

Institute of Transportation Engineers. 2012. *Trip Generation*. Ninth edition.

Iteris, Inc. 2008. *Metro Union Division Bus Maintenance and Operations Facility Traffic Impact Analysis.*

Los Angeles County Metropolitan Transportation Authority. 2010. *Congestion Management Program.*

Overland Traffic Consultants. 2006. *1101 N. Main Street Traffic Impact Study.*

Overland Traffic Consultants. 2011. *Traffic Impact Analysis for a Proposed Commercial Building*.

Transportation Research Board. 1980. *Transportation Research Circular No. 212, Interim Materials on Highway Capacity.*

Transportation Research Board. 2010. *Highway Capacity Manual.*

Section 3.15 Utilities and Service Systems

Buttonwillow, Clean Harbors Buttonwillow, LLC. 2013. *Buttonwillow, California Facility Facts.* January. Available: <http://clark.cleanharbors.com/ttServerRoot/Download/12381_FINAL_Buttonwillow_CA_Facility_FS_030108.pdf>. Accessed: August 4, 2014.

California Department of Resources Recycling and Recovery. 2013. *Estimated Solid Waste Generation Rates.* January 14. Available: <http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Institution.htm>. Accessed: August 1, 2014.

California Energy Commission. 2010. *Transportation Energy Forecasts and Analyses for the 2009 Integrated Energy Policy Report*. May. Available: <http://www.energy.ca.gov/2010publications/CEC-600-2010-002/CEC-600-2010-002-SF.PDF>. Accessed: August 11, 2014.

California Environmental Protection Agency, State Water Resources Control Board. 2013. *Land Disposal Program. Sacramento.* February 25. Available: <http://www.waterboards.ca.gov/water_issues/programs/land_disposal/walist.shtml>. Accessed: August 4, 2014.

City of Los Angeles Department of City Planning. 2002. *City of Los Angeles General Plan, Conservation Element.* February 27. Available: <http://cityplanning.lacity.org/Code_Studies/GeneralElement/openspaceelement.pdf>. Accessed: June 23, 2014.

City of Los Angeles Department of City Planning. 2002. *City of Los Angeles General Plan, Housing Element.* February 27. Accessed on 6/23, 2014. Available: <http://planning.lacity.org/cwd/gnlpln/index.htm>. Accessed: June 23, 2014.

City of Los Angeles Department of City Planning. 2002. *City of Los Angeles General Plan, Open Space Element.* February 27. Available: <http://cityplanning.lacity.org/Code_Studies/GeneralElement/openspaceelement.pdf>. Accessed: June 23, 2014.

City of Los Angeles Department of Public Works, Bureau of Sanitation. 2006. *City of Los Angeles Solid Waste Management Policy Plan.* Available: <http://www.lacitysan.org/solid_resources/pdfs/rfp-swirp-appendix-b3.pdf>. Accessed: July 7, 2014.

City of Los Angeles Department of Public Works, Bureau of Sanitation. 2006. *City of Los Angeles Solid Waste Planning Background Studies Summary Report.* Available: <http://www.lacitysan.org/solid_resources/pdfs/rfp-swirp-appendix-b3.pdf>. Accessed: July 7, 2014.

City of Los Angeles Department of Public Works, Bureau of Sanitation, and Department of Water and Power. 2012. *City of Los Angeles Water Integrated Resources Plan*. June. Available: <http://www.lacitysan.org/irp/documents/FINAL_IRP_5_Year_Review_Document.pdf>. Accessed: July 14, 2014.

City of Los Angeles Department of Public Works. 2014. *Hyperion Sewer System Management Plan*. Available: <http://www.lasewers.org/ssmp/pdfs/SSMP_Hyperion.pdf>. Accessed: July 7, 2014.

City of Los Angeles. 2006. *Solid Waste Planning Background Studies Summary Report.*

City of Los Angeles. 2010. *California Green Building Standards Code, Los Angeles Green Building Code Ordinance No. 181480.* December 15. Available: <ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf>. Accessed: July 15, 2014.

County of Los Angeles Department of Public Works. 2012. *County of Los Angeles Countywide Integrated Waste Management Plan: 2011 Annual Report*. August 1. Alhambra, CA. Available: <http://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=391&hp=yes&type=PDF>. Accessed: July 10, 2014.

County of Los Angeles. 2002. *Los Angeles County General Plan 2035, Conservation and Natural Resources Element.*

Kettleman City Waste Management. 2014. *Kettleman Hills Facility Overview*. January. Available: <http://kettlemanhillslandfill.wm.com/fact-sheets/2011/facility-overview.jsp>. Accessed: August 4, 2014.

LBL, Inc. 2013. *LAC+USC Medical Center Building and Site Assessment Report*. November.

LBL, Inc. 2013. *LAC+USC Medical Center Master Plan Report*. October.

Los Angeles County Board of Supervisors. 2013. *California Green Building Standards Code (Title 31).* November. Available: <http://planning.lacounty.gov/green>. Accessed: August 28, 2014.

Los Angeles County Sanitation Districts. 2014. *Solid Waste Facilities, Whittier*. January. Available: <http://www.lacsd.org/solidwaste/swfacilities/default.asp>. Accessed: July 1, 2014.

Los Angeles Department of Water and Power. 2010. *Urban Water Management Plan.*

Los Angeles Department of Water and Power. 2012. *Integrated Resources Plan.*

Los Angeles Department of Water and Power. 2013. *Power, Los Angeles.* Available: <https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power?_adf.ctrl-state=13adufvw9n_21&_afrLoop=300969056464935>. Accessed: July 9, 2014.

Los Angeles Department of Water and Power. 2013. *Water, Los Angeles.* Available: <https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=13adufvw9n_21&_afrLoop=300942770833546>. Accessed: July 9, 2014.

Los Angeles Department of Water and Power. 2014. *Greater Los Angeles County Integrated Regional Water Management Plan*. Available: <http://www.ladpw.org/wmd/irwmp/index.cfm?fuseaction=TopDocListing&directory=RMC12-10Submittal-FinalPlan&ttl=2014 Public Draft IRWMP Update>. Accessed: July 7, 2014.

Luna & Glushon. 2009. *California Oil and Gas Report*. October. Available: <http://www.caloilgas.com/state-energy-resources/>. Accessed: August 11, 2014.

San Francisco Water Power Sewer. 2013. *Wastewater Service Charge Appeal.* San Francisco Public Utilities Commission web page. Available: <http://www.sfwater.org/index.aspx?page=132>. Accessed: August 6, 2014.

Southern California Gas Company. 2013. *California Gas Report.* July. Available: <http://www.socalgas.com/regulatory/documents/cgr/2013-cgr.pdf>. Accessed: July 7, 2014.

Southern California Gas Company. 2014. *Company Profile.* January. Available: <http://www.socalgas.com/about-us/company-info.shtml>. Accessed: July 8, 2014.

U.S. Energy Information Administration. 2007. *Structural and Geographical Information for Large Hospitals*. Commercial Buildings Energy Consumption Survey. January. Available: <http://www.eia.gov/consumption/commercial/reports/2007/large-hospital.cfm>. Accessed: August 28, 2014.

U.S. Energy Information Administration. 2012. *Annual Energy Review*. January. Available: <http://www.eia.gov/totalenergy/data/annual/index.cfm>. Accessed: August 11, 2014.

U.S. Environmental Protection Agency. 2013. *Clean Water Act.* March 12. Washington, D.C. Available: <http://www.epa.gov/oecaagct/lcwa.html>. Accessed: July 7, 2014.

Westmorland, Clean Harbors Westmorland, LLC. 2013. *Westmorland, California Facility Facts.* January. Available: <http://clark.cleanharbors.com/ttServerRoot/Download/12543_FINAL_Westmorland_CA_Facility_FS_010507.pdf>. Accessed: August 4, 2014.

Personal Communication

Poosti, Ali. Division manager, City of Los Angeles Bureau of Sanitation. July 16, 2014—Email to Clarice Nash, project manager, County of Los Angeles Department of Public Works.

Quan, Wayne. Internal Services Department, County of Los Angeles, Energy Management Division. August 18, 2014—Email to Clarice Nash, project manager, County of Los Angeles Department of Public Works.

Tsap, Leonid. Community relations officer, Los Angeles Police Department. August 11, 2014—Email to Andrew Johnson, environmental planner, ICF International.

Chapter 5 Alternatives Analysis

LBL, Inc. 2013. *LAC+USC Medical Center Building and Site Assessment Report.* November.

Saiful/Bouquet. 2006. *Seismic Performance Evaluation for the LAC+USC Women's & Children's Hospital.* October.

To review the draft master plan, please contact Ms. Clarice Nash at 626.300.2363 or cnash@dpw.lacounty.gov.

APPENDICES TO DRAFT EIR

LAC+USC MEDICAL CENTER CAMPUS MASTER PLAN

PREPARED FOR:

County of Los Angeles Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803

PREPARED BY:

ICF INTERNATIONAL

September 2014

Appendix A
Notice of Preparation and Initial Study Checklist

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

NOTICE OF PREPARATION
LAC+USC MEDICAL CENTER MASTER PLAN PROJECT
ENVIRONMENTAL IMPACT REPORT

To: State Clearinghouse, Responsible and Trustee Agencies, and Interested Individuals

Subject: Notice of Preparation of an Environmental Impact Report, LAC+USC Medical Center Master Plan Project

Project Title: LAC+USC Medical Center Master Plan

Lead Agency: County of Los Angeles

The County of Los Angeles, as the lead agency, has prepared an Initial Study and will be preparing an Environmental Impact Report for the proposed project described below. The County of Los Angeles Department of Public Works (DPW), on behalf of the County, is soliciting input from members of the public, organizations, and government agencies on the scope and content of the information to be included and analyzed in the Environmental Impact Report. Agencies should comment on the elements of the environmental information that are relevant to their statutory responsibilities in connection with the proposed project.

The project description, location, and potential environmental effects of the proposed project are described in this Notice of Preparation and attached Initial Study. This notice and attached Initial Study meet the requirements set forth in the California Environmental Quality Act (CEQA).

Scoping comments on the Environmental Impact Report should be sent to DPW in writing, no later than **June 18, 2014**. Please send all written comments, including e-mailed comments, to Clarice Nash at the address below. Comments should include the name of a contact person.

Copies of the Notice of Preparation/Initial Study are available for public review at the following Public Library locations:

Chinatown Branch Library 639 N. Hill Street Los Angeles, CA 90012 (213)620-0925	Lincoln Heights Library 2530 Workman Street Los Angeles, CA 90031 (323)226-1692	El Sereno Branch 5226 Huntington Drive Los Angeles, CA 90032 (323)225-9201
Malabar Branch Library 2801 Wabash Avenue Los Angeles, CA 90033 (323)263-1497	Benjamin Franklin Library 2200 East 1st Street Los Angeles, CA 90033 (323)263-6901	Anthony Quinn Library 3965 East Cesar Chavez Avenue Los Angeles, CA 90063 (323)264-7715
City Terrace Library 4025 East City Terrace Drive Los Angeles, CA 90063 (323)261-0295	LAC+USC Medical Center Inpatient Tower and Outpatient Clinic- Information Desks 2051 Marengo Street Los Angeles, CA 90033 (323)409-1000	

Interested parties may submit their comments to:

Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 S. Fremont Ave.
Alhambra, CA 91803-1331
E-mail: cnash@dpw.lacounty.gov

Questions regarding this notice should be directed to Clarice Nash at (626) 300-2363 or at the e-mail shown above, Monday through Thursday, between 7:30 a.m. and 6:00 p.m.

A public scoping meeting will be held on **June 4, 2014**, from **4:30 pm to 7:30 pm**, to solicit input from interested parties on the scope and content of the Environmental Impact Report in conformance with Section 21083.9 of the Public Resources Code.

Location: LAC+USC Medical Center
Medical Center Inpatient Tower – Conference Rooms A & B
2051 Marengo Street
Los Angeles, CA 90033
Free Parking in Lot 9D on Marengo Street, (Entrance on Brittania Street)
(Please note that all visitors are subject to screening prior to entry.)

Project Location:

The LAC+USC Medical Center is located at 2051 Marengo Street on several parcels of land owned by the County of Los Angeles and is surrounded by the Boyle Heights and Lincoln Heights neighborhoods of the City of Los Angeles, in Los Angeles County. Specifically, the site is bounded by Zonal Street, Mission Road, Marengo Street, and Chicago Street. State Street bisects the project site. The site is located east of the I-5 (Golden State) Freeway and north of the I-10 (San Bernardino) Freeway.

Project Description:

The proposed LAC+USC Medical Center Master Plan Project (proposed project) consists of a master plan that is envisioned over a period of approximately 25 years, that would be used to guide future development of the LAC+USC Medical Center campus and would influence the delivery of health care services and health related community programs. The goals of the Master Plan are to:

1. Achieve a community-friendly campus
2. Promote healthy lifestyles and wellness
3. Maximize access to the Medical Center by the community
4. Provide opportunities for appropriate education and job training
5. Incorporate on-campus business opportunities
6. Plan for future program development

Development under the Master Plan would include construction of new and renovated medical-related, office, retail, open space, and parking uses and demolition of some existing buildings and structures to accommodate new development. Full build out of the Master Plan could result in a total of approximately 1,725,000 square feet of development throughout the campus.

Potential Environmental Effects:

The Initial Study contains a preliminary analysis of the environmental impacts of the proposed project in accordance with the CEQA Guidelines that identify 16 areas where impacts could occur. These impacts, which will be analyzed in detail in the Environmental Impact Report, include: aesthetics, air quality, biological resources, greenhouse gas emissions, cultural resources, hazards and hazardous materials, hydrology and

water quality, geology and soils, recreation, population and housing, public services, utilities and service systems, land use and planning, noise, transportation and traffic, and impacts under mandatory findings of significance.

Si necesita asistencia con la traducción a Español, por favor comuniquese con el representante del departamento de Obras Públicas del Condado de Los Angeles, Sr. Anaya al (213) 312-1772.

Upon 72 hours' notice, Public Works can provide program information and publications in alternate formats or make other accommodations for people with disabilities. In addition, program documents are available at our main office in Alhambra (900 S. Fremont Ave.), which is accessible to individuals with disabilities. To request accommodations ONLY or for more Americans with Disabilities Act information, please contact our departmental Americans with Disabilities Act Coordinator at (626) 458-4081 or by TDD (626) 282-7829, Monday through Thursday, from 7:00 a.m. to 5:30 p.m.

INITIAL STUDY – CHECKLIST

FOR THE PROPOSED

LAC+USC MEDICAL CENTER MASTER PLAN PROJECT

LOS ANGELES, CALIFORNIA

Prepared at the Direction of

County of Los Angeles
By the Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803

Lead Agency Pursuant to the California Environmental Quality Act

Prepared by

ICF INTERNATIONAL

MAY 2014

Environmental Checklist

1. Project Title: LAC+USC Medical Center Master Plan Project

2. Lead Agency Name and Address: County of Los Angeles

by the Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803

3. Contact Person and Phone Number: Clarice Nash

Chief Executive Office
(626) 300-2363

4. Project Location:

The LAC+USC Medical Center is located at 2051 Marengo Street on several parcels of land owned by the County of Los Angeles. The proposed Master Plan is for the entire LAC+USC Medical Center Campus, and thus the entire campus is considered the project site. LAC+USC Medical Center is surrounded by the Boyle Heights and Lincoln Heights neighborhoods of the City of Los Angeles, in Los Angeles County. Specifically, the site is bounded by Zonal Street, Mission Road, Marengo Street, and Chicago Street. State Street bisects the project site. The site is located east of the I-5 (Golden State) Freeway and north of the I-10 (San Bernardino) Freeway. See Figures 1 and 2 for the project location. .

5. Project Sponsor's Name and Address: County of Los Angeles

by the Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803

6. General Plan Designation:

Public Facilities (P)

7. Zoning:

Public Facilities (PF)

8. Description of Project:

The proposed LAC+USC Master Plan Project (proposed project) consists of a master plan that is envisioned over a period of approximately 25 years, that would be used to guide future development of the campus and would influence the delivery of health care services and health related community programs. The goals of the Master Plan are to:

1. Achieve a community-friendly campus
2. Promote healthy lifestyles and wellness
3. Maximize access to the Medical Center by the community
4. Provide opportunities for appropriate education and job training
5. Incorporate on-campus business opportunities
6. Plan for future program development

Development under the Master Plan would include construction of new and renovated medical-related, office, retail, open space, and parking uses and demolition of existing buildings and structures to accommodate new development. Full build out of the Master Plan could result in a total of approximately 1,725,000 square feet of development throughout the campus.

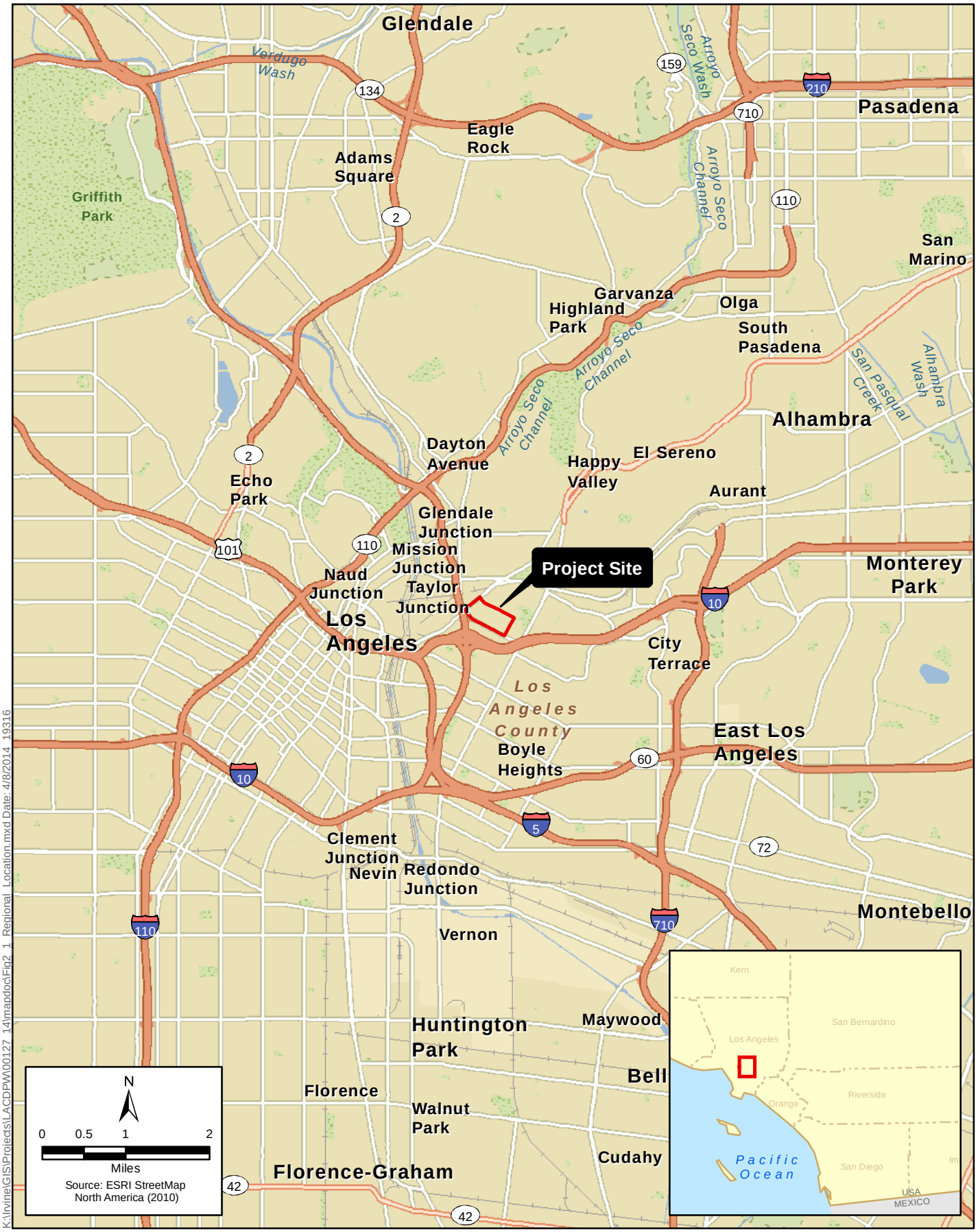

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Figure 1
Regional Location
LAC+USC Medical Center Master Plan EIR

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Figure 2
Project Vicinity
LAC+USC Medical Center Master Plan EIR

Environmental Factors Potentially Affected

The environmental factors checked below could be affected by this project (i.e., the project would involve at least one impact that is a "potentially significant impact"), as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology/Water Quality
☒ Land Use/Planning	☐ Mineral Resources	☒ Noise
☒ Population/Housing	☒ Public Services	☒ Recreation
☒ Transportation/Traffic	☒ Utilities/Service Systems	☒ Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Lee Lisecki — 5/16/14

Signature — Date

Lee Lisecki — County of Los Angeles Department of Public Works

Printed Name — For

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational, impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an environmental impact report (EIR) is required.
4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from the "Earlier Analyses" section may be cross-referenced.)
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other California Environmental Quality Act (CEQA) processes, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D)]. In this case, a brief discussion should identify the following:
    a. *Earlier Analysis Used*. Identify and state where earlier analyses are available for review.
    b. *Impacts Adequately Addressed*. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. *Mitigation Measures*. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. *Supporting Information Sources*: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
I.	**AESTHETICS –** Would the project:					
	a)	Have a substantial adverse effect on a scenic vista? The project site is located on a hilly area and is visible from the surrounding area. The proposed project would involve the construction and operation of medical, office, and outdoor community space. Specifically, it would introduce new structures, access points, and outdoor areas to the project site and would include the demolition of a number of existing buildings on the campus to accommodate future development. The proposed project is not anticipated to have a significant adverse effect on a scenic vista. Nonetheless, this issue will be analyzed further in the Environmental Impact Report (EIR).	☐	☐	☒	☐
	b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway? The proposed project is not located within the vicinity of a designated State Scenic Highway (California Scenic Highways Mapping System). The proposed project, however, would include the demolition of a number of buildings on the campus, some of which may be considered historical and/or visual resources, and the removal of some existing trees and landscaping. This issue will be analyzed further in the EIR, and if impacts are found to be potentially significant, appropriate mitigation measures will be provided to reduce impacts to less than significant to the extent practicable.	☒	☐	☐	☐
	c)	Substantially degrade the existing visual character or quality of the site and its surroundings? The proposed project would include the implementation of a master plan that would guide future development of the campus and would influence the delivery of health care services and health related community programs. The proposed project would include demolition and construction activities, potential reuse of existing buildings and the development of public outdoor areas. Access to the site would be improved. Construction and operation of the proposed project is not anticipated to degrade the existing visual quality. However, since the visual character of the site and views may change, this issue will be analyzed further in the EIR, and if impacts are found to be potentially significant, appropriate mitigation measures will be provided to reduce impacts to less than significant to the extent practicable.	☐	☒	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
d)	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☒	☐	☐
	Both the project site, which is developed with the LAC+USC Medical Center, and the surrounding area include sources of lighting and glare. Existing sources of light and glare include street lighting, parking lighting, and reflective surfaces such as windows on buildings and cars. The proposed project would introduce new buildings and parking areas onto the existing campus. These proposed buildings and parking structures may create new sources of light and glare in the area. This issue will be analyzed further in the EIR.				
	Mitigation: Should the Draft EIR identify significant impacts to aesthetics, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
II.	**AGRICULTURE AND FOREST RESOURCES –** In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and the forest carbon measures methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use? The project site is located in a developed portion of the City of Los Angeles and is occupied by the LAC+USC Medical Center. The project site is not located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert such farmland to nonagricultural use. Since the proposed project would not have a farmland conversion impact, the proposed project would also not contribute to a cumulative farmland conversion impact. No further analysis is warranted in the EIR.	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use or a Williamson Act contract? The site is not under Williamson Act contract (California Department of Conservation, 2008), nor is it zoned or designated for agricultural use. The project site is in the midst of a developed area with no nearby agricultural land. The proposed project would therefore have no potential to convert farmland, conflict with agricultural zoning, or lead to other changes in the existing environment that could lead to farmland conversion. Since the proposed project would not have an impact with regard to conflicts with existing land zoned for agricultural use, the proposed project would also not contribute to a cumulative impact on agriculturally zoned land. No further analysis is warranted in the EIR.	☐	☐	☐	☒

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
c)	Conflict with existing zoning for or cause rezoning of forestland (as defined by Public Resources Code Section 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by U.S. Government Code Section 51104(g))? The project site is not zoned as forestland, timberland, or timberland zoned Timberland Production. The project site is currently developed and does not contain forestland or timberland. Therefore, the proposed project would not conflict with existing zoning or cause rezoning of forest or timberland. Since the project would not affect forestland or timberland, it would also not contribute to a cumulative impact with regard to conversion of forestland or timberland. No further analysis is warranted in the EIR.	☐	☐	☐	☒
d)	Result in the loss of forestland or conversion of forestland to non-forest use? The project site is not located on or near forestland. Therefore, the proposed project would not result in the loss or conversion of forestland. Since the proposed project would have no impact on forestland, it would also not contribute to a cumulative impact with regard to forestland conversion. No further analysis is warranted in the EIR.	☐	☐	☐	☒
e)	Involve other changes in the existing environment that, because of their location or nature, could result in the conversion of farmland to nonagricultural use or the conversion of forestland to non-forest use? The proposed project would not convert farmland or forestland (see responses to Items II.a) and d), above). Since the proposed project would not have a secondary impact with regard to farmland or forestland conversion, the project would also not contribute to a cumulative farmland or forestland conversion impact. No further analysis is warranted in the EIR.	☐	☐	☐	☒

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
III.	**AIR QUALITY –** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
	a)	Conflict with or obstruct implementation of the applicable air quality plan? The project site is located within the South Coast Air Basin (SCAB), which is managed by the South Coast Air Quality Management District (SCAQMD). Potential emissions associated with construction and operation of the project will be evaluated in the EIR for compliance with all applicable air quality plans.	☐	☐	☒	☐
	b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation? The proposed project would involve construction and improvements to the LAC+USC Medical Center. The potential exists for project-related emissions, traffic congestion, and exceedances of SCAQMD thresholds. Furthermore, during project operation, project-related emissions may result in a cumulatively considerable net increase in criteria pollutants. Therefore, the project could exceed an air quality standard and contribute to a cumulatively considerable net increase in criteria pollutants. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
	c)	Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal or state ambient air quality standard (this includes the release emissions the exceed quantitative thresholds for zone precursors)? See response to Item III.b). This issue will be analyzed further in the EIR.	☒	☐	☐	☐
	d)	Expose sensitive receptors to substantial pollutant concentrations? Sensitive receptors are located within the site and in the surrounding area. Specifically, hospital uses are located throughout the site. Additionally, residential uses and the Bravo Medical Magnet High School are located in the area surrounding the project site. The potential exists for exposure of sensitive receptors to pollutant concentrations. This issue will be analyzed further in the EIR.	☒	☐	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
e)	Create objectionable odors that would affect a substantial number of people?	☐	☐	☒	☐
	Dust and odor emissions could be produced during project construction, although these emissions would be temporary and would cease once construction is complete. Additionally, dust generated by construction within the SCAB, would be reduced through implementation of the fugitive dust control measures outlined in Rule 403. This issue will be analyzed further in the EIR.				
	Mitigation: Should the Draft EIR identify significant impacts to air quality, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES –** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? The project site is located on the already-developed campus of the LAC+USC Medical Center. Due to the previously disturbed nature of the site, the project site lacks significant native vegetation that would provide habitat for any unique, rare, or endangered plant or animal species. Because of its location in a highly urbanized area, it is also unlikely to serve as a wildlife corridor for terrestrial animals. However, the project may have the potential to disturb or remove some on-site mature trees located on the site. While these trees may include introduced ornamental landscaping, and are not in themselves sensitive biological resources, they have the potential to serve as habitat for nesting birds. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? The project site is fully developed and does not contain areas with a riparian or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. A review of California Department of Fish and Wildlife maps, maps from the U.S. Fish and Wildlife Service, and County and City of Los Angeles General Plan documents shows no identified riparian habitat or other natural community on the LAC+USC Medical Center campus or adjacent to it. The freshwater pond at Lincoln Park and the Los Angeles River are both over a quarter-mile from the project site. Construction and operation activities associated with implementation of the Master Plan would follow all best management practices for the protection of wetlands and water bodies. Since the proposed project would not have an impact on any riparian habitat or other sensitive natural community, the project would also not contribute to a cumulative impact on these resources. Therefore, further analysis in the EIR is not warranted.	☐	☐	☐	☒

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
c)	Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including marshes, vernal pools, coastal areas, etc.), through direct removal, filling, hydrological interruption, or other means? The project site is developed with the LAC+USC Medical Center. No wetlands are located on the project site or in the immediate vicinity. The freshwater pond at Lincoln Park and the Los Angeles River are both over a quarter-mile from the project site. Construction and operation activities associated with implementation of the Master Plan would follow all best management practices for the protection of wetlands and water bodies. Therefore, the proposed project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act, through direct removal, filling, hydrological interruption, or other means. Furthermore, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? See response to Item IV.a). Due to the previously disturbed nature of the site, the project site lacks significant native vegetation that would provide habitat for any unique, rare, or endangered plant or animal species. Because of its location in a highly urbanized area, it is also unlikely to serve as a wildlife corridor for terrestrial animals. However, the project may have the potential to disturb or remove some on-site mature trees located on the site. While these trees may include introduced ornamental landscaping, and are not in themselves sensitive biological resources, they have the potential to serve as habitat for nesting birds. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances to protect biological resources, such as a tree preservation policy or ordinance? The proposed project would include the demolition of buildings and the construction of new buildings at the project site. Community public space would also be developed under the proposed project. Tree removal may occur under the proposed project. Any tree removal would follow applicable local policies and ordinances aimed at tree preservation. This issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
f)	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan? A review of County and City planning documents (such as the General Plans, Community Plans, and Specific Plans) shows that the project site is not located within an area covered under an adopted habitat conservation plan, natural community conservation plan or other approved local, regional or state habitat conservation plan. Consequently, the proposed Master Plan would not conflict with these plans; there would be no impact, and thus no contribution to a cumulative impact. Therefore, further analysis in the EIR is not warranted.	☐	☐	☐	☒
	Mitigation: Should the Draft EIR identify significant impacts to biological resources, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
V.	**CULTURAL RESOURCES –** Would the project:					
	a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines? The project site is occupied with the LAC+USC Medical Center, which includes buildings that have been determined eligible for the National Register of Historic Places. Additionally, the project site contains buildings older than 50 years that have not been evaluated for historical significance. These buildings would need to be evaluated to determine historical significance prior to any proposed demolition and construction proposed under the proposed project. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
	b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines? Given the extent of previous ground disturbances in the project area and the fact that the project site is developed, unearthing of archeological resources is not expected during project construction. However, the potential for unearthing archaeological resources still exists as ground-disturbing activities would occur under the proposed project. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
	c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Given the extent of previous ground disturbances in the project area and the fact that the project site is developed, unearthing of paleontological resources is not expected during project construction. However, the potential for unearthing paleontological resources still exists as ground-disturbing activities would occur under the proposed project. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
	d)	Disturb any human remains, including those interred outside of formal cemeteries? The project site is not located in an area that contains formal or known informal cemeteries. Nevertheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
		Mitigation: Should the Draft EIR identify significant impacts to cultural resources, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
VI.	**GEOLOGY AND SOILS –** Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. The project site is not located within an Alquist-Priolo Special Studies Zone, so the probability of seismic surface rupture is considered low. In addition, the site has not been designated as a zone of required investigation for earthquake–induced landslides (California Department of Conservation, September 2012). Similar to all of Southern California, active and/or potentially active faults in the region could generate strong ground shaking on the project site. The project site could experience shaking from faults in the area including the Raymond Fault, Whittier Fault, Newport-Inglewood Fault, or the San Andreas Fault. The proposed project would be required to comply with applicable provisions of the most recently adopted version of the California Building Code and County building regulations. The issue will be analyzed further in the EIR.	☐	☐	☒	☐
	ii) Strong seismic ground shaking? Although the project site is not underlain by an active fault system, the site is susceptible to strong seismic ground shaking conditions, which are a common hazard in most of Southern California. The project site is located approximately 4 miles south of the nearest Alquist-Priolo Fault Zone. Future large earthquakes along any of the faults in the Southern California region could cause sustained ground shaking in the vicinity of the proposed project. The proposed project would involve the construction and operation of medical, office, retail, and community space. Newly constructed facilities would comply with applicable provisions of the most recently adopted version of the California Building Code and County building regulations. Therefore, a substantial risk to life or property from strong seismic ground shaking would not occur. The issue will be analyzed further in the EIR.	☐	☐	☒	☐

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	iii)	Seismically related ground failure, including liquefaction? Liquefaction is a condition that occurs when unconsolidated, saturated soils change to a near-liquid state during ground shaking. The western portion of the project site is located within a potential liquefaction zone as identified on the State of California Seismic Hazards Zone Map, Los Angeles Quadrangle (California Department of Conservation, March 1999). This issue will be analyzed further in the EIR.	☐	☒	☐	☐
	iv)	Landslides? Typically, landslide activity occurs adjacent to steep slopes that lack vegetation. The project site has been extensively engineered to accommodate existing development, and has not been designated as a zone of required investigation for earthquake–induced landslides. In addition, the Seismic Hazard Zone Map indicates that the project site is not located within an area that is subject to seismically related landslides (California Department of Conservation, Division of Mines and Geology 1999). Therefore, the risk of landslide at the project site is considered unlikely. Nevertheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
b)		Result in substantial soil erosion or the loss of topsoil? Construction of the proposed project could result in ground surface disruption, including disruptions from grading and excavation activities. Such activities could result in erosion at the project site during construction. However, construction projects that result in ground disturbance of 1 acre or more must apply for a Stormwater General Permit under the National Pollutant Discharge Elimination System (NPDES). All construction would follow best management practices (BMPs) to prevent erosion that might move off-site, as required under the Stormwater Pollution Prevention Plan (SWPPP) for compliance with State Water Resources Control Board NPDES Construction General Permit 2009-0009. In accordance with existing regulations, the SWPPP would be prepared to identify BMPs that would be implemented to prevent construction area runoff and sediment from entering the storm drain system. The SWPPP would be implemented during construction. This issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse? As discussed under Item VI) (a) (iii), the western portion of the project is located within an area identified as a potential liquefaction zone. According to the Seismic Hazards Report prepared by the California Department of Conservation, the project site is underlain by pre-Quaternary period bedrock and Pleistocene period alluvial-fan deposits composed of sand, silt, and gravel (1998). Such materials are not considered inherently unstable. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? See response to Item VI(c), above. Expansive soils contain minerals that absorb water when wet. This causes the soil to expand. The soil units underlying the project site are composed of bedrock, sand, silt, and gravel. Such materials are not typically associated with expansive soils. The proposed project is not anticipated to result in a substantial risk to life or property because it would not involve construction on geologic units that could be severely damaged by expansive soils. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
e)	Have soils that are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? The project would not propose the use of septic tanks or alternative wastewater disposal systems at the site; therefore, the proposed project would have no impact or contribute to a cumulative impact since it does not involve the use of septic tanks or alternative wastewater disposal systems. Thus, further analysis is not warranted and the issue is not carried forward to the EIR.	☐	☐	☐	☒
	Mitigation: Should the Draft EIR identify significant impacts to geology and soils, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
VII.	**GREENHOUSE GAS EMISSIONS –** Would the project:					
	a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? The proposed project would generate greenhouse gas (GHG) emissions during both construction and operation of the project. This issue will need to be analyzed further in the EIR.	☐	☒	☐	☐
	b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases? The County has enacted a variety of policies and plans, including the Los Angeles Regional Climate Action Plan, to fulfill the objectives outlined in Assembly Bill 32. The Draft Los Angeles County General Plan 2035 Update also supports the goal of reducing vehicle miles traveled and the number of vehicle trips, as well as alternative modes of transportation, to reduce GHG emissions. The project would not impede implementation of plans, policies, or regulations that meet either the state or County's GHG reduction goals. However, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
		Mitigation: Should the Draft EIR identify significant greenhouse gas emission impacts, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS –** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? The proposed project would involve the demolition of structures as well as the construction of new structures on the campus. Given the prevalence of asbestos as a prevalent building material in the past, it is reasonable to assume that asbestos-containing material (ACM) would be encountered during demolition activities. All demolition activities would be performed in a manner consistent with Occupational Safety and Health Administration standards, AQMD Rule 1403, and National Emission Standards for Hazardous Air Pollutants. Further analysis will determine risks related to hazardous materials on or near the project site. If any contaminated soil is encountered, it would be removed and disposed of in accordance with all applicable regulations governing hazardous waste. During project operation, medical wastes, standard janitorial, and paint chemicals, as well as minor amounts of pesticides and/or herbicides for landscaped areas would be used. These chemicals would be secured and safely stored and disposed of, and are not anticipated to pose risks to the public or the environment. With the exception of these chemicals, no other chemicals would be routinely used, transported, or disposed of during project operation. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? As discussed in response to Item VIII) (a), it is likely that ACM would be encountered during demolition activities on the project site. Compliance with asbestos removal and demolition regulations would minimize the risk of release into the environment. There is also potential that excavation activities would uncover contaminated soil, but standard construction practices would be observed so that any released hazardous materials would be appropriately contained and remediated as required by local, state, and federal law. No reasonably foreseeable upset and accident conditions are expected during project operation, as the few chemicals used for building and grounds maintenance would be securely stored. This issue will be analyzed further in the EIR.	☐	☒	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
c)	Emit hazardous emissions or require the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school? The project boundary is located within a quarter-mile of the Bravo Medical Magnet High School, located at 1200 N. Cornwell Street. As discussed in response to Item VIII) (b), it is possible that ACM and contaminated soils would be encountered during the construction period. These materials would need to be transported from the project site, although haul routes would not be located near the school. During project operation, hazardous wastes associated with the medical uses on the campus would be routinely transported, as is the case under existing conditions. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
d)	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to U.S. Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment? The Initial Study/Mitigated Negative Declaration prepared for the LAC+USC Wellness Center identified 21 on- and off-site locations within one-half mile of the project site as potentially contaminated, including a leaking underground storage tank on the site (1200 N State Street). A hazardous materials analysis will be conducted and this issue will be analyzed further in the EIR.	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? The project site is not located within an airport land use plan area or within 2 miles of a public airport or public use airport. Therefore, the proposed project would have no impact or contribute to a cumulative impact with regard to safety hazards near airports. Further analysis in the EIR is not warranted.	☐	☐	☐	☒
f)	For a project in the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? The project site is not located in the vicinity of a private airstrip. Therefore, the proposed project would have no impact or contribute to a cumulative impact with regard to safety hazards near airstrips; thus, further analysis in the EIR is not warranted.	☐	☐	☐	☒

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? The proposed project would not impair or physically interfere with adopted emergency response or evacuation plans. During construction, temporary lane closures may be required, but vehicular access to existing medical facilities would be maintained at all times. Additionally, the proposed project includes a new central vehicular drop-off location to serve the existing hospital and future outpatient facilities, which would likely enhance emergency response and access. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
h)	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? The project site is in a highly urbanized area, and is not located adjacent to or intermixed with wildlands. Hazard Park, a 26.5-acre park located to the east of the project site (less than 0.10 mile away), is the only area with a large amount of vegetation, but is a managed and landscaped park with no connection to wildland areas. As such, there would be no risk of loss, injury, or death involving wildland fires. Since the proposed project would have no impact involving wildland fires, the project would also not contribute to a cumulative wildland fires impact. Therefore this issue will not be discussed further in the EIR.	☐	☐	☐	☒

Mitigation: Should the Draft EIR identify significant hazards and hazardous materials impacts, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY –** Would the project:				
a)	Violate any water quality standards or waste discharge requirements? The proposed project would not substantially alter site drainage patterns or increase impermeable areas or runoff. There is no evidence of substantial erosion problems on the project site and the components of the project are not anticipated to result in deterioration of runoff water quality. Implementation of standard BMPs would decrease the potential for any erosion or sedimentation from the soil disturbing activities during the construction period. Standard construction practices related to erosion control, such as the use of tarps to cover stockpiled soil, would apply. During project operation, a campus-wide stormwater management system would be implemented, which would treat runoff before it leaves the site. Nonetheless, this issue will be analyzed further in the EIR.	☐	☒	☐	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)? Groundwater accounts for approximately 13 percent of water supply for the City of Los Angeles, but has accounted for as much as 30 percent of the total water supply in drought years (LADWP 2013). During the construction period, water would be used for activities including controlling fugitive dust emissions and mixing of concrete. Project operation would require water for cleaning, irrigation of landscaping, and the operation of sinks and restroom facilities within the buildings. The proposed project would result in an increase in the amount of permeable surface area on the site and would contribute to groundwater recharge. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site? Minor alterations of the existing drainage patterns on the project site may occur related to the implementation of the campus-wide stormwater management system and due to construction of new facilities and improvements, but no change to the course of a stream or river would occur. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	See response to Item IX.c), above. Project implementation is not anticipated to result in a substantial increase in the rate or amount of surface runoff and flooding on- or off-site. This issue will be analyzed further in the EIR.				
e)	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? See responses to Items IX. (c) and (d) above. The proposed project is not expected to substantially increase runoff in the area. The project site is primarily impermeable, occupied by buildings and parking facilities. The proposed project would increase the permeability of the site through the addition of landscaping features and implement a campus-wide stormwater management system, which would be capable of handling stormwater runoff during project operation. Sedimentation and siltation of runoff during the construction period would be addressed through the implementation of standards BMPs. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
f)	Otherwise substantially degrade water quality? As discussed above, the proposed project would include improvements to stormwater quality through the implementation of a campus-wide stormwater management system. Furthermore, construction-phase BMPs would be implemented in accordance with the County of Los Angeles Department of Public Works *Construction Site BMPs Manual* (2007) and the SWPPP that would be prepared in accordance with the requirements of the NPDES Stormwater General Permit. BMPs for the proposed project may involve scheduling, silt fencing, street sweeping and vacuuming, storm drain protection, stabilized construction entrances/exits, water conservation practices, paving and grinding operations, as well as procedures and practices pertaining to vehicle equipment cleaning, vehicle equipment fueling, and vehicle equipment maintenance. This issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
g)	Place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary Map or Flood Insurance Rate Map or other flood hazard delineation map? Although the proposed project may include housing for the medical center community, according to the Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA), the project site is identified as "X" (i.e., no flood hazard). The project site is not located within a 100-year flood hazard area, and therefore would not place housing within a 100-year flood hazard area. Since the proposed project would have no impact with regard to placing housing in a 100-year flood hazard area, the project would also not contribute to a cumulative impact. This issue will not be discussed further in the EIR.	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows? The project is not located within a 100-year flood hazard area. Therefore, the proposed project would have no impact, and thus no potential to contribute to a cumulative impact. This issue will not be discussed in the EIR.	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? Future development may include housing for the medical center community. Given that the area in which the proposed project would be located has less than a 0.2 percent annual chance of flooding each year currently and after project implementation according to the FEMA flood map for the area, the proposed project would not result in increased exposure to loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. As such, the project would have no impact and the project would not contribute to a cumulative impact with regard to flooding. Therefore, no further analysis in the EIR is warranted.	☐	☐	☐	☒

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
j)	Inundation by seiche, tsunami, or mudflow? The project site is located approximately 16 miles from the Pacific Ocean, so there is negligible risk to the site from tsunamis. An artificial lake located one-half mile to the north of the site at Lincoln Park and Hazard Reservoir, an encapsulated reservoir adjacent to the eastern end of the project site, are unlikely to produce seiches that would affect the project site. Mudflows are unlikely to affect the project site due to the lack of proximity to wildland areas. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
	Mitigation: Should the Draft EIR identify significant impacts to hydrology and water quality, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
X.	**LAND USE AND PLANNING –** Would the project:					
	a)	Physically divide an established community? The proposed project would result in the implementation of a master plan for the LAC+USC Medical Center. The proposed project would include demolition and construction activities and would result in improved access to the site and new public outdoor space. New buildings would be introduced to the existing LAC+USC campus. Nearby residential communities would not be divided during construction and operation of the proposed project. Nevertheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
	b)	Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? The project site is designated Public Facilities. The Public Facilities land use designation allows for public facilities such as fire stations, libraries, schools, parks, and police stations. The project site has a zoning designation of Public Facilities – PF. The proposed project would not change the medical use of the project site; rather it would introduce compatible buildings onto the project site. Proposed structures may vary in height and design compared to existing buildings. The proposed project would be subject to County of Los Angeles planning policies and guidelines. A consistency analysis with applicable land use plans and policies will be included in the EIR.	☐	☐	☒	☐
	c)	Conflict with any applicable habitat conservation plan or natural community conservation plan? County and City of Los Angeles habitat conservation plans and natural community conservation plans were checked, and it was found that the project site does not contain any areas within the purview of any applicable habitat conservation plan or natural community conservation plan. As such, the project would not conflict with these plans. Since the proposed project would not affect habitat conservation plans or natural community conservation plans, the project would not contribute to a cumulative impact. Therefore, no further analysis in the EIR is warranted.	☐	☐	☐	☒

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XI.	**MINERAL RESOURCES –** Would the project:					
	a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? The project site and its surroundings are in a developed area with no mineral resource recovery sites nearby. The project site is developed with the LAC+USC Medical Center. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that is of value to the region and the residents of the state. Since the proposed project would not affect mineral resources, the project would not contribute to a cumulative impact on mineral resources. No further analysis in the EIR is warranted.	☐	☐	☐	☒
	b)	Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan? The project site is not located in a locally important mineral resource discovery site and is not identified as such a site on a local general plan, including the conservation element of the general plan, specific plan, or other land use plan, as being a locally important mineral resource discovery site. Since the proposed project would not affect mineral resource recovery sites, the project would not contribute to a cumulative impact on mineral resource recovery sites. Therefore, no further analysis is warranted.	☐	☐	☐	☒

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XII.	**NOISE –** Would the project result in:					
	a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or ordinance or applicable standards of other agencies? Increased noise levels are anticipated to occur in the vicinity of the proposed project during the construction phase. The project site is located in close proximity to sensitive receptors both on the site and in the immediate vicinity. The nearest noise-sensitive land uses consist of medical uses on the site itself. Residential uses and a school, the Bravo Medical Magnet High School, are located within one quarter mile of the project site. Construction and/or operational noise could exceed the exterior or interior noise standards contained in the County noise ordinance during construction. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
	b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? See response to Item XII.a), above. Increased groundborne vibration or groundborne noise levels are anticipated to occur in the vicinity of the proposed project during the construction phase. Operation of the proposed project would not have the potential to expose persons to or generate excessive groundborne vibration or noise levels. Given the proximity of the nearby residences and the on-campus medical facilities, the potential exists for construction of the proposed project to expose persons to or generate excessive groundborne vibration or noise levels. Therefore, this issue will be analyzed further in the EIR.	☐	☒	☐	☐
	c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? Project-related operational noise would mostly be interior to buildings, but some would occur outdoors in the immediate vicinity, as a result of farmers markets and other local community events. These outdoor activities may be carried out in close proximity to the medical center and other sensitive receptors including residents and the school located in the immediate vicinity of the project site. The proposed project could also result in increased traffic noise. Therefore, this issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? Construction activities associated with the proposed project would involve the use of noise-generating construction equipment, resulting in a temporary and periodic increase in noise levels at specific locations. The increased noise level, including noise from trucks hauling debris during construction, could occur in close proximity to sensitive uses. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? The project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport; therefore, no impacts would occur. Since no impact to airports would occur, there would be no potential contribution to a cumulative impact to airports. This issue will not be carried forward to the EIR.	☐	☐	☐	☒
f)	For a project in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? See response to Item XII.e), above. No private airstrips are located in the project vicinity. Thus, no one residing or working in the project area would be exposed to excessive noise levels associated with a private airstrip. Since no impact to airstrips would occur, there would be no potential contribution to a cumulative air traffic noise impact. This issue will not be carried forward to the EIR.	☐	☐	☐	☒
	Mitigation: Should the Draft EIR identify significant noise impacts, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XIII.	**POPULATION AND HOUSING –** Would the project:				
a)	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)? The proposed project consists of a master plan that would be used to guide future development of the LAC+USC Medical Center campus and would influence the delivery of health care services and health related community programs. One of the guiding principles of the proposed project would be to maximize access to the medical center. Additionally, the proposed project may include the development of on-campus housing units. Improved medical delivery and access to the medical center may result in indirect growth. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
b)	Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere? The proposed project would include the implementation of a master plan for the LAC+USC Medical Center. It would introduce medical-related, office, and community uses onto the project site. Any on-site medical community housing that is demolished may be replaced on-site. No construction of off-site housing is anticipated. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? Substantial displacement of people is not anticipated as part of the Master Plan, but this issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XIV.	**PUBLIC SERVICES**				
a)	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
	i) Fire protection?	☐	☐	☒	☐
	Fire protection services in the project area would be provided by the City of Los Angeles Fire Department. Fire Station #2, located at 1962 E. Cesar Chavez Avenue, is located approximately 1 mile from the project site. The proposed project may result in intermittent access restrictions for emergency responders during construction. The County would implement traffic control plans in construction areas to accommodate first responders and emergency vehicles and ensure that access would not be obstructed. Operation of the proposed project would introduce new medical-related, office, residential, commercial, and community space uses onto the project site. The proposed buildings and uses may increase the need for fire services. This issue will be analyzed further in the EIR.				
	ii) Police protection?	☐	☐	☒	☐
	Police protection services on-site are currently provided by the Los Angeles County Sheriff's Department. Streets and areas surrounding the campus are policed by the Los Angeles Police Department (LAPD). The Hollenbeck Community Police Station located at 2111 E. First Street is located about 1.5 miles from the project site. The proposed project would include demolition and construction activities associated with the development of medical-related, office, and community space uses. The number of visitors to the campus may increase under implementation of the proposed Master Plan. Impacts to police services will be analyzed further in the EIR.				
	iii) Schools?	☐	☐	☒	☐
	It is possible that development under the Master Plan may include some housing for biomedical research staff; however the proposed project would not be expected to generate a significant demand for public school services. Nonetheless, this issue will be evaluated further in the EIR.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
iv)	Parks? The proposed project would include the future development of a park to be located at the current location of the central plant. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
v)	Other public facilities? The project would not result in significant population growth that could result in demand for other public facilities or services, since a substantial number of new housing units are not proposed as part of the Master Plan. However, this issue will be evaluated further in the EIR.	☐	☐	☒	☐

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XV.	**RECREATION**					
	a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated? The proposed project is not expected to significantly increase the use of existing neighborhood parks or regional parks such that substantial physical deterioration of the facilities would occur or be accelerated. The proposed project would actually develop new park and recreation space on the campus. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
	b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? The Master Plan would include the development of a park to be located on the current location of the central plant. Additionally, the proposed project would develop outdoor public areas on the project site. This issue will be analyzed further in the EIR.	☐	☐	☒	☐

			Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XVI.	**TRANSPORTATION/TRAFFIC –** Would the project:					
	a)	Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel, and relevant components of the circulation system, including intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Construction and operation of the proposed project would result in increased vehicle trips to the site and may alter access to the existing LAC+USC Medical Center campus site. Parking would also be provided under the proposed project. A detailed traffic impact analysis will be prepared for the proposed project and included in the EIR.	☒	☐	☐	☐
	b)	Conflict with an applicable congestion management program, including LOS and travel demand measures, or other standards established by the county Congestion Management Agency for designated roads or highways? Construction and operation of the proposed Master Plan could increase congestion levels, degrade LOS, and interfere with travel demand and other standards for congestion management. A detailed traffic impact analysis will be prepared for the proposed project. Conclusions of the traffic impact analysis will be included in the EIR.	☒	☐	☐	☐
	c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that would result in substantial safety risks? The proposed project would not include any components that would result in a change in air traffic patterns, including either an increase in air traffic levels or a change in location that would result in substantial safety risks. Since there would be no impacts on air traffic patterns, there would be no contribution to cumulative impacts on air traffic patterns. Therefore, this issue will not be carried forward to the EIR.	☐	☐	☐	☒
	d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? There are no significant changes associated with the proposed project that would result in an increase in hazards due to a design feature or incompatible uses. Nonetheless, this issue will be analyzed further as part of the traffic impact analysis in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
e)	Result in inadequate emergency access? The proposed project may result in intermittent access restrictions during construction. The County would implement traffic control plans in areas where construction is occurring to accommodate first responders and emergency vehicles, and ensure that emergency access is not obstructed. Implementation of the proposed project would alter and/or introduce new visitor and emergency access points to the LAC+USC Medical Center. This issue will be analyzed further the EIR.	☐	☐	☒	☐
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle facilities, or pedestrian facilities or otherwise decrease the performance or safety of such facilities? The proposed project would improve pedestrian mobility within and to the project site. The proposed project would not result in changes to the public transportation system that would conflict with adopted policies plans or programs, and may actually enhance connections to public transportation. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
g)	Result in inadequate parking capacity? Construction and operation of the proposed project would result in increased vehicle trips to the site and may alter access to the existing LAC+USC Medical Center campus site. However, additional parking would also be provided under the proposed project. While CEQA no longer requires an analysis of parking, the potential changes to existing parking and the potential effects of proposed parking changes during construction and operations will be analyzed in the EIR.	☐	☐	☒	☐
	Mitigation: Should the Draft EIR identify significant transportation/traffic impacts, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XVII.	**UTILITIES AND SERVICE SYSTEMS –** Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? The proposed project would introduce new multi-story structures onto the site, which would increase wastewater usage compared to existing conditions. The project site is located in an urban area that is currently served by wastewater infrastructure. The proposed project would follow all applicable wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
b)	Require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects? The proposed project would introduce new structures onto the project site. The proposed buildings would increase the demand for water and would generate wastewater. The proposed project would not include new or expanded water or wastewater treatment facilities. In addition, it is not anticipated that the project would require the construction or expansion of water or wastewater treatment facilities. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
c)	Require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects? The project site is located in a developed area that is adequately served by the existing storm drain system. Construction-related activities may result in the alteration of existing facilities. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? The proposed project would require the use of water during both construction and operation The project will comply with applicable ordinances. This issue, including proposed water consumption will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
e)	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to existing commitments? The project would include uses or activities that would generate wastewater and require treatment. An analysis of the proposed Master Plan development's effect on wastewater treatment will be conducted and included in the EIR.	☐	☐	☒	☐
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? The proposed project would produce solid waste during both construction and operation. Adequate landfill capacity exists to accommodate any construction debris. If disposal were to occur at an off-site location, it would be handled in accordance with Los Angeles County regulations. Nonetheless, this issue will be analyzed further in the EIR.	☐	☒	☐	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste? Disposal of all solid waste generated by the proposed project would comply with federal, state, and local statutes and regulations related to solid waste. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
	Mitigation: Should the Draft EIR identify significant impacts to utilities and service systems, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? As stated in above, the proposed project would have the potential to affect the following resources, which will be carried forward for analysis in the EIR: aesthetics; air quality; biological resources section a), c), d), e); cultural resources, geology and soils section a), b), c), d); greenhouse gas emissions; hazards and hazardous materials section a), b), c), d), g); hydrology and water quality section a), b), c), d), e), f), j); land use and planning section a), b); noise section a), b), c), d); population and housing; public services; recreation; transportation and traffic section a), b), d), e), f), g); and utilities and services systems. The following environmental areas have been determined to have no impact, and thus will not be carried forward into the EIR: agriculture and forest resources, biological resources section b), c); geology and soils section e); hazards and hazardous materials section e), h); hydrology and water quality section g),h),i); land use and planning section c); mineral resources; noise section e), f); transportation and traffic section c).	☒	☐	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
b)	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) The EIR will analyze the proposed project's potential to result in cumulative impacts in conjunction with other past, present and future projects. This means the proposed development under the Master Plan will be compared to other past, current and probable future projects. The following environmental areas will be carried forward for analysis of potential significant impacts: aesthetics; air quality; biological resources section a), c), d), e); cultural resources, geology and soils section a), b), c), d); greenhouse gas emissions; hazards and hazardous materials section a), b), c), d), g); hydrology and water quality section a), b), c), d), e), f), j); land use and planning section a), b); noise section a), b), c), d); population and housing; public services; recreation; transportation and traffic section a), b), d), e), f), g); utilities and services systems. The following environmental areas have been determined to have no impact, and thus no potential to contribute to a cumulative impact: agriculture and forest resources, biological resources section b), c); geology and soils section e); hazards and hazardous materials section e), h); hydrology and water quality section g),h),i); land use and planning section c); mineral resources; noise section e), f); transportation and traffic section c). ,	☒	☐	☐	☐
c)	Does the project have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly? The EIR will analyze the proposed project's potential to result in significant air quality, noise, and traffic impacts on individuals in the project area or expose construction workers or other individuals on the site to contaminated soils and groundwater or hazardous materials and wastes during construction and demolition activities. These were the environmental areas initially scoped with a potential to have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly. However, the EIR will consider impacts to all environmental resource areas identified in this checklist in the Draft EIR. This topic will be analyzed further in the EIR.	☒	☐	☐	☐

LAC+USC Medical Center Campus Master Plan EIR Scoping Meeting
Comment Sheet/Oja de Comentarios/意見表

Name/Nombre/姓名： MARTHA I. PORTER

Affiliation/ Affiliación 單位 CENTRAL JUVENILE HALL @ Eastlake

Address/Dirección:/ 地址： 1605 Eastlake Ave, 90033

Phone Number / Teléfono /電話	Email Address/ Correo electrónico/電郵
323.595.3657	mporter6@yahoo.com

(1) Environmental Impact Report (EIR)

Theodore Payne foundation could be contracted to assist landscape plan; desert-friendly plants and flowers. These plants are eco-friendly and require less water use. Horticulture will be important for the aesthetics.

(2) ADA Keep it in Compliance; more ramps & slopes; less staircases

(3) METRO - Please get MTA involved, especially for delivering the elderly & disabled. Public transportation/transit [redacted] is needed for various areas of the [redacted] COMPLEX In-patient & DASH · Boyle Heights Out-patient areas. Right now, only the MTA #605 goes, the MTA #70/71 actually stop at the entrances.

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Clarice Nash, Project Manager
900 South Fremont Avenue, Alhambra, California 91803

Or by email to cnash@dpw.lacounty.gov
Comments need to be submitted and received by June 18, 2014.

Please have your organization do a study on [redacted] these drop-off points/areas.

LAC+USC Medical Center Campus Master Plan EIR Scoping Meeting
Comment Sheet/Oja de Comentarios/意見表

Name/Nombre/姓名： Dr Tom Williams

Affiliation/ Affiliación 單位 Citizens Coalition for Safe Community

Address/Dirección:/ 地址： 4117 Barrett Rd LA 90032-1712

Phone Number / Teiéfono /電話	Email Address/ Correo electrónico/電郵
323-525-9682	ctwi

Schedule, June 18 — Say Sep 15 Prep.

Sept 15 — Nov / PubComits

"Nov. 2014" Nov

Certification

Schedule needs revision

Recmd.

Circulate EIR Oct / — Nov 20

Com. Response Nov 20 - Jan 15

FEIR Circul Jan 15 - Feb 15

BOS Certify / Prog Appr Feb 15 ?

Temporary Injunction March

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Clarice Nash, Project Manager
900 South Fremont Avenue, Alhambra, California 91803

Or by email to cnash@dpw.lacounty.gov
Comments need to be submitted and received by June 18, 2014.

LAC+USC Medical Center Campus Master Plan EIR Scoping Meeting
Comment Sheet/Oja de Comentarios/意見表

Name/Nombre/姓名： Roberto Avina

Affiliation/ Affiliación 單位 LAC+USC Medical Center Employee

Address/Dirección:/ 地址：

Phone Number / Teléfono /電話	Email Address/ Correo electrónico/電郵
(323) 226-6832	ravina@dhs.lacounty.gov

Ensure that plan includes consideration for special needs users.

People with disabilities have to walk/roll the longest in the facility is currently designed

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Clarice Nash, Project Manager
900 South Fremont Avenue, Alhambra, California 91803

Or by email to cnash@dpw.lacounty.gov
Comments need to be submitted and received by June 18, 2014.

Responses

LAC+USC Medical Center Campus
Master Plan
EIR Scoping Meeting
June 4, 2014
Sign-In Sheet

Name Nombre 姓名	Affiliation Affiliación 單位	Address Dirección 地址	Phone Number Teléfono 電話	Email Address Correo electrónico 電郵
Dr Tom Williams	Sierra Club Transit Comm	4115 Bennett Rd LA 90032 -1712	323-528 1682	ctwilliams2012@ yahoo.com
MARTHA PORTER	LACOE	1025 [illegible] Ave 90063	323 [illegible]3657	mporter_6@ yahoo.com
FRANK WADA	Lincoln Hts NC	2832 Workman St LA CA. 90031	323 225-7012	FWADA2K1@YAHOO.com
KEENAN SHEEDY	SEIU L.721 at LAC+USC MC	4329 Maycrest Ave LA 90065	(213)393-7370	Keenansheedy@ yahoo.com

LAC+USC Medical Center Campus
Master Plan
EIR Scoping Meeting
June 4, 2014
Sign-In Sheet

Name Nombre 姓名	Affiliation Afiliación 單位	Address Dirección 地址	Phone Number Teléfono 電話	Email Address Correo electrónico 電郵
Brian League	USC Real Estate	USC.	213 740 5467	league@usc.edu
Yolie Garcia	El Sereno	PO Box 32-113 90032		yolie.garcia98@gmail.com
MARGARITA MEJIA	LOCAL RESIDENT	1955½ BAILEY L.A. 90033	909 917-6554	MMEJIA777@gmail
David Galaviz	USC & Local resident	2932 Cornwall LA, 90032	213/743-2231	dgalaviz@usc.edu
Russ Brown	PLANC	515 S. Spring #314 LA CA 90013	213-999-0279	Russ Brown DTLA @gmail.com
Lupe Valdez	UPLA	1300 Cross Park Pkwy N	626 963-7017	LCvaldez@up.com
Starla Perez	Core Lab Pathology	1983 Marengo St		LAHEYLAC@YAHOO.

LAC+USC Medical Center Campus
Master Plan
EIR Scoping Meeting
June 4, 2014
Sign-In Sheet

Name Nombre 姓名	Affiliation Affiliación 單位	Address Dirección 地址	Phone Number Teléfono 電話	Email Address Correo electrónico 電郵
Roberto Avila	LAC+USC		(323) 226-[illegible]	[illegible]

LAC+USC Medical Center Campus Master Plan EIR Scoping Meeting

Comment Sheet/Oja de Comentarios/意見表

Name/Nombre/姓名： Danila Oder

Affiliation/ Afiliación 單位 Employee, LAC+USC

Address/Dirección:/ 地址： 1200 N. State, IPT C4E100, LA 90033

Phone Number / Teléfono / [redacted]

Email Address/ Correo electrónico/ [redacted]
doder@usc.edu

- Don't build a parking structure that blocks the view from Clinic Tower. The view is designed to be the main architectural feature of the building & is available to the public as a corridor runs along inside it. The view is all the way to downtown
- The 2040 vision is very cluttered
- I suggest that the new buildings be designed to be compatible with General Hospital, or alternatively, the Mission Style of the Nursing School @ Zonal & Mission.
- Please do not use patterned concrete on any of the walkways. Patients w/ wheelchairs + canes, many delivery carts, etc, traverse the ramps & need smooth surfaces.
- I like the design of Women's Hospital. Many people in LA love them. Try to save some archit. features.

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Clarice Nash, Project Manager
900 South Fremont Avenue, Alhambra, California 91803

Or by email to cnash@dpw.lacounty.gov
Comments need to be submitted and received by June 18, 2014.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

May 19, 2014

To: Reviewing Agencies

Re: LAC+USC Medical Center Master Plan
SCH# 2014051061

Attached for your review and comment is the Notice of Preparation (NOP) for the LAC+USC Medical Center Master Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Clarice Nash
Los Angeles County
900 South Fremont Avenue
Alhambra, CA 91803

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

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PROJECT MANAGEMENT DIVISION I
DEPARTMENT OF PUBLIC WORKS

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2014051061
Project Title LAC+USC Medical Center Master Plan
Lead Agency Los Angeles County

Type NOP Notice of Preparation

Description The proposed LAC+USC Medical Center Master Plan Project consists of a master plan that is envisioned over a period of 25 years, that would be used to guide future development of the LAC+USC Medical Center campus, and would influence the delivery of health care services and health related community programs. Development under the Master Plan would include construction of new and renovated medical-related, office, commercial, residential, community open space, and parking uses and demolition of existing buildings and structures to accommodate new development.

Lead Agency Contact

Name Clarice Nash
Agency Los Angeles County
Phone 626 300 2363 **Fax**
email
Address 900 South Fremont Avenue
City Alhambra **State** CA **Zip** 91803

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Zonal Street, Mission Road, Marengo Street, State Street
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways I-5, 10, SR 110, 101
Airports
Railways UPRR, Metro,
Waterways Los Angeles River
Schools Several
Land Use Z: PF
GPD: PF

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Resources, Recycling and Recovery; Department of Water Resources; Department of Fish and Wildlife, Region 5; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 7; Air Resources Board; Department of Toxic Substances Control

Date Received 05/19/2014 **Start of Review** 05/19/2014 **End of Review** 06/17/2014

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2014051061

Project Title: LAC+USC Medical Center Master Plan

Lead Agency: County of Los Angeles Department of Public Works — Contact Person: Clarice Nash

Mailing Address: 900 South Fremont Avenue — Phone: 626.300.2363

City: Alhambra — Zip: 91803 — County: Los Angeles

Project Location: County: Los Angeles — City/Nearest Community: Los Angeles

Cross Streets: Zonal Street, Mission Road, Marengo Street, State Street — Zip Code: 90033

Longitude/Latitude (degrees, minutes and seconds): ____° ____′ ____″ N / ____° ____′ ____″ W Total Acres: 1,725,000

Assessor's Parcel No.: — Section: ____ Twp.: ____ Range: ____ Base: ____

Within 2 Miles: State Hwy #: I-5, I-10, SR-110, SR-101 — Waterways: Los Angeles River

Airports: N/A — Railways: Union Pacific, Metro, M — Schools: Several

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Document Type:

CEQA: ☒ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ____ ☐ Other: ____

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other: ____

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☒ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other: ____

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☒ Other: Medical Center Campus Master Plan

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☒ Geologic/Seismic
☐ Minerals
☒ Noise
☒ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☒ Schools/Universities
☒ Septic Systems
☒ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☒ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☐ Wetland/Riparian
☐ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Zoning: Public Facilities (PF) General Plan Designation: Public Facilities (P)

Project Description: *(please use a separate page if necessary)*

The proposed LAC+USC Medical Center Master Plan Project consists of a master plan that is envisioned over a period of 25 years, that would be used to guide future development of the LAC+USC Medical Center campus, and would influence the delivery of health care services and health related community programs. Development under the Master Plan would include construction of new and renovated medical-related, office, commercial, residential, community open space, and parking uses and demolition of existing buildings and structures to accommodate new development.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

NOP Distribution List

County: Los Angeles M6 SCH# 2014051061

Resources Agency

- Resources Agency
  Nadell Gayou
- Dept. of Boating & Waterways
  Nicole Wong
- California Coastal Commission
  Elizabeth A Fuchs
- Colorado River Board
  Tamya Trujillo
- Dept. of Conservation
  Elizabeth Carpenter
- California Energy Commission
  Eric Knight
- Cal Fire
  Dan Foster
- Central Valley Flood Protection Board
  James Herota
- Office of Historic Preservation
  Ron Parsons
- Dept of Parks & Recreation
  Environmental Stewardship Section
- California Department of Resources, Recycling & Recovery
  Sue O'Leary
- S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- Dept. of Water Resources Resources Agency
  Nadell Gayou

Fish and Game

- Depart. of Fish & Wildlife
  Scott Flint
  Environmental Services Division
- Fish & Wildlife Region 1
  Donald Koch
- Fish & Wildlife Region 1E
  Laurie Harnsberger
- Fish & Wildlife Region 2
  Jeff Drongesen
- Fish & Wildlife Region 3
  Charles Armor
- Fish & Wildlife Region 4
  Julie Vance
- Fish & Wildlife Region 5
  Leslie Newton-Reed
  Habitat Conservation Program
- Fish & Wildlife Region 6
  Gabrina Gatchel
  Habitat Conservation Program
- Fish & Wildlife Region 6 I/M
  Heidi Sickler
  Inyo/Mono, Habitat Conservation Program
- Dept. of Fish & Wildlife M
  George Isaac
  Marine Region

Other Departments

- Food & Agriculture
  Sandra Schubert
  Dept. of Food and Agriculture
- Depart. of General Services
  Public School Construction
- Dept. of General Services
  Anna Garbeff
  Environmental Services Section
- Dept. of Public Health
  Jeffery Worth
  Dept of Health/Drinking Water
- Delta Stewardship Council
  Kevan Samsam

Independent Commissions,Boards

- Delta Protection Commission
  Michael Machado
- Cal EMA (Emergency Management Agency)
  Dennis Castrillo
- Native American Heritage Comm.
  Debbie Treadway
- Public Utilities Commission
  Leo Wong
- Santa Monica Bay Restoration
  Guangyu Wang
- State Lands Commission
  Jennifer Deleong
- Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Business, Trans & Housing

- Caltrans - Division of Aeronautics
  Philip Crimmins
- Caltrans - Planning
  Terri Pencovic
- California Highway Patrol
  Suzann Ikeuchi
  Office of Special Projects
- Housing & Community Development
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- Caltrans, District 1
  Rex Jackman
- Caltrans, District 2
  Marcelino Gonzalez
- Caltrans, District 3
  Eric Federicks – South
  Susan Zanchi - North
- Caltrans, District 4
  Erik Alm
- Caltrans, District 5
  David Murray
- Caltrans, District 6
  Michael Navarro
- Caltrans, District 7
  Dianna Watson
- Caltrans, District 8
  Dan Kopulsky
- Caltrans, District 9
  Gayle Rosander
- Caltrans, District 10
  Tom Dumas
- Caltrans, District 11
  Jacob Armstrong
- Caltrans, District 12
  Maureen El Harake

Cal EPA

Air Resources Board

- All Projects
  CEQA Coordinator
- Transportation Projects
  Nesamani Kalandiyur
- Industrial Projects
  Mike Tollstrup
- State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- State Water Resouces Control Board
  Phil Crader
  Division of Water Rights
- Dept. of Toxic Substances Control
  CEQA Tracking Center
- Department of Pesticide Regulation
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- RWQCB 3
  Central Coast Region (3)
- RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- RWQCB 5S
  Central Valley Region (5)
- RWQCB 5F
  Central Valley Region (5)
  Fresno Branch Office
- RWQCB 5R
  Central Valley Region (5)
  Redding Branch Office
- RWQCB 6
  Lahontan Region (6)
- RWQCB 6V
  Lahontan Region (6)
  Victorville Branch Office
- RWQCB 7
  Colorado River Basin Region (7)
- RWQCB 8
  Santa Ana Region (8)
- RWQCB 9
  San Diego Region (9)

- Other: _____
- _____
  Conservancy

Last Updated 5/5/2014

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012-3606
PHONE (213) 897-0362
FAX (213) 897-0360
TTY (213) 897-4937

Flex your power!
Be energy efficient!

May 27, 2014

Ms. Clarice Nash
Los Angeles County
900 South Fremont Ave.
Alhambra, CA. 91803

RE: IGR/CEQA No. 140531/NY
NOP/LAC+USC Medical Center Master Plan
1,725,000 SF of New Developments
SCH# 2014051061
Vicinity: LA/I-10/I-5

Dear Ms. Nash:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the LAC+USC Medical Center Master Plan, which will add 1,725,000 SF of new developments throughout the campus.

To fully analyze and evaluate the impacts of this project on the State transportation system, a traffic study in advance of the DEIR should be prepared. Please reference the Caltrans Traffic Impact Study Guide, which can be accessed on the Internet at:

http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

Listed below are some elements of what should be included in the traffic study:

1. Presentations of assumptions and methods used to develop trip generation, trip distribution, choice of travel mode, and assignments of trips to I-5 & I-10 and nearest access on & off ramps.

2. Consistency of project travel modeling with other regional and local modeling forecasts and with travel data. Caltrans may use indices to check results and any differences or inconsistencies must be thoroughly explained.

3. Analysis of ADT, AM, and PM peak-hour volumes for both existing and future conditions in the affected area. This should include freeways, interchanges, and intersections, and all HOV facilities. Interchange Level of Service should be specified (HCM2000 method requested). Utilization of transit lines and vehicles, and of all facilities, should be realistically estimated. Future conditions would include build-out of all projects (see next item) and any plan horizon years.

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DEPARTMENT OF PUBLIC

4. Inclusion of all appropriate traffic volumes. Analysis should include traffic from the project, cumulative traffic generated from all specific approved developments in the area, and traffic growth other than from the project and developments. For example: existing + project + other projects + other growth.

5. Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. These mitigation discussions should include, but not be limited to, the following:

   - description of transportation infrastructure improvements
   - financial costs, funding sources and financing
   - sequence and scheduling considerations
   - implementation responsibilities, controls and monitoring

   Any mitigation involving transit, HOV, or TDM must be justified and its effects conservatively estimated.

6. Specification of developer's percent share of the cost, as well as a plan of realistic mitigation measures under the control of the developer. The following ratio should be estimated: Additional traffic volume due to project implementation is divided by the total increase in the traffic volume (see Appendix "B" of the Guidelines). That ratio would be the projects equitable share responsibility.

   For purposes of determining project share of costs, the number of trips from the project on each traveling segment or element is estimated in the context of forecasted traffic volumes which include build-out of all approved and not yet approved projects, and other sources of growth.

We look forward to reviewing the DEIR and expect to receive a copy from the State Clearinghouse. In the spirit of mutual cooperation, Caltrans would like to extend a meeting invitation to the lead agency and project traffic consultant to discuss the traffic analysis study area and methodology, potential traffic impacts, and possible mitigation.

If you have any questions regarding this response, please call Mr. Nerses Yerjanian, the Project Coordinator, at (213) 897-6536 and refer to IGR/CEQA # 140531/NY.

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

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Transportation
Alan Wapner, San Bernardino Associated Governments

May 29, 2014

Ms. Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 South Freemont Avenue
Alhambra, California 91803-1331
Telephone: (626) 300-2363
E-mail: cnash@dpw.lacounty.gov

RE: SCAG Comments on the Notice of Preparation of an Environmental Impact Report for the LAC+USC Medical Center Master Plan Project [SCAG NO. IGR8041]

Dear Ms. Nash:

Thank you for submitting the Notice of Preparation of an Environmental Impact Report for LAC+USC Medical Center Master Plan Project ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including its Sustainable Communities Strategy (SCS) component pursuant to SB 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of the regional goals and policies in the RTP/SCS.

SCAG staff has reviewed the Notice of Preparation of an Environmental Impact Report for LAC+USC Medical Center Master Plan Project. Located on several parcels of land owned by the County of Los Angeles and surrounded by the Boyle Heights and Lincoln Heights neighborhoods of the City of Los Angeles, the proposed project consists of a master plan that would be used to guide future development of the LAC+USC Medical Center campus over the next 25 years.

When available, please send environmental documentation to SCAG's *office in Los Angeles or by email to sunl@scag.ca.gov* providing, at a minimum, the full comment period for review. If you have any questions regarding the attached comments, please contact Lijin Sun at (213) 236-1882 or sunl@scag.ca.gov. Thank you.

Sincerely,

Jonathan Nadler,
Manager, Compliance and Performance Assessment

[1] SB 375 amends CEQA to add Chapter 4.2 Implementation of the Sustainable Communities Strategy, which allows for certain CEQA streamlining for projects consistent with the RTP/SCS. Lead agencies (including local jurisdictions) maintain the discretion and will be solely responsible for determining "consistency" of any future project with the SCS. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a finding of consistency under SB 375 for purposes of CEQA streamlining.

The Regional Council consists of 86 elected officials representing 191 cities, six counties, six County Transportation Commissions, one representative from the Transportation Corridor Agencies, one Tribal Government representative and one representative for the Air Districts within southern California.

COMMENTS ON THE NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LAC+USC MEDICAL CENTER MASTER PLAN PROJECT [SCAG NO. IGR8041]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS.

2012 RTP/SCS Goals

The SCAG Regional Council adopted the 2012 RTP/SCS in April 2012. The 2012 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations (see http://rtpscs.scag.ca.gov). The goals included in the 2012 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2012 RTP/SCS are the following:

SCAG 2012 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and non-motorized transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the policy and supportive analysis in a table format. Suggested format is as follows:

SCAG 2012 RTP/SCS Goals		
Goal		Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness.*	*Consistent: Statement as to why* *Not-Consistent: Statement as to why* *or* *Not Applicable: Statement as to why* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region.*	*Consistent: Statement as to why* *Not-Consistent: Statement as to why* *or* *Not Applicable: Statement as to why* *DEIR page number reference*
etc.		etc.

RTP/SCS Strategies

To achieve the goals of the 2012 RTP/SCS, a wide range of strategies are included in SCS Chapter (starting on page 152) of the RTP/SCS focusing on four key areas: 1) Land Use Actions and Strategies; 2) Transportation Network Actions and Strategies; 3) Transportation Demand Management (TDM) Actions and Strategies and; 4) Transportation System Management (TSM) Actions and Strategies. If applicable to the proposed project, please refer to these strategies as guidance for considering the proposed project within the context of regional goals and policies. To access a listing of the strategies, please visit http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf (Tables 4.3 – 4.7, beginning on page 152).

Regional Growth Forecasts

The Environmental Impact Report for the LAC+USC Medical Center Master Plan Project should reflect the most recently adopted SCAG forecasts. To review the most recently adopted SCAG forecasts, please visit http://scag.ca.gov/Documents/2012AdoptedGrowthForecastPDF.pdf, which consists of the 2020 and 2035 RTP/SCS population, household and employment forecasts. The forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts		Adopted Unincorporated County of Los Angeles Forecasts		Adopted City of Los Angeles Forecasts	
Forecast	Year 2020	Year 2035	Year 2020	Year 2035	Year 2020	Year 2035
Population	19,663,000	22,091,000	1,159,100	1,399,500	3,991,700	4,320,600
Households	6,458,000	7,325,000	336,100	405,500	1,455,700	1,626,600
Employment	8,414,000	9,441,000	266,100	318,100	1,817,700	1,906,800

MITIGATION

SCAG staff recommends that you review the SCAG 2012 RTP/SCS Final Program EIR Mitigation Measures for guidance, as appropriate. See Chapter 6 (beginning on page 143) at: http://rtpscs.scag.ca.gov/Documents/peir/2012/final/Final2012PEIR.pdf

As referenced in Chapter 6, a comprehensive list of example mitigation measures that may be considered as appropriate is included in Appendix G: *Examples of Measures that Could Reduce Impacts from Planning, Development and Transportation Projects.* Appendix G can be accessed at: http://rtpscs.scag.ca.gov/Documents/peir/2012/final/2012fPEIR_AppendixG_ExampleMeasures.pdf

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

June 17, 2014

Clarice Nash, Project Manager
Department of Public Works
Project Management Division I
900 S. Fremont Avenue
Los Angeles, CA 91803-1331

Dear Ms. Nash:

PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT, LAC+USC MEDICAL CENTER MASTER PLAN PROJECT – 2051 MARENGO STREET, CITY OF LOS ANGELES (FFER #201400081)

The Notice of Preparation and Initial Study for an Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and the Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

1. The subject property is entirely within the City of Los Angeles, which is not a part of the emergency response area of the Los Angeles County Fire Department (also known as the Consolidated Fire Protection District of Los Angeles County). Therefore, this project does not appear to have any impact on the emergency responsibilities of this Department.

LAND DEVELOPMENT UNIT:

1. Without the use of a site plan, the Land Development Unit cannot make specific access and water system requirements at this time. Specific access and water system requirements will be addressed with submittal of plans. Tenant Improvement Plans are required to be submitted to the Fire Department's Engineering Building Plan Check Unit in Commerce.

2. Specific fire and life safety requirements for the construction phase will be addressed at the building fire plan check. There may be additional fire and life safety requirements during this time.

3. Fire Department requirements for access, fire flows, and hydrants are addressed during the building permit stage.

4. The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants.

5. The proposed development may necessitate multiple ingress/egress access for the circulation of traffic and emergency response issues.

6. All on-site driveways/roadways shall provide a minimum unobstructed width of 28 feet, clear-to-sky. The on-site driveway is to be within 150 feet of all portions of the exterior walls of the first story of any building. The centerline of the access driveway shall be located parallel to and within 30 feet of an exterior wall on one side of the proposed structure.

7. Turning radii shall not be less than 32 feet. This measurement shall be determined at the centerline of the road. A Fire Department-approved turning area shall be provided for all driveways exceeding 150 feet in-length and at the end of all cul-de-sacs.

8. All access devices and gates shall comply with California Code of Regulations, Title 19, Articles 3.05 and 3.16.

9. All access devices and gates shall meet the following requirements:

    a. Any single gated opening used for ingress and egress shall be a minimum of 26 feet in-width, clear-to-sky.

    b. Any divided gate opening (when each gate is used for a single direction of travel i.e., ingress or egress) shall be a minimum width of 20 feet clear-to-sky.

    c. Gates and/or control devices shall be positioned a minimum of 50 feet from a public right-of-way, and shall be provided with a turnaround having a minimum of 32 feet of turning radius. If an intercom system is used, the 50 feet shall be measured from the right-of-way to the intercom control device.

    d. All limited access devices shall be of a type approved by the Fire Department.

    e. Gate plans shall be submitted to the Fire Department, prior to installation. These plans shall show all locations, widths and details of the proposed gates.

10. All proposals for traffic calming measures (speed humps/bumps/cushions, traffic circles, roundabouts, etc.) shall be submitted to the Fire Department for review, prior to implementation.

11. The development may require fire flows up to 5,000 gallons per minute at 20 per square inch residual pressure for up to a five-hour duration. Final fire flows will be based on the size of buildings (square footage of each floor of each building), the types of construction used and the verification of the installation on an automatic fire sprinkler system.

12. Fire hydrant spacing shall be 300 feet and shall meet the following requirements:

    a. No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant.

    b. No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant.

    c. Additional hydrants will be required if hydrant spacing exceeds specified distances.

    d. Hydrants shall be required at the corner and mid-block when a cul-de-sac depth exceeds 200 feet on a commercial street.

    e. A cul-de-sac shall not be more than 500 feet in length when serving land zoned for commercial use.

13. Automatic fire sprinkler systems are required.

14. Should any questions regarding the Land Development Unit comments, please contact FPEA Wally Collins at (323) 890-4243 or via e-mail at Wally.Collins@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

HEALTH HAZARDOUS MATERIALS DIVISION:

1. It is recommended that a Phase I Instructional Record Review be prepared for the site to identify potential onsite contaminated areas prior to any soil disturbance. A statistically valid number of soil samples must be taken from the identified contaminated areas and analyzed for contaminants of concerns.

   If significant contamination(s) above background concentrations are detected, the contamination must be mitigated under oversight of a local or State governmental agency. Furthermore, a soil management plan must be prepared for unknown contamination that may be encountered during excavation or grading activities.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

FRANK VIDALES, CHIEF
FORESTRY DIVISION
PREVENTION SERVICES BUREAU

FV:jl

LOS ANGELES CONSERVANCY

523 West Sixth Street, Suite 826
Los Angeles, CA 90014

213 623 2489 OFFICE
213 623 3909 FAX
laconservancy.org

Submitted by email

Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 S. Fremont Avenue
Alhambra, CA 91803-1331
Email: cnash@dpw.lacounty.gov

RE: LAC + USC Medical Center Master Plan, Notice of Preparation

June 18, 2014

Dear Ms. Nash,

On behalf of the Los Angeles Conservancy, I am writing to comment on LAC + USC Medical Center Master Plan. We believe there are a number of historic buildings within the LAC + USC Medical Center campus boundaries that should be taken into consideration when developing a new master plan. The Conservancy strongly urges you to undertake a thorough historic resources evaluation to help identify potentially eligible historic resources. This type of baseline documentation will be essential in making and evaluating decisions about the master plan.

Because the LAC + USC Medical Center Master Plan will be in effect for 25 years, the Conservancy believes there is a need to reevaluate resources as they come of age within the timeframe and "life" of the new master plan. This will offer an opportunity to determine if a structure is deemed eligible for either local, California or national registers. This is important in regards to the County's obligation as the lead agency to follow the California Environmental Quality Act (CEQA).

In recent years the Conservancy has worked with several Los Angeles-area universities and campuses that have undertaken comprehensive new master plans, including Loyola Marymount University, the University of Southern California, and the Port of Los Angeles. Through the respective environmental review processes we worked closely with these institutions to achieve master plans that met the project's objectives while balancing the need to maintain important historic resources.

The Conservancy understands the County is proposing a Landmark Adaptive Reuse zone within the campus and encompassing the historic 1933 General Hospital building. We are encouraged by this and look forward to learning more as details

become available. In addition to the General Hospital, other historic resources on campus may also benefit from a similar tool. This includes the 1909 Old Administrative Building and the 1958 Osteopathic Hospital (also known as the Women's and Children's Hospital). The Old Administrative Building has been previously identified as a historic resource, and was sensitively rehabilitated in 2003. To our knowledge, the Osteopathic Hospital has not yet been identified but the Conservancy believes it may be eligible locally and for the California Register and/or the National Register. It should be recognized and treated as such through the EIR and CEQA process.

I. Osteopathic Hospital

Opened in 1958, the Late Moderne-style Osteopathic Hospital was designed by noted architects Paul R. Williams and Adrian Wilson. Primarily H-shaped in plan, the building's central 9-story portion is flanked by two, seven-story wings. Its simplicity of form and use of spare surfaces are hallmarks of the Late Moderne style. Architects Paul R. Williams and Adrian Wilson were individually prolific Los Angeles architects, and they often collaborated together.Los Angeles native Paul R. Williams was the first African-American member of the American Institute of Architects and an architect of remarkable range. Known for his private homes for Hollywood elites, Williams also designed commercial and institutional buildings, churches, and public housing developments. He became the first African-American architect of a Los Angeles County-owned structure with the 1951 Psychiatric Hospital at the County USC campus, which he designed with Adrian Wilson.

Like Williams, Adrian Wilson was responsible for many municipal projects. For Los Angeles County alone, Wilson built civic centers, libraries, schools and hospitals in the booming postwar years, and was on the team (along with Paul Williams) that designed the Hall of Administration and the County Courthouse at the Los Angeles Civic Center. In the 1960s, the Anaheim Convention Center and the U.S. Embassy in Vietnam were among his commissions.

Williams and Wilson designed several hospital buildings for the County during its midcentury expansion and modernization era. These included the Post Polio Unit at Rancho Los Amigos Hospital and the Harbor General Hospital. At the County USC campus, they were responsible for five buildings built between 1951 and 1962 when the hospital was modernized; four of them were demolished for the LAC+USC Medical Center Replacement Hospital project in the early 2000's. The Osteopathic Hospital is the sole contribution by these prominent architects to County USC, and one of the few midcentury buildings existing at the site.

II. California Environmental Quality Act

A key policy under the California Environmental Quality Act (CEQA) is the lead agency's duty to "take all action necessary to provide the people of this state with... historic environmental qualities...and preserve for future generations...examples of major periods of California history."[1] To this end, CEQA "requires

[1] Public Resources Code §21001 (b), (c).

public agencies to deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects."[2]

Courts often refer to the EIR as "the heart" of CEQA, providing decision makers with an in-depth review of projects with potentially significant environmental impacts and analyzing alternatives that would reduce or avoid those impacts.[3] CEQA Guidelines require a range of alternatives to be considered in the EIR, with an emphasis on options capable of "substantially lessening" the project's significant adverse environmental effects. The Conservancy anticipates seeing a range of preservation alternatives considered within the EIR that avoid and/or lesson adverse impacts on eligible historic resources within the master plan boundaries.

III. Conclusion

The Conservancy encourages the County to develop the master plan with planning that recognizes and plans for the preservation and reuse of historic buildings, including both the Old Administrative Building and the Osteopathic Hospital. These, and other historic buildings, can be incorporated into the Landmark Adaptive Reuse zone, or can be rehabilitated and reused for compatible uses such as research, education, or community/public service.

About the Los Angeles Conservancy:

The Los Angeles Conservancy is the largest local historic preservation organization in the United States, with nearly 6,500 members throughout the Los Angeles area. Established in 1978, the Conservancy works to preserve and revitalize the significant architectural and cultural heritage of Los Angeles County through advocacy and education. For over twenty-five years, the Conservancy and its volunteer Modern Committee have worked to raise awareness about Los Angeles' unique collection of mid-20th century modernist structures.

Please do not hesitate to contact me at (213) 430-4203 or afine@laconservancy.org should you have any questions, and let me know how best to follow-up on this issue and address our concerns.

Sincerely,

Adrian Scott Fine

Adrian Scott Fine
Director of Advocacy

---

[2] *Sierra Club v. Gilroy City Council* (1990) 222 Cal. App.3d 30, 41; *also see* PRC §§ 21002, 21002.1.
[3] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795; *Laurel Heights Improvement Association v. Regents of the University of California* (1993) 6 Cal.4th 1112, 1123.

From:	Nash, Clarice
To:	Anaya, Mario
Subject:	FW: Scoping Comments - LAC+USC Medical Center Master Plan Project
Date:	Wednesday, June 25, 2014 9:17:23 AM
Attachments:	image002.png image003.png image004.png image005.png

[redacted]

-----Original Message-----
From: Diaz, Roderick [mailto:DiazR@scrra.net]
Sent: Tuesday, June 17, 2014 3:54 AM
To: Nash, Clarice
Subject: Scoping Comments - LAC+USC Medical Center Master Plan Project

Dear Ms. Nash:

Concerning requested comments on the forthcoming EIR for LAC+USC Medical Center Master Plan Project, Metrolink would like to request that the project scope include a full analysis of the regional scope of travel to the LAC+USC Medical Center. The analysis would also evaluate the potential for a Metrolink Station to serve the LAC+USC Medical Center in the vicinity of the existing El Monte Busway Station (near North State Street and Pomeroy Street, serving Metro and Foothill Transit).

A Metrolink station at LAC+USC Medical Center would serve our San Bernardino Line, the most heavily patronized route on the entire seven-route Metrolink system. Our analysis shows that there are 12,387 jobs within 0.50 miles of the proposed station. This station would meet the basic requirements of job concentration within a station perimeter and rank in the top ten Metrolink stations for highest job concentration within a 0.5 mile radius. A LAC+USC Medical Center Metrolink Station could, therefore, serve as an important mechanism to mitigate regional travel impacts to the LAC+USC Medical Center and to provide important travel options for passengers from throughout Southern California, given the station's short connections to Los Angeles Union Station, the regional rail hub.

The proposed station fits within the project description and meets all six goals of the Master Plan. We would be happy to provide more information, as requested, and to work with you to explore all solutions related to regional transportation related to the project area.

With regards,

Roderick

Roderick Diaz
Director, Planning & Development

Metrolink
One Gateway Plaza, Floor 12
Los Angeles, CA 90012

Tel (213)452-0455
Cell (213)435-4193

diazr@scrra.net<mailto:diazr@scrra.net>

Roderick Diaz
Director, Planning & Development
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From:	Nash, Clarice
To:	Paul Davis
Cc:	David Attaway; Anava, Mario; Christine Frias
Subject:	RE: Notice of Preparation for LAC+USC Medical Center Master Plan
Date:	Wednesday, June 18, 2014 9:01:57 AM

Thank you and we will send the Notice of Availability directly to you
Clarice Nash

From: Paul Davis [mailto:paul.j.davis@lacity.org]
Sent: Wednesday, June 18, 2014 8:30 AM
To: Nash, Clarice
Cc: David Attaway
Subject: Notice of Preparation for LAC+USC Medical Center Master Plan

Ms. Nash,

The City of Los Angeles Department of Recreation and Parks has reviewed the Notice of Preparation and Initial Study for the proposed LAC+USC Medical Center Master Plan. We concur with the determination of preparing an EIR, and will want an opportunity to receive and review the Draft EIR. Because of the location of our Hazard Park adjacent to the Medical Center campus and nearby Lincoln Park, we would like to review your analysis of potential impacts on these recreational resources from any increases in on-campus housing.

Please send your Notice of Availability to me directly to ensure the maximum amount of time to review the DEIR.

--
Paul J. Davis
Environmental Specialist, DRP/P&C
221 N. Figueroa St., Suite 100
Los Angeles, CA 90012
(213) 202-2667
(213) 202-2611 FAX

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

June 18, 2014

Clarice Nash
Project Manager
County of Los Angeles Department of Public Works
900 S. Fremont Avenue
Alhambra, CA 91803-1331

RE: LAC+USC Medical Center Master Plan

Thank you for the opportunity to comment on the proposed Medical Center Master Plan at 2051 Marengo Street. This letter conveys recommendations from the Los Angeles County Metropolitan Transportation Authority (LACMTA) concerning issues that are germane to our agency's statutory responsibility in relation to our facilities and services that may be affected by the proposed project.

Metro bus lines operate Mission Road, Marengo Street, and Zonal Avenue adjacent to the proposed project and several Metro bus stops are directly adjacent to the proposed project. The following comments relate to bus operations and the bus stops:

1. Although the project is not expected to result in any long-term impacts on transit, the developer should be aware of the bus facilities and services that are present. The existing Metro bus stop must be maintained as part of the final project.

2. During construction, the stop must be maintained or relocated consistent with the needs of Metro Bus Operations. Metro Bus Operations Control Special Events Coordinator should be contacted at 213-922-4632 regarding construction activities that may Impact Metro bus lines. (For closures that last more than six months, Metro's Stops and Zones Department will also need to be notified at 213-922-5190). Other municipal bus may also be impacted and should be included in construction outreach efforts.

3. LACMTA encourages the installation of bus shelters, benches and other amenities that improve the transit rider experience. The County should consider requesting the installation of such amenities as part of the development of the site.

4. Final design of bus stops and surrounding sidewalk area must be Americans with Disabilities Act (ADA) compliant and allow passengers with disabilities a clear path of travel to the bus stop from the proposed development.

5. Metro has two bus lines that layover on the Hospital property in two different locations: off of Zonal Street behind a former out-patient clinic, and on State Street at the top of the hill. Coordination should be made with Metro's Service Planning Department to maintain layover zones.

6. Metro should be considered as part of the long range planning efforts at the Hospital. All transit services should be considered as part of the planning process to serve the area more efficiently and thoroughly.

7. Please contact Scott Page at 213-922-1228 or PageS@metro.net to coordinate transit planning efforts.

Beyond impacts to Metro facilities and operations, LACMTA must also notify the applicant of state requirements. A Transportation Impact Analysis (TIA), with roadway and transit components, is required under the State of California Congestion Management Program (CMP) statute. The CMP TIA Guidelines are published in the "2010 Congestion Management Program for Los Angeles County", Appendix D (attached). The geographic area examined in the TIA must include the following, at a minimum:

1. All CMP arterial monitoring intersections, including monitored freeway on/off-ramp intersections, where the proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hour (of adjacent street traffic).

2. If CMP arterial segments are being analyzed rather than intersections, the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.

3. Mainline freeway-monitoring locations where the project will add 150 or more trips, in either direction, during either the a.m. or p.m. weekday peak hour.

4. Caltrans must also be consulted through the NOP process to identify other specific locations to be analyzed on the state highway system.

The CMP TIA requirement also contains two separate impact studies covering roadways and transit, as outlined in Sections D.8.1 – D.9.4. If the TIA identifies no facilities for study based on the criteria above, no further traffic analysis is required. However, projects must still consider transit impacts. For all CMP TIA requirements please see the attached guidelines.

If you have any questions regarding this response, please contact Marie Sullivan at 213-922-5667 or by email at SullivanMa@metro.net. LACMTA looks forward to reviewing the Draft EIR. Please it to the following address:

LACMTA Development Review
One Gateway Plaza MS 99-23-4
Los Angeles, CA 90012-2952

Sincerely,

Nick Saponara
Development Review Manager, Countywide Planning

Attachment: CMP Appendix D: Guidelines for CMP Transportation Impact Analysis

APPENDIX

D

GUIDELINES FOR CMP TRANSPORTATION IMPACT ANALYSIS

Important Notice to User: This section provides detailed travel statistics for the Los Angeles area which will be updated on an ongoing basis. Updates will be distributed to all local jurisdictions when available. In order to ensure that impact analyses reflect the best available information, lead agencies may also contact MTA at the time of study initiation. Please contact MTA staff to request the most recent release of "Baseline Travel Data for CMP TIAs."

D.1 OBJECTIVE OF GUIDELINES

The following guidelines are intended to assist local agencies in evaluating impacts of land use decisions on the Congestion Management Program (CMP) system, through preparation of a regional transportation impact analysis (TIA). The following are the basic objectives of these guidelines:

- Promote consistency in the studies conducted by different jurisdictions, while maintaining flexibility for the variety of project types which could be affected by these guidelines.
- Establish procedures which can be implemented within existing project review processes and without ongoing review by MTA.
- Provide guidelines which can be implemented immediately, with the full intention of subsequent review and possible revision.

These guidelines are based on specific requirements of the Congestion Management Program, and travel data sources available specifically for Los Angeles County. References are listed in Section D.10 which provide additional information on possible methodologies and available resources for conducting TIAs.

D.2 GENERAL PROVISIONS

Exhibit D-7 provides the model resolution that local jurisdictions adopted containing CMP TIA procedures in 1993. TIA requirements should be fulfilled within the existing environmental review process, extending local traffic impact studies to include impacts to the regional system. In order to monitor activities affected by these requirements, Notices of Preparation (NOPs) must be submitted to MTA as a responsible agency. Formal MTA approval of individual TIAs is not required.

The following sections describe CMP TIA requirements in detail. In general, the competing objectives of consistency & flexibility have been addressed by specifying standard, or minimum, requirements and requiring documentation when a TIA varies from these standards.

D.3 PROJECTS SUBJECT TO ANALYSIS

In general a CMP TIA is required for all projects required to prepare an Environmental Impact Report (EIR) based on local determination. A TIA is not required if the lead agency for the EIR finds that traffic is not a significant issue, and does not require local or regional traffic impact analysis in the EIR. Please refer to Chapter 5 for more detailed information.

CMP TIA guidelines, particularly intersection analyses, are largely geared toward analysis of projects where land use types and design details are known. Where likely land uses are not defined (such as where project descriptions are limited to zoning designation and parcel size with no information on access location), the level of detail in the TIA may be adjusted accordingly. This may apply, for example, to some redevelopment areas and citywide general plans, or community level specific plans. In such cases, where project definition is insufficient for meaningful intersection level of service analysis, CMP arterial segment analysis may substitute for intersection analysis.

D.4 STUDY AREA

The geographic area examined in the TIA must include the following, at a minimum:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic).
- If CMP arterial segments are being analyzed rather than intersections (see Section D.3), the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.
- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.
- Caltrans must also be consulted through the Notice of Preparation (NOP) process to identify other specific locations to be analyzed on the state highway system.

If the TIA identifies no facilities for study based on these criteria, no further traffic analysis is required. However, projects must still consider transit impacts (Section D.8.4).

D.5 BACKGROUND TRAFFIC CONDITIONS

The following sections describe the procedures for documenting and estimating background, or non-project related traffic conditions. Note that for the purpose of a TIA, these background estimates must include traffic from all sources without regard to the exemptions specified in CMP statute (e.g., traffic generated by the provision of low and very low income housing, or trips originating outside Los Angeles County. Refer to Chapter 5, Section 5.2.3 for a complete list of exempted projects).

D.5.1 Existing Traffic Conditions. Existing traffic volumes and levels of service (LOS) on the CMP highway system within the study area must be documented. Traffic counts must

be less than one year old at the time the study is initiated, and collected in accordance with CMP highway monitoring requirements (see Appendix A). Section D.8.1 describes TIA LOS calculation requirements in greater detail. Freeway traffic volume and LOS data provided by Caltrans is also provided in Appendix A.

D.5.2 Selection of Horizon Year and Background Traffic Growth. Horizon year(s) selection is left to the lead agency, based on individual characteristics of the project being analyzed. In general, the horizon year should reflect a realistic estimate of the project completion date. For large developments phased over several years, review of intermediate milestones prior to buildout should also be considered.

At a minimum, horizon year background traffic growth estimates must use the generalized growth factors shown in Exhibit D-1. These growth factors are based on regional modeling efforts, and estimate the general effect of cumulative development and other socioeconomic changes on traffic throughout the region. Beyond this minimum, selection among the various methodologies available to estimate horizon year background traffic in greater detail is left to the lead agency. Suggested approaches include consultation with the jurisdiction in which the intersection under study is located, in order to obtain more detailed traffic estimates based on ongoing development in the vicinity.

D.6 PROPOSED PROJECT TRAFFIC GENERATION

Traffic generation estimates must conform to the procedures of the current edition of Trip Generation, by the Institute of Transportation Engineers (ITE). If an alternative methodology is used, the basis for this methodology must be fully documented.

Increases in site traffic generation may be reduced for existing land uses to be removed, if the existing use was operating during the year the traffic counts were collected. Current traffic generation should be substantiated by actual driveway counts; however, if infeasible, traffic may be estimated based on a methodology consistent with that used for the proposed use.

Regional transportation impact analysis also requires consideration of trip lengths. Total site traffic generation must therefore be divided into work and non-work-related trip purposes in order to reflect observed trip length differences. Exhibit D-2 provides factors which indicate trip purpose breakdowns for various land use types.

For lead agencies who also participate in CMP highway monitoring, it is recommended that any traffic counts on CMP facilities needed to prepare the TIA should be done in the manner outlined in Chapter 2 and Appendix A. If the TIA traffic counts are taken within one year of the deadline for submittal of CMP highway monitoring data, the local jurisdiction would save the cost of having to conduct the traffic counts twice.

D.7 TRIP DISTRIBUTION

For trip distribution by direct/manual assignment, generalized trip distribution factors are provided in Exhibit D-3, based on regional modeling efforts. These factors indicate Regional Statistical Area (RSA)-level tripmaking for work and non-work trip purposes.

(These RSAs are illustrated in Exhibit D-4.) For locations where it is difficult to determine the project site RSA, census tract/RSA correspondence tables are available from MTA.

Exhibit D-5 describes a general approach to applying the preceding factors. Project trip distribution must be consistent with these trip distribution and purpose factors; the basis for variation must be documented.

Local agency travel demand models disaggregated from the SCAG regional model are presumed to conform to this requirement, as long as the trip distribution functions are consistent with the regional distribution patterns. For retail commercial developments, alternative trip distribution factors may be appropriate based on the market area for the specific planned use. Such market area analysis must clearly identify the basis for the trip distribution pattern expected.

D.8 IMPACT ANALYSIS

CMP Transportation Impact Analyses contain two separate impact studies covering roadways and transit. Section Nos. D.8.1-D.8.3 cover required roadway analysis while Section No. D.8.4 covers the required transit impact analysis. Section Nos. D.9.1-D.9.4 define the requirement for discussion and evaluation of alternative mitigation measures.

D.8.1 Intersection Level of Service Analysis. The LA County CMP recognizes that individual jurisdictions have wide ranging experience with LOS analysis, reflecting the variety of community characteristics, traffic controls and street standards throughout the county. As a result, the CMP acknowledges the possibility that no single set of assumptions should be mandated for all TIAs within the county.

However, in order to promote consistency in the TIAs prepared by different jurisdictions, CMP TIAs must conduct intersection LOS calculations using either of the following methods:

- The Intersection Capacity Utilization (ICU) method as specified for CMP highway monitoring (see Appendix A); or
- The Critical Movement Analysis (CMA) / Circular 212 method.

Variation from the standard assumptions under either of these methods for circumstances at particular intersections must be fully documented.

TIAs using the 1985 or 1994 Highway Capacity Manual (HCM) operational analysis must provide converted volume-to-capacity based LOS values, as specified for CMP highway monitoring in Appendix A.

D.8.2 Arterial Segment Analysis. For TIAs involving arterial segment analysis, volume-to-capacity ratios must be calculated for each segment and LOS values assigned using the V/C-LOS equivalency specified for arterial intersections. A capacity of 800 vehicles per hour per through traffic lane must be used, unless localized conditions necessitate alternative values to approximate current intersection congestion levels.

D.8.3 Freeway Segment (Mainline) Analysis. For the purpose of CMP TIAs, a simplified analysis of freeway impacts is required. This analysis consists of a demand-to-capacity calculation for the affected segments, and is indicated in Exhibit D-6.

D.8.4 Transit Impact Review. CMP transit analysis requirements are met by completing and incorporating into an EIR the following transit impact analysis:

- ☐ Evidence that affected transit operators received the Notice of Preparation.
- ☐ A summary of existing transit services in the project area. Include local fixed-route services within a ¼ mile radius of the project; express bus routes within a 2 mile radius of the project, and; rail service within a 2 mile radius of the project.
- ☐ Information on trip generation and mode assignment for both AM and PM peak hour periods as well as for daily periods. Trips assigned to transit will also need to be calculated for the same peak hour and daily periods. Peak hours are defined as 7:30-8:30 AM and 4:30-5:30 PM. Both "peak hour" and "daily" refer to average weekdays, unless special seasonal variations are expected. If expected, seasonal variations should be described.
- ☐ Documentation of the assumption and analyses that were used to determine the number and percent of trips assigned to transit. Trips assigned to transit may be calculated along the following guidelines:
  - ➢ Multiply the total trips generated by 1.4 to convert vehicle trips to person trips;
  - ➢ For each time period, multiply the result by one of the following factors:

    3.5% of Total Person Trips Generated for most cases, except:

    10% primarily Residential within 1/4 mile of a CMP transit center
    15% primarily Commercial within 1/4 mile of a CMP transit center
    7% primarily Residential within 1/4 mile of a CMP multi-modal transportation center
    9% primarily Commercial within 1/4 mile of a CMP multi-modal transportation center
    5% primarily Residential within 1/4 mile of a CMP transit corridor
    7% primarily Commercial within 1/4 mile of a CMP transit corridor
    0% if no fixed route transit services operate within one mile of the project

  To determine whether a project is primarily residential or commercial in nature, please refer to the CMP land use categories listed and defined in Appendix E, *Guidelines for New Development Activity Tracking and Self Certification.* For projects that are only partially within the above one-quarter mile radius, the base rate (3.5% of total trips generated) should be applied to all of the project buildings that touch the radius perimeter.

- ☐ Information on facilities and/or programs that will be incorporated in the development plan that will encourage public transit use. Include not only the jurisdiction's TDM Ordinance measures, but other project specific measures.

- Analysis of expected project impacts on current and future transit services and proposed project mitigation measures, and;
- Selection of final mitigation measures remains at the discretion of the local jurisdiction/lead agency. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

D.9 IDENTIFICATION AND EVALUATION OF MITIGATION

D.9.1 Criteria for Determining a Significant Impact. For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$). The lead agency may apply a more stringent criteria if desired.

D.9.2 Identification of Mitigation. Once the project has been determined to cause a significant impact, the lead agency must investigate measures which will mitigate the impact of the project. Mitigation measures proposed must clearly indicate the following:

- Cost estimates, indicating the fair share costs to mitigate the impact of the proposed project. If the improvement from a proposed mitigation measure will exceed the impact of the project, the TIA must indicate the proportion of total mitigation costs which is attributable to the project. This fulfills the statutory requirement to exclude the costs of mitigating inter-regional trips.
- Implementation responsibilities. Where the agency responsible for implementing mitigation is not the lead agency, the TIA must document consultation with the implementing agency regarding project impacts, mitigation feasibility and responsibility.

Final selection of mitigation measures remains at the discretion of the lead agency. The TIA must, however, provide a summary of impacts and mitigation measures. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the mitigation monitoring requirements contained in CEQA.

D.9.3 Project Contribution to Planned Regional Improvements. If the TIA concludes that project impacts will be mitigated by anticipated regional transportation improvements, such as rail transit or high occupancy vehicle facilities, the TIA must document:

- Any project contribution to the improvement, and
- The means by which trips generated at the site will access the regional facility.

D.9.4 Transportation Demand Management (TDM). If the TIA concludes or assumes that project impacts will be reduced through the implementation of TDM measures, the TIA must document specific actions to be implemented by the project which substantiate these conclusions.

D.10 REFERENCES

1. *Traffic Access and Impact Studies for Site Development: A Recommended Practice*, Institute of Transportation Engineers, 1991.
2. *Trip Generation*, 5th Edition, Institute of Transportation Engineers, 1991.
3. *Travel Forecast Summary: 1987 Base Model - Los Angeles Regional Transportation Study (LARTS)*, California State Department of Transportation (Caltrans), February 1990.
4. *Traffic Study Guidelines*, City of Los Angeles Department of Transportation (LADOT), July 1991.
5. *Traffic/Access Guidelines*, County of Los Angeles Department of Public Works.
6. *Building Better Communities*, Sourcebook, Coordinating Land Use and Transit Planning, American Public Transit Association.
7. *Design Guidelines for Bus Facilities*, Orange County Transit District, 2nd Edition, November 1987.
8. *Coordination of Transit and Project Development*, Orange County Transit District, 1988.
9. *Encouraging Public Transportation Through Effective Land Use Actions*, Municipality of Metropolitan Seattle, May 1987.

DATE: June 18, 2014, 3:30pm

TO: Clarice Nash, Project Manager, County of Los Angeles Department of Public Works
Project Management Division I, 900 S. Fremont Ave., Alhambra, CA 91803-1331
cnash@dpw.lacounty.gov 626-300-2363 M-Th

CC: Gloria Molina
Jose Huizar, CD 14 Member
Lincoln Heights NC
Boyle Heights NC
LA-32 NC

FROM: Dr. Tom Williams
Citizens Coalition for Safe Communities
Sierra Club, Angeles Chapter Transportation Committee

SUBJECT: LACounty + USC Medical Center Master Plan 2015-2040
RE: SCH: 2014051061/ 06/17/2014 Notice of Preparation - Comments

We deeply appreciate the opportunity to present public comments regarding this important program and its development in the east-central neighborhoods of the City of Los Angeles. We look forward to the preparation of thorough, adequate, and complete documents for compliance with CEQA and the Environmental Impact Report (EIR) along with the Plan, itself. At this time we find the Plan to be too incomplete and inconsistent for comments, and comments herein are focused entirely on the scope and development of the DEIR.

Our comments are summarized as below.

Dr. Tom Williams
Citizens Coalition for a Safe Community
Sierra Club, Angeles Chapter, Transportation Comte.
4117 Barrett Rd, Los Angeles CA 90032-1712
ctwilliams2012@yahoo.com 323-528-9682

COMMENTS:
General
County-USC

Total isolation of the County (LACo) facilities and activities from those of USC renders the entire NOP/IS, and Scope for the DEIR as totally incomplete and must be adequately and completely developed in the DEIR. These plans and projects are intimately integrated and such avoidance/isolation is totally without merit to avoid the cumulative and related impacts especially for traffic, parking, transportation, aesthetics, noise, stormwater, water supplies, sewerage, and social-economic consideration of the Project and its surroundings. Concentration of medical services in one 0.5mi diameter location also puts at risks concentrated major emergency facilities subjected to seismic risks and the ability of such services to be available to the population of central and east LA areas.

The DEIR must provide all relationships of USC and LACo and clearly identify all agreements, contracts, and relationships and agreements, formal or implied, between the two organizations and their influences on selection and development of facilities and activities within the LACo Project Area.

Project Site, Area, and Sphere of Influence

Inadequate, Incomplete Project Description - also many drawings provided appear to be inconsistent with others presented leading to confusion as to the Project scope, area, and site(s). The DEIR must provide adequate and complete drawings which consistently identify the Project site(s), the Project Area, and its/their sphere/radius of influence.

No Purposes and Needs are expressed in any comparable format and quantified with regard to the alternatives considered and the proposed "project" selected and must be thoroughly presented in the DEIR.

Not all County properties involved, and exclusions must be justified and explained in the DEIR elsewise the Project is subject to further comments and actions regarding segmentation of development.

All properties, ownerships, long-term leases, and current zoning are required in the DEIRalong with delineations .

Other private, City, and LACo projects lie within the Project Area or sphere of influence of the LACo project, e.g., Soto Str. improvements, LA River Parkland, Lincoln Park, Hazard Park, Caltrans I-5/I-10 interchange, etc. must be related in the DEIR in setting, assessment, and mitigation.

Service Area

Current and future service areas for the Medical Center and Project have not been indentified and must be included in the DEIR.

As other LACo medical facilities exist throughout the County, services areas of all facilities must be delineated in the DEIR and those of the Project clearly delineated.

The Project has very strong relations with other LACo facilities in central LA (within <10mi of the Project) which may influence the functioning of both the Project and the dependent LACo facilities and their required accesses, services and facilities within the Project area, including the USC portions.

Existing Plans

The NOP does not incorporated the current land use policies, plans, and projections of the USC Medical Center for facilities, activities, and service areas and reliability of emergency/medical services for urban areas. The DEIR must reflect all setting, assessment, and mitigation for the current USC Plan and its FEIR and anu other properties within the Project Area, Marengo-Mission-Valley-Soto.

The NOP does not incorporate the current land use policies, plans, and projections of the Southern California Association of Governments for 1) population growth, 2) more transit related urban development, and 3) distribution and reliability of emergency/medical services for urban areas within their jurisdiction.

Proposed Project does not reflect the MTA/METRO (& Caltrans) plans for transportation facilities and transit systems, routes, and capacities. The Project lies within the service corridors of many road/rail transit systems, but the Project has not incorporated the existing and proposed transportation facilities into the gateways and pathways of the alternatives and proposed Project. Many opportunities exist to include LACo properties into more transport-focused alternatives (see below) which must be explored in the development of the Plan and DEIR.

LACity Mobility Element and General Plan (LADoT/DCP) has been prepared and developed without considerations of the LACo, and the Project appears not to reflect the current Mobility Element policies and planning approached during the same development period. The DEIR must incorporate plans of SCAG, MTA, and Mobility Element into the transportation sector setting and assessment.

The City's LA River Restoration represents a major project adjacent to this Project Area and would contain major attractions and traffic generation within the Project vicinity. The DEIR must incorporate plans of the LA City LA River Corridor and associated effects especially for Mission Road, Daly/Marengo, and the I-5/I-10 Interchange/Ramp Intersection into the transportation sector setting and assessment.

The LACo Enterprise Zone and City CRA-Descendent Agencies have/had plans for adjacent areas and corridors which are being reorganized, and the Project area setting and assessments must incorporate such plans especially for the Valley Blvd/UPRR corridor along the north side of the Project Site/Area.

Alternatives

We request the following Alternatives:

- Transit-Focused Alternative with elimination of at least 50% of all proposed parking spaces within the Project Site with perimeter-gateways and more directly link with the existing transit corridors and facilities of the Project Area, including I-10/Transit, Marengo, Mission Road, Soto, and Valley Blvd.;
- Major Development Center Alternative with at least 50% more floor area as part of a Public Private Partnership venture, as the LACo MTA is undertaking for Measure R transportation projects and the High Desert Corridor but herein focused on Medical, Insurance, Research, Social Services, associated commercial and recreational services, etc..

Environmentally Superior - Development Center Alternative involving at least 50% more floor area of similar improvements, including larger subsurface facilities, LEED-Platinum rating, 100% retention/recharge LID stormwater, integrated transit/gateway village-complexes and less than 10% of proposed parking.

Sectors

Although little or no analyses or initial study report were provided as part of the NOP/Checklist, the Project will be reviewed as part of an EIR. Some specific issues are recommended as part of the setting and assessment and mitigation as needed.

Air Quality and Transportation

The Project lies at the Inchange of two of the most congested freeways in LACo along with major arterials between downtown LA City and all areas of East and NE LA and the western San Gabriel Valley. As such, the air quality is expected to be badly degraded compare to many others further from freeway interchanges. No air quality information has been provided for scoping, and current air quality must be monitored and used for both the effects on intake air quality for Project and as a baseline for impacts from increased congestion in this corridor and around the Interchange.

Traffic counts for all roadways and intersections must be monitored and numerical information provided for current conditions. Based on such, the DEIR must establish those expected with the development of the USC Campus Plan and then those of the proposed Project. Once the baseline and projected traffic flows are established, additional improvements must be modeled in order to establish values for the mitigative and compensatory measures, and prospective improvements incorporated into the Project to benefit user access and transit-supported service participants.

Hydrology and Water Resources

Existing facilities have been constructed with little concern with stormwater runoff and based on its close proximity to the LA River, hydraulic effects on the flood levels of the River. Current LACo and LACity policies regarding low impact development and 100-year flood levels appear not to be incorporated in the available plans for the Project. The DEIR must include a thorough analysis of existing runoff and projection of the current Project and focus on reductions for those projections by at least 50% in volume by local recharges and releases prolonged for at least 3-5 times projected times of concentrations or over a 72 hour whichever greater.

Water resources are very constrained now and in the future. The Project lies within a major easterly watershed for the LA River, and the area has a high groundwater capacity for receiving recharge of collected stormwater. Such waters could be transferred for use in the nearby (500ft) proposed "Piggyback" Recreation area of the LARiver rather than directly released to the lined channel.

Because of the single high wastewater flow production from this Project Area (both LACo and USC), an opportunity exists to develop recycling of advanced treated wastewater and perhaps graywaters for local area reuse and irrigation of the LACity and LARiver recreational areas. Such activities could be incorporated into the Project and related alternatives.

Environmental Justice - Area and Service

The Project will serve a very large area predominately from communities in NE, East, Downtown, and Central LACity. However, adequate and complete setting and assessment require the clear establishment of the existing and future (2040) service areas and populations to be served by the DEIR. The DEIR must also consider the appropriate levels for medical and emergency services required for such populations and communities served/to be served and how the Project would either be maintained and brought into norms for such services for all communities.

Cumulative Effects (Other Projects and Activities)

The central issue at this CEQA stage is the apparent purposeful exclusion of any coordination between the USC and LACo facilities. Although integrated in many activities and proximity, the LACo's lack of incorporating any materials from the USC CEQA actions focuses attention on the cumulative effects of the two development programs which have supposedly not been coordinated, integrated, and assessed through the same CEQA process. The DEIR must provide settings, assessments, and mitigations for the various Project Area and vicinity projects mentioned here and elsewhere in thee comments.

Additional Detailed Comments - format: page/paragraph, Doc.Text, Important Issue, *Comment*
Initial Study, May 2014 Checklist

pdf-p.2/4 Project Location: The LAC+USC Medical Center is located at 2051 Marengo Street on **several parcels of land owned by the County of Los Angeles** and is **surrounded** by the Boyle Heights and Lincoln Heights neighborhoods of the City of Los Angeles, in Los Angeles County. Specifically, the **site** is bounded by Zonal Street, Mission Road, Marengo Street, and Chicago Street. State Street bisects the project site.

2/4 a. The Project map, Fig. 2/p.8, does not include all County property-parcels included under the authority of the LA County Medical Center south of Marengo, west of Mission, and north of Zonal.

2/4 b. Neighborhood Council Areas are delineated by LACity ZIMAS along Zonal St. from Marengo - Soto. Official boundaries must be used for both Boyle Heights (south) and Lincoln Heights (north).

2/4 c. The "site" does not include all parcels owned by the County within the area and included in this Project - Master Plan. Change to Site(s) or change drawings and definition and enumeration of Site.

pdf-p.41 #16. Transportation/Traffic -

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Marengo-Daly/Mission/Richmond-I-5 Ramps is an existing hazardous intersection with major effects and measures required for emergency access from west and south, especially for LACounty Jail residents.

Incompatible uses in Future Recreational areas along west side of Mission Road south of Marengo/I-5 and continuing traffic of heavy duty and other trucks from UPRR/UPS west of Daly to I-5/I-10.

p.41/#16. There are no significant changes associated with the proposed project that would result in an increase in hazards due to a design feature or incompatible uses. Nonetheless, this issue will be analyzed further as part of the traffic impact analysis in the EIR.

The I-10/I-5 interchange/ramp intersection at Marengo/Mission Rd. is a hazardous, highly congested, often-blocked intersection which totally blocks all access to/from the south. Increased access to the Project will place at further risk any emergency access to the Project from the south.

Current parking along Valley Blvd. for visitors and employees and various pedestrian access points along the northerly USC and LACo perimeter encourage pedestrian crossing of the UPRR tracks and thereby increased activities and employment would encourage increase and continuation of highly dangerous pedestrian transportation access. The Project must halt all pedestrian access from uncontrolled crossings of UPRR.

p.41/#16 **e) Result in inadequate emergency access?**

Three major access corridors for the Project involve major bridge structures on the SW-Mission/I-5, SE-Soto/I-10, NE-Soto/UPRR, and NW-Mission/UPRR. Given the critical accessibility, the DEIR must thoroughly document and assess the viability of all four bridges to/from the Project Area.

41/#16 The proposed project may result in intermittent access restrictions during construction. The County would implement traffic control plans in areas where construction is occurring to accommodate first responders and emergency vehicles, and

Implementation of the proposed project would alter and/or introduce new visitor and emergency access points to the LAC+USC Medical Center. This issue will be analyzed further the EIR.

Access restrictions for such an emergency facility is not acceptable and would be a significant impact. A complete and adequate construction workplan must be provided for periods of construction of all phases of the Project.

ensure that emergency access is not obstructed.

Underpass for I-5 and ramp-access/exit turnings represent a major chokepoint which must have a specific, complete and adequate construction workplan provided for periods of construction of all phases of the Project.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle facilities, or pedestrian facilities or otherwise decrease the performance or safety of such facilities?

As indicated above, Mobility Element General Plan, the MTA-METRO Transportation Plans, and SCAG urban and transportation plans have not been incorporated in the NOP/IS and must be thorough,

adequately, and completely integrated into the land use and transportation development of the Project and its current and recommended alternatives,

The proposed project would improve pedestrian mobility within and to the project site. The proposed project would not result in changes to the public transportation system that would conflict with adopted policies plans or programs,

The lack of integration between LACo and USC plans and environmental assessments and both lacking of integration of policies and plans of SCAG, MTA, and LACity Mobility clearly show the need for dramatic increase of local facilities to promote transit-based employee, visitor, and patient access to the Project Area gateways and coordination to eliminate the numerous congested roadways in the Project vicinity and their immeidate and ongoing impacts on emergency services vehicles to to Project Area..

...and may actually enhance connections to public transportation. Nonetheless, this issue will be analyzed further in the EIR.

Project gateways for emergency vehicles, pedestrians, and transit facilities must be improved and must dominate the current individual vehicle focus of the current proposed Project. Therefore we have requested the development and consideration of a Transit-focused (e.g., 50% reduction in car parking space) and Transit-dominated (e.g., 90% reduction) alternatives.

g) Result in inadequate parking capacity?

Based on current conditions...

LACity-Valley Blvd., Soto St., and Marengo are parking and passenger vehicle nightmares and the DEIR must fully document the current conditions and incorporate land use planning elements to address employee commuter elements and promote transit based commuting and accessing of the Project area and Site(s).

Construction and operation of the proposed project would result in increased vehicle trips to the site and may alter access to the existing LAC+USC Medical Center campus site.

However, additional parking would also be provided under the proposed project.

All other transportation agencies have documented declining car use and increasing congestion and are promoting multi-passenger vehicles, transit, and other rail/multiple purpose system and attempting to increase residential uses and densities and thereby promoting the improvement of transit services. Adding more single-occupant vehicle parking appears to contradict all State, Regional, County, and City promotions of mixed uses and corridor/village transit promotions.

Alternatives have been/are requested to reduce or virtually eliminate especially commuter employee parking with the Project Area and thereby be more supportive of the local, regional, State, and Federal transportation policies.

While CEQA no longer requires an analysis of parking, the potential changes to existing parking and the potential effects of proposed parking changes during construction and operations will be analyzed in the EIR.

This is a good decision and must be incorporated into the land use and transportation assessments for the Project, including origin-destinations, employees, and users/customers.

NOP Presentation p.6 Existing Campus

Project area does not equate to and is greater than text description of the Project Site.

Existing sites are less than those on p.7-8 and in NOP text, and more similar to those shown in p.4-5.

NOP Prt p.4-5 & 7-8 Master Plan - 2040

Project figure illustrated does not accord with text description and is much larger and complex.

NOP Prt p.11 Environmental Process - *Schedule 2014-15*

The schedule virtually eliminate meaningful public comment and reasonable review and responses to such public comments. Basically if implemented as below, without recommended changes, the LACo is inviting legal challenges, perhaps even at this initial level/stage.

NOP/Scoping (Public Review Period) May 19 – June 18, 2014

DEIR Preparation ***Jun Jul Aug Sep 2014***

Draft EIR (**Public Review Period**) - (Late Summer– Early Fall 2014) ***Oct 1 - Nov 17***

Final EIR/Mitigation Monitoring Report Program/Finding, ***Response,*** & Statement of Overriding Considerations Circulation ***Jan 6 2015*** ~~***Nov 2014***~~

Deadline for FEIR comments ***Feb 9 2015***
Board Approval Process ***Feb 3-20 2015***
Notice of Determination ***Mar 3 2015***
Deadline for Appeal of Determination ***Apr 7 2015***
Overly aggressive schedule completion does not reflect effective and timely public participation Recommended clarifications are provided.

LAC+USC Medical Center Master Plan EIR
NOP
2/8 Potential Environmental Effects: The Initial Study contains a preliminary analysis of the environmental impacts of the proposed project in accordance with the CEQA Guidelines that identify 16 areas where impacts could occur. These impacts, which will be analyzed in detail in the Environmental Impact Report, include: aesthetics, air quality, biological...
***As indicated above*, thorough, adequate, and complete analyses, assessment, and mitigation must be provided especially for air quality, traffic, congestion, transit, stormwater capture/recharging, local wastewater recycling, and emergency services and access during construction and the in expected future severe traffic congestion in the vicinity.**

USCMC/LACoMC
pdf Initial Study
6/ 4. Project Location: ...Center is located at 2051 Marengo Street on **several parcels of land owned by the County of Los Angeles**. The proposed Master Plan is for the **entire LAC+USC Medical Center Campus**,...entire campus is...project site...surrounded by the **Boyle Heights and Lincoln Heights neighborhoods** of the City of Los Angeles, in Los Angeles County...bounded by Zonal Street, Mission Road, Marengo Street, and Chicago Street. State Street bisects the project site...
The DEIR must include a map with clear delineation of any, all State, LACo, LACity, USC, and other private properties. Furthermore, all long-term (>5 years) leases must also be clearly defined and delineated.

6/ Item 8 **Description of Project:**
6/8-1 The proposed LAC+USC Master Plan Project (proposed project) consists of a master plan that is envisioned over a period of approximately 25 years, that would be used to **guide** future development of the campus and would influence the delivery of health care services and health related community programs.
The Project description does not establish as to where and what the "Project" is and whether the Project is actually a non-specific development plan for creating many more typical projects. The DEIR must consider that the "Project" must be considered as a "Programmatic EIR" rather than a specific "Project EIR". As such the entire DEIR must be presented either as a Project-Specific or as a Programmatic EIR with suitable future reconsideration.

Other issues may be addressed after today's deadline.

Tom Williams

CITY OF LOS ANGELES
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2714 MEDIA CENTER DRIVE
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FAX: (323) 342-6216 OR
(323) 342-6211

June 30, 2014

File: SC.CE.

Clarice Nash, Project Manager
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
Project Management Division I
900 S. Fremont Ave.
Alhambra, CA 91803-1331

Dear Ms. Nash:

LAC+USC MEDICAL CENTER MASTER PLAN PROJECT-NOTICE OF PREPARATION-ENVIRONMENTAL IMPACT REPORT

This is in response to your May 23, 2014 letter requesting a review of your proposed medical center project located at 2051 Marengo Street, Los Angeles, CA 90033. The Bureau of Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

The Bureau of Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvements projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
Existing			
Offices	120 GPD/1000 SQ.FT	197,286 SQ.FT	(23,675)
Medical Offices	250 GPD/1000 SQ.FT	460,727 SQ.FT	(115,182)
Maintenance Facilities	30 GPD/1000 SQ.FT	31,000 SQ.FT	(930)
Utility Plant & Cooling Tower	170/1000 SQ.FT	20,938 SQ.FT	(3,559)
Warehouse & Storage	30/1000 SQ.FT	15,756 SQ.FT	(473)
Total			(143,819)
Proposed			
Hospital	70/ BED	450 BED	31,500
Retail	50 GPD/1000 SQ.FT	55,000 SQ.FT	2,750

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Utility Plant & Maintenance	30 GPD/1000 SQ.FT	40,000 SQ.FT	1,200
Medical Offices	250/1000 SQ.FT	200,000 SQ.FT	50,000
Administrative Offices	250/1000 SQ.FT	265,000 SQ.FT	66,250
Offices	120/1000 SQ.FT	50,000 SQ.FT	6,000
Research Space	250/1000 SQ.FT	635,000 SQ.FT	158,750
Total			**316,450**
Net Total			**172,631**

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes four (4) discharge routes. The first discharge route is made up of two (2) 6-inch lines on Chicago St and Cummings St. The sewage from the two lines joins an 8-inch line on Marengo St before discharging to a 15-inch line on State St RW. The Second route includes an existing 8-inch line on Marengo St, and existing 12-inch line on Zonal Ave R/W. The sewage from both lines feed into a 12-inch line on Lord St before discharging into an 18-inch line on Cesar E Chavez Ave R/W. The third discharge route is through an existing 8-inch line on Mission Rd. The sewage from this 8-inch line joins the first and second discharge routes at an 18-inch line before discharging to a 21- inch line on Cesar E Chavez Ave R/W. The fourth route includes a 6-inch line on Cummings St, a 6-inch line on Zonal Ave, an 8-inch line and a 12-inch line on Mission Rd. The sewage from these lines feed into a 24-inch line on Alhambra Ave before discharging into a 48-inch line on Mission Rd. Figure 1 shows the details of the sewer system within the vicinity of the project and discharge routes. The current flow level (d/D) in all the lines cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
Route #1			
6	Chicago St.	*	706,323 GPD
6	Cummings St.	*	782,481 GPD
8	Marengo St.	*	229,323 GPD
21	Cesar E Chavez Ave.	*	2.47 MGD
27	Mission Rd.	42	6.5 MGD
30	Mission Rd.	15	8.6 MGD
27	Mission Rd R/W	31	4.9 MGD
48	Mission Rd.	58	30.78 MGD
Route #2			
8	Marengo St.	*	598,000 GPD
12	Zonal Ave R/W	*	641,424 GPD
12	Lord St.	10	1.03 MGD
8	Mission Rd.	*	324,311 GPD
21	Cesar E Chavez Ave.	*	2.47 MGD
27	Mission Rd.	42	6.5 MGD
30	Mission Rd.	15	8.6 MGD
27	Mission Rd R/W	31	4.9 MGD
48	Mission Rd.	58	30.78 MGD
Route #3			
6	Cummings St.	*	238,916 GPD
6	Zonal Ave R/W	*	315,877 GPD

8	Mission Rd.	*	229,323 GPD
8	Mission Rd.	*	166,160 GPD
24	Alhambra Ave	27	4.5 MGD
48	Mission Rd.	58	30.78 MGD

* No gauging available

The estimated flow that would be generated from your proposed project exceeds 20,000 GPD and therefore may have a significant impact on the sewer system capacity. Thus, detailed gauging is necessary to determine whether the sewer system is capable of safely accommodating the total flow for your proposed project. We have initiated a work order to gauge the designated critical locations in the project area. This process usually takes approximately three (3) to four (4) weeks. A detailed evaluation and response will be provided to you within one (1) to two (2) weeks upon receipt of gauging data. If this schedule is not acceptable, please call us to discuss options.

If you have any questions, please call Kwasi Berko of my staff at (323) 342-1562.

STORMWATER REQUIREMENTS

The Bureau of Sanitation, Watershed Protection Division (WPD) is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

The project requires implementation of stormwater mitigation measures. These requirements are based on the Standard Urban Stormwater Mitigation Plan (SUSMP) and the recently adopted Low Impact Development (LID) requirements. The projects that are subject to SUSMP/LID are required to incorporate measures to mitigate the impact of stormwater runoff. The requirements are outlined in the guidance manual titled"*Development Best Management Practices Handbook – Part B: Planning Activities*". Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lastormwater.org. It is advised that input regarding SUSMP requirements be received in the early phases of the project from WPD's plan-checking staff.

GREEN STREETS

The City is developing a Green Street initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-away to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the SUSMP/LID requirements.

CONSTRUCTION REQUIREMENTS

The project is required to implement stormwater control measures during its construction phase. All projects are subject to a set of minimum control measures to lessen the impact of stormwater

pollution. In addition for projects that involve construction during the rainy season that is between October 1 and April 15, a Wet Weather Erosion Control Plan is required to be prepared. Also projects that disturb more than one-acre of land are subject to the California General Construction Stormwater Permit. As part of this requirement a Notice of Intent (NOI) needs to be filed with the State of California and a Storm Water Pollution Prevention Plan (SWPPP) needs to be prepared. The SWPPP must be maintained on-site during the duration of construction.

If there are questions regarding the stormwater requirements, please call Kosta Kaporis at (213) 485-0586, or WPD's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 3rd Fl, Station 18.

SOLID RESOURCE REQUIREMENTS

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact Daniel Hackney of the Special Projects Division at (213)485-3684.

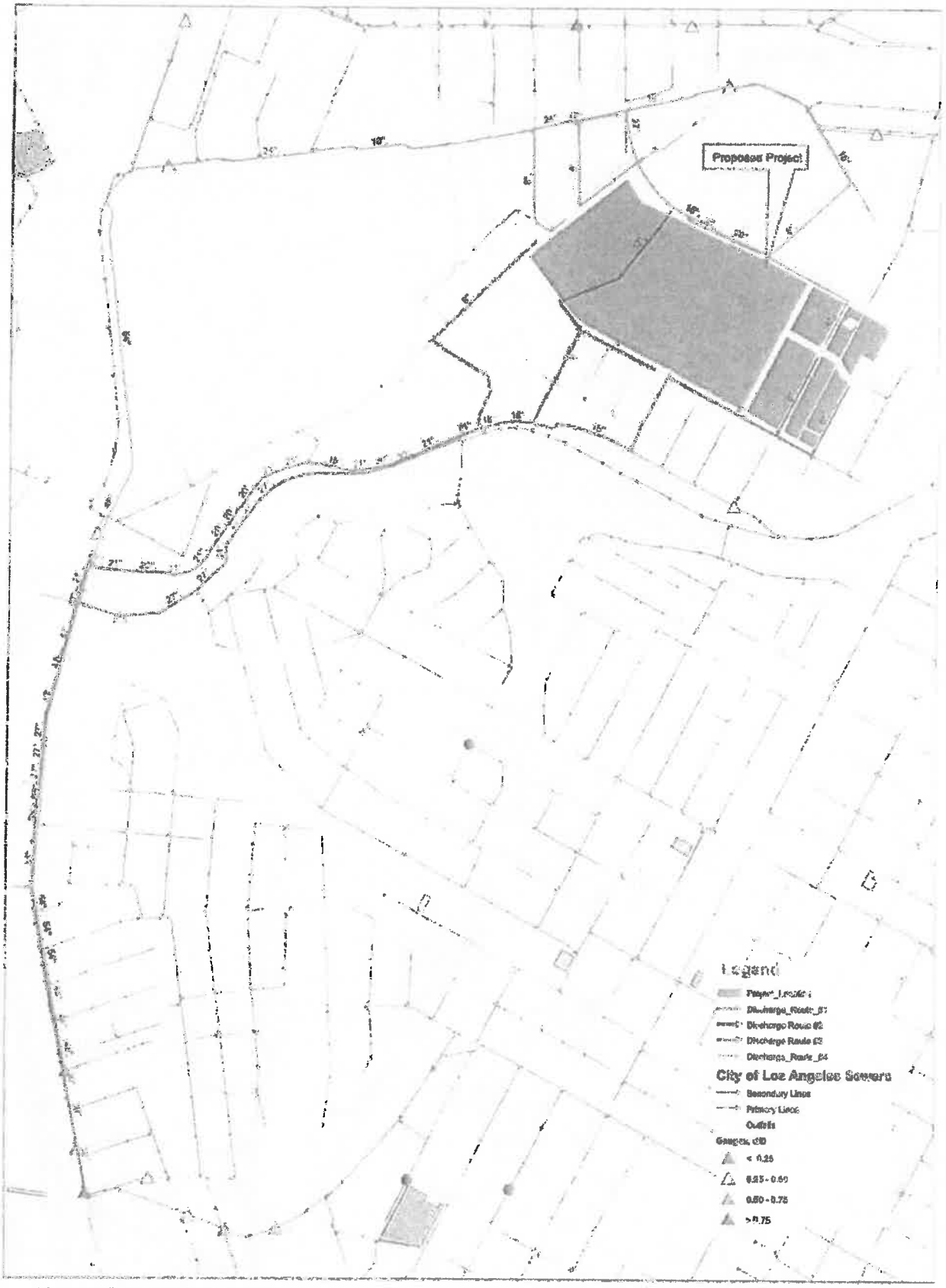
Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
Bureau of Sanitation

KB\AP:tn

Attachment: Figure 1 – Sewer Map

c: Kosta Kaporis, SAN
Daniel Hackney, SAN
Zemamu Gebrewold, SAN



Wastewater Engineering Services Division
Bureau of Sanitation
City of Los Angeles

FIGURE 1
LAC+USC Medical Center Master Plan
Sewer Map

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July 16, 2014

File: SC.CE.

Clarice Nash, Project Manager
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
Project Management Division I
900 S. Fremont Ave.
Alhambra, CA 91803-1331

Dear Ms. Nash:

FINAL RESPONSE: LAC+USC MEDICAL CENTER MASTER PLAN PROJECT-NOTICE OF PREPARATION-ENVIRONMENTAL IMPACT REPORT

This is in response to your May 23, 2014 letter requesting a review of your proposed medical center project located at 2051 Marengo Street, Los Angeles, CA 90033. The Bureau of Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

Projected Wastewater Discharges for the Proposed Project:

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Total			(143,819)
Proposed			
Hospital	70/ BED	450 BED	31,500
Retail	50 GPD/1000 SQ.FT	55,000 SQ.FT	2,750
Utility Plant & Maintenance	30 GPD/1000 SQ.FT	40,000 SQ.FT	1,200
Medical Offices	250/1000 SQ.FT	200,000 SQ.FT	50,000
Administrative Offices	250/1000 SQ.FT	265,000 SQ.FT	66,250

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Offices	120/1000 SQ.FT	50,000 SQ.FT	6,000
Research Space	250/1000 SQ.FT	635,000 SQ.FT	158,750
	Total		316,450
	Total		172,631

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes four (4) discharge routes. The first discharge route is made up of two (2) 6-inch lines on Chicago St and Cummings St. The sewage from the two lines joins an 8-inch line on Marengo St before discharging to a 15-inch line on State St RW. The Second route includes an existing 8-inch line on Marengo St, and existing 12-inch line on Zonal Ave R/W. The sewage from both lines feed into a 12-inch line on Lord St before discharging into an 18-inch line on Cesar E Chavez Ave R/W. The third discharge route is through an existing 8-inch line on Mission Rd. The sewage from this 8-inch line joins the first and second discharge routes at an 18-inch line before discharging to a 21- inch line on Cesar E Chavez Ave R/W. The fourth route includes a 6-inch line on Cummings St, a 6-inch line on Zonal Ave, an 8-inch line and a 12-inch line on Mission Rd. The sewage from these lines feed into a 24-inch line on Alhambra Ave before discharging into a 48-inch line on Mission Rd. Figure 1 shows the details of the sewer system within the vicinity of the project.

Since our last response on June 30, 2014 detailed gauging data has been obtained. The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
Route #1			
6	Chicago St.	*	706,323 GPD
6	Cummings St.	*	782,481 GPD
8	Marengo St.	48	229,323 GPD
21	Cesar E Chavez Ave.	*	2.47 MGD
27	Mission Rd.	42	6.5 MGD
30	Mission Rd.	15	8.6 MGD
27	Mission Rd R/W	31	4.9 MGD
48	Mission Rd.	58	30.78 MGD
Route #2			
8	Marengo St.	*	598,000 GPD
12	Zonal Ave R/W	*	641,424 GPD
12	Lord St.	26	1.03 MGD
8	Mission Rd.	*	324,311 GPD
21	Cesar E Chavez Ave.	54	2.47 MGD
27	Mission Rd.	42	6.5 MGD
30	Mission Rd.	15	8.6 MGD
27	Mission Rd R/W	31	4.9 MGD
48	Mission Rd.	58	30.78 MGD
Route #3			
6	Cummings St.	*	238,916 GPD
6	Zonal Ave R/W	*	315,877 GPD
8	Mission Rd.	*	229,323 GPD
8	Mission Rd.	*	166,160 GPD
24	Alhambra Ave	27	4.5 MGD
48	Mission Rd.	58	30.78 MGD

* No gauging available

Based on the estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation may be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Treatment Plant, which has sufficient capacity for the project.

If you have any questions, please call Kwasi Berko of my staff at (323) 342-1562.

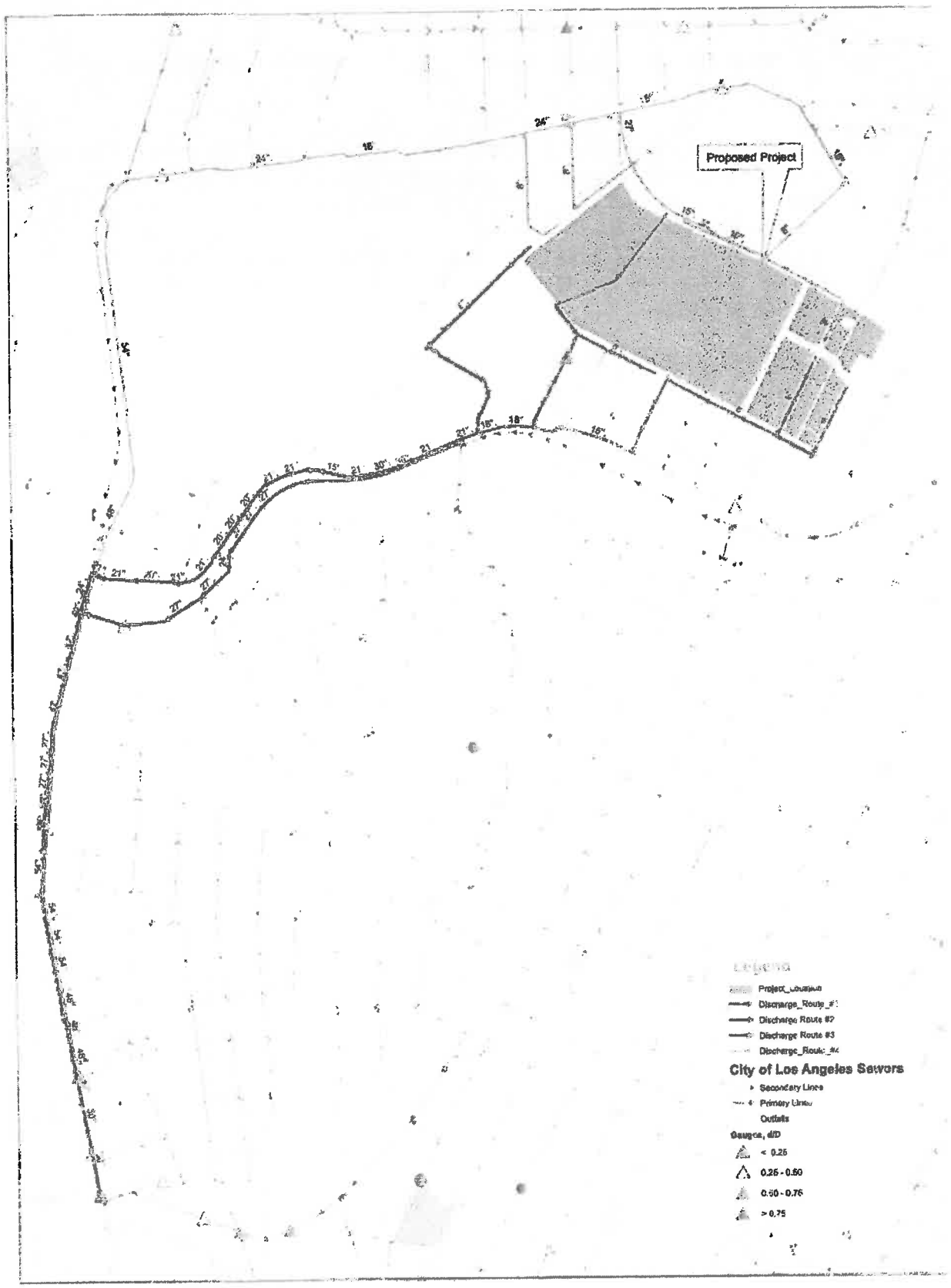
Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division

KB/AP:tn

Attachment: Figure 1 – Sewer Map

c: Zemamu Gebrewold, SAN



Wastewater Engineering Services Division
Bureau of Sanitation
City of Los Angeles

FIGURE 1
LAC+USC Medical Center Master Plan
Sewer Map

Appendix B
Air Quality and Greenhouse Gas Calculations

Air Quality and Greenhouse Gas Calculations

- CalEEMod Model Outputs
- Carbon Monoxide Hot-Spot Modeling
- Annual Emissions Report and Scaling for Buildout
- Health Risk Assessment Scaling
- Ambient Background Information

CalEEMod Model Outputs

LAC + USC Medical Center Master Plan - Existing

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	197.29	1000sqft	4.53	197,288.00	0
Research & Development	457.73	1000sqft	10.51	457,727.00	0
General Heavy Industry	31.00	1000sqft	0.71	31,000.00	0
Unrefrigerated Warehouse-No Rail	20.94	1000sqft	0.48	20,938.00	0
Unrefrigerated Warehouse-Rail	15.76	1000sqft	0.36	15,760.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2014
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1094	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP CO2 emission factor based on year 2012 (https://data.lacity.org/A-Livable-and-Sustainable-City/LADWP-CO2-Generation/e5ni-eqan#column-menu).

Land Use - CalEEMod land uses assigned based on land uses in Table 5 of TIA. Default caleemod acreage assumed based on known square footage.

Construction Phase - No construction

Off-road Equipment -

Off-road Equipment - No construction for existing uses

Vehicle Trips - trip rates from TIA after accounting for reductions from internal trips and transit credit. No pass-by reductions for existing uses, so default Caleemod trip purposes assumed.

Consumer Products - default consumer product ROG rate

Area Coating - default coating re-application rate and VOC content (250 g/L)

Energy Use - default elect and NG use

Water And Wastewater - default water consumption

Solid Waste - default waste consumption

Land Use Change - no existing vegetation assumed as it's a built site

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	197,290.00	197,288.00
tblLandUse	LandUseSquareFeet	457,730.00	457,727.00
tblLandUse	LandUseSquareFeet	20,940.00	20,938.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1094
tblVehicleTrips	ST_TR	1.50	1.10
tblVehicleTrips	ST_TR	2.37	7.97
tblVehicleTrips	ST_TR	1.90	26.10
tblVehicleTrips	ST_TR	2.59	2.28
tblVehicleTrips	ST_TR	1.63	2.57
tblVehicleTrips	SU_TR	1.50	1.10
tblVehicleTrips	SU_TR	0.98	7.97
tblVehicleTrips	SU_TR	1.11	26.10
tblVehicleTrips	SU_TR	2.59	2.28
tblVehicleTrips	SU_TR	1.63	2.57
tblVehicleTrips	WD_TR	1.50	1.10
tblVehicleTrips	WD_TR	11.01	7.97
tblVehicleTrips	WD_TR	8.11	26.10
tblVehicleTrips	WD_TR	2.59	2.28
tblVehicleTrips	WD_TR	1.63	2.57

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Energy											0.0000	5,031.6918	5,031.6918	0.1289	0.0354	5,045.3735
Mobile											0.0000	21,825.8901	21,825.8901	1.0491	0.0000	21,847.9203
Waste											59.1089	0.0000	59.1089	3.4932	0.0000	132.4669
Water											87.4935	1,900.4377	1,987.9312	9.0368	0.2226	2,246.7135
Total											**146.6024**	**28,758.0376**	**28,904.6400**	**13.7081**	**0.2580**	**29,272.4933**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Energy											0.0000	5,031.6918	5,031.6918	0.1289	0.0354	5,045.3735
Mobile											0.0000	21,825.8901	21,825.8901	1.0491	0.0000	21,847.9203
Waste											59.1089	0.0000	59.1089	3.4932	0.0000	132.4669
Water											87.4935	1,900.4377	1,987.9312	9.0352	0.2223	2,246.5739
Total											**146.6024**	**28,758.0376**	**28,904.6400**	**13.7064**	**0.2577**	**29,272.3537**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.13**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	12/31/2014	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	162	0.38
Demolition	Rubber Tired Dozers	0	0.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	21,825.8901	21,825.8901	1.0491	0.0000	21,847.9203
Unmitigated											0.0000	21,825.8901	21,825.8901	1.0491	0.0000	21,847.9203

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	34.10	34.10	34.10	151,004	151,004
General Office Building	1,572.40	1,572.40	1572.40	5,065,429	5,065,429
Research & Development	11,946.75	11,946.75	11946.75	40,363,906	40,363,906
Unrefrigerated Warehouse-No Rail	47.74	47.74	47.74	204,614	204,614
Unrefrigerated Warehouse-Rail	40.50	40.50	40.50	173,585	173,585
Total	13,641.50	13,641.50	13,641.50	45,958,539	45,958,539

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.535275	0.058759	0.178478	0.127034	0.038632	0.006246	0.015618	0.028471	0.002426	0.003171	0.003696	0.000547	0.001645

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated											0.0000	607.4246	607.4246	0.0116	0.0111	611.1213
NaturalGas Unmitigated											0.0000	607.4246	607.4246	0.0116	0.0111	611.1213
Electricity Mitigated											0.0000	4,424.2672	4,424.2672	0.1173	0.0243	4,434.2521
Electricity Unmitigated											0.0000	4,424.2672	4,424.2672	0.1173	0.0243	4,434.2521

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	583110											0.0000	31.1170	31.1170	6.0000e-004	5.7000e-004	31.3063
General Office Building	2.15636e+006											0.0000	115.0715	115.0715	2.2100e-003	2.1100e-003	115.7718
Research & Development	8.60984e+006											0.0000	459.4541	459.4541	8.8100e-003	8.4200e-003	462.2503
Unrefrigerated Warehouse-No Rail	19053.6											0.0000	1.0168	1.0168	2.0000e-005	2.0000e-005	1.0230
Unrefrigerated Warehouse-Rail	14341.6											0.0000	0.7653	0.7653	1.0000e-005	1.0000e-005	0.7700
Total												**0.0000**	**607.4246**	**607.4246**	**0.0117**	**0.0111**	**611.1213**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	583110											0.0000	31.1170	31.1170	6.0000e-004	5.7000e-004	31.3063
General Office Building	2.15636e+006											0.0000	115.0715	115.0715	2.2100e-003	2.1100e-003	115.7718
Research & Development	8.60984e+006											0.0000	459.4541	459.4541	8.8100e-003	8.4200e-003	462.2503
Unrefrigerated Warehouse-No Rail	19053.6											0.0000	1.0168	1.0168	2.0000e-005	2.0000e-005	1.0230
Unrefrigerated Warehouse-Rail	14341.6											0.0000	0.7653	0.7653	1.0000e-005	1.0000e-005	0.7700
Total												**0.0000**	**607.4246**	**607.4246**	**0.0117**	**0.0111**	**611.1213**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	373550	185.3667	4.9100e-003	1.0200e-003	185.7851
General Office Building	2.86659e+006	1,422.4904	0.0377	7.8000e-003	1,425.7008
Research & Development	5.51561e+006	2,737.0116	0.0726	0.0150	2,743.1887
Unrefrigerated Warehouse-No Rail	91289.7	45.3007	1.2000e-003	2.5000e-004	45.4029
Unrefrigerated Warehouse-Rail	68713.6	34.0978	9.0000e-004	1.9000e-004	34.1747
Total		**4,424.2672**	**0.1173**	**0.0243**	**4,434.2521**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	373550	185.3667	4.9100e-003	1.0200e-003	185.7851
General Office Building	2.86659e+006	1,422.4904	0.0377	7.8000e-003	1,425.7008
Research & Development	5.51561e+006	2,737.0116	0.0726	0.0150	2,743.1887
Unrefrigerated Warehouse-No Rail	91289.7	45.3007	1.2000e-003	2.5000e-004	45.4029
Unrefrigerated Warehouse-Rail	68713.6	34.0978	9.0000e-004	1.9000e-004	34.1747
Total		**4,424.2672**	**0.1173**	**0.0243**	**4,434.2521**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Unmitigated											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Total											**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0191**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Total											**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0191**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	1,987.9312	9.0368	0.2226	2,246.7135
Mitigated	1,987.9312	9.0352	0.2223	2,246.5739

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	7.16875 / 0	48.5946	0.2348	5.7700e-003	55.3144
General Office Building	35.0651 / 21.4915	356.1797	1.1517	0.0289	389.3165
Research & Development	225.063 / 0	1,525.6272	7.3722	0.1811	1,736.5975
Unrefrigerated Warehouse-No Rail	4.84237 / 0	32.8248	0.1586	3.9000e-003	37.3640
Unrefrigerated Warehouse-Rail	3.6445 / 0	24.7049	0.1194	2.9300e-003	28.1211
Total		**1,987.9312**	**9.0368**	**0.2226**	**2,246.7135**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	7.16875 / 0	48.5946	0.2348	5.7600e-003	55.3108
General Office Building	35.0651 / 21.4915	356.1797	1.1515	0.0288	389.2988
Research & Development	225.063 / 0	1,525.6272	7.3709	0.1809	1,736.4836
Unrefrigerated Warehouse-No Rail	4.84237 / 0	32.8248	0.1586	3.8900e-003	37.3616
Unrefrigerated Warehouse-Rail	3.6445 / 0	24.7049	0.1194	2.9300e-003	28.1193
Total		**1,987.9312**	**9.0352**	**0.2223**	**2,246.5739**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.1089	3.4932	0.0000	132.4669
Unmitigated	59.1089	3.4932	0.0000	132.4669

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	38.44	7.8030	0.4611	0.0000	17.4870
General Office Building	183.48	37.2448	2.2011	0.0000	83.4680
Research & Development	34.78	7.0600	0.4172	0.0000	15.8220
Unrefrigerated Warehouse-No Rail	19.68	3.9949	0.2361	0.0000	8.9527
Unrefrigerated Warehouse-Rail	14.81	3.0063	0.1777	0.0000	6.7373
Total		**59.1089**	**3.4932**	**0.0000**	**132.4669**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	38.44	7.8030	0.4611	0.0000	17.4870
General Office Building	183.48	37.2448	2.2011	0.0000	83.4680
Research & Development	34.78	7.0600	0.4172	0.0000	15.8220
Unrefrigerated Warehouse-No Rail	19.68	3.9949	0.2361	0.0000	8.9527
Unrefrigerated Warehouse-Rail	14.81	3.0063	0.1777	0.0000	6.7373
Total		**59.1089**	**3.4932**	**0.0000**	**132.4669**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAC + USC Medical Center Master Plan - Existing

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	197.29	1000sqft	4.53	197,288.00	0
Research & Development	457.73	1000sqft	10.51	457,727.00	0
General Heavy Industry	31.00	1000sqft	0.71	31,000.00	0
Unrefrigerated Warehouse-No Rail	20.94	1000sqft	0.48	20,938.00	0
Unrefrigerated Warehouse-Rail	15.76	1000sqft	0.36	15,760.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2014
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.00617

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - CalEEMod land uses assigned based on land uses in Table 5 of TIA. Default caleemod acreage assumed based on known square footage.

Construction Phase - No construction

Off-road Equipment -

Off-road Equipment - No construction for existing uses

Vehicle Trips - trip rates from TIA after accounting for reductions from internal trips and transit credit. No pass-by reductions for existing uses, so default Caleemod trip purposes assumed.

Consumer Products - default consumer product ROG rate

Area Coating - default coating re-application rate and VOC content (250 g/L)

Energy Use - default elect and NG use

Water And Wastewater - default water consumption

Solid Waste - default waste consumption

Land Use Change - no existing vegetation assumed as it's a built site

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	197,290.00	197,288.00
tblLandUse	LandUseSquareFeet	457,730.00	457,727.00
tblLandUse	LandUseSquareFeet	20,940.00	20,938.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.00617
tblVehicleTrips	ST_TR	1.50	1.10
tblVehicleTrips	ST_TR	2.37	7.97
tblVehicleTrips	ST_TR	1.90	26.10
tblVehicleTrips	ST_TR	2.59	2.28
tblVehicleTrips	ST_TR	1.63	2.57
tblVehicleTrips	SU_TR	1.50	1.10
tblVehicleTrips	SU_TR	0.98	7.97
tblVehicleTrips	SU_TR	1.11	26.10
tblVehicleTrips	SU_TR	2.59	2.28
tblVehicleTrips	SU_TR	1.63	2.57
tblVehicleTrips	WD_TR	1.50	1.10
tblVehicleTrips	WD_TR	11.01	7.97
tblVehicleTrips	WD_TR	8.11	26.10
tblVehicleTrips	WD_TR	2.59	2.28
tblVehicleTrips	WD_TR	1.63	2.57

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.9063	7.5000e-004	0.0772	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1582	0.1582	4.7000e-004		0.1681
Energy	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107
Mobile	66.8596	192.8374	752.1849	1.4059	97.5139	2.9904	100.5043	26.0678	2.7451	28.8129		130,658.9530	130,658.9530	6.3635		130,792.5862
Total	**86.1022**	**195.8955**	**754.8303**	**1.4243**	**97.5139**	**3.2230**	**100.7370**	**26.0678**	**2.9777**	**29.0456**		**134,327.9937**	**134,327.9937**	**6.4343**	**0.0673**	**134,483.9650**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.9063	7.5000e-004	0.0772	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1582	0.1582	4.7000e-004		0.1681
Energy	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107
Mobile	66.8596	192.8374	752.1849	1.4059	97.5139	2.9904	100.5043	26.0678	2.7451	28.8129		130,658.9530	130,658.9530	6.3635		130,792.5862
Total	**86.1022**	**195.8955**	**754.8303**	**1.4243**	**97.5139**	**3.2230**	**100.7370**	**26.0678**	**2.9777**	**29.0456**		**134,327.9937**	**134,327.9937**	**6.4343**	**0.0673**	**134,483.9650**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	12/31/2014	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	162	0.38
Demolition	Rubber Tired Dozers	0	0.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	66.8596	192.8374	752.1849	1.4059	97.5139	2.9904	100.5043	26.0678	2.7451	28.8129		130,658.9530	130,658.9530	6.3635		130,792.5862
Mitigated	66.8596	192.8374	752.1849	1.4059	97.5139	2.9904	100.5043	26.0678	2.7451	28.8129		130,658.9530	130,658.9530	6.3635		130,792.5862

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	34.10	34.10	34.10	151,004	151,004
General Office Building	1,572.40	1,572.40	1572.40	5,065,429	5,065,429
Research & Development	11,946.75	11,946.75	11946.75	40,363,906	40,363,906
Unrefrigerated Warehouse-No Rail	47.74	47.74	47.74	204,614	204,614
Unrefrigerated Warehouse-Rail	40.50	40.50	40.50	173,585	173,585
Total	13,641.50	13,641.50	13,641.50	45,958,539	45,958,539

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.535275	0.058759	0.178478	0.127034	0.038632	0.006246	0.015618	0.028471	0.002426	0.003171	0.003696	0.000547	0.001645

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107
NaturalGas Unmitigated	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	1597.56	0.0172	0.1566	0.1316	9.4000e-004		0.0119	0.0119		0.0119	0.0119		187.9484	187.9484	3.6000e-003	3.4500e-003	189.0923
General Office Building	5907.83	0.0637	0.5792	0.4865	3.4800e-003		0.0440	0.0440		0.0440	0.0440		695.0388	695.0388	0.0133	0.0127	699.2687
Research & Development	23588.6	0.2544	2.3126	1.9426	0.0139		0.1758	0.1758		0.1758	0.1758		2,775.1313	2,775.1313	0.0532	0.0509	2,792.0203
Unrefrigerated Warehouse-No Rail	52.2016	5.6000e-004	5.1200e-003	4.3000e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.1414	6.1414	1.2000e-004	1.1000e-004	6.1787
Unrefrigerated Warehouse-Rail	39.2921	4.2000e-004	3.8500e-003	3.2400e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.6226	4.6226	9.0000e-005	8.0000e-005	4.6507
Total		**0.3363**	**3.0574**	**2.5682**	**0.0184**		**0.2324**	**0.2324**		**0.2324**	**0.2324**		**3,668.8825**	**3,668.8825**	**0.0703**	**0.0673**	**3,691.2107**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	1.59756	0.0172	0.1566	0.1316	9.4000e-004		0.0119	0.0119		0.0119	0.0119		187.9484	187.9484	3.6000e-003	3.4500e-003	189.0923
General Office Building	5.90783	0.0637	0.5792	0.4865	3.4800e-003		0.0440	0.0440		0.0440	0.0440		695.0388	695.0388	0.0133	0.0127	699.2687
Research & Development	23.5886	0.2544	2.3126	1.9426	0.0139		0.1758	0.1758		0.1758	0.1758		2,775.1313	2,775.1313	0.0532	0.0509	2,792.0203
Unrefrigerated Warehouse-No Rail	0.0522016	5.6000e-004	5.1200e-003	4.3000e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.1414	6.1414	1.2000e-004	1.1000e-004	6.1787
Unrefrigerated Warehouse-Rail	0.0392921	4.2000e-004	3.8500e-003	3.2400e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.6226	4.6226	9.0000e-005	8.0000e-005	4.6507
Total		**0.3363**	**3.0574**	**2.5682**	**0.0184**		**0.2324**	**0.2324**		**0.2324**	**0.2324**		**3,668.8825**	**3,668.8825**	**0.0703**	**0.0673**	**3,691.2107**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	18.9063	7.5000e-004	0.0772	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1582	0.1582	4.7000e-004		0.1681
Mitigated	18.9063	7.5000e-004	0.0772	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1582	0.1582	4.7000e-004		0.1681

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3097					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.7900e-003	7.5000e-004	0.0772	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1582	0.1582	4.7000e-004		0.1681
Total	**18.9063**	**7.5000e-004**	**0.0772**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1582**	**0.1582**	**4.7000e-004**		**0.1681**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3097					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.7900e-003	7.5000e-004	0.0772	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1582	0.1582	4.7000e-004		0.1681
Total	**18.9063**	**7.5000e-004**	**0.0772**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1582**	**0.1582**	**4.7000e-004**		**0.1681**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAC + USC Medical Center Master Plan - Future No Build

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	197.29	1000sqft	4.53	197,288.00	0
Research & Development	457.73	1000sqft	10.51	457,727.00	0
General Heavy Industry	31.00	1000sqft	0.71	31,000.00	0
Unrefrigerated Warehouse-No Rail	20.94	1000sqft	0.48	20,938.00	0
Unrefrigerated Warehouse-Rail	15.76	1000sqft	0.36	15,760.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2035
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1094	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Year 2012 CO2 emission rate for DWP

Land Use - CalEEMod land uses assigned based on land uses in Table 5 of TIA. Default caleemod acreage assumed based on known square footage.

Construction Phase - No construction

Off-road Equipment -

Off-road Equipment - No construction for existing uses

Vehicle Trips - trip rates from TIA after accounting for reductions from internal trips and transit credit. No pass-by reductions for existing uses, so default Caleemod trip purposes assumed.

Consumer Products - default consumer product ROG rate

Area Coating - default coating re-application rate and VOC content (250 g/L)

Energy Use - default elect and NG use

Water And Wastewater - default water consumption

Solid Waste - default waste consumption

Land Use Change - no existing vegetation assumed as it's a built site

Grading -

Demolition -

Trips and VMT -

Architectural Coating -

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	197,290.00	197,288.00
tblLandUse	LandUseSquareFeet	457,730.00	457,727.00
tblLandUse	LandUseSquareFeet	20,940.00	20,938.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1094
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	1.50	1.10
tblVehicleTrips	ST_TR	2.37	7.97
tblVehicleTrips	ST_TR	1.90	26.10
tblVehicleTrips	ST_TR	2.59	2.28
tblVehicleTrips	ST_TR	1.63	2.57
tblVehicleTrips	SU_TR	1.50	1.10
tblVehicleTrips	SU_TR	0.98	7.97
tblVehicleTrips	SU_TR	1.11	26.10
tblVehicleTrips	SU_TR	2.59	2.28
tblVehicleTrips	SU_TR	1.63	2.57
tblVehicleTrips	WD_TR	1.50	1.10
tblVehicleTrips	WD_TR	11.01	7.97
tblVehicleTrips	WD_TR	8.11	26.10
tblVehicleTrips	WD_TR	2.59	2.28
tblVehicleTrips	WD_TR	1.63	2.57

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy											0.0000	5,031.6918	5,031.6918	0.1289	0.0354	5,045.3735
Mobile											0.0000	17,958.2555	17,958.2555	0.4783	0.0000	17,968.2989
Waste											59.1089	0.0000	59.1089	3.4932	0.0000	132.4669
Water											87.4935	1,900.4377	1,987.9312	9.0368	0.2226	2,246.7135
Total											**146.6024**	**24,890.4030**	**25,037.0054**	**13.1373**	**0.2580**	**25,392.8718**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy											0.0000	5,031.6918	5,031.6918	0.1289	0.0354	5,045.3735
Mobile											0.0000	17,958.2555	17,958.2555	0.4783	0.0000	17,968.2989
Waste											59.1089	0.0000	59.1089	3.4932	0.0000	132.4669
Water											87.4935	1,900.4377	1,987.9312	9.0352	0.2223	2,246.5739
Total											**146.6024**	**24,890.4030**	**25,037.0054**	**13.1356**	**0.2577**	**25,392.7322**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.13**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	12/31/2014	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	162	0.38
Demolition	Rubber Tired Dozers	0	0.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	17,958.2555	17,958.2555	0.4783	0.0000	17,968.2989
Unmitigated											0.0000	17,958.2555	17,958.2555	0.4783	0.0000	17,968.2989

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	34.10	34.10	34.10	151,004	151,004
General Office Building	1,572.40	1,572.40	1572.40	5,065,429	5,065,429
Research & Development	11,946.75	11,946.75	11946.75	40,363,906	40,363,906
Unrefrigerated Warehouse-No Rail	47.74	47.74	47.74	204,614	204,614
Unrefrigerated Warehouse-Rail	40.50	40.50	40.50	173,585	173,585
Total	13,641.50	13,641.50	13,641.50	45,958,539	45,958,539

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.491908	0.059855	0.185077	0.131229	0.044940	0.007356	0.019164	0.046757	0.003019	0.003347	0.004084	0.000506	0.002760

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated											0.0000	607.4246	607.4246	0.0116	0.0111	611.1213
NaturalGas Unmitigated											0.0000	607.4246	607.4246	0.0116	0.0111	611.1213
Electricity Mitigated											0.0000	4,424.2672	4,424.2672	0.1173	0.0243	4,434.2521
Electricity Unmitigated											0.0000	4,424.2672	4,424.2672	0.1173	0.0243	4,434.2521

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	583110											0.0000	31.1170	31.1170	6.0000e-004	5.7000e-004	31.3063
General Office Building	2.15636e+006											0.0000	115.0715	115.0715	2.2100e-003	2.1100e-003	115.7718
Research & Development	8.60984e+006											0.0000	459.4541	459.4541	8.8100e-003	8.4200e-003	462.2503
Unrefrigerated Warehouse-No Rail	19053.6											0.0000	1.0168	1.0168	2.0000e-005	2.0000e-005	1.0230
Unrefrigerated Warehouse-Rail	14341.6											0.0000	0.7653	0.7653	1.0000e-005	1.0000e-005	0.7700
Total												**0.0000**	**607.4246**	**607.4246**	**0.0117**	**0.0111**	**611.1213**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	583110											0.0000	31.1170	31.1170	6.0000e-004	5.7000e-004	31.3063
General Office Building	2.15636e+006											0.0000	115.0715	115.0715	2.2100e-003	2.1100e-003	115.7718
Research & Development	8.60984e+006											0.0000	459.4541	459.4541	8.8100e-003	8.4200e-003	462.2503
Unrefrigerated Warehouse-No Rail	19053.6											0.0000	1.0168	1.0168	2.0000e-005	2.0000e-005	1.0230
Unrefrigerated Warehouse-Rail	14341.6											0.0000	0.7653	0.7653	1.0000e-005	1.0000e-005	0.7700
Total												**0.0000**	**607.4246**	**607.4246**	**0.0117**	**0.0111**	**611.1213**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	373550	185.3667	4.9100e-003	1.0200e-003	185.7851
General Office Building	2.86659e+006	1,422.4904	0.0377	7.8000e-003	1,425.7008
Research & Development	5.51561e+006	2,737.0116	0.0726	0.0150	2,743.1887
Unrefrigerated Warehouse-No Rail	91289.7	45.3007	1.2000e-003	2.5000e-004	45.4029
Unrefrigerated Warehouse-Rail	68713.6	34.0978	9.0000e-004	1.9000e-004	34.1747
Total		**4,424.2672**	**0.1173**	**0.0243**	**4,434.2521**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	373550	185.3667	4.9100e-003	1.0200e-003	185.7851
General Office Building	2.86659e+006	1,422.4904	0.0377	7.8000e-003	1,425.7008
Research & Development	5.51561e+006	2,737.0116	0.0726	0.0150	2,743.1887
Unrefrigerated Warehouse-No Rail	91289.7	45.3007	1.2000e-003	2.5000e-004	45.4029
Unrefrigerated Warehouse-Rail	68713.6	34.0978	9.0000e-004	1.9000e-004	34.1747
Total		**4,424.2672**	**0.1173**	**0.0243**	**4,434.2521**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Unmitigated											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total											**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0189**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total											**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0189**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	1,987.9312	9.0368	0.2226	2,246.7135
Mitigated	1,987.9312	9.0352	0.2223	2,246.5739

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	7.16875 / 0	48.5946	0.2348	5.7700e-003	55.3144
General Office Building	35.0651 / 21.4915	356.1797	1.1517	0.0289	389.3165
Research & Development	225.063 / 0	1,525.6272	7.3722	0.1811	1,736.5975
Unrefrigerated Warehouse-No Rail	4.84237 / 0	32.8248	0.1586	3.9000e-003	37.3640
Unrefrigerated Warehouse-Rail	3.6445 / 0	24.7049	0.1194	2.9300e-003	28.1211
Total		**1,987.9312**	**9.0368**	**0.2226**	**2,246.7135**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	7.16875 / 0	48.5946	0.2348	5.7600e-003	55.3108
General Office Building	35.0651 / 21.4915	356.1797	1.1515	0.0288	389.2988
Research & Development	225.063 / 0	1,525.6272	7.3709	0.1809	1,736.4836
Unrefrigerated Warehouse-No Rail	4.84237 / 0	32.8248	0.1586	3.8900e-003	37.3616
Unrefrigerated Warehouse-Rail	3.6445 / 0	24.7049	0.1194	2.9300e-003	28.1193
Total		**1,987.9312**	**9.0352**	**0.2223**	**2,246.5739**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.1089	3.4932	0.0000	132.4669
Unmitigated	59.1089	3.4932	0.0000	132.4669

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	38.44	7.8030	0.4611	0.0000	17.4870
General Office Building	183.48	37.2448	2.2011	0.0000	83.4680
Research & Development	34.78	7.0600	0.4172	0.0000	15.8220
Unrefrigerated Warehouse-No Rail	19.68	3.9949	0.2361	0.0000	8.9527
Unrefrigerated Warehouse-Rail	14.81	3.0063	0.1777	0.0000	6.7373
Total		**59.1089**	**3.4932**	**0.0000**	**132.4669**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	38.44	7.8030	0.4611	0.0000	17.4870
General Office Building	183.48	37.2448	2.2011	0.0000	83.4680
Research & Development	34.78	7.0600	0.4172	0.0000	15.8220
Unrefrigerated Warehouse-No Rail	19.68	3.9949	0.2361	0.0000	8.9527
Unrefrigerated Warehouse-Rail	14.81	3.0063	0.1777	0.0000	6.7373
Total		**59.1089**	**3.4932**	**0.0000**	**132.4669**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAC + USC Medical Center Master Plan - Future No Build

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	197.29	1000sqft	4.53	197,288.00	0
Research & Development	457.73	1000sqft	10.51	457,727.00	0
General Heavy Industry	31.00	1000sqft	0.71	31,000.00	0
Unrefrigerated Warehouse-No Rail	20.94	1000sqft	0.48	20,938.00	0
Unrefrigerated Warehouse-Rail	15.76	1000sqft	0.36	15,760.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2035
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1094	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Year 2012 CO2 emission rate for DWP

Land Use - CalEEMod land uses assigned based on land uses in Table 5 of TIA. Default caleemod acreage assumed based on known square footage.

Construction Phase - No construction

Off-road Equipment -

Off-road Equipment - No construction for existing uses

Vehicle Trips - trip rates from TIA after accounting for reductions from internal trips and transit credit. No pass-by reductions for existing uses, so default Caleemod trip purposes assumed.

Consumer Products - default consumer product ROG rate

Area Coating - default coating re-application rate and VOC content (250 g/L)

Energy Use - default elect and NG use

Water And Wastewater - default water consumption

Solid Waste - default waste consumption

Land Use Change - no existing vegetation assumed as it's a built site

Grading -

Demolition -

Trips and VMT -

Architectural Coating -

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	197,290.00	197,288.00
tblLandUse	LandUseSquareFeet	457,730.00	457,727.00
tblLandUse	LandUseSquareFeet	20,940.00	20,938.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1094
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	1.50	1.10
tblVehicleTrips	ST_TR	2.37	7.97
tblVehicleTrips	ST_TR	1.90	26.10
tblVehicleTrips	ST_TR	2.59	2.28
tblVehicleTrips	ST_TR	1.63	2.57
tblVehicleTrips	SU_TR	1.50	1.10
tblVehicleTrips	SU_TR	0.98	7.97
tblVehicleTrips	SU_TR	1.11	26.10
tblVehicleTrips	SU_TR	2.59	2.28
tblVehicleTrips	SU_TR	1.63	2.57
tblVehicleTrips	WD_TR	1.50	1.10
tblVehicleTrips	WD_TR	11.01	7.97
tblVehicleTrips	WD_TR	8.11	26.10
tblVehicleTrips	WD_TR	2.59	2.28
tblVehicleTrips	WD_TR	1.63	2.57

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.9052	6.6000e-004	0.0734	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1582	0.1582	4.1000e-004		0.1667
Energy	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107
Mobile	29.1222	76.4421	332.3138	1.4958	97.9182	2.1590	100.0772	26.2149	1.9921	28.2070		107,656.6601	107,656.6601	2.9039		107,717.6414
Total	**48.3637**	**79.5002**	**334.9554**	**1.5141**	**97.9182**	**2.3916**	**100.3098**	**26.2149**	**2.2247**	**28.4396**		**111,325.7008**	**111,325.7008**	**2.9746**	**0.0673**	**111,409.0188**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.9052	6.6000e-004	0.0734	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1582	0.1582	4.1000e-004		0.1667
Energy	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107
Mobile	29.1222	76.4421	332.3138	1.4958	97.9182	2.1590	100.0772	26.2149	1.9921	28.2070		107,656.6601	107,656.6601	2.9039		107,717.6414
Total	**48.3637**	**79.5002**	**334.9554**	**1.5141**	**97.9182**	**2.3916**	**100.3098**	**26.2149**	**2.2247**	**28.4396**		**111,325.7008**	**111,325.7008**	**2.9746**	**0.0673**	**111,409.0188**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	12/31/2014	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	162	0.38
Demolition	Rubber Tired Dozers	0	0.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	29.1222	76.4421	332.3138	1.4958	97.9182	2.1590	100.0772	26.2149	1.9921	28.2070		107,656.6601	107,656.6601	2.9039		107,717.6414
Mitigated	29.1222	76.4421	332.3138	1.4958	97.9182	2.1590	100.0772	26.2149	1.9921	28.2070		107,656.6601	107,656.6601	2.9039		107,717.6414

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	34.10	34.10	34.10	151,004	151,004
General Office Building	1,572.40	1,572.40	1572.40	5,065,429	5,065,429
Research & Development	11,946.75	11,946.75	11946.75	40,363,906	40,363,906
Unrefrigerated Warehouse-No Rail	47.74	47.74	47.74	204,614	204,614
Unrefrigerated Warehouse-Rail	40.50	40.50	40.50	173,585	173,585
Total	13,641.50	13,641.50	13,641.50	45,958,539	45,958,539

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.491908	0.059855	0.185077	0.131229	0.044940	0.007356	0.019164	0.046757	0.003019	0.003347	0.004084	0.000506	0.002760

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107
NaturalGas Unmitigated	0.3363	3.0574	2.5682	0.0183		0.2324	0.2324		0.2324	0.2324		3,668.8825	3,668.8825	0.0703	0.0673	3,691.2107

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	1597.56	0.0172	0.1566	0.1316	9.4000e-004		0.0119	0.0119		0.0119	0.0119		187.9484	187.9484	3.6000e-003	3.4500e-003	189.0923
General Office Building	5907.83	0.0637	0.5792	0.4865	3.4800e-003		0.0440	0.0440		0.0440	0.0440		695.0388	695.0388	0.0133	0.0127	699.2687
Research & Development	23588.6	0.2544	2.3126	1.9426	0.0139		0.1758	0.1758		0.1758	0.1758		2,775.1313	2,775.1313	0.0532	0.0509	2,792.0203
Unrefrigerated Warehouse-No Rail	52.2016	5.6000e-004	5.1200e-003	4.3000e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.1414	6.1414	1.2000e-004	1.1000e-004	6.1787
Unrefrigerated Warehouse-Rail	39.2921	4.2000e-004	3.8500e-003	3.2400e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.6226	4.6226	9.0000e-005	8.0000e-005	4.6507
Total		**0.3363**	**3.0574**	**2.5682**	**0.0184**		**0.2324**	**0.2324**		**0.2324**	**0.2324**		**3,668.8825**	**3,668.8825**	**0.0703**	**0.0673**	**3,691.2107**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	1.59756	0.0172	0.1566	0.1316	9.4000e-004		0.0119	0.0119		0.0119	0.0119		187.9484	187.9484	3.6000e-003	3.4500e-003	189.0923
General Office Building	5.90783	0.0637	0.5792	0.4865	3.4800e-003		0.0440	0.0440		0.0440	0.0440		695.0388	695.0388	0.0133	0.0127	699.2687
Research & Development	23.5886	0.2544	2.3126	1.9426	0.0139		0.1758	0.1758		0.1758	0.1758		2,775.1313	2,775.1313	0.0532	0.0509	2,792.0203
Unrefrigerated Warehouse-No Rail	0.0522016	5.6000e-004	5.1200e-003	4.3000e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.1414	6.1414	1.2000e-004	1.1000e-004	6.1787
Unrefrigerated Warehouse-Rail	0.0392921	4.2000e-004	3.8500e-003	3.2400e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.6226	4.6226	9.0000e-005	8.0000e-005	4.6507
Total		**0.3363**	**3.0574**	**2.5682**	**0.0184**		**0.2324**	**0.2324**		**0.2324**	**0.2324**		**3,668.8825**	**3,668.8825**	**0.0703**	**0.0673**	**3,691.2107**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	18.9052	6.6000e-004	0.0734	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1582	0.1582	4.1000e-004		0.1667
Mitigated	18.9052	6.6000e-004	0.0734	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1582	0.1582	4.1000e-004		0.1667

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3097					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7100e-003	6.6000e-004	0.0734	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1582	0.1582	4.1000e-004		0.1667
Total	**18.9052**	**6.6000e-004**	**0.0734**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1582**	**0.1582**	**4.1000e-004**		**0.1667**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3097					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7100e-003	6.6000e-004	0.0734	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1582	0.1582	4.1000e-004		0.1667
Total	**18.9052**	**6.6000e-004**	**0.0734**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1582**	**0.1582**	**4.1000e-004**		**0.1667**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAC + USC Medical Center Master Plan - 2040 Buildout

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	265.00	1000sqft	6.08	265,000.00	0
Hospital	450.00	Bed	7.39	322,090.91	0
Medical Office Building	200.00	1000sqft	4.59	200,000.00	0
Research & Development	635.00	1000sqft	14.58	635,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Enclosed Parking with Elevator	3,228.00	Space	29.05	1,291,200.00	0
Health Club	85.00	1000sqft	1.95	85,000.00	0
Strip Mall	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2035
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1094	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2040 Buildout; 2035 year assumed since max year available. LADWP CO2 emission factor based on year 2012 (https://data.lacity.org/A-Livable-and-Sustainable-City/LADWP-CO2-Generation/e5ni-eqan#column-menu).

Land Use - all land uses per TIA Table 5. Hospital ft2 based on caleemod default for 450 beds.

Construction Phase - default construction schedule (start/stop dates, phase lengths) based on acreage associated with Master Plan buildout

Trips and VMT - default worker, vendor, and haul trip numbers, fleet mix, and trip lengths

Demolition - 722,709 sf of existing uses to be demolished.

Grading - volume of soil movement for underground parking or any facilities unknown

Architectural Coating - Default non-res 250 g/L for coatings

Construction Off-road Equipment Mitigation - Tier 4 Final, watering 3x daily (unmitigated)

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	1.98E-05	1.09E-05
tblGrading	AcresOfGrading	275.00	65.02
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1094
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	DV_TP	39.00	43.50
tblVehicleTrips	DV_TP	40.00	47.50
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	52.00	56.50
tblVehicleTrips	PR_TP	45.00	52.50
tblVehicleTrips	ST_TR	20.87	19.55
tblVehicleTrips	ST_TR	8.14	9.35
tblVehicleTrips	ST_TR	42.04	28.80
tblVehicleTrips	ST_TR	2.59	2.23
tblVehicleTrips	SU_TR	26.73	19.55
tblVehicleTrips	SU_TR	7.19	9.35
tblVehicleTrips	SU_TR	20.43	28.80
tblVehicleTrips	SU_TR	2.59	2.23

tblVehicleTrips	WD_TR	11.01	7.97
tblVehicleTrips	WD_TR	32.93	19.55
tblVehicleTrips	WD_TR	11.81	9.35
tblVehicleTrips	WD_TR	36.13	26.11
tblVehicleTrips	WD_TR	8.11	5.86
tblVehicleTrips	WD_TR	44.32	28.80
tblVehicleTrips	WD_TR	2.59	2.23

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.9578	9.5024	8.6612	0.0128	1.4286	0.4273	1.8559	0.5315	0.3951	0.9266	0.0000	1,147.1755	1,147.1755	0.1850	0.0000	1,151.0609
2016	1.5955	10.1871	18.8392	0.0361	1.8847	0.3552	2.2399	0.5079	0.3318	0.8397	0.0000	3,005.4491	3,005.4491	0.1711	0.0000	3,009.0418
2017	1.4391	9.2966	17.4460	0.0359	1.8776	0.3199	2.1976	0.5060	0.2988	0.8048	0.0000	2,916.0962	2,916.0962	0.1624	0.0000	2,919.5060
2018	1.3021	8.4359	16.3785	0.0361	1.8849	0.2789	2.1638	0.5080	0.2606	0.7686	0.0000	2,852.0266	2,852.0266	0.1562	0.0000	2,855.3058
2019	1.1960	7.7119	15.4793	0.0359	1.8850	0.2478	2.1328	0.5080	0.2315	0.7395	0.0000	2,770.8193	2,770.8193	0.1500	0.0000	2,773.9691
2020	33.3162	1.3029	2.4734	5.7000e-003	0.2807	0.0545	0.3352	0.0753	0.0508	0.1261	0.0000	428.3247	428.3247	0.0429	0.0000	429.2257
Total	**39.8066**	**46.4367**	**79.2775**	**0.1625**	**9.2414**	**1.6837**	**10.9251**	**2.6367**	**1.5685**	**4.2052**	**0.0000**	**13,119.8914**	**13,119.8914**	**0.8675**	**0.0000**	**13,138.1093**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.3215	2.0478	6.8940	0.0128	0.7682	0.0371	0.8053	0.2642	0.0349	0.2991	0.0000	1,147.1748	1,147.1748	0.1850	0.0000	1,151.0602
2016	1.1936	6.7579	18.6962	0.0361	1.8847	0.1038	1.9885	0.5079	0.0959	0.6038	0.0000	3,005.4487	3,005.4487	0.1711	0.0000	3,009.0414
2017	1.0782	6.1536	17.3527	0.0359	1.8776	0.0936	1.9713	0.5060	0.0866	0.5926	0.0000	2,916.0959	2,916.0959	0.1624	0.0000	2,919.5057
2018	0.9965	5.6913	16.3626	0.0361	1.8849	0.0892	1.9741	0.5080	0.0826	0.5906	0.0000	2,852.0263	2,852.0263	0.1562	0.0000	2,855.3054
2019	0.9317	5.2669	15.5172	0.0359	1.8850	0.0854	1.9704	0.5080	0.0791	0.5871	0.0000	2,770.8189	2,770.8189	0.1500	0.0000	2,773.9687
2020	33.2454	0.5531	2.5779	5.7000e-003	0.2807	0.0102	0.2909	0.0753	9.6000e-003	0.0849	0.0000	428.3246	428.3246	0.0429	0.0000	429.2255
Total	**37.7669**	**26.4704**	**77.4005**	**0.1625**	**8.5810**	**0.4194**	**9.0004**	**2.3694**	**0.3886**	**2.7580**	**0.0000**	**13,119.8891**	**13,119.8891**	**0.8675**	**0.0000**	**13,138.1070**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.12**	**43.00**	**2.37**	**0.00**	**7.15**	**75.09**	**17.62**	**10.14**	**75.23**	**34.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.0036	5.6000e-004	0.0625	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1222	0.1222	3.1000e-004	0.0000	0.1288
Energy	0.2138	1.9434	1.6324	0.0117		0.1477	0.1477		0.1477	0.1477	0.0000	18,099.6971	18,099.6971	0.4643	0.1265	18,148.6461
Mobile	5.4613	14.8606	63.8516	0.2849	18.0527	0.4068	18.4594	4.8410	0.3754	5.2164	0.0000	18,584.4337	18,584.4337	0.4961	0.0000	18,594.8519
Waste						0.0000	0.0000		0.0000	0.0000	875.2585	0.0000	875.2585	51.7263	0.0000	1,961.5106
Water						0.0000	0.0000		0.0000	0.0000	139.7808	3,096.8094	3,236.5902	14.4389	0.3560	3,650.1612
Total	**14.6787**	**16.8045**	**65.5465**	**0.2966**	**18.0527**	**0.5547**	**18.6074**	**4.8410**	**0.5233**	**5.3643**	**1,015.0392**	**39,781.0624**	**40,796.1016**	**67.1259**	**0.4824**	**42,355.2986**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.0036	5.6000e-004	0.0625	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1222	0.1222	3.1000e-004	0.0000	0.1288
Energy	0.1870	1.7001	1.4281	0.0102		0.1292	0.1292		0.1292	0.1292	0.0000	16,847.8536	16,847.8536	0.4330	0.1162	16,892.9633
Mobile	5.4613	14.8606	63.8516	0.2849	18.0527	0.4068	18.4594	4.8410	0.3754	5.2164	0.0000	18,584.4337	18,584.4337	0.4961	0.0000	18,594.8519
Waste						0.0000	0.0000		0.0000	0.0000	875.2585	0.0000	875.2585	51.7263	0.0000	1,961.5106
Water						0.0000	0.0000		0.0000	0.0000	111.8246	2,398.3994	2,510.2241	11.5490	0.2844	2,840.9025
Total	**14.6519**	**16.5613**	**65.3422**	**0.2951**	**18.0527**	**0.5362**	**18.5889**	**4.8410**	**0.5048**	**5.3458**	**987.0831**	**37,830.8089**	**38,817.8920**	**64.2048**	**0.4005**	**40,290.3571**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.18**	**1.45**	**0.31**	**0.49**	**0.00**	**3.33**	**0.10**	**0.00**	**3.53**	**0.34**	**2.75**	**4.90**	**4.85**	**4.35**	**16.98**	**4.88**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	4/8/2015	5	70	
2	Site Preparation	Site Preparation	4/9/2015	6/3/2015	5	40	
3	Grading	Grading	6/4/2015	11/4/2015	5	110	
4	Building Construction	Building Construction	11/5/2015	2/5/2020	5	1110	
5	Paving	Paving	2/6/2020	5/20/2020	5	75	
6	Architectural Coating	Architectural Coating	5/21/2020	9/2/2020	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 65.02

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,287,436; Non-Residential Outdoor: 1,429,145 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	3,287.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,056.00	468.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	211.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3557	0.0000	0.3557	0.0539	0.0000	0.0539	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1578	1.6927	1.2626	1.4000e-003		0.0858	0.0858		0.0800	0.0800	0.0000	131.0444	131.0444	0.0355	0.0000	131.7905
Total	**0.1578**	**1.6927**	**1.2626**	**1.4000e-003**	**0.3557**	**0.0858**	**0.4415**	**0.0539**	**0.0800**	**0.1339**	**0.0000**	**131.0444**	**131.0444**	**0.0355**	**0.0000**	**131.7905**

3.2 Demolition - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0343	0.5495	0.3964	1.2300e-003	0.0281	8.6100e-003	0.0367	7.7100e-003	7.9200e-003	0.0156	0.0000	113.3640	113.3640	9.3000e-004	0.0000	113.3835
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5500e-003	3.7000e-003	0.0386	7.0000e-005	5.7500e-003	6.0000e-005	5.8100e-003	1.5300e-003	5.0000e-005	1.5800e-003	0.0000	5.8076	5.8076	3.5000e-004	0.0000	5.8148
Total	**0.0368**	**0.5532**	**0.4350**	**1.3000e-003**	**0.0339**	**8.6700e-003**	**0.0425**	**9.2400e-003**	**7.9700e-003**	**0.0172**	**0.0000**	**119.1716**	**119.1716**	**1.2800e-003**	**0.0000**	**119.1983**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1387	0.0000	0.1387	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.0719	0.8339	1.4000e-003		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	131.0443	131.0443	0.0355	0.0000	131.7903
Total	**0.0166**	**0.0719**	**0.8339**	**1.4000e-003**	**0.1387**	**2.2100e-003**	**0.1409**	**0.0210**	**2.2100e-003**	**0.0232**	**0.0000**	**131.0443**	**131.0443**	**0.0355**	**0.0000**	**131.7903**

3.2 Demolition - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0343	0.5495	0.3964	1.2300e-003	0.0281	8.6100e-003	0.0367	7.7100e-003	7.9200e-003	0.0156	0.0000	113.3640	113.3640	9.3000e-004	0.0000	113.3835
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5500e-003	3.7000e-003	0.0386	7.0000e-005	5.7500e-003	6.0000e-005	5.8100e-003	1.5300e-003	5.0000e-005	1.5800e-003	0.0000	5.8076	5.8076	3.5000e-004	0.0000	5.8148
Total	**0.0368**	**0.5532**	**0.4350**	**1.3000e-003**	**0.0339**	**8.6700e-003**	**0.0425**	**9.2400e-003**	**7.9700e-003**	**0.0172**	**0.0000**	**119.1716**	**119.1716**	**1.2800e-003**	**0.0000**	**119.1983**

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1052	1.1378	0.8526	7.8000e-004		0.0618	0.0618		0.0568	0.0568	0.0000	74.6022	74.6022	0.0223	0.0000	75.0699
Total	**0.1052**	**1.1378**	**0.8526**	**7.8000e-004**	**0.3613**	**0.0618**	**0.4231**	**0.1986**	**0.0568**	**0.2554**	**0.0000**	**74.6022**	**74.6022**	**0.0223**	**0.0000**	**75.0699**

3.3 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7500e-003	2.5400e-003	0.0265	5.0000e-005	3.9400e-003	4.0000e-005	3.9900e-003	1.0500e-003	4.0000e-005	1.0800e-003	0.0000	3.9823	3.9823	2.4000e-004	0.0000	3.9873
Total	**1.7500e-003**	**2.5400e-003**	**0.0265**	**5.0000e-005**	**3.9400e-003**	**4.0000e-005**	**3.9900e-003**	**1.0500e-003**	**4.0000e-005**	**1.0800e-003**	**0.0000**	**3.9823**	**3.9823**	**2.4000e-004**	**0.0000**	**3.9873**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1409	0.0000	0.1409	0.0775	0.0000	0.0775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5100e-003	0.0412	0.4248	7.8000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	74.6022	74.6022	0.0223	0.0000	75.0699
Total	**9.5100e-003**	**0.0412**	**0.4248**	**7.8000e-004**	**0.1409**	**1.2700e-003**	**0.1422**	**0.0775**	**1.2700e-003**	**0.0787**	**0.0000**	**74.6022**	**74.6022**	**0.0223**	**0.0000**	**75.0699**

3.3 Site Preparation - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7500e-003	2.5400e-003	0.0265	5.0000e-005	3.9400e-003	4.0000e-005	3.9900e-003	1.0500e-003	4.0000e-005	1.0800e-003	0.0000	3.9823	3.9823	2.4000e-004	0.0000	3.9873
Total	**1.7500e-003**	**2.5400e-003**	**0.0265**	**5.0000e-005**	**3.9400e-003**	**4.0000e-005**	**3.9900e-003**	**1.0500e-003**	**4.0000e-005**	**1.0800e-003**	**0.0000**	**3.9823**	**3.9823**	**2.4000e-004**	**0.0000**	**3.9873**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3657	0.0000	0.3657	0.1858	0.0000	0.1858	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3726	4.3476	2.7962	3.4000e-003		0.2091	0.2091		0.1924	0.1924	0.0000	323.6322	323.6322	0.0966	0.0000	325.6611
Total	**0.3726**	**4.3476**	**2.7962**	**3.4000e-003**	**0.3657**	**0.2091**	**0.5748**	**0.1858**	**0.1924**	**0.3782**	**0.0000**	**323.6322**	**323.6322**	**0.0966**	**0.0000**	**325.6611**

3.4 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3300e-003	7.7600e-003	0.0809	1.5000e-004	0.0121	1.2000e-004	0.0122	3.2000e-003	1.1000e-004	3.3100e-003	0.0000	12.1683	12.1683	7.2000e-004	0.0000	12.1835
Total	**5.3300e-003**	**7.7600e-003**	**0.0809**	**1.5000e-004**	**0.0121**	**1.2000e-004**	**0.0122**	**3.2000e-003**	**1.1000e-004**	**3.3100e-003**	**0.0000**	**12.1683**	**12.1683**	**7.2000e-004**	**0.0000**	**12.1835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1426	0.0000	0.1426	0.0725	0.0000	0.0725	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0416	0.1803	1.9128	3.4000e-003		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003	0.0000	323.6318	323.6318	0.0966	0.0000	325.6607
Total	**0.0416**	**0.1803**	**1.9128**	**3.4000e-003**	**0.1426**	**5.5500e-003**	**0.1482**	**0.0725**	**5.5500e-003**	**0.0780**	**0.0000**	**323.6318**	**323.6318**	**0.0966**	**0.0000**	**325.6607**

3.4 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3300e-003	7.7600e-003	0.0809	1.5000e-004	0.0121	1.2000e-004	0.0122	3.2000e-003	1.1000e-004	3.3100e-003	0.0000	12.1683	12.1683	7.2000e-004	0.0000	12.1835
Total	**5.3300e-003**	**7.7600e-003**	**0.0809**	**1.5000e-004**	**0.0121**	**1.2000e-004**	**0.0122**	**3.2000e-003**	**1.1000e-004**	**3.3100e-003**	**0.0000**	**12.1683**	**12.1683**	**7.2000e-004**	**0.0000**	**12.1835**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0750	0.6156	0.3843	5.5000e-004		0.0434	0.0434		0.0408	0.0408	0.0000	50.0188	50.0188	0.0126	0.0000	50.2824
Total	**0.0750**	**0.6156**	**0.3843**	**5.5000e-004**		**0.0434**	**0.0434**		**0.0408**	**0.0408**	**0.0000**	**50.0188**	**50.0188**	**0.0126**	**0.0000**	**50.2824**

3.5 Building Construction - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0982	0.9925	1.2319	2.1100e-003	0.0588	0.0160	0.0748	0.0168	0.0147	0.0315	0.0000	193.0842	193.0842	1.5700e-003	0.0000	193.1172
Worker	0.1050	0.1528	1.5913	3.0200e-003	0.2372	2.4200e-003	0.2396	0.0630	2.2200e-003	0.0652	0.0000	239.4715	239.4715	0.0143	0.0000	239.7707
Total	**0.2032**	**1.1452**	**2.8232**	**5.1300e-003**	**0.2960**	**0.0184**	**0.3144**	**0.0798**	**0.0169**	**0.0967**	**0.0000**	**432.5556**	**432.5556**	**0.0158**	**0.0000**	**432.8879**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.6900e-003	0.0457	0.3569	5.5000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	50.0188	50.0188	0.0126	0.0000	50.2823
Total	**6.6900e-003**	**0.0457**	**0.3569**	**5.5000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**50.0188**	**50.0188**	**0.0126**	**0.0000**	**50.2823**

3.5 Building Construction - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0982	0.9925	1.2319	2.1100e-003	0.0588	0.0160	0.0748	0.0168	0.0147	0.0315	0.0000	193.0842	193.0842	1.5700e-003	0.0000	193.1172
Worker	0.1050	0.1528	1.5913	3.0200e-003	0.2372	2.4200e-003	0.2396	0.0630	2.2200e-003	0.0652	0.0000	239.4715	239.4715	0.0143	0.0000	239.7707
Total	**0.2032**	**1.1452**	**2.8232**	**5.1300e-003**	**0.2960**	**0.0184**	**0.3144**	**0.0798**	**0.0169**	**0.0967**	**0.0000**	**432.5556**	**432.5556**	**0.0158**	**0.0000**	**432.8879**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4445	3.7201	2.4151	3.5000e-003		0.2567	0.2567		0.2412	0.2412	0.0000	316.0104	316.0104	0.0784	0.0000	317.6563
Total	**0.4445**	**3.7201**	**2.4151**	**3.5000e-003**		**0.2567**	**0.2567**		**0.2412**	**0.2412**	**0.0000**	**316.0104**	**316.0104**	**0.0784**	**0.0000**	**317.6563**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5491	5.5876	7.2579	0.0134	0.3746	0.0839	0.4585	0.1068	0.0772	0.1840	0.0000	1,215.8862	1,215.8862	9.0600e-003	0.0000	1,216.0765
Worker	0.6019	0.8793	9.1661	0.0192	1.5101	0.0146	1.5247	0.4011	0.0134	0.4145	0.0000	1,473.5525	1,473.5525	0.0836	0.0000	1,475.3090
Total	**1.1510**	**6.4670**	**16.4240**	**0.0326**	**1.8847**	**0.0985**	**1.9832**	**0.5079**	**0.0906**	**0.5985**	**0.0000**	**2,689.4386**	**2,689.4386**	**0.0927**	**0.0000**	**2,691.3855**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0426	0.2909	2.2721	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	316.0101	316.0101	0.0784	0.0000	317.6560
Total	**0.0426**	**0.2909**	**2.2721**	**3.5000e-003**		**5.3000e-003**	**5.3000e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**316.0101**	**316.0101**	**0.0784**	**0.0000**	**317.6560**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5491	5.5876	7.2579	0.0134	0.3746	0.0839	0.4585	0.1068	0.0772	0.1840	0.0000	1,215.8862	1,215.8862	9.0600e-003	0.0000	1,216.0765
Worker	0.6019	0.8793	9.1661	0.0192	1.5101	0.0146	1.5247	0.4011	0.0134	0.4145	0.0000	1,473.5525	1,473.5525	0.0836	0.0000	1,475.3090
Total	**1.1510**	**6.4670**	**16.4240**	**0.0326**	**1.8847**	**0.0985**	**1.9832**	**0.5079**	**0.0906**	**0.5985**	**0.0000**	**2,689.4386**	**2,689.4386**	**0.0927**	**0.0000**	**2,691.3855**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319
Total	**0.4033**	**3.4327**	**2.3568**	**3.4900e-003**		**0.2316**	**0.2316**		**0.2175**	**0.2175**	**0.0000**	**311.3228**	**311.3228**	**0.0766**	**0.0000**	**312.9319**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4987	5.0715	6.8418	0.0133	0.3733	0.0745	0.4478	0.1065	0.0685	0.1750	0.0000	1,191.8764	1,191.8764	8.7400e-003	0.0000	1,192.0600
Worker	0.5370	0.7923	8.2475	0.0191	1.5043	0.0139	1.5182	0.3996	0.0128	0.4124	0.0000	1,412.8970	1,412.8970	0.0770	0.0000	1,414.5142
Total	**1.0357**	**5.8638**	**15.0893**	**0.0325**	**1.8776**	**0.0884**	**1.9660**	**0.5060**	**0.0813**	**0.5873**	**0.0000**	**2,604.7734**	**2,604.7734**	**0.0858**	**0.0000**	**2,606.5742**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0424	0.2898	2.2634	3.4900e-003		5.2800e-003	5.2800e-003		5.2800e-003	5.2800e-003	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315
Total	**0.0424**	**0.2898**	**2.2634**	**3.4900e-003**		**5.2800e-003**	**5.2800e-003**		**5.2800e-003**	**5.2800e-003**	**0.0000**	**311.3225**	**311.3225**	**0.0766**	**0.0000**	**312.9315**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4987	5.0715	6.8418	0.0133	0.3733	0.0745	0.4478	0.1065	0.0685	0.1750	0.0000	1,191.8764	1,191.8764	8.7400e-003	0.0000	1,192.0600
Worker	0.5370	0.7923	8.2475	0.0191	1.5043	0.0139	1.5182	0.3996	0.0128	0.4124	0.0000	1,412.8970	1,412.8970	0.0770	0.0000	1,414.5142
Total	**1.0357**	**5.8638**	**15.0893**	**0.0325**	**1.8776**	**0.0884**	**1.9660**	**0.5060**	**0.0813**	**0.5873**	**0.0000**	**2,604.7734**	**2,604.7734**	**0.0858**	**0.0000**	**2,606.5742**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4703	4.6784	6.5924	0.0134	0.3748	0.0704	0.4452	0.1069	0.0648	0.1717	0.0000	1,176.6912	1,176.6912	8.7300e-003	0.0000	1,176.8745
Worker	0.4836	0.7220	7.4980	0.0192	1.5101	0.0135	1.5236	0.4011	0.0125	0.4136	0.0000	1,366.3510	1,366.3510	0.0718	0.0000	1,367.8589
Total	**0.9539**	**5.4004**	**14.0905**	**0.0326**	**1.8849**	**0.0839**	**1.9688**	**0.5080**	**0.0773**	**0.5853**	**0.0000**	**2,543.0422**	**2,543.0422**	**0.0805**	**0.0000**	**2,544.7334**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0426	0.2909	2.2721	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.0426**	**0.2909**	**2.2721**	**3.5000e-003**		**5.3000e-003**	**5.3000e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4703	4.6784	6.5924	0.0134	0.3748	0.0704	0.4452	0.1069	0.0648	0.1717	0.0000	1,176.6912	1,176.6912	8.7300e-003	0.0000	1,176.8745
Worker	0.4836	0.7220	7.4980	0.0192	1.5101	0.0135	1.5236	0.4011	0.0125	0.4136	0.0000	1,366.3510	1,366.3510	0.0718	0.0000	1,367.8589
Total	**0.9539**	**5.4004**	**14.0905**	**0.0326**	**1.8849**	**0.0839**	**1.9688**	**0.5080**	**0.0773**	**0.5853**	**0.0000**	**2,543.0422**	**2,543.0422**	**0.0805**	**0.0000**	**2,544.7334**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4457	4.3140	6.3751	0.0133	0.3749	0.0669	0.4418	0.1069	0.0616	0.1685	0.0000	1,152.5362	1,152.5362	8.5400e-003	0.0000	1,152.7156
Worker	0.4434	0.6620	6.8700	0.0191	1.5101	0.0132	1.5233	0.4011	0.0122	0.4133	0.0000	1,312.7529	1,312.7529	0.0671	0.0000	1,314.1622
Total	**0.8891**	**4.9760**	**13.2450**	**0.0324**	**1.8850**	**0.0801**	**1.9651**	**0.5080**	**0.0738**	**0.5818**	**0.0000**	**2,465.2891**	**2,465.2891**	**0.0757**	**0.0000**	**2,466.8778**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0426	0.2909	2.2721	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.0426**	**0.2909**	**2.2721**	**3.5000e-003**		**5.3000e-003**	**5.3000e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4457	4.3140	6.3751	0.0133	0.3749	0.0669	0.4418	0.1069	0.0616	0.1685	0.0000	1,152.5362	1,152.5362	8.5400e-003	0.0000	1,152.7156
Worker	0.4434	0.6620	6.8700	0.0191	1.5101	0.0132	1.5233	0.4011	0.0122	0.4133	0.0000	1,312.7529	1,312.7529	0.0671	0.0000	1,314.1622
Total	**0.8891**	**4.9760**	**13.2450**	**0.0324**	**1.8850**	**0.0801**	**1.9651**	**0.5080**	**0.0738**	**0.5818**	**0.0000**	**2,465.2891**	**2,465.2891**	**0.0757**	**0.0000**	**2,466.8778**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0275	0.2481	0.2185	3.5000e-004		0.0145	0.0145		0.0136	0.0136	0.0000	29.9845	29.9845	7.3100e-003	0.0000	30.1379
Total	**0.0275**	**0.2481**	**0.2185**	**3.5000e-004**		**0.0145**	**0.0145**		**0.0136**	**0.0136**	**0.0000**	**29.9845**	**29.9845**	**7.3100e-003**	**0.0000**	**30.1379**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0424	0.3758	0.6178	1.3200e-003	0.0374	6.0900e-003	0.0434	0.0107	5.6000e-003	0.0163	0.0000	112.2541	112.2541	8.3000e-004	0.0000	112.2717
Worker	0.0414	0.0611	0.6370	1.9000e-003	0.1504	1.3000e-003	0.1517	0.0400	1.2000e-003	0.0412	0.0000	125.5161	125.5161	6.3400e-003	0.0000	125.6492
Total	**0.0838**	**0.4370**	**1.2548**	**3.2200e-003**	**0.1878**	**7.3900e-003**	**0.1952**	**0.0506**	**6.8000e-003**	**0.0574**	**0.0000**	**237.7702**	**237.7702**	**7.1700e-003**	**0.0000**	**237.9208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2400e-003	0.0290	0.2263	3.5000e-004		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	29.9845	29.9845	7.3100e-003	0.0000	30.1379
Total	**4.2400e-003**	**0.0290**	**0.2263**	**3.5000e-004**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**29.9845**	**29.9845**	**7.3100e-003**	**0.0000**	**30.1379**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0424	0.3758	0.6178	1.3200e-003	0.0374	6.0900e-003	0.0434	0.0107	5.6000e-003	0.0163	0.0000	112.2541	112.2541	8.3000e-004	0.0000	112.2717
Worker	0.0414	0.0611	0.6370	1.9000e-003	0.1504	1.3000e-003	0.1517	0.0400	1.2000e-003	0.0412	0.0000	125.5161	125.5161	6.3400e-003	0.0000	125.6492
Total	**0.0838**	**0.4370**	**1.2548**	**3.2200e-003**	**0.1878**	**7.3900e-003**	**0.1952**	**0.0506**	**6.8000e-003**	**0.0574**	**0.0000**	**237.7702**	**237.7702**	**7.1700e-003**	**0.0000**	**237.9208**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0499	0.5169	0.5382	8.4000e-004		0.0277	0.0277		0.0255	0.0255	0.0000	73.5077	73.5077	0.0238	0.0000	74.0070
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0499**	**0.5169**	**0.5382**	**8.4000e-004**		**0.0277**	**0.0277**		**0.0255**	**0.0255**	**0.0000**	**73.5077**	**73.5077**	**0.0238**	**0.0000**	**74.0070**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-003	2.5000e-003	0.0261	8.0000e-005	6.1600e-003	5.0000e-005	6.2200e-003	1.6400e-003	5.0000e-005	1.6900e-003	0.0000	5.1430	5.1430	2.6000e-004	0.0000	5.1484
Total	**1.7000e-003**	**2.5000e-003**	**0.0261**	**8.0000e-005**	**6.1600e-003**	**5.0000e-005**	**6.2200e-003**	**1.6400e-003**	**5.0000e-005**	**1.6900e-003**	**0.0000**	**5.1430**	**5.1430**	**2.6000e-004**	**0.0000**	**5.1484**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.0446	0.6348	8.4000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	73.5076	73.5076	0.0238	0.0000	74.0069
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.0446**	**0.6348**	**8.4000e-004**		**1.3700e-003**	**1.3700e-003**		**1.3700e-003**	**1.3700e-003**	**0.0000**	**73.5076**	**73.5076**	**0.0238**	**0.0000**	**74.0069**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-003	2.5000e-003	0.0261	8.0000e-005	6.1600e-003	5.0000e-005	6.2200e-003	1.6400e-003	5.0000e-005	1.6900e-003	0.0000	5.1430	5.1430	2.6000e-004	0.0000	5.1484
Total	**1.7000e-003**	**2.5000e-003**	**0.0261**	**8.0000e-005**	**6.1600e-003**	**5.0000e-005**	**6.2200e-003**	**1.6400e-003**	**5.0000e-005**	**1.6900e-003**	**0.0000**	**5.1430**	**5.1430**	**2.6000e-004**	**0.0000**	**5.1484**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.1204					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0800e-003	0.0631	0.0687	1.1000e-004		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	9.5747	9.5747	7.4000e-004	0.0000	9.5903
Total	**33.1295**	**0.0631**	**0.0687**	**1.1000e-004**		**4.1600e-003**	**4.1600e-003**		**4.1600e-003**	**4.1600e-003**	**0.0000**	**9.5747**	**9.5747**	**7.4000e-004**	**0.0000**	**9.5903**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0239	0.0352	0.3671	1.1000e-003	0.0867	7.5000e-004	0.0875	0.0230	6.9000e-004	0.0237	0.0000	72.3446	72.3446	3.6500e-003	0.0000	72.4213
Total	**0.0239**	**0.0352**	**0.3671**	**1.1000e-003**	**0.0867**	**7.5000e-004**	**0.0875**	**0.0230**	**6.9000e-004**	**0.0237**	**0.0000**	**72.3446**	**72.3446**	**3.6500e-003**	**0.0000**	**72.4213**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.1204					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	7.4000e-004	0.0000	9.5903
Total	**33.1216**	**4.8300e-003**	**0.0687**	**1.1000e-004**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**9.5747**	**9.5747**	**7.4000e-004**	**0.0000**	**9.5903**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0239	0.0352	0.3671	1.1000e-003	0.0867	7.5000e-004	0.0875	0.0230	6.9000e-004	0.0237	0.0000	72.3446	72.3446	3.6500e-003	0.0000	72.4213
Total	**0.0239**	**0.0352**	**0.3671**	**1.1000e-003**	**0.0867**	**7.5000e-004**	**0.0875**	**0.0230**	**6.9000e-004**	**0.0237**	**0.0000**	**72.3446**	**72.3446**	**3.6500e-003**	**0.0000**	**72.4213**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.4613	14.8606	63.8516	0.2849	18.0527	0.4068	18.4594	4.8410	0.3754	5.2164	0.0000	18,584.4337	18,584.4337	0.4961	0.0000	18,594.8519
Unmitigated	5.4613	14.8606	63.8516	0.2849	18.0527	0.4068	18.4594	4.8410	0.3754	5.2164	0.0000	18,584.4337	18,584.4337	0.4961	0.0000	18,594.8519

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	2,112.05	628.05	259.70	5,268,469	5,268,469
Health Club	1,661.75	1,661.75	1661.75	3,871,917	3,871,917
Hospital	4,207.50	4,207.50	4207.50	16,311,811	16,311,811
Medical Office Building	5,222.00	1,792.00	310.00	10,453,991	10,453,991
Research & Development	3,721.10	1,206.50	704.85	9,902,753	9,902,753
Strip Mall	576.00	576.00	576.00	1,279,014	1,279,014
Unrefrigerated Warehouse-No Rail	89.20	89.20	89.20	382,286	382,286
Total	17,589.60	10,161.00	7,809.00	47,470,242	47,470,242

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	56.5	43.5	0
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	52.5	47.5	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.491908	0.059855	0.185077	0.131229	0.044940	0.007356	0.019164	0.046757	0.003019	0.003347	0.004084	0.000506	0.002760

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14,997.0895	14,997.0895	0.3976	0.0823	15,030.9358
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,984.0973	15,984.0973	0.4237	0.0877	16,020.1711
NaturalGas Mitigated	0.1870	1.7001	1.4281	0.0102		0.1292	0.1292		0.1292	0.1292	0.0000	1,850.7641	1,850.7641	0.0355	0.0339	1,862.0275
NaturalGas Unmitigated	0.2138	1.9434	1.6324	0.0117		0.1477	0.1477		0.1477	0.1477	0.0000	2,115.5998	2,115.5998	0.0406	0.0388	2,128.4750

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Health Club	1.59885e+006	8.6200e-003	0.0784	0.0658	4.7000e-004		5.9600e-003	5.9600e-003		5.9600e-003	5.9600e-003	0.0000	85.3207	85.3207	1.6400e-003	1.5600e-003	85.8400
Hospital	2.09488e+007	0.1130	1.0269	0.8626	6.1600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	1,117.9074	1,117.9074	0.0214	0.0205	1,124.7108
Medical Office Building	2.186e+006	0.0118	0.1072	0.0900	6.4000e-004		8.1400e-003	8.1400e-003		8.1400e-003	8.1400e-003	0.0000	116.6533	116.6533	2.2400e-003	2.1400e-003	117.3632
Research & Development	1.19444e+007	0.0644	0.5855	0.4918	3.5100e-003		0.0445	0.0445		0.0445	0.0445	0.0000	637.3960	637.3960	0.0122	0.0117	641.2751
Strip Mall	34000	1.8000e-004	1.6700e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8144	1.8144	3.0000e-005	3.0000e-005	1.8254
Unrefrigerated Warehouse-No Rail	36400	2.0000e-004	1.7800e-003	1.5000e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9424	1.9424	4.0000e-005	4.0000e-005	1.9543
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	2.89645e+006	0.0156	0.1420	0.1193	8.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	154.5656	154.5656	2.9600e-003	2.8300e-003	155.5063
Total		**0.2138**	**1.9434**	**1.6325**	**0.0117**		**0.1477**	**0.1477**		**0.1477**	**0.1477**	**0.0000**	**2,115.5998**	**2,115.5998**	**0.0406**	**0.0388**	**2,128.4750**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Health Club	1.41576e+006	7.6300e-003	0.0694	0.0583	4.2000e-004		5.2700e-003	5.2700e-003		5.2700e-003	5.2700e-003	0.0000	75.5504	75.5504	1.4500e-003	1.3900e-003	76.0101
Hospital	1.82809e+007	0.0986	0.8961	0.7527	5.3800e-003		0.0681	0.0681		0.0681	0.0681	0.0000	975.5392	975.5392	0.0187	0.0179	981.4762
Medical Office Building	1.8698e+006	0.0101	0.0917	0.0770	5.5000e-004		6.9700e-003	6.9700e-003		6.9700e-003	6.9700e-003	0.0000	99.7797	99.7797	1.9100e-003	1.8300e-003	100.3869
Research & Development	1.05766e+007	0.0570	0.5185	0.4355	3.1100e-003		0.0394	0.0394		0.0394	0.0394	0.0000	564.4055	564.4055	0.0108	0.0104	567.8404
Strip Mall	30370	1.6000e-004	1.4900e-003	1.2500e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.6207	1.6207	3.0000e-005	3.0000e-005	1.6305
Unrefrigerated Warehouse-No Rail	31120	1.7000e-004	1.5300e-003	1.2800e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6607	1.6607	3.0000e-005	3.0000e-005	1.6708
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	2.47749e+006	0.0134	0.1215	0.1020	7.3000e-004		9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	0.0000	132.2080	132.2080	2.5300e-003	2.4200e-003	133.0126
Total		**0.1870**	**1.7001**	**1.4281**	**0.0102**		**0.1292**	**0.1292**		**0.1292**	**0.1292**	**0.0000**	**1,850.7641**	**1,850.7641**	**0.0355**	**0.0339**	**1,862.0275**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	8.70269e+006	4,318.5353	0.1145	0.0237	4,328.2816
General Office Building	3.85045e+006	1,910.7090	0.0507	0.0105	1,915.0212
Health Club	1.02425e+006	508.2636	0.0135	2.7900e-003	509.4107
Hospital	7.59812e+006	3,770.4178	0.1000	0.0207	3,778.9270
Medical Office Building	2.906e+006	1,442.0445	0.0382	7.9100e-003	1,445.2990
Research & Development	7.65175e+006	3,797.0283	0.1007	0.0208	3,805.5977
Strip Mall	303400	150.5562	3.9900e-003	8.3000e-004	150.8960
Unrefrigerated Warehouse-No Rail	174400	86.5425	2.2900e-003	4.7000e-004	86.7378
Total		**15,984.0973**	**0.4237**	**0.0877**	**16,020.1711**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	7.94346e+006	3,941.7848	0.1045	0.0216	3,950.6808
General Office Building	3.62706e+006	1,799.8537	0.0477	9.8700e-003	1,803.9157
Health Club	972230	482.4497	0.0128	2.6500e-003	483.5386
Hospital	7.09373e+006	3,520.1221	0.0933	0.0193	3,528.0665
Medical Office Building	2.7374e+006	1,358.3802	0.0360	7.4500e-003	1,361.4458
Research & Development	7.38981e+006	3,667.0471	0.0972	0.0201	3,675.3230
Strip Mall	288700	143.2616	3.8000e-003	7.9000e-004	143.5849
Unrefrigerated Warehouse-No Rail	169660	84.1904	2.2300e-003	4.6000e-004	84.3804
Total		**14,997.0895**	**0.3976**	**0.0823**	**15,030.9358**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0036	5.6000e-004	0.0625	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1222	0.1222	3.1000e-004	0.0000	0.1288
Unmitigated	9.0036	5.6000e-004	0.0625	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1222	0.1222	3.1000e-004	0.0000	0.1288

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7100e-003	5.6000e-004	0.0625	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1222	0.1222	3.1000e-004	0.0000	0.1288
Total	**9.0036**	**5.6000e-004**	**0.0625**	**0.0000**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.1222**	**0.1222**	**3.1000e-004**	**0.0000**	**0.1288**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7100e-003	5.6000e-004	0.0625	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1222	0.1222	3.1000e-004	0.0000	0.1288
Total	**9.0036**	**5.6000e-004**	**0.0625**	**0.0000**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.1222**	**0.1222**	**3.1000e-004**	**0.0000**	**0.1288**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,510.2241	11.5490	0.2844	2,840.9025
Unmitigated	3,236.5902	14.4389	0.3560	3,650.1612

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	47.0994 / 28.8674	478.4207	1.5470	0.0388	522.9301
Health Club	5.02717 / 3.08117	51.0643	0.1651	4.1400e-003	55.8150
Hospital	40.4161 / 7.69831	316.4092	1.3250	0.0328	354.3904
Medical Office Building	25.0961 / 4.78021	196.4720	0.8228	0.0203	220.0561
Research & Development	312.226 / 0	2,116.4733	10.2274	0.2513	2,409.1482
Strip Mall	1.48145 / 0.907986	15.0481	0.0487	1.2200e-003	16.4481
Unrefrigerated Warehouse-No Rail	9.25 / 0	62.7027	0.3030	7.4400e-003	71.3734
Total		**3,236.5902**	**14.4389**	**0.3560**	**3,650.1612**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	37.6796 / 23.0939	374.2864	1.2374	0.0310	409.8748
Health Club	4.02173 / 2.46493	39.9495	0.1321	3.3100e-003	43.7481
Hospital	32.3329 / 6.15865	245.8762	1.0598	0.0262	276.2448
Medical Office Building	20.0769 / 3.82417	152.6750	0.6581	0.0163	171.5322
Research & Development	249.781 / 0	1,637.1617	8.1804	0.2007	1,871.1752
Strip Mall	1.18516 / 0.726389	11.7727	0.0389	9.7000e-004	12.8921
Unrefrigerated Warehouse-No Rail	7.4 / 0	48.5026	0.2424	5.9500e-003	55.4355
Total		**2,510.2241**	**11.5490**	**0.2844**	**2,840.9025**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	875.2585	51.7263	0.0000	1,961.5106
Unmitigated	875.2585	51.7263	0.0000	1,961.5106

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	246.45	50.0271	2.9565	0.0000	112.1140
Health Club	484.5	98.3491	5.8123	0.0000	220.4067
Hospital	1314	266.7301	15.7633	0.0000	597.7594
Medical Office Building	2160	438.4605	25.9123	0.0000	982.6182
Research & Development	48.26	9.7963	0.5790	0.0000	21.9542
Strip Mall	21	4.2628	0.2519	0.0000	9.5532
Unrefrigerated Warehouse-No Rail	37.6	7.6325	0.4511	0.0000	17.1048
Total		**875.2585**	**51.7263**	**0.0000**	**1,961.5106**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	246.45	50.0271	2.9565	0.0000	112.1140
Health Club	484.5	98.3491	5.8123	0.0000	220.4067
Hospital	1314	266.7301	15.7633	0.0000	597.7594
Medical Office Building	2160	438.4605	25.9123	0.0000	982.6182
Research & Development	48.26	9.7963	0.5790	0.0000	21.9542
Strip Mall	21	4.2628	0.2519	0.0000	9.5532
Unrefrigerated Warehouse-No Rail	37.6	7.6325	0.4511	0.0000	17.1048
Total		**875.2585**	**51.7263**	**0.0000**	**1,961.5106**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAC + USC Medical Center Master Plan - 2040 Buildout

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	265.00	1000sqft	6.08	265,000.00	0
Hospital	450.00	Bed	7.39	322,090.91	0
Medical Office Building	200.00	1000sqft	4.59	200,000.00	0
Research & Development	635.00	1000sqft	14.58	635,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Enclosed Parking with Elevator	3,228.00	Space	29.05	1,291,200.00	0
Health Club	85.00	1000sqft	1.95	85,000.00	0
Strip Mall	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2035
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1094	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2040 Buildout; 2035 year assumed since max year available. LADWP CO2 emission factor based on year 2012 (https://data.lacity.org/A-Livable-and-Sustainable-City/LADWP-CO2-Generation/e5ni-eqan#column-menu).

Land Use - all land uses per TIA Table 5. Hospital ft2 based on caleemod default for 450 beds.

Construction Phase - default construction schedule (start/stop dates, phase lengths) based on acreage associated with Master Plan buildout

Trips and VMT - default worker, vendor, and haul trip numbers, fleet mix, and trip lengths

Demolition - 722,709 sf of existing uses to be demolished.

Grading - volume of soil movement for underground parking or any facilities unknown

Architectural Coating - Default non-res 250 g/L for coatings

Construction Off-road Equipment Mitigation - Tier 4 Final, watering 3x daily (unmitigated)

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	1.98E-05	1.09E-05
tblGrading	AcresOfGrading	275.00	65.02
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1094
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	DV_TP	39.00	43.50
tblVehicleTrips	DV_TP	40.00	47.50
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	52.00	56.50
tblVehicleTrips	PR_TP	45.00	52.50
tblVehicleTrips	ST_TR	20.87	19.55
tblVehicleTrips	ST_TR	8.14	9.35
tblVehicleTrips	ST_TR	42.04	28.80
tblVehicleTrips	ST_TR	2.59	2.23
tblVehicleTrips	SU_TR	26.73	19.55
tblVehicleTrips	SU_TR	7.19	9.35
tblVehicleTrips	SU_TR	20.43	28.80
tblVehicleTrips	SU_TR	2.59	2.23

tblVehicleTrips	WD_TR	11.01	7.97
tblVehicleTrips	WD_TR	32.93	19.55
tblVehicleTrips	WD_TR	11.81	9.35
tblVehicleTrips	WD_TR	36.13	26.11
tblVehicleTrips	WD_TR	8.11	5.86
tblVehicleTrips	WD_TR	44.32	28.80
tblVehicleTrips	WD_TR	2.59	2.23

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	14.0461	84.7584	157.2578	0.2740	18.2675	3.8044	21.3578	9.9840	3.5001	12.8271	0.0000	25,695.1424	25,695.1424	1.9509	0.0000	25,736.1119
2016	12.6492	77.0526	145.2216	0.2738	14.7222	2.7261	17.4483	3.9608	2.5461	6.5068	0.0000	25,139.9655	25,139.9655	1.4464	0.0000	25,170.3393
2017	11.4501	70.5940	135.1442	0.2736	14.7235	2.4643	17.1878	3.9613	2.3015	6.2627	0.0000	24,487.7693	24,487.7693	1.3781	0.0000	24,516.7091
2018	10.3254	63.8015	126.5230	0.2734	14.7238	2.1404	16.8643	3.9614	1.9997	5.9611	0.0000	23,859.2681	23,859.2681	1.3203	0.0000	23,886.9938
2019	9.4904	58.3199	119.7002	0.2724	14.7243	1.9016	16.6259	3.9616	1.7761	5.7377	0.0000	23,181.0432	23,181.0432	1.2683	0.0000	23,207.6772
2020	884.1317	52.0137	114.4863	0.2723	14.7249	1.6834	16.4083	3.9618	1.5721	5.5339	0.0000	22,487.9819	22,487.9819	1.2288	0.0000	22,513.7875
Total	**942.0929**	**406.5401**	**798.3331**	**1.6394**	**91.8862**	**14.7202**	**105.8922**	**29.7908**	**13.6955**	**42.8293**	**0.0000**	**144,851.1704**	**144,851.1704**	**8.5928**	**0.0000**	**145,031.6188**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	10.7136	56.9574	155.9243	0.2740	14.7210	0.9439	15.6648	3.9603	0.8708	4.8310	0.0000	25,695.1424	25,695.1424	1.9509	0.0000	25,736.1119
2016	9.5695	50.7752	144.1260	0.2738	14.7222	0.7993	15.5215	3.9608	0.7382	4.6990	0.0000	25,139.9655	25,139.9655	1.4464	0.0000	25,170.3393
2017	8.6742	46.4172	134.4261	0.2736	14.7235	0.7237	15.4471	3.9613	0.6691	4.6304	0.0000	24,487.7693	24,487.7693	1.3781	0.0000	24,516.7091
2018	7.9832	42.7696	126.4013	0.2734	14.7238	0.6868	15.4106	3.9614	0.6355	4.5969	0.0000	23,859.2680	23,859.2680	1.3203	0.0000	23,886.9938
2019	7.4653	39.5838	119.9909	0.2724	14.7243	0.6571	15.3815	3.9616	0.6085	4.5700	0.0000	23,181.0432	23,181.0432	1.2683	0.0000	23,207.6772
2020	883.9193	35.1586	115.0889	0.2723	14.7249	0.6112	15.3361	3.9618	0.5662	4.5280	0.0000	22,487.9819	22,487.9819	1.2288	0.0000	22,513.7875
Total	**928.3249**	**271.6617**	**795.9575**	**1.6394**	**88.3397**	**4.4219**	**92.7615**	**23.7670**	**4.0883**	**27.8553**	**0.0000**	**144,851.1704**	**144,851.1704**	**8.5928**	**0.0000**	**145,031.6188**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.46**	**33.18**	**0.30**	**0.00**	**3.86**	**69.96**	**12.40**	**20.22**	**70.15**	**34.96**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	49.3493	4.4900e-003	0.4998	4.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		1.0774	1.0774	2.7800e-003		1.1357
Energy	1.1714	10.6486	8.9449	0.0639		0.8093	0.8093		0.8093	0.8093		12,778.3538	12,778.3538	0.2449	0.2343	12,856.1208
Mobile	36.6105	92.6071	407.9568	1.7862	116.6839	2.5882	119.2721	31.2389	2.3882	33.6271		128,555.3265	128,555.3265	3.4772		128,628.3468
Total	**87.1311**	**103.2602**	**417.4014**	**1.8501**	**116.6839**	**3.3993**	**120.0832**	**31.2389**	**3.1993**	**34.4382**		**141,334.7577**	**141,334.7577**	**3.7249**	**0.2343**	**141,485.6033**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	49.3493	4.4900e-003	0.4998	4.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		1.0774	1.0774	2.7800e-003		1.1357
Energy	1.0247	9.3156	7.8251	0.0559		0.7080	0.7080		0.7080	0.7080		11,178.7297	11,178.7297	0.2143	0.2049	11,246.7616
Mobile	36.6105	92.6071	407.9568	1.7862	116.6839	2.5882	119.2721	31.2389	2.3882	33.6271		128,555.3265	128,555.3265	3.4772		128,628.3468
Total	**86.9845**	**101.9272**	**416.2817**	**1.8421**	**116.6839**	**3.2980**	**119.9819**	**31.2389**	**3.0980**	**34.3369**		**139,735.1335**	**139,735.1335**	**3.6942**	**0.2049**	**139,876.2440**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.17**	**1.29**	**0.27**	**0.43**	**0.00**	**2.98**	**0.08**	**0.00**	**3.17**	**0.29**	**0.00**	**1.13**	**1.13**	**0.82**	**12.52**	**1.14**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	4/8/2015	5	70	
2	Site Preparation	Site Preparation	4/9/2015	6/3/2015	5	40	
3	Grading	Grading	6/4/2015	11/4/2015	5	110	
4	Building Construction	Building Construction	11/5/2015	2/5/2020	5	1110	
5	Paving	Paving	2/6/2020	5/20/2020	5	75	
6	Architectural Coating	Architectural Coating	5/21/2020	9/2/2020	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 65.02

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,287,436; Non-Residential Outdoor: 1,429,145 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	3,287.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,056.00	468.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	211.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.1629	0.0000	10.1629	1.5388	0.0000	1.5388			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**10.1629**	**2.4508**	**12.6137**	**1.5388**	**2.2858**	**3.8245**		**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

3.2 Demolition - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9988	15.4239	11.6415	0.0351	0.8176	0.2465	1.0640	0.2238	0.2267	0.4506		3,565.5026	3,565.5026	0.0294		3,566.1201
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0771	0.1031	1.0807	2.0600e-003	0.1677	1.6800e-003	0.1693	0.0445	1.5300e-003	0.0460		180.0161	180.0161	0.0109		180.2447
Total	**1.0759**	**15.5270**	**12.7222**	**0.0371**	**0.9852**	**0.2482**	**1.2334**	**0.2683**	**0.2282**	**0.4966**		**3,745.5187**	**3,745.5187**	**0.0403**		**3,746.3648**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9635	0.0000	3.9635	0.6001	0.0000	0.6001			0.0000			0.0000
Off-Road	0.4739	2.0535	23.8257	0.0399		0.0632	0.0632		0.0632	0.0632	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**0.4739**	**2.0535**	**23.8257**	**0.0399**	**3.9635**	**0.0632**	**4.0267**	**0.6001**	**0.0632**	**0.6633**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

3.2 Demolition - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9988	15.4239	11.6415	0.0351	0.8176	0.2465	1.0640	0.2238	0.2267	0.4506		3,565.5026	3,565.5026	0.0294		3,566.1201
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0771	0.1031	1.0807	2.0600e-003	0.1677	1.6800e-003	0.1693	0.0445	1.5300e-003	0.0460		180.0161	180.0161	0.0109		180.2447
Total	**1.0759**	**15.5270**	**12.7222**	**0.0371**	**0.9852**	**0.2482**	**1.2334**	**0.2683**	**0.2282**	**0.4966**		**3,745.5187**	**3,745.5187**	**0.0403**		**3,746.3648**

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.3 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0925	0.1238	1.2968	2.4700e-003	0.2012	2.0100e-003	0.2032	0.0534	1.8400e-003	0.0552		216.0194	216.0194	0.0131		216.2936
Total	**0.0925**	**0.1238**	**1.2968**	**2.4700e-003**	**0.2012**	**2.0100e-003**	**0.2032**	**0.0534**	**1.8400e-003**	**0.0552**		**216.0194**	**216.0194**	**0.0131**		**216.2936**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.4757	2.0615	21.2415	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.4757**	**2.0615**	**21.2415**	**0.0391**	**7.0458**	**0.0634**	**7.1093**	**3.8730**	**0.0634**	**3.9364**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.3 Site Preparation - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0925	0.1238	1.2968	2.4700e-003	0.2012	2.0100e-003	0.2032	0.0534	1.8400e-003	0.0552		216.0194	216.0194	0.0131		216.2936
Total	**0.0925**	**0.1238**	**1.2968**	**2.4700e-003**	**0.2012**	**2.0100e-003**	**0.2032**	**0.0534**	**1.8400e-003**	**0.0552**		**216.0194**	**216.0194**	**0.0131**		**216.2936**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6489	0.0000	6.6489	3.3779	0.0000	3.3779			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.6489**	**3.8022**	**10.4511**	**3.3779**	**3.4980**	**6.8759**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.4 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1028	0.1375	1.4409	2.7400e-003	0.2236	2.2300e-003	0.2258	0.0593	2.0500e-003	0.0613		240.0215	240.0215	0.0145		240.3263
Total	**0.1028**	**0.1375**	**1.4409**	**2.7400e-003**	**0.2236**	**2.2300e-003**	**0.2258**	**0.0593**	**2.0500e-003**	**0.0613**		**240.0215**	**240.0215**	**0.0145**		**240.3263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5931	0.0000	2.5931	1.3174	0.0000	1.3174			0.0000			0.0000
Off-Road	0.7564	3.2778	34.7787	0.0618		0.1009	0.1009		0.1009	0.1009	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**0.7564**	**3.2778**	**34.7787**	**0.0618**	**2.5931**	**0.1009**	**2.6940**	**1.3174**	**0.1009**	**1.4183**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.4 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1028	0.1375	1.4409	2.7400e-003	0.2236	2.2300e-003	0.2258	0.0593	2.0500e-003	0.0613		240.0215	240.0215	0.0145		240.3263
Total	**0.1028**	**0.1375**	**1.4409**	**2.7400e-003**	**0.2236**	**2.2300e-003**	**0.2258**	**0.0593**	**2.0500e-003**	**0.0613**		**240.0215**	**240.0215**	**0.0145**		**240.3263**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.5 Building Construction - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9595	47.4687	62.4324	0.1023	2.9174	0.7853	3.7027	0.8299	0.7221	1.5520		10,332.4297	10,332.4297	0.0859		10,334.2342
Worker	5.4275	7.2598	76.0809	0.1449	11.8036	0.1179	11.9215	3.1304	0.1081	3.2384		12,673.1356	12,673.1356	0.7662		12,689.2265
Total	**10.3871**	**54.7285**	**138.5133**	**0.2472**	**14.7210**	**0.9032**	**15.6242**	**3.9603**	**0.8301**	**4.7904**		**23,005.5653**	**23,005.5653**	**0.8522**		**23,023.4607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**0.3265**	**2.2289**	**17.4110**	**0.0268**		**0.0406**	**0.0406**		**0.0406**	**0.0406**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.5 Building Construction - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9595	47.4687	62.4324	0.1023	2.9174	0.7853	3.7027	0.8299	0.7221	1.5520		10,332.4297	10,332.4297	0.0859		10,334.2342
Worker	5.4275	7.2598	76.0809	0.1449	11.8036	0.1179	11.9215	3.1304	0.1081	3.2384		12,673.1356	12,673.1356	0.7662		12,689.2265
Total	**10.3871**	**54.7285**	**138.5133**	**0.2472**	**14.7210**	**0.9032**	**15.6242**	**3.9603**	**0.8301**	**4.7904**		**23,005.5653**	**23,005.5653**	**0.8522**		**23,023.4607**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3500	41.9823	57.9300	0.1021	2.9186	0.6470	3.5657	0.8304	0.5950	1.4254		10,220.7507	10,220.7507	0.0778		10,222.3851
Worker	4.8930	6.5640	68.7850	0.1448	11.8036	0.1116	11.9152	3.1304	0.1026	3.2330		12,249.9285	12,249.9285	0.7065		12,264.7652
Total	**9.2430**	**48.5463**	**126.7150**	**0.2470**	**14.7222**	**0.7587**	**15.4809**	**3.9608**	**0.6976**	**4.6584**		**22,470.6791**	**22,470.6791**	**0.7843**		**22,487.1503**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**0.3265**	**2.2289**	**17.4110**	**0.0268**		**0.0406**	**0.0406**		**0.0406**	**0.0406**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3500	41.9823	57.9300	0.1021	2.9186	0.6470	3.5657	0.8304	0.5950	1.4254		10,220.7507	10,220.7507	0.0778		10,222.3851
Worker	4.8930	6.5640	68.7850	0.1448	11.8036	0.1116	11.9152	3.1304	0.1026	3.2330		12,249.9285	12,249.9285	0.7065		12,264.7652
Total	**9.2430**	**48.5463**	**126.7150**	**0.2470**	**14.7222**	**0.7587**	**15.4809**	**3.9608**	**0.6976**	**4.6584**		**22,470.6791**	**22,470.6791**	**0.7843**		**22,487.1503**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.9601	38.2517	54.9466	0.1020	2.9199	0.5762	3.4960	0.8309	0.5299	1.3608		10,057.3500	10,057.3500	0.0754		10,058.9337
Worker	4.3876	5.9366	62.0684	0.1448	11.8036	0.1069	11.9105	3.1304	0.0986	3.2290		11,790.6140	11,790.6140	0.6530		11,804.3264
Total	**8.3477**	**44.1883**	**117.0151**	**0.2468**	**14.7235**	**0.6831**	**15.4065**	**3.9613**	**0.6285**	**4.5898**		**21,847.9640**	**21,847.9640**	**0.7284**		**21,863.2601**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**0.3265**	**2.2289**	**17.4110**	**0.0268**		**0.0406**	**0.0406**		**0.0406**	**0.0406**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.9601	38.2517	54.9466	0.1020	2.9199	0.5762	3.4960	0.8309	0.5299	1.3608		10,057.3500	10,057.3500	0.0754		10,058.9337
Worker	4.3876	5.9366	62.0684	0.1448	11.8036	0.1069	11.9105	3.1304	0.0986	3.2290		11,790.6140	11,790.6140	0.6530		11,804.3264
Total	**8.3477**	**44.1883**	**117.0151**	**0.2468**	**14.7235**	**0.6831**	**15.4065**	**3.9613**	**0.6285**	**4.5898**		**21,847.9640**	**21,847.9640**	**0.7284**		**21,863.2601**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.7156	35.1525	52.8367	0.1019	2.9202	0.5426	3.4628	0.8310	0.4991	1.3301		9,891.0805	9,891.0805	0.0751		9,892.6570
Worker	3.9411	5.3882	56.1536	0.1447	11.8036	0.1036	11.9072	3.1304	0.0958	3.2262		11,358.2486	11,358.2486	0.6065		11,370.9851
Total	**7.6567**	**40.5407**	**108.9903**	**0.2466**	**14.7238**	**0.6462**	**15.3700**	**3.9614**	**0.5949**	**4.5563**		**21,249.3291**	**21,249.3291**	**0.6816**		**21,263.6421**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**0.3265**	**2.2289**	**17.4110**	**0.0268**		**0.0406**	**0.0406**		**0.0406**	**0.0406**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.7156	35.1525	52.8367	0.1019	2.9202	0.5426	3.4628	0.8310	0.4991	1.3301		9,891.0805	9,891.0805	0.0751		9,892.6570
Worker	3.9411	5.3882	56.1536	0.1447	11.8036	0.1036	11.9072	3.1304	0.0958	3.2262		11,358.2486	11,358.2486	0.6065		11,370.9851
Total	**7.6567**	**40.5407**	**108.9903**	**0.2466**	**14.7238**	**0.6462**	**15.3700**	**3.9614**	**0.5949**	**4.5563**		**21,249.3291**	**21,249.3291**	**0.6816**		**21,263.6421**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5203	32.4150	51.1662	0.1014	2.9207	0.5155	3.4363	0.8312	0.4743	1.3055		9,687.7696	9,687.7696	0.0735		9,689.3131
Worker	3.6186	4.9399	51.4137	0.1441	11.8036	0.1010	11.9046	3.1304	0.0936	3.2240		10,912.5118	10,912.5118	0.5669		10,924.4162
Total	**7.1388**	**37.3549**	**102.5799**	**0.2456**	**14.7243**	**0.6165**	**15.3409**	**3.9616**	**0.5679**	**4.5294**		**20,600.2814**	**20,600.2814**	**0.6404**		**20,613.7293**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**0.3265**	**2.2289**	**17.4110**	**0.0268**		**0.0406**	**0.0406**		**0.0406**	**0.0406**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.5203	32.4150	51.1662	0.1014	2.9207	0.5155	3.4363	0.8312	0.4743	1.3055		9,687.7696	9,687.7696	0.0735		9,689.3131
Worker	3.6186	4.9399	51.4137	0.1441	11.8036	0.1010	11.9046	3.1304	0.0936	3.2240		10,912.5118	10,912.5118	0.5669		10,924.4162
Total	**7.1388**	**37.3549**	**102.5799**	**0.2456**	**14.7243**	**0.6165**	**15.3409**	**3.9616**	**0.5679**	**4.5294**		**20,600.2814**	**20,600.2814**	**0.6404**		**20,613.7293**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.3634	28.3514	49.8437	0.1013	2.9213	0.4706	3.3919	0.8314	0.4330	1.2644		9,471.8169	9,471.8169	0.0721		9,473.3308
Worker	3.3922	4.5784	47.8342	0.1441	11.8036	0.1000	11.9035	3.1304	0.0927	3.2230		10,473.6851	10,473.6851	0.5373		10,484.9686
Total	**6.7556**	**32.9297**	**97.6778**	**0.2455**	**14.7249**	**0.5706**	**15.2954**	**3.9618**	**0.5256**	**4.4874**		**19,945.5020**	**19,945.5020**	**0.6094**		**19,958.2995**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**0.3265**	**2.2289**	**17.4110**	**0.0268**		**0.0406**	**0.0406**		**0.0406**	**0.0406**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.3634	28.3514	49.8437	0.1013	2.9213	0.4706	3.3919	0.8314	0.4330	1.2644		9,471.8169	9,471.8169	0.0721		9,473.3308
Worker	3.3922	4.5784	47.8342	0.1441	11.8036	0.1000	11.9035	3.1304	0.0927	3.2230		10,473.6851	10,473.6851	0.5373		10,484.9686
Total	**6.7556**	**32.9297**	**97.6778**	**0.2455**	**14.7249**	**0.5706**	**15.2954**	**3.9618**	**0.5256**	**4.4874**		**19,945.5020**	**19,945.5020**	**0.6094**		**19,958.2995**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3301**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0482	0.0650	0.6795	2.0500e-003	0.1677	1.4200e-003	0.1691	0.0445	1.3200e-003	0.0458		148.7739	148.7739	7.6300e-003		148.9342
Total	**0.0482**	**0.0650**	**0.6795**	**2.0500e-003**	**0.1677**	**1.4200e-003**	**0.1691**	**0.0445**	**1.3200e-003**	**0.0458**		**148.7739**	**148.7739**	**7.6300e-003**		**148.9342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2745	1.1895	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2745**	**1.1895**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0482	0.0650	0.6795	2.0500e-003	0.1677	1.4200e-003	0.1691	0.0445	1.3200e-003	0.0458		148.7739	148.7739	7.6300e-003		148.9342
Total	**0.0482**	**0.0650**	**0.6795**	**2.0500e-003**	**0.1677**	**1.4200e-003**	**0.1691**	**0.0445**	**1.3200e-003**	**0.0458**		**148.7739**	**148.7739**	**7.6300e-003**		**148.9342**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	883.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**883.4539**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6778	0.9148	9.5578	0.0288	2.3585	0.0200	2.3785	0.6255	0.0185	0.6440		2,092.7534	2,092.7534	0.1074		2,095.0079
Total	**0.6778**	**0.9148**	**9.5578**	**0.0288**	**2.3585**	**0.0200**	**2.3785**	**0.6255**	**0.0185**	**0.6440**		**2,092.7534**	**2,092.7534**	**0.1074**		**2,095.0079**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	883.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**883.2415**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6778	0.9148	9.5578	0.0288	2.3585	0.0200	2.3785	0.6255	0.0185	0.6440		2,092.7534	2,092.7534	0.1074		2,095.0079
Total	**0.6778**	**0.9148**	**9.5578**	**0.0288**	**2.3585**	**0.0200**	**2.3785**	**0.6255**	**0.0185**	**0.6440**		**2,092.7534**	**2,092.7534**	**0.1074**		**2,095.0079**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	36.6105	92.6071	407.9568	1.7862	116.6839	2.5882	119.2721	31.2389	2.3882	33.6271		128,555.3265	128,555.3265	3.4772		128,628.3468
Unmitigated	36.6105	92.6071	407.9568	1.7862	116.6839	2.5882	119.2721	31.2389	2.3882	33.6271		128,555.3265	128,555.3265	3.4772		128,628.3468

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	2,112.05	628.05	259.70	5,268,469	5,268,469
Health Club	1,661.75	1,661.75	1661.75	3,871,917	3,871,917
Hospital	4,207.50	4,207.50	4207.50	16,311,811	16,311,811
Medical Office Building	5,222.00	1,792.00	310.00	10,453,991	10,453,991
Research & Development	3,721.10	1,206.50	704.85	9,902,753	9,902,753
Strip Mall	576.00	576.00	576.00	1,279,014	1,279,014
Unrefrigerated Warehouse-No Rail	89.20	89.20	89.20	382,286	382,286
Total	17,589.60	10,161.00	7,809.00	47,470,242	47,470,242

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	56.5	43.5	0
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	52.5	47.5	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.491908	0.059855	0.185077	0.131229	0.044940	0.007356	0.019164	0.046757	0.003019	0.003347	0.004084	0.000506	0.002760

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0247	9.3156	7.8251	0.0559		0.7080	0.7080		0.7080	0.7080		11,178.7297	11,178.7297	0.2143	0.2049	11,246.7616
NaturalGas Unmitigated	1.1714	10.6486	8.9449	0.0639		0.8093	0.8093		0.8093	0.8093		12,778.3538	12,778.3538	0.2449	0.2343	12,856.1208

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	7935.48	0.0856	0.7780	0.6535	4.6700e-003		0.0591	0.0591		0.0591	0.0591		933.5858	933.5858	0.0179	0.0171	939.2675
Health Club	4380.41	0.0472	0.4295	0.3607	2.5800e-003		0.0326	0.0326		0.0326	0.0326		515.3425	515.3425	9.8800e-003	9.4500e-003	518.4788
Hospital	57394	0.6190	5.6269	4.7266	0.0338		0.4276	0.4276		0.4276	0.4276		6,752.2298	6,752.2298	0.1294	0.1238	6,793.3227
Medical Office Building	5989.04	0.0646	0.5872	0.4932	3.5200e-003		0.0446	0.0446		0.0446	0.0446		704.5931	704.5931	0.0135	0.0129	708.8811
Research & Development	32724.2	0.3529	3.2083	2.6949	0.0193		0.2438	0.2438		0.2438	0.2438		3,849.9114	3,849.9114	0.0738	0.0706	3,873.3413
Strip Mall	93.1507	1.0000e-003	9.1300e-003	7.6700e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9589	10.9589	2.1000e-004	2.0000e-004	11.0256
Unrefrigerated Warehouse-No Rail	99.726	1.0800e-003	9.7800e-003	8.2100e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004		11.7325	11.7325	2.2000e-004	2.2000e-004	11.8039
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.1714**	**10.6486**	**8.9449**	**0.0639**		**0.8093**	**0.8093**		**0.8093**	**0.8093**		**12,778.3538**	**12,778.3538**	**0.2449**	**0.2343**	**12,856.1208**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Health Club	3.87879	0.0418	0.3803	0.3194	2.2800e-003		0.0289	0.0289		0.0289	0.0289		456.3288	456.3288	8.7500e-003	8.3700e-003	459.1059
Hospital	50.0847	0.5401	4.9103	4.1246	0.0295		0.3732	0.3732		0.3732	0.3732		5,892.3171	5,892.3171	0.1129	0.1080	5,928.1768
Medical Office Building	5.12274	0.0553	0.5022	0.4219	3.0100e-003		0.0382	0.0382		0.0382	0.0382		602.6753	602.6753	0.0116	0.0111	606.3430
Research & Development	28.9769	0.3125	2.8409	2.3863	0.0171		0.2159	0.2159		0.2159	0.2159		3,409.0443	3,409.0443	0.0653	0.0625	3,429.7912
Strip Mall	0.0832055	9.0000e-004	8.1600e-003	6.8500e-003	5.0000e-005		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004		9.7889	9.7889	1.9000e-004	1.8000e-004	9.8485
Unrefrigerated Warehouse-No Rail	0.0852603	9.2000e-004	8.3600e-003	7.0200e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0306	10.0306	1.9000e-004	1.8000e-004	10.0917
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	6.78763	0.0732	0.6655	0.5590	3.9900e-003		0.0506	0.0506		0.0506	0.0506		798.5447	798.5447	0.0153	0.0146	803.4045
Total		**1.0247**	**9.3156**	**7.8251**	**0.0559**		**0.7080**	**0.7080**		**0.7080**	**0.7080**		**11,178.7297**	**11,178.7297**	**0.2143**	**0.2050**	**11,246.7615**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	49.3493	4.4900e-003	0.4998	4.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		1.0774	1.0774	2.7800e-003		1.1357
Unmitigated	49.3493	4.4900e-003	0.4998	4.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		1.0774	1.0774	2.7800e-003		1.1357

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	18.1482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	31.1554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0457	4.4900e-003	0.4998	4.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		1.0774	1.0774	2.7800e-003		1.1357
Total	**49.3493**	**4.4900e-003**	**0.4998**	**4.0000e-005**		**1.7700e-003**	**1.7700e-003**		**1.7700e-003**	**1.7700e-003**		**1.0774**	**1.0774**	**2.7800e-003**		**1.1357**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	18.1482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	31.1554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0457	4.4900e-003	0.4998	4.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		1.0774	1.0774	2.7800e-003		1.1357
Total	**49.3493**	**4.4900e-003**	**0.4998**	**4.0000e-005**		**1.7700e-003**	**1.7700e-003**		**1.7700e-003**	**1.7700e-003**		**1.0774**	**1.0774**	**2.7800e-003**		**1.1357**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAC + USC Medical Center Master Plan - 2040 Buildout

Los Angeles-South Coast County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.59	0.00	0.00	0.82	0.83	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.24	0.33	0.00	0.00	0.69	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.73	0.72	0.25	0.00	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.88	0.96	0.31	0.00	0.97	0.97	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.77	0.91	-0.17	0.00	0.95	0.94	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.89	0.96	0.49	0.00	0.98	0.98	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 4 Final	1	1	No Change	0.00
Concrete/Industrial Saws	Diesel	Tier 4 Final	1	1	No Change	0.00
Cranes	Diesel	Tier 4 Final	1	1	No Change	0.00
Excavators	Diesel	Tier 4 Final	5	5	No Change	0.00
Forklifts	Diesel	Tier 4 Final	3	3	No Change	0.00
Generator Sets	Diesel	Tier 4 Final	1	1	No Change	0.00
Graders	Diesel	Tier 4 Final	1	1	No Change	0.00
Pavers	Diesel	Tier 4 Final	2	2	No Change	0.00
Paving Equipment	Diesel	Tier 4 Final	2	2	No Change	0.00
Rollers	Diesel	Tier 4 Final	2	2	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 4 Final	6	6	No Change	0.00
Scrapers	Diesel	Tier 4 Final	2	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	9	9	No Change	0.00
Welders	Diesel	Tier 4 Final	1	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	9.08000E-003	6.31400E-002	6.86800E-002	1.10000E-004	4.16000E-003	4.16000E-003	0.00000E+000	9.57470E+000	9.57470E+000	7.40000E-004	0.00000E+000	9.59027E+000
Concrete/Industrial Saws	2.49300E-002	1.74800E-001	1.33120E-001	2.20000E-004	1.35800E-002	1.35800E-002	0.00000E+000	1.88180E+001	1.88180E+001	2.02000E-003	0.00000E+000	1.88604E+001
Cranes	2.94360E-001	3.50037E+000	1.27082E+000	2.74000E-003	1.54330E-001	1.41990E-001	0.00000E+000	2.52307E+002	2.52307E+002	7.79100E-002	0.00000E+000	2.53943E+002
Excavators	8.95600E-002	1.04594E+000	7.39420E-001	1.14000E-003	5.16300E-002	4.75000E-002	0.00000E+000	1.08358E+002	1.08358E+002	3.23500E-002	0.00000E+000	1.09037E+002
Forklifts	3.23930E-001	2.83066E+000	2.04783E+000	2.54000E-003	2.29700E-001	2.11320E-001	0.00000E+000	2.34203E+002	2.34203E+002	7.23200E-002	0.00000E+000	2.35722E+002
Generator Sets	3.01240E-001	2.39349E+000	2.08855E+000	3.65000E-003	1.57270E-001	1.57270E-001	0.00000E+000	3.13690E+002	3.13690E+002	2.42900E-002	0.00000E+000	3.14200E+002
Graders	5.84000E-002	5.97730E-001	2.73940E-001	3.40000E-004	3.36100E-002	3.09200E-002	0.00000E+000	3.27844E+001	3.27844E+001	9.79000E-003	0.00000E+000	3.29900E+001
Pavers	1.89400E-002	2.02670E-001	2.09010E-001	3.40000E-004	9.85000E-003	9.06000E-003	0.00000E+000	2.97848E+001	2.97848E+001	9.63000E-003	0.00000E+000	2.99871E+001
Paving Equipment	1.53200E-002	1.58170E-001	1.87200E-001	3.00000E-004	7.91000E-003	7.28000E-003	0.00000E+000	2.64365E+001	2.64365E+001	8.55000E-003	0.00000E+000	2.66161E+001
Rollers	1.56100E-002	1.56090E-001	1.42000E-001	2.00000E-004	9.95000E-003	9.15000E-003	0.00000E+000	1.72864E+001	1.72864E+001	5.59000E-003	0.00000E+000	1.74038E+001
Rubber Tired Dozers	2.35530E-001	2.66160E+000	2.03064E+000	1.64000E-003	1.24180E-001	1.14250E-001	0.00000E+000	1.56741E+002	1.56741E+002	4.67900E-002	0.00000E+000	1.57724E+002
Scrapers	1.58740E-001	2.04588E+000	1.27343E+000	1.64000E-003	8.26300E-002	7.60200E-002	0.00000E+000	1.56130E+002	1.56130E+002	4.66100E-002	0.00000E+000	1.57109E+002
Tractors/Loaders/Backhoes	4.90690E-001	4.76396E+000	3.90185E+000	5.12000E-003	3.51280E-001	3.23180E-001	0.00000E+000	4.73636E+002	4.73636E+002	1.45660E-001	0.00000E+000	4.76695E+002
Welders	2.63680E-001	9.51620E-001	1.04872E+000	1.42000E-003	6.73200E-002	6.73200E-002	0.00000E+000	1.04462E+002	1.04462E+002	2.14800E-002	0.00000E+000	1.04914E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.11000E-003	4.83000E-003	6.87200E-002	1.10000E-004	1.50000E-004	1.50000E-004	0.00000E+000	9.57469E+000	9.57469E+000	7.40000E-004	0.00000E+000	9.59026E+000
Concrete/Industrial Saws	2.19000E-003	9.49000E-003	1.35050E-001	2.20000E-004	2.90000E-004	2.90000E-004	0.00000E+000	1.88180E+001	1.88180E+001	2.02000E-003	0.00000E+000	1.88604E+001
Cranes	3.36800E-002	1.45950E-001	1.23496E+000	2.74000E-003	4.49000E-003	4.49000E-003	0.00000E+000	2.52307E+002	2.52307E+002	7.79100E-002	0.00000E+000	2.53943E+002
Excavators	1.40100E-002	6.06900E-002	8.63700E-001	1.14000E-003	1.87000E-003	1.87000E-003	0.00000E+000	1.08358E+002	1.08358E+002	3.23500E-002	0.00000E+000	1.09037E+002
Forklifts	3.13600E-002	1.35900E-001	1.93401E+000	2.54000E-003	4.18000E-003	4.18000E-003	0.00000E+000	2.34203E+002	2.34203E+002	7.23200E-002	0.00000E+000	2.35721E+002
Generator Sets	3.65100E-002	1.58200E-001	2.25128E+000	3.65000E-003	4.87000E-003	4.87000E-003	0.00000E+000	3.13690E+002	3.13690E+002	2.42900E-002	0.00000E+000	3.14200E+002
Graders	4.15000E-003	1.79900E-002	2.56050E-001	3.40000E-004	5.50000E-004	5.50000E-004	0.00000E+000	3.27844E+001	3.27844E+001	9.79000E-003	0.00000E+000	3.29899E+001
Pavers	4.17000E-003	1.80600E-002	2.56950E-001	3.40000E-004	5.60000E-004	5.60000E-004	0.00000E+000	2.97848E+001	2.97848E+001	9.63000E-003	0.00000E+000	2.99871E+001
Paving Equipment	3.71000E-003	1.61000E-002	2.29050E-001	3.00000E-004	5.00000E-004	5.00000E-004	0.00000E+000	2.64365E+001	2.64365E+001	8.55000E-003	0.00000E+000	2.66161E+001
Rollers	2.41000E-003	1.04600E-002	1.48790E-001	2.00000E-004	3.20000E-004	3.20000E-004	0.00000E+000	1.72864E+001	1.72864E+001	5.59000E-003	0.00000E+000	1.74038E+001
Rubber Tired Dozers	1.99700E-002	8.65300E-002	7.32180E-001	1.64000E-003	2.66000E-003	2.66000E-003	0.00000E+000	1.56741E+002	1.56741E+002	4.67900E-002	0.00000E+000	1.57723E+002
Scrapers	2.01700E-002	8.74100E-002	7.39580E-001	1.64000E-003	2.69000E-003	2.69000E-003	0.00000E+000	1.56130E+002	1.56130E+002	4.66100E-002	0.00000E+000	1.57109E+002
Tractors/Loaders/Backhoes	6.25500E-002	2.71040E-001	3.85709E+000	5.12000E-003	8.34000E-003	8.34000E-003	0.00000E+000	4.73636E+002	4.73636E+002	1.45660E-001	0.00000E+000	4.76695E+002
Welders	2.43100E-002	5.57210E-001	8.30750E-001	1.42000E-003	1.62000E-003	1.62000E-003	0.00000E+000	1.04462E+002	1.04462E+002	2.14800E-002	0.00000E+000	1.04914E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.77753E-001	9.23503E-001	-5.82411E-004	0.00000E+000	9.63942E-001	9.63942E-001	0.00000E+000	1.04442E-006	1.04442E-006	0.00000E+000	0.00000E+000	1.04272E-006
Concrete/Industrial Saws	9.12154E-001	9.45709E-001	-1.44982E-002	0.00000E+000	9.78645E-001	9.78645E-001	0.00000E+000	1.06281E-006	1.06281E-006	0.00000E+000	0.00000E+000	1.06042E-006
Cranes	8.85582E-001	9.58304E-001	2.82180E-002	0.00000E+000	9.70906E-001	9.68378E-001	0.00000E+000	1.18903E-006	1.18903E-006	0.00000E+000	0.00000E+000	1.22075E-006
Excavators	8.43569E-001	9.41976E-001	-1.68078E-001	0.00000E+000	9.63781E-001	9.60632E-001	0.00000E+000	1.19973E-006	1.19973E-006	0.00000E+000	0.00000E+000	1.19225E-006
Forklifts	9.03189E-001	9.51990E-001	5.55808E-002	0.00000E+000	9.81802E-001	9.80220E-001	0.00000E+000	1.19554E-006	1.19554E-006	0.00000E+000	0.00000E+000	1.18784E-006
Generator Sets	8.78801E-001	9.33904E-001	-7.79153E-002	0.00000E+000	9.69034E-001	9.69034E-001	0.00000E+000	1.21139E-006	1.21139E-006	0.00000E+000	0.00000E+000	1.20942E-006
Graders	9.28938E-001	9.69903E-001	6.53063E-002	0.00000E+000	9.83636E-001	9.82212E-001	0.00000E+000	1.22009E-006	1.22009E-006	0.00000E+000	0.00000E+000	1.21249E-006
Pavers	7.79831E-001	9.10890E-001	-2.29367E-001	0.00000E+000	9.43147E-001	9.38190E-001	0.00000E+000	1.34297E-006	1.34297E-006	0.00000E+000	0.00000E+000	1.00043E-006
Paving Equipment	7.57833E-001	8.98211E-001	-2.23558E-001	0.00000E+000	9.36789E-001	9.31319E-001	0.00000E+000	1.13479E-006	1.13479E-006	0.00000E+000	0.00000E+000	1.12714E-006
Rollers	8.45612E-001	9.32987E-001	-4.78169E-002	0.00000E+000	9.67839E-001	9.65027E-001	0.00000E+000	1.15698E-006	1.15698E-006	0.00000E+000	0.00000E+000	1.72376E-006
Rubber Tired Dozers	9.15212E-001	9.67489E-001	6.39434E-001	0.00000E+000	9.78579E-001	9.76718E-001	0.00000E+000	1.14839E-006	1.14839E-006	0.00000E+000	0.00000E+000	1.20464E-006
Scrapers	8.72937E-001	9.57275E-001	4.19222E-001	0.00000E+000	9.67445E-001	9.64615E-001	0.00000E+000	1.21693E-006	1.21693E-006	0.00000E+000	0.00000E+000	1.14570E-006
Tractors/Loaders/Backhoes	8.72526E-001	9.43106E-001	1.14715E-002	0.00000E+000	9.76258E-001	9.74194E-001	0.00000E+000	1.18234E-006	1.18234E-006	0.00000E+000	0.00000E+000	1.19573E-006
Welders	9.07805E-001	4.14462E-001	2.07844E-001	0.00000E+000	9.75936E-001	9.75936E-001	0.00000E+000	1.24447E-006	1.24447E-006	0.00000E+000	0.00000E+000	1.23911E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction	61.00	Frequency (per day)	3.00

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.09	0.02	0.09	0.02	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	8.02	2.16	8.02	2.16	0.00	0.00
Demolition	Fugitive Dust	0.36	0.05	0.14	0.02	0.61	0.61
Demolition	Roads	0.03	0.01	0.03	0.01	0.00	0.00
Grading	Fugitive Dust	0.37	0.19	0.14	0.07	0.61	0.61
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.36	0.20	0.14	0.08	0.61	0.61
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.17	6.17	6.17	6.16	6.17
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	12.53	12.52	12.52	12.36	12.52	12.52	0.00	12.52	12.52	12.55	12.51	12.52
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	22.55	22.44	20.01	20.12	22.17
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.13	0.36		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	15.00	
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher	General Office Building	30.00

DishWasher		15.00
Fan		50.00
Refrigerator	Health Club	15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Coatings Mitigation

250	g/L VOC, unmit scenario in Caleemod
10	g/L VOC, mit scenario to apply to scale Caleemod emissions
0.04	scaling

Consumer Products

Caleemod calculates consumers product ROG for parking lots. This step adjusts the ROG emission factor in caleemod to remove this.

	1.98E-05	lbs/sf/day - caleemod default
	56.5942	ROG/day from consumer products
	2,858,293	sf assumed in caleemod
0.548262	1,567,093	sf in reality - minus out parking structure
	1.09E-05	lbs/sf/day - revised

Carbon Monoxide Hot-Spot Modeling

TABLE 7
EXISTING YEAR (2014) PLUS PROJECT
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing (2014)[1] V/C[2]	Existing (2014)[1] LOS	E+P (2014) V/C[2]	E+P (2014) LOS	PH Vol	chng in VC	LOS C or worse for EPP?
1	Daly Street	Main Street	AM	0.755	C	0.769	C	3440	1.9%	Y
			PM	0.655	B	0.714	C	3120	9.0%	Y
2	I-5 SB Ramps/1-10 On-Ramp	Mission Road	AM	0.750	C	0.759	C	3567	1.2%	Y
			PM	0.537	A	0.546	A	2931	1.7%	N
3	Daly Street/Marengo Street	Mission Road	AM	0.801	D	0.820	D	4467	2.4%	Y
			PM	0.820	D	0.769	C	4256	-6.2%	Y
4	Workman Street	Mission Road	AM	0.555	A	0.555	A	2769	0.0%	N
			PM	0.467	A	0.431	A	2488	-7.7%	N
5	Sichel Street	Mission Road	AM	0.535	A	0.571	A	2732	6.7%	N
			PM	0.402	A	0.396	A	2412	-1.5%	N
6	Griffin Avenue/Zonal Avenue	Mission Road	AM	0.629	B	0.651	B	3499	3.5%	N
			PM	0.515	A	0.581	A	3179	12.8%	N
7	Mission Road	Valley Boulevard	AM	0.734	C	0.738	C	2664	0.5%	Y
			PM	0.779	C	0.795	C	2623	2.1%	Y
8	Mission Road	Main Street	AM	0.605	B	0.616	B	3546	1.8%	N
			PM	0.473	A	0.493	A	2821	4.2%	N
9	State Street	Cesar E. Chavez Avenue	AM	0.691	B	0.726	C	3377	5.1%	Y
			PM	0.769	C	0.804	D	2878	4.6%	Y
10	State Street	I-10 EB Ramps	AM	0.593	A	0.641	B	2415	8.1%	N
			PM	0.643	B	0.673	B	2544	4.7%	N
11	State Street	I-10 WB Off-Ramp	AM	0.507	A	0.551	A	2363	8.7%	N
			PM	0.239	A	0.277	A	1507	15.9%	N
12	State Street	Pomeroy Avenue	AM	0.506	A	0.571	A	2053	12.8%	N
			PM	0.378	A	0.409	A	1686	8.2%	N
13	State Street	Marengo Street	AM	0.712	C	0.803	D	3243	12.8%	Y
			PM	0.626	B	0.814	D	2890	30.0%	Y
14	I-5 NB Off-Ramp	Cesar E. Chavez Avenue	AM	0.684	B	0.715	C	2368	4.5%	Y
			PM	0.319	A	0.329	A	1732	3.1%	N
15	Brittania Street	Marengo Street	AM	0.407	A	0.460	A	2000	13.0%	N
			PM	0.383	A	0.364	A	1812	-5.0%	N
16	Chicago Street	Marengo Street	AM	0.487	A	0.511	A	2367	4.9%	N
			PM	0.335	A	0.341	A	1898	1.8%	N
17	San Pablo Street	Valley Boulevard	AM	0.494	A	0.485	A	2729	-1.8%	N
			PM	0.473	A	0.453	A	2495	-4.2%	N
18	Soto Street	I-10 EB Off-Ramp/Wabash Avenue	AM	0.642	B	0.666	B	2959	3.7%	N
			PM	0.637	B	0.648	B	3078	1.7%	N
19	Soto Street	Marengo Street	AM	0.817	D	0.877	D	4568	7.3%	Y
			PM	0.710	C	0.738	C	4321	3.9%	Y
20	Soto Street	Charlotte Street/I-10 WB Ramps	AM	0.873	D	0.889	D	3968	1.8%	Y
			PM	0.882	D	0.866	D	3636	-1.8%	Y
21	Soto Street	Alcazar Street	AM	0.689	B	0.700	B	3110	1.6%	N
			PM	0.683	B	0.692	B	2991	1.3%	N

Notes:

** Indicated oversaturated conditions. Delay cannot be calculated.
[1]Existing traffic counts were collected in mid-May 2014 when school was no longer in session at the USC Health Science Campus. In order to reflect school year conditions, student-related trip estimates were assigned to the existing roadway network.
[2]The signalized intersections listed above are currently operating under the ATSAC system. A total credit of 0.07 V/C ratio was included in this analysis for all signalized intersections.

TABLE 8
CUMULATIVE YEAR (2040) PLUS PROJECT
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name	E/W Street Name	Peak Hour	Cumulative Base (2040) V/C[1]	Cumulative Base (2040) LOS	C+P (2040) V/C[1]	C+P (2040) LOS	PH Vol	chng in VC	LOS C or worse for EPP?
1	Daly Street	Main Street	AM	0.786	C	0.801	D	3756	1.9%	Y
			PM	0.739	C	0.747	C	3376	1.1%	Y
2	I-5 SB Ramps/1-10 On-Ramp	Mission Road	AM	0.809	D	0.820	D	3938	1.4%	Y
			PM	0.574	A	0.584	A	3230	1.7%	N
3	Daly Street/Marengo Street	Mission Road	AM	0.842	D	0.861	D	4899	2.3%	Y
			PM	0.901	E	0.850	D	4705	-5.7%	Y
4	Workman Street	Mission Road	AM	0.581	A	0.581	A	3072	0.0%	N
			PM	0.512	A	0.476	A	2802	-7.0%	N
5	Sichel Street	Mission Road	AM	0.558	A	0.595	A	3030	6.6%	N
			PM	0.442	A	0.436	A	2715	-1.4%	N
6	Griffin Avenue/Zonal Avenue	Mission Road	AM	0.659	B	0.679	B	3836	3.0%	N
			PM	0.563	A	0.599	A	3524	6.4%	N
7	Mission Road	Valley Boulevard	AM	0.817	D	0.820	D	2969	0.4%	Y
			PM	0.826	D	0.842	D	2914	1.9%	Y
8	Mission Road	Main Street	AM	0.630	B	0.641	B	3852	1.7%	N
			PM	0.492	A	0.511	A	3147	3.9%	N
9	State Street	Cesar E. Chavez Avenue	AM	0.731	C	0.765	C	3724	4.7%	Y
			PM	0.839	D	0.875	D	3227	4.3%	Y
10	State Street	I-10 EB Ramps	AM	0.635	B	0.679	B	2686	6.9%	N
			PM	0.691	B	0.720	C	2822	4.2%	Y
11	State Street	I-10 WB Off-Ramp	AM	0.543	A	0.587	A	2594	8.1%	N
			PM	0.256	A	0.293	A	1690	14.5%	N
12	State Street	Pomeroy Avenue	AM	0.531	A	0.595	A	2252	12.1%	N
			PM	0.391	A	0.436	A	1903	11.5%	N
13	State Street	Marengo Street	AM	0.751	C	0.843	D	3538	12.3%	Y
			PM	0.686	B	0.859	D	3221	25.2%	Y
14	I-5 NB Off-Ramp	Cesar E. Chavez Avenue	AM	0.727	C	0.758	C	2596	4.3%	Y
			PM	0.331	A	0.341	A	1921	3.0%	N
15	Brittania Street	Marengo Street	AM	0.425	A	0.478	A	2188	12.5%	N
			PM	0.415	A	0.369	A	2059	-11.1%	N
16	Chicago Street	Marengo Street	AM	0.510	A	0.535	A	2583	4.9%	N
			PM	0.343	A	0.345	A	2155	0.6%	N
17	San Pablo Street	Valley Boulevard	AM	0.518	A	0.509	A	3067	-1.7%	N
			PM	0.547	A	0.525	A	2828	-4.0%	N
18	Soto Street	I-10 EB Off-Ramp/Wabash Avenue	AM	0.705	C	0.729	C	3342	3.4%	Y
			PM	0.685	B	0.696	B	3471	1.6%	N
19	Soto Street	Marengo Street	AM	0.897	D	0.955	E	5099	6.5%	Y
			PM	0.788	C	0.814	D	4916	3.3%	Y
20	Soto Street	Charlotte Street/I-10 WB Ramps	AM	0.966	E	0.976	E	4498	1.0%	Y
			PM	0.967	E	0.952	E	4151	-1.6%	Y
21	Soto Street	Alcazar Street	AM	0.800	C	0.812	D	3570	1.5%	Y
			PM	0.752	C	0.759	C	3430	0.9%	Y

Notes:

** Indicated oversaturated conditions. Delay cannot be calculated.

[1] The signalized intersections listed above are assumed to operate under both the ATSAC and ATCS system by 2040. A total credit of 0.10 V/C ratio was included in this analysis for all

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 3 DALY AND MISSION EPP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	EF VPH	H (G/MI)	W (FT)	(FT)
A. NF	*	8	-1500	8	-500	* AG	795	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	601	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	552	3.8	.0	33.0
D. NE	*	8	500	8	1500	* AG	552	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	772	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	748	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	925	4.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	925	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	1623	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	1426	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	1975	3.1	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1975	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1277	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	1200	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1015	3.1	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1015	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	194	3.8	.0	33.0
R. SL	*	0	0	-8	500	* AG	24	3.8	.0	33.0
S. WL	*	0	0	500	8	* AG	197	3.1	.0	33.0
T. EL	*	0	0	-500	-8	* AG	77	3.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 265.	* 2.2	*	.0	.0	.1	.0	.0	.2	.0	.0
2. SE3	* 275.	* 2.2	*	.0	.2	.0	.0	.0	.0	.2	.0
3. SW3	* 84.	* 2.0	*	.0	.1	.0	.0	.0	.0	.3	.0
4. NW3	* 95.	* 2.2	*	.0	.0	.1	.0	.0	.2	.0	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.2	1.0	.0	.0	.5	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.5	.1	.0	1.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.6	.0	.0	.0	.2	.6	.0	.0	.0	.1	.0
4. NW3	*	.0	1.2	.2	.0	.0	.0	.3	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 3 DALY AND MISSION EPP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	795	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	601	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	552	3.8	.0	33.0
D. NE	*	8	500	8	1500	* AG	552	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	772	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	748	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	925	4.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	925	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	1623	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	1426	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	1975	3.1	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1975	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1277	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	1200	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1015	3.1	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1015	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	194	3.8	.0	33.0
R. SL	*	0	0	-8	500	* AG	24	3.8	.0	33.0
S. WL	*	0	0	500	8	* AG	197	3.1	.0	33.0
T. EL	*	0	0	-500	-8	* AG	77	3.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	*	.5	*	.0	.0	.3	.0	.0	.0	.0	.0	.0
2. SE3	*	1.1	*	.0	.0	.2	.0	.0	.0	.0	.0	.3
3. SW3	*	1.3	*	.0	.0	.0	.0	.0	.4	.0	.0	.0
4. NW3	*	.6	*	.0	.0	.0	.0	.0	.4	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	*	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 3 DALY AND MISSION EPP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	EF VPH	H (G/MI)	W (FT)	(FT)
A. NF	*	8	-1500	8	-500	* AG	882	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	796	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	924	4.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	924	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	539	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	525	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1040	4.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1040	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	1280	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	949	3.8	.0	33.0
K. WD	*	0	8	-500	8	* AG	1166	2.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1166	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1555	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	1336	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1126	2.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1126	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	86	3.8	.0	33.0
R. SL	*	0	0	-8	500	* AG	14	3.8	.0	33.0
S. WL	*	0	0	500	8	* AG	331	3.1	.0	33.0
T. EL	*	0	0	-500	-8	* AG	219	3.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 264.	* 1.9	*	.0	.0	.3	.0	.0	.1	.0	.0
2. SE3	* 275.	* 2.2	*	.0	.3	.0	.0	.0	.0	.3	.0
3. SW3	* 85.	* 1.9	*	.0	.2	.0	.0	.0	.0	.3	.0
4. NW3	* 175.	* 2.0	*	.0	.3	.0	.0	.0	.0	.9	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.1	.6	.0	.0	.6	.0	.0	.0	.0	.0	.1
2. SE3	*	.0	.0	.3	.0	.0	1.1	.0	.0	.0	.0	.0	.1
3. SW3	*	.0	.3	.0	.0	.0	.2	.5	.0	.0	.0	.1	.0
4. NW3	*	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 3 DALY AND MISSION EPP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	882	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	796	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	924	4.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	924	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	539	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	525	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1040	4.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1040	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	1280	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	949	3.8	.0	33.0
K. WD	*	0	8	-500	8	* AG	1166	2.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1166	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1555	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	1336	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1126	2.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1126	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	86	3.8	.0	33.0
R. SL	*	0	0	-8	500	* AG	14	3.8	.0	33.0
S. WL	*	0	0	500	8	* AG	331	3.1	.0	33.0
T. EL	*	0	0	-500	-8	* AG	219	3.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED * CONC * (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	* .7 *	.0	.0	.5	.1	.0	.0	.0	.0	.0	.0
2. SE3	* 1.2 *	.0	.0	.5	.0	.0	.0	.0	.0	.0	.2
3. SW3	* 1.2 *	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
4. NW3	* .5 *	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	*	.2	.0	.0	.4	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 19 SOTO AND MARENGO EPP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1550	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	925	3.8	.0	33.0
C. ND	*	8	0	8	500	* AG	1053	2.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	1053	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1718	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1262	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1097	2.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1097	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	717	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	672	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	1650	4.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1650	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	583	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	507	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	768	4.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	768	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	625	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	456	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	45	4.6	.0	33.0
T. EL	*	0	0	-500	-8	* AG	76	4.6	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* PRED * BRG (DEG)	* CONC * (PPM)	CONC/LINK A	B	C	D	E	F	G	H
1. NE3	* 265.	* 2.4	* .0	.0	.2	.0	.0	.3	.0	.0
2. SE3	* 276.	* 1.9	* .0	.2	.0	.0	.0	.0	.2	.0
3. SW3	* 5.	* 2.3	* .0	.0	.2	.0	.0	1.1	.0	.0
4. NW3	* 174.	* 2.1	* .0	.3	.0	.0	.0	.2	.5	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	1.3	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.7	.0	.0	.5	.1	.0	.1	.0	.0	.0
3. SW3	.0	.0	.4	.0	.0	.2	.0	.0	.0	.2	.0	.0
4. NW3	.0	.0	.5	.0	.0	.1	.0	.0	.3	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 19 SOTO AND MARENGO EPP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1550	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	925	3.8	.0	33.0
C. ND	*	8	0	8	500	* AG	1053	2.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	1053	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1718	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1262	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1097	2.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1097	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	717	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	672	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	1650	4.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1650	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	583	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	507	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	768	4.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	768	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	625	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	456	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	45	4.6	.0	33.0
T. EL	*	0	0	-500	-8	* AG	76	4.6	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	.7	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0
2. SE3	1.1	*	.0	.0	.3	.1	.1	.1	.0	.0	.0	.2
3. SW3	1.6	*	.0	.0	.0	.0	.1	.6	.0	.0	.0	.0
4. NW3	1.0	*	.0	.0	.0	.0	.2	.6	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	*	.4	.0	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 19 SOTO AND MARENGO EPP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	EF VPH	H (G/MI)	W (FT)	(FT)
A. NF	*	8	-1500	8	-500	* AG	1682	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	1326	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	1380	2.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	1380	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1288	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	798	3.8	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	938	2.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	938	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	338	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	309	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	860	4.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	860	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1013	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	813	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1143	4.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1143	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	356	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	490	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	29	3.8	.0	33.0
T. EL	*	0	0	-500	-8	* AG	200	3.8	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* PRED * BRG (DEG)	* CONC * (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 185.	* 2.1	* .0	1.1	.0	.0	.0	.0	.2	.0
2. SE3	* 275.	* 2.1	* .0	.4	.0	.0	.0	.0	.1	.0
3. SW3	* 85.	* 1.9	* .0	.3	.0	.0	.0	.0	.2	.0
4. NW3	* 174.	* 1.9	* .0	.6	.0	.0	.0	.0	.5	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.3	.0	.2	.0	.0	.0
2. SE3	*	.0	.0	.4	.0	.0	.7	.1	.0	.0	.0	.0	.1
3. SW3	*	.0	.2	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.3	.0	.0	.2	.0	.0	.2	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 19 SOTO AND MARENGO EPP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1682	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	1326	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	1380	2.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	1380	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1288	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	798	3.8	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	938	2.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	938	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	338	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	309	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	860	4.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	860	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1013	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	813	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1143	4.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1143	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	356	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	490	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	29	3.8	.0	33.0
T. EL	*	0	0	-500	-8	* AG	200	3.8	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	.7	*	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0
2. SE3	1.2	*	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0
3. SW3	1.3	*	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0
4. NW3	.7	*	.0	.0	.0	.1	.1	.4	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
3. SW3	*	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 20 SOTO AND CHARLOTTE EPP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1053	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	916	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	1242	3.1	.0	33.0
D. NE	*	8	500	8	1500	* AG	1242	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1384	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1115	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1724	3.1	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1724	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	1248	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	773	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	580	3.1	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	580	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	283	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	239	3.8	.0	33.0
O. ED	*	0	-8	500	-8	* AG	422	2.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	422	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	137	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	269	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	475	4.6	.0	33.0
T. EL	*	0	0	-500	-8	* AG	44	3.8	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 185.	* 2.0	*	.0	.8	.0	.0	.0	.0	.4	.1
2. SE3	* 355.	* 1.9	*	.0	.1	.7	.0	.0	.5	.0	.0
3. SW3	* 5.	* 1.9	*	.0	.0	.3	.0	.0	1.0	.1	.0
4. NW3	* 175.	* 1.8	*	.0	.4	.0	.0	.0	.1	.9	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
2. SE3	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
4. NW3	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 20 SOTO AND CHARLOTTE EPP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1053	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	916	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	1242	3.1	.0	33.0
D. NE	*	8	500	8	1500	* AG	1242	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1384	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1115	4.6	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1724	3.1	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1724	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	1248	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	773	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	580	3.1	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	580	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	283	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	239	3.8	.0	33.0
O. ED	*	0	-8	500	-8	* AG	422	2.6	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	422	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	137	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	269	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	475	4.6	.0	33.0
T. EL	*	0	0	-500	-8	* AG	44	3.8	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	.8	*	.0	.0	.4	.1	.1	.0	.0	.0	.0	.0
2. SE3	1.2	*	.0	.0	.4	.1	.0	.0	.0	.0	.0	.2
3. SW3	1.1	*	.0	.0	.0	.0	.1	.6	.0	.0	.0	.0
4. NW3	.9	*	.0	.0	.0	.0	.1	.6	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 20 SOTO AND CHARLOTTE EPP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1380	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	1327	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	1593	2.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	1593	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1023	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	776	3.8	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1269	2.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1269	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	954	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	596	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	318	2.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	318	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	279	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	255	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	456	3.1	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	456	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	53	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	247	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	358	4.6	.0	33.0
T. EL	*	0	0	-500	-8	* AG	24	3.8	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* PRED * BRG (DEG)	* CONC * (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 185.	* 2.1	* .0	1.1	.1	.0	.0	.0	.3	.0
2. SE3	* 355.	* 1.8	* .0	.2	.7	.0	.0	.3	.0	.0
3. SW3	* 84.	* 1.5	* .0	.3	.0	.0	.0	.0	.2	.0
4. NW3	* 175.	* 1.5	* .0	.5	.0	.0	.0	.0	.6	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
2. SE3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW3	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.3	.0
4. NW3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 20 SOTO AND CHARLOTTE EPP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1380	2.1	.0	35.0
B. NA	*	8	-500	8	0	* AG	1327	4.6	.0	33.0
C. ND	*	8	0	8	500	* AG	1593	2.6	.0	33.0
D. NE	*	8	500	8	1500	* AG	1593	2.1	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1023	2.1	.0	35.0
F. SA	*	-8	500	-8	0	* AG	776	3.8	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1269	2.6	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1269	2.1	.0	35.0
I. WF	*	1500	8	500	8	* AG	954	2.1	.0	35.0
J. WA	*	500	8	0	8	* AG	596	4.6	.0	33.0
K. WD	*	0	8	-500	8	* AG	318	2.6	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	318	2.1	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	279	2.1	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	255	4.6	.0	33.0
O. ED	*	0	-8	500	-8	* AG	456	3.1	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	456	2.1	.0	35.0
Q. NL	*	0	0	8	-500	* AG	53	3.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	247	3.1	.0	33.0
S. WL	*	0	0	500	8	* AG	358	4.6	.0	33.0
T. EL	*	0	0	-500	-8	* AG	24	3.8	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	.8	*	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0
2. SE3	1.1	*	.0	.0	.4	.1	.0	.0	.0	.0	.0	.1
3. SW3	.8	*	.0	.0	.0	.1	.1	.3	.0	.0	.0	.0
4. NW3	.7	*	.0	.0	.0	.1	.1	.3	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 3 DALY AND MISSION FUTWP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LIK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	864	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	654	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	594	1.3	.0	33.0
D. NE	*	8	500	8	1500	* AG	594	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	831	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	803	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1009	1.5	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1009	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	1770	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	1543	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	2133	1.1	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	2133	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1434	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	1352	1.5	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1163	1.1	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1163	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	210	1.3	.0	33.0
R. SL	*	0	0	-8	500	* AG	28	1.3	.0	33.0
S. WL	*	0	0	500	8	* AG	227	1.1	.0	33.0
T. EL	*	0	0	-500	-8	* AG	82	1.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* PRED * BRG (DEG)	* CONC * (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 265.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0
2. SE3	* 275.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0
3. SW3	* 84.	* .8	* .0	.0	.0	.0	.0	.0	.1	.0
4. NW3	* 95.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	* .0	.0	.4	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	* .0	.0	.2	.0	.0	.4	.0	.0	.0	.0	.0	.0
3. SW3	* .0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
4. NW3	* .0	.4	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 3 DALY AND MISSION FUTWP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	974	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	862	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	977	1.5	.0	33.0
D. NE	*	8	500	8	1500	* AG	977	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	573	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	551	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1212	1.5	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1212	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	1522	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	1040	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	1287	1.0	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1287	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1678	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	1444	1.5	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1271	1.0	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1271	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	112	1.3	.0	33.0
R. SL	*	0	0	-8	500	* AG	22	1.3	.0	33.0
S. WL	*	0	0	500	8	* AG	482	1.1	.0	33.0
T. EL	*	0	0	-500	-8	* AG	234	1.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 185.	* .7	*	.0	.3	.0	.0	.0	.0	.2	.0
2. SE3	* 274.	* .8	*	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	* 84.	* .8	*	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	* 175.	* .8	*	.0	.1	.0	.0	.0	.0	.3	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 3 DALY AND MISSION FUTWP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	EF VPH	H (G/MI)	W (FT)	(FT)
A. NF	*	8	-1500	8	-500	* AG	974	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	862	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	977	1.5	.0	33.0
D. NE	*	8	500	8	1500	* AG	977	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	573	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	551	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1212	1.5	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1212	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	1522	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	1040	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	1287	1.0	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1287	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	1678	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	1444	1.5	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1271	1.0	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1271	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	112	1.3	.0	33.0
R. SL	*	0	0	-8	500	* AG	22	1.3	.0	33.0
S. WL	*	0	0	500	8	* AG	482	1.1	.0	33.0
T. EL	*	0	0	-500	-8	* AG	234	1.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED * CONC * (PPM)	*	CONC/LINK A	B	C	D	E	F	G	H	I	J
1. NE3	*	.3	* .0	.0	.2	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.5	* .0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.4	* .0	.0	.0	.0	.0	.1	.0	.0	.0	.0
4. NW3	*	.2	* .0	.0	.0	.0	.0	.1	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 19 SOTO AND MARENGO FUTWP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1787	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	1109	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	1247	1.0	.0	33.0
D. NE	*	8	500	8	1500	* AG	1247	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1906	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1406	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1221	1.0	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1221	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	773	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	725	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	1794	1.5	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1794	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	633	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	550	1.5	.0	33.0
O. ED	*	0	-8	500	-8	* AG	837	1.5	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	837	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	678	1.3	.0	33.0
R. SL	*	0	0	-8	500	* AG	500	1.1	.0	33.0
S. WL	*	0	0	500	8	* AG	48	1.5	.0	33.0
T. EL	*	0	0	-500	-8	* AG	83	1.5	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 265.	* .9	*	.0	.0	.0	.0	.0	.1	.0	.0
2. SE3	* 276.	* .7	*	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	* 5.	* .9	*	.0	.0	.1	.0	.0	.4	.0	.0
4. NW3	* 174.	* .8	*	.0	.2	.0	.0	.0	.0	.2	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.2	.0	.0	.0	.0	.0	.1	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 19 SOTO AND MARENGO FUTWP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1787	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	1109	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	1247	1.0	.0	33.0
D. NE	*	8	500	8	1500	* AG	1247	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1906	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1406	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1221	1.0	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1221	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	773	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	725	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	1794	1.5	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	1794	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	633	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	550	1.5	.0	33.0
O. ED	*	0	-8	500	-8	* AG	837	1.5	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	837	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	678	1.3	.0	33.0
R. SL	*	0	0	-8	500	* AG	500	1.1	.0	33.0
S. WL	*	0	0	500	8	* AG	48	1.5	.0	33.0
T. EL	*	0	0	-500	-8	* AG	83	1.5	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	*	.3	*	.0	.0	.1	.0	.0	.0	.0	.0	.0
2. SE3	*	.4	*	.0	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	*	.6	*	.0	.0	.0	.0	.0	.2	.0	.0	.0
4. NW3	*	.4	*	.0	.0	.0	.0	.0	.2	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 19 SOTO AND MARENGO FUTWP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1845	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	1483	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	1489	1.0	.0	33.0
D. NE	*	8	500	8	1500	* AG	1489	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1611	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1027	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1072	1.0	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1072	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	362	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	331	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	941	1.5	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	941	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	941	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	779	1.5	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1257	1.5	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1257	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	362	1.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	584	1.1	.0	33.0
S. WL	*	0	0	500	8	* AG	31	1.5	.0	33.0
T. EL	*	0	0	-500	-8	* AG	162	1.5	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 185.	* .8	*	.0	.4	.0	.0	.0	.0	.0	.0
2. SE3	* 355.	* .8	*	.0	.0	.3	.0	.0	.1	.0	.0
3. SW3	* 5.	* .8	*	.0	.0	.1	.0	.0	.3	.0	.0
4. NW3	* 174.	* .7	*	.0	.2	.0	.0	.0	.0	.2	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 19 SOTO AND MARENGO FUTWP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1845	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	1483	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	1489	1.0	.0	33.0
D. NE	*	8	500	8	1500	* AG	1489	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1611	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1027	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1072	1.0	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1072	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	362	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	331	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	941	1.5	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	941	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	941	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	779	1.5	.0	33.0
O. ED	*	0	-8	500	-8	* AG	1257	1.5	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	1257	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	362	1.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	584	1.1	.0	33.0
S. WL	*	0	0	500	8	* AG	31	1.5	.0	33.0
T. EL	*	0	0	-500	-8	* AG	162	1.5	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. NE3	.3	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
2. SE3	.5	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. SW3	.5	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
4. NW3	.3	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 20 SOTO AND CHARLOTTE FUTWP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	* TYPE	EF VPH	H (G/MI)	W (FT)	(FT)
A. NF	*	8	-1500	8	-500	* AG	1250	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	1102	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	1503	1.1	.0	33.0
D. NE	*	8	500	8	1500	* AG	1503	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1528	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1240	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1913	1.1	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1913	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	1412	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	902	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	630	1.1	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	630	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	308	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	265	1.3	.0	33.0
O. ED	*	0	-8	500	-8	* AG	452	1.0	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	452	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	148	1.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	288	1.1	.0	33.0
S. WL	*	0	0	500	8	* AG	510	1.5	.0	33.0
T. EL	*	0	0	-500	-8	* AG	43	1.3	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	*	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	* 185.	* .8	*	.0	.3	.0	.0	.0	.0	.2	.0
2. SE3	* 355.	* .8	*	.0	.0	.3	.0	.0	.2	.0	.0
3. SW3	* 5.	* .7	*	.0	.0	.1	.0	.0	.3	.0	.0
4. NW3	* 175.	* .7	*	.0	.1	.0	.0	.0	.0	.4	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: 20 SOTO AND CHARLOTTE FUTWP
RUN: .000000E+00
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (FT)
BRG= .0 DEGREES VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	*	8	-1500	8	-500	* AG	1250	.8	.0	35.0
B. NA	*	8	-500	8	0	* AG	1102	1.5	.0	33.0
C. ND	*	8	0	8	500	* AG	1503	1.1	.0	33.0
D. NE	*	8	500	8	1500	* AG	1503	.8	.0	35.0
E. SF	*	-8	1500	-8	500	* AG	1528	.8	.0	35.0
F. SA	*	-8	500	-8	0	* AG	1240	1.5	.0	33.0
G. SD	*	-8	0	-8	-500	* AG	1913	1.1	.0	33.0
H. SE	*	-8	-500	-8	-1500	* AG	1913	.8	.0	35.0
I. WF	*	1500	8	500	8	* AG	1412	.8	.0	35.0
J. WA	*	500	8	0	8	* AG	902	1.5	.0	33.0
K. WD	*	0	8	-500	8	* AG	630	1.1	.0	33.0
L. WE	*	-500	8	-1500	8	* AG	630	.8	.0	35.0
M. EF	*	-1500	-8	-500	-8	* AG	308	.8	.0	35.0
N. EA	*	-500	-8	0	-8	* AG	265	1.3	.0	33.0
O. ED	*	0	-8	500	-8	* AG	452	1.0	.0	33.0
P. EE	*	500	-8	1500	-8	* AG	452	.8	.0	35.0
Q. NL	*	0	0	8	-500	* AG	148	1.1	.0	33.0
R. SL	*	0	0	-8	500	* AG	288	1.1	.0	33.0
S. WL	*	0	0	500	8	* AG	510	1.5	.0	33.0
T. EL	*	0	0	-500	-8	* AG	43	1.3	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. NE3	*	25	25	6.0
2. SE3	*	25	-25	6.0
3. SW3	*	-25	-25	6.0
4. NW3	*	-25	25	6.0

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED * CONC * (PPM)	*	CONC/LINK A	B	C	D	E	F	G	H	I	J
1. NE3	*	.3	* .0	.0	.2	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.5	* .0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.4	* .0	.0	.0	.0	.0	.2	.0	.0	.0	.0
4. NW3	*	.4	* .0	.0	.0	.0	.0	.2	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 20 SOTO AND CHARLOTTE FUTWP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 400. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 15.6 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	EF VPH	H (G/MI)	W (M)	(M)
A. NF	*	2	-450	2	-150	* AG	1489	.8	.0	10.5
B. NA	*	2	-150	2	0	* AG	1425	1.3	.0	9.9
C. ND	*	2	0	2	150	* AG	1757	1.0	.0	9.9
D. NE	*	2	150	2	450	* AG	1757	.8	.0	10.5
E. SF	*	-2	450	-2	150	* AG	1252	.8	.0	15.0
F. SA	*	-2	150	-2	0	* AG	988	1.1	.0	9.9
G. SD	*	-2	0	-2	-150	* AG	1587	.9	.0	9.9
H. SE	*	-2	-150	-2	-450	* AG	1587	.8	.0	15.0
I. WF	*	450	2	150	2	* AG	1038	.8	.0	15.0
J. WA	*	150	2	0	2	* AG	656	1.5	.0	9.9
K. WD	*	0	2	-150	2	* AG	357	1.0	.0	9.9
L. WE	*	-150	2	-450	2	* AG	357	.8	.0	15.0
M. EF	*	-450	-2	-150	-2	* AG	388	.8	.0	10.5
N. EA	*	-150	-2	0	-2	* AG	355	1.5	.0	9.9
O. ED	*	0	-2	150	-2	* AG	466	1.1	.0	9.9
P. EE	*	150	-2	450	-2	* AG	466	.8	.0	10.5
Q. NL	*	0	0	2	-150	* AG	64	1.1	.0	9.9
R. SL	*	0	0	-2	150	* AG	264	1.5	.0	9.9
S. WL	*	0	0	150	2	* AG	382	1.3	.0	9.9
T. EL	*	0	0	-150	-2	* AG	33	.0	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. NE3	*	8	8	1.8
2. SE3	*	8	-8	1.8
3. SW3	*	-8	-8	1.8
4. NW3	*	-8	8	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* PRED * BRG (DEG)	* CONC * (PPM)	CONC/LINK A	B	C	D	E	F	G	H
1. NE3	* 185.	* .7	* .0	.3	.0	.0	.0	.0	.1	.0
2. SE3	* 355.	* .7	* .0	.0	.3	.0	.0	.0	.0	.0
3. SW3	* 84.	* .5	* .0	.0	.0	.0	.0	.0	.1	.0
4. NW3	* 175.	* .6	* .0	.2	.0	.0	.0	.0	.3	.0

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Annual Emissions Report and Scaling for Buildout

PERMITTED SOURCES SCALING

20197 Facility ID
1200 N STATE ST

2013 EMISSIONS YEAR -> http://www3.aqmd.gov/webappl/fim/prog/emission.aspx?fac_id=20197

		tons/yr	lbs/day on average	aled new N	net new
CO	Carbon Monoxide	15.401	84.3890411	104.0	19.6
NOX	Nitrogen Oxides	3.727	20.42191781	25.2	4.7
ROG	Reactive Organic Gases	8.752	47.95616438	59.1	11.1
SOX	Sulfur Oxides	0.135	0.739726027	0.9	0.2
TSP	Total Suspended Particulates	5.154	28.24109589	34.8	6.6

		pounds/yr
106990	1,3-Butadiene	1.388
7664417	Ammonia	1303.856
7440382	Arsenic	0.01
71432	Benzene	3.791
7440439	Cadmium	0.009
18540299	Chromium (VI)	0
1104	FLUOROCARB (CL)	2398
50000	Formaldehyde	510.054
7439921	Lead (inorganic)	0.053
91203	Naphthalene	0.26
7440020	Nickel	0.025
1151	PAHs, total, with components not reported	0.278

	ROG	NOX	CO	SO2	PM10	PM2.5
Ex	48.0	20.4	84.4	0.7	28.2	28.2
NP	48.0	20.4	84.4	0.7	28.2	28.2
Proj	59.1	25.2	104.0	0.9	34.8	34.8

	Entire Campus
existing	1,400,000 (includes uses to be replaced)
with MP	1,725,000 (1,430,000 sf in TIA plus 450 beds. Total SF from Master Plan)
ratio for scaling AER	1.232143

365 days
0.0005 ton to lb

SOUTH COAST AQMD

Facility INformation Detail (FIND)

Emissions

Facility ID	20197
Company Name	LAC/USC MEDICAL CENTER
Address	1200 N STATE ST
	LOS ANGELES, CA 90033

Select AER Year: 2013

Criteria Pollutants (Tons per Year):

Pollutant ID	Pollutant Description	Annual Emissions
CO	Carbon Monoxide	15.401
NOX	Nitrogen Oxides	3.727
ROG	Reactive Organic Gases	8.752
SOX	Sulfur Oxides	0.135
TSP	Total Suspended Particulates	5.154

Toxic Pollutants (Pounds per Year):

Pollutant ID	Pollutant Description	Annual Emissions
106990	1,3-Butadiene	1.388
7664417	Ammonia	1303.856
7440382	Arsenic	0.010
71432	Benzene	3.791
7440439	Cadmium	0.009
18540299	Chromium (VI)	0.000
1104	FLUOROCARB (CL)	2398.000
50000	Formaldehyde	510.054
7439921	Lead (inorganic)	0.053
91203	Naphthalene	0.260
7440020	Nickel	0.025
1151	PAHs, total, with components not reported	0.278

Note - Data for 2007 represents the six-month transitional period, July through December 2007, when the rules requiring annual emissions reporting changed from a fiscal year to a calendar year basis.

Health Risk Assessment Scaling

HRA scaling

	risk	burden	acute	chronic	
2007 HRA	7.5	0.031	0.7	0.38	
EPP	9.2	0.038	0.9	0.47	scaled based on change in ft2
net	1.7	0.007	0.2	0.09	
thresholds	*10*	*0.5*	*1.0*	*1.0*	

	Entire Campus
existing	1,400,000
with MP	1,725,000
scaling AER	1.232142857

HRA:
http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2014/2014-jul11-039.pdf?sfvrsn=2

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk in a million	Cancer Burden	Acute Hazard Index	Chronic Hazard Index	HRA Approved (year)
800089	A	EXXON-MOBIL OIL CORPORATION	Torrance	7.7	0.15	0.21	0.47	2013
18294	A	NORTHROP CORP., AIRCRAFT DIV. - WEST	El Segundo	7.60	n/a	0.13	0.05	2000
113170	A	SANTA MONICA HOSPITAL MEDICAL CTR UNIT 2 (b)	Santa Monica	7.60	0.000	0.17	0.01	1997
800214	A	LA CITY, HYPERION TREATMENT PLANT (c)	Playa del Rey	7.59	0.027	0.06	0.01	1999
20197	A	LAC/USC MEDICAL CENTER	Los Angeles	7.50	0.031	0.70	0.38	2007
800032	A	CHEVRON U.S.A. INC	Montebello	7.46	0.143	0.01	0.18	1999
800150	A	US GOVT., AF DEPT, MARCH AFB	Riverside	7.35	0.020	0.31	0.01	2008
108701	OB (2007)	BALL FOSTER GLASS CONTAINER CO.	El Monte	7.30	0.056	0.09	0.07	2000
117560	A	EQUILON ENTER, LLC-SHELL OIL PROD. US	Wilmington	7.30	n/a	0.03	0.07	1998
131003	A	BP WEST COAST PRODUCTS LLC	Carson	7.28	n/a	0.30	0.08	2000
800026	A	ULTRAMAR INC.	Wilmington	7.2	0.18	0.70	0.23	2012
800113	A	ROHR IND INC	Riverside	7.20	0.011	0.86	0.02	2007
800236	A	LA CO., SANITATION DIST UNIT NO.01	Carson	7.20	0.058	0.17	0.12	2007
49387	A	UNIV CAL RIVERSIDE	Riverside	7.13	0.220	0.00	0.04	1999
57094	A	G S ROOFING PRODUCTS CO INC (c)	Wilmington	7.00	n/a	0.01	0.01	2000
140499	A	AMERESCO HUNTINGTON BEACH, LLC	Huntington Beach	7.00	n/a	<0.01	<0.01	1995
55449	A	BKK CORPORATION, LANDFILL DIVISION GNRL	W. Covina	6.90	n/a	0.01	0.10	2000
800372	A	EQUILON ENTERPRISES,LLC	Carson	6.90	0.030	0.44	0.07	2001
20280	A	METAL SURFACES INC.	Bell Gardens	6.8	0.000	0.88	0.34	2011
42514	A	LA CO., SANITATION DIST., CALABASAS LANDFILL	Agoura	6.78	0.00	0.02	<0.01	2010
5723	A	AEROCHEM INC	Orange	6.70	0.004	0.02	0.10	1999

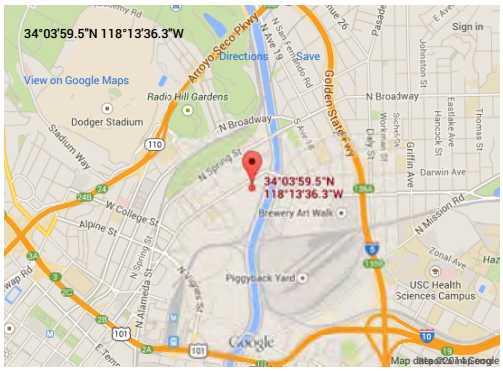
Ambient Background Information

California Environmental Protection Agency
Air Resources Board

Quality Assurance Air Monitoring Site Information

This page last reviewed on November 21, 2011

Site Information for
Los Angeles-North Main Street



View Larger Map

AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371103	70087	3/1/78	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude (N)	Longitude (W)	Elevation (m)
1630 North Main Street, Los Angeles CA 90012	Los Angeles	South Coast	34.06653	-118.22676	92

Pollutants Monitored (click on parameter link for real-time data)
Note: multiple monitors may be available through the AQMIS query tool.

CO, SO_2, NO_2, O_3, Total NMHC, PM_{10}, BAM_{PM10}, $BAM_{PM2.5}$, $PM_{2.5}$, TSP, Toxics, Cr^{6+}, Relative Humidity, Wind Direction, Horizontal Wind Speed, Solar Radiation

Site Photos	Photo Sequences	Site Surveys
--Select Photos--	--Select Position And Direction--	--Select Survey--

Other ARB Database Information	Real-Time Met Data
--Select Database--	--Select Data Server--

Site Information Menu Top Page | Quality Assurance Programs | Search QA Site Information Database

For real-time air quality data visit: Air Quality and Meteorological Information System (AQMIS)

Questions regarding data or the AQMIS search tool should be submitted to:
Air Quality and Meteorological Information System (AQMIS)

For Air Monitoring Site related inquiries, please contact:
Mr. Ranjit Bhullar, Manager
Quality Assurance Section

California Environmental Protection Agency
Air Resources Board

Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

at Los Angeles-North Main Street

	2011		2012		2013	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Sep 7	0.087	Sep 22	0.093	May 13	0.081
Second High:	Aug 27	0.080	Sep 23	0.089	May 12	0.079
Third High:	Aug 28	0.080	Sep 9	0.085	May 3	0.078
Fourth High:	Sep 5	0.079	Sep 30	0.084	Sep 7	0.075
California:						
# Days Above the Standard:		0		0		0
California Designation Value:		0.09		0.09		0.09
Expected Peak Day Concentration:		0.093		0.089		0.087
National:						
# Days Above the Standard:		*0*		*0*		*0*
Nat'l Standard Design Value:		*0.098*		*0.089*		*0.085*
Year Coverage:		89		91		87

Notes:

Hourly ozone measurements and related statistics are available at Los Angeles-North Main Street between 1979 and 2013. Some years in this range may not be represented.
All concentrations expressed in parts per million.
The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics* .
An exceedance of a standard is not necessarily related to a violation of the standard.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

California Environmental Protection Agency
Air Resources Board

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages

at Los Angeles-North Main Street

iADAM

	2011		2012		2013	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	Sep 5	0.065	Sep 30	0.077	May 3	0.069
Second High:	Sep 7	0.064	Sep 15	0.074	May 12	0.062
Third High:	Jul 4	0.061	Sep 23	0.069	Oct 6	0.061
Fourth High:	Aug 28	0.060	Sep 22	0.068	Aug 15	0.060
California:						
First High:	Sep 5	0.065	Sep 30	0.077	May 3	0.070
Second High:	Sep 7	0.064	Sep 15	0.075	May 12	0.062
Third High:	Jul 4	0.062	Sep 22	0.069	Aug 15	0.061
Fourth High:	Aug 28	0.061	Sep 23	0.069	Sep 15	0.061
National:						
# Days Above the Standard:		0		1		0
Nat'l Standard Design Value:		0.065		0.064		0.062
National Year Coverage:		88		89		89
California:						
# Days Above the Standard:		0		2		0
California Designation Value:		0.073		0.069		0.070
Expected Peak Day Concentration:		0.074		0.071		0.070
California Year Coverage:		87		87		82

Notes:

Eight-hour ozone averages and related statistics are available at Los Angeles-North Main Street between 1979 and 2013. Some years in this range may not be represented.
All averages expressed in parts per million.
An exceedance of a standard is not necessarily related to a violation of the standard.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

California Environmental Protection Agency
Air Resources Board

Top 4 Summary: Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

at Los Angeles-North Main Street

	2011		2012		2013	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Sep 7	109.6	Nov 23	77.3	Mar 14	90.3
Second High:	Dec 30	97.5	Oct 17	74.4	Nov 12	82.6
Third High:	Sep 27	88.6	Apr 4	72.0	May 13	80.7
Fourth High:	Dec 31	79.3	Oct 29	71.9	Sep 5	69.1
California:						
First High:	Sep 7	109	Nov 23	77	Mar 14	90
Second High:	Dec 30	97	Oct 17	74	Nov 12	82
Third High:	Sep 27	88	Apr 4	72	May 13	80
Fourth High:	Dec 31	79	Oct 29	71	Sep 5	69
National:						
1-Hour Standard Design Value:		*		*		*
1-Hour Standard 98th Percentile:		67.0		68.9		62.5
# Days Above the Standard:		1		0		0
Annual Standard Design Value:		23		*		22
California:						
1-Hour Std Designation Value:		90		90		80
Expected Peak Day Concentration:		91		86		84
# Days Above the Standard:		0		0		0
Annual Std Designation Value:		25		25		*
Annual Average:		*		*		*
Year Coverage:		86		76		75

Notes:

Hourly nitrogen dioxide measurements and related statistics are available at Los Angeles-North Main Street between 1979 and 2013. Some years in this range may not be represented.

All concentrations expressed in parts per billion.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

California Environmental Protection Agency
Air Resources Board

Top 4 Summary: Highest 4 Daily 24-Hour PM2.5 Averages

at Los Angeles-North Main Street

	2011		2012		2013	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Dec 31	49.3	Dec 9	58.7	Feb 5	43.1
Second High:	Dec 30	44.1	Dec 8	44.0	Mar 15	33.1
Third High:	Oct 24	41.7	Dec 7	39.1	Jul 5	31.4
Fourth High:	Oct 23	39.6	Nov 7	36.4	Oct 21	31.3
California:						
First High:	Dec 31	49.3	Dec 9	58.7	Feb 5	43.1
Second High:	Dec 30	44.1	Dec 8	44.0	Mar 15	33.1
Third High:	Oct 24	41.7	Dec 7	39.1	Jul 5	31.4
Fourth High:	Oct 23	39.6	Nov 7	36.4	Oct 21	31.3
National:						
Estimated # Days > 24-Hour Std:		4.5		4.2		1.1
Measured # Days > 24-Hour Std:		4		4		1
24-Hour Standard Design Value:		31		30		31
24-Hour Standard 98th Percentile:		31.5		32.0		29.0
Annual Standard Design Value:		13.0		12.5		12.5
Annual Average:		12.9		12.5		12.0
California:						
Annual Std Designation Value:		16		13		13
Annual Average:		13.3		12.7		12.0
Year Coverage:		90		92		95

Notes:

Daily PM2.5 averages and related statistics are available at Los Angeles-North Main Street between 1999 and 2013. Some years in this range may not be represented.
All averages expressed in micrograms per cubic meter.
An exceedance of a standard is not necessarily related to a violation of the standard.
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

California Environmental Protection Agency
Air Resources Board

Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages

at Los Angeles-North Main Street

	2011		2012		2013	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Oct 24	53.0	May 21	80.0	Nov 12	57.0
Second High:	Dec 29	50.0	Jun 8	74.0	Oct 25	46.0
Third High:	Oct 18	45.0	Jun 26	64.0	Dec 18	45.0
Fourth High:	Apr 15	44.0	Apr 3	55.0	Jun 21	40.0
California:						
First High:	Dec 1	119.7	Dec 9	90.9	Feb 5	74.5
Second High:	Nov 30	72.3	May 21	79.7	Oct 21	64.5
Third High:	Dec 31	70.2	Dec 8	72.0	Mar 25	63.5
Fourth High:	Dec 2	69.0	Dec 7	70.9	Mar 15	62.4
National:						
Estimated # Days > 24-Hour Std:		0.0		0.0		0.0
Measured # Days > 24-Hour Std:		0		0		0
3-Yr Avg Est # Days > 24-Hr Std:		0.0		0.0		0.0
Annual Average:		*29.0*		*30.2*		*29.5*
3-Year Average:		*30*		*29*		*30*
California:						
Estimated # Days > 24-Hour Std:		6.5		24.2		21.4
Measured # Days > 24-Hour Std:		9		43		20
Annual Average:		28.7		30.0		35.3
3-Year Maximum Annual Average:		29		30		35
Year Coverage:		97		99		97

Notes:

Daily PM10 averages and related statistics are available at Los Angeles-North Main Street between 1988 and 2013. Some years in this range may not be represented.
All averages expressed in micrograms per cubic meter.
The national annual average PM10 standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics* .
An exceedance of a standard is not necessarily related to a violation of the standard.
All values listed above represent midnight-to-midnight 24-hour averages and may be related to an exceptional event.
State and national statistics may differ for the following reasons:
- State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.
- State statistics for 1998 and later are based on local conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on local conditions). National statistics are based on standard conditions.
- State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.
3-Year statistics represent the listed year and the 2 years before the listed year.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Monitor Values Report

Geographic Area: Los Angeles County, CA
Pollutant: CO
Year: 2012
Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	8070	1.8	1.6	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
1 HOUR	8085	1.3	1.3	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
1 HOUR	8046	2.1	1.7	0	Included	1	060370113	Va Hospital, West Los Angeles	West Los Angeles	Los Angeles	CA	09
1 HOUR	8119	2.8	2.7	0	None	1	060371002	228 W. Palm Ave., Burbank	Burbank	Los Angeles	CA	09
1 HOUR	7948	2.2	2.1	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
1 HOUR	3674	2	1.9	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
1 HOUR	8185	3.4	3.3	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
1 HOUR	8068	5.2	4.8	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
1 HOUR	7891	2.7	2.4	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
1 HOUR	8127	2.5	2.1	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
1 HOUR	7120	2.4	2.4	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
1 HOUR	7853	2.6	2.5	0	None	1	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
1 HOUR	4712	4.2	3.9	0	None	1	060374006	2425 Webster St., Long Beach, Ca	Long Beach	Los Angeles	CA	09
1 HOUR	8117	2.8	2.6	0	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09
1 HOUR	7882	1.3	1.2	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09
1 HOUR	8274	1.9	1.8	0	None	1	060379033	43301 Division St., Lancaster, Ca	Lancaster	Los Angeles	CA	09

Get detailed information about this report, including column descriptions, at http://www.epa.gov/airquality/airdata/ad_about_reports.html#mon

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate air quality monitoring agency to report any data problems. <http://www.epa.gov/airquality/airdata/ad_contacts.html>

Readers are cautioned not to rank order geographic areas based on AirData reports. Air pollution levels measured at a particular monitoring site are not necessarily representative of the air quality for an entire county or urban area.

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Source: U.S. EPA AirData <http://www.epa.gov/airdata>
Generated: July 21, 2014

Monitor Values Report

Geographic Area: Los Angeles County, CA
Pollutant: CO
Year: 2012
Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	8582	1.2	1.2	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8485	1.1	0.9	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8508	1.4	1.3	0	Included	1	060370113	Va Hospital, West Los Angeles	West Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8501	2.4	2.1	0	None	1	060371002	228 W. Palm Ave., Burbank	Burbank	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8347	1.9	1.9	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	3812	1.8	1.7	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8597	2.8	2.6	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8474	4	3.9	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8331	2.2	2	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8597	1.5	1.3	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8-HR RUN AVG END HOUR	7470	1.6	1.6	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8411	2.2	2.2	0	None	1	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
8-HR RUN AVG END HOUR	5034	2.6	2.6	0	None	1	060374006	2425 Webster St., Long Beach, Ca	Long Beach	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8372	2.5	2.3	0	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8302	1.1	0.8	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8582	1.4	1.1	0	None	1	060379033	43301 Division St., Lancaster, Ca	Lancaster	Los Angeles	CA	09

Get detailed information about this report, including column descriptions, at http://www.epa.gov/airquality/airdata/ad_about_reports.html#mon

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Source: U.S. EPA AirData <http://www.epa.gov/airdata>
Generated: July 21, 2014

Monitor Values Report

Geographic Area: Los Angeles County, CA
Pollutant: CO
Year: 2013
Exceptional Events: Included (if any)

Duration Description=1 HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
1 HOUR	8055	3.1	2.8	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
1 HOUR	8146	1	0.9	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
1 HOUR	8003	1.9	1.9	0	None	1	060370113	Va Hospital, West Los Angeles	West Los Angeles	Los Angeles	CA	09
1 HOUR	7892	3	2.8	0	None	1	060371002	228 W. Palm Ave., Burbank	Burbank	Los Angeles	CA	09
1 HOUR	7990	2.5	2.5	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
1 HOUR	7756	2.2	2.1	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
1 HOUR	7590	2.9	2.9	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
1 HOUR	7927	5.8	5.6	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
1 HOUR	7871	3.6	2.4	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
1 HOUR	7903	2.2	2.1	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
1 HOUR	3991	2.5	2.5	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
1 HOUR	5874	2.7	2.6	0	None	1	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
1 HOUR	7500	4.1	3.5	0	None	1	060374006	2425 Webster St., Long Beach, Ca	Long Beach	Los Angeles	CA	09
1 HOUR	6512	3.1	3	0	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09
1 HOUR	8009	1.3	1.2	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09
1 HOUR	6995	1.9	1.8	0	None	1	060379033	43301 Division St., Lancaster, Ca	Lancaster	Los Angeles	CA	09

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Source: U.S. EPA AirData <http://www.epa.gov/airdata>
Generated: July 21, 2014

Monitor Values Report

Geographic Area: Los Angeles County, CA
Pollutant: CO
Year: 2013
Exceptional Events: Included (if any)

Duration Description=8-HR RUN AVG END HOUR

Duration Description	Obs	First Max	Second Max	Actual Exc	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8-HR RUN AVG END HOUR	8477	1.7	1.5	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8519	0.8	0.7	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8446	1.3	1.2	0	None	1	060370113	Va Hospital, West Los Angeles	West Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8247	2.4	2.1	0	None	1	060371002	228 W. Palm Ave., Burbank	Burbank	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8200	2	1.8	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8216	1.7	1.5	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	7959	2.3	2.2	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8424	3.5	3.4	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8283	2	1.7	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8313	1.5	1.5	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8-HR RUN AVG END HOUR	4195	1.7	1.7	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
8-HR RUN AVG END HOUR	6166	1.9	1.9	0	None	1	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8036	2.6	2.3	0	None	1	060374006	2425 Webster St., Long Beach, Ca	Long Beach	Los Angeles	CA	09
8-HR RUN AVG END HOUR	6878	2.5	2.5	0	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09
8-HR RUN AVG END HOUR	8594	0.8	0.6	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09
8-HR RUN AVG END HOUR	7423	1.2	1.1	0	None	1	060379033	43301 Division St., Lancaster, Ca	Lancaster	Los Angeles	CA	09

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Source: U.S. EPA AirData <http://www.epa.gov/airdata>
Generated: July 21, 2014

EPA United States Environmental Protection Agency

AirData

Monitor Values Report

This report displays criteria pollutant summary data for individual monitoring sites. Read more about what's in this report.

1. Pollutant

Pb

2. Year

2011

3. Geographic Area

Select a State ...

-- or --

Select a City (defined as CBSA) ...

-- or --

CA - Los Angeles

4. Exceptional Events

- (•) Include exceptional events data
- ( ) Exclude exceptional events data

Geographic Area: Los Angeles County, CA
Pollutant: Pb
Year: 2011
Exceptional Events: Included (if any)
About this report

EPA Air Quality Standards:
Lead: 0.15 ug/m3 (3-month avg)
The 3-month avg statistic currently is not available from the AQS Data Mart. Annual 1st-4th maxes will be provided until the 3-month avg becomes available.

The following data links are active for the next 10 minutes, after which you must resubmit your query.
Download PDF (printable page)
Download CSV (spreadsheet)

To sort a column in the table below, click on the column heading.

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	16	0.024	0.017	0.013	0.011	None	4	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
24 HOUR	17	0.021	0.013	0.011	0.01	None	7	060371002	228 W. Palm Ave., Burbank	Burbank	Los Angeles	CA	09
24 HOUR	58	0.017	0.017	0.017	0.017	None	2	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	53	0.017	0.017	0.016	0.015	None	3	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	12	0.015	0.015	0.014	0.012	None	7	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	57	0.019	0.016	0.015	0.015	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
24 HOUR	60	0.14	0.131	0.083	0.081	None	1	060371402	16345 Raymer (Lot A), Van Nuys, Ca 91406-1212	Los Angeles	Los Angeles	CA	09
24 HOUR	61	0.257	0.238	0.235	0.233	None	1	060371403	9440 Ann Street, Santa Fe Springs, Ca 90670	Santa Fe Springs	Los Angeles	CA	09
24 HOUR	57	0.135	0.122	0.077	0.072	None	1	060371404	500 S. 7th Ave. City Of Industry, Ca 91746	Industry (corporate name for City of Industry)	Los Angeles	CA	09
24 HOUR	132	2.72	2.57	1.89	1.64	None	1	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	122	2.37	1.2	1.1	0.914	None	2	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	133	4.49	1.8	1.63	1.54	None	3	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	120	0.445	0.205	0.165	0.126	None	1	060371406	Rail Road Yard Washington Blvd., Commerce, Ca 90058	Commerce	Los Angeles	CA	09
24 HOUR	59	0.019	0.014	0.014	0.013	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
24 HOUR	59	0.012	0.012	0.012	0.012	None	2	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	56	0.014	0.012	0.012	0.012	None	3	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
24 HOUR	22	0.013	0.011	0.01	0.009	None	7	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
24 HOUR	56	0.018	0.015	0.014	0.013	None	2	060374004	1305 E. Pacific Coast Hwy., Long Beach	Long Beach	Los Angeles	CA	09
24 HOUR	55	0.01	0.01	0.009	0.009	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09

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Last updated on Friday, July 11, 2014

EPA United States Environmental Protection Agency

AirData

Monitor Values Report

This report displays criteria pollutant summary data for individual monitoring sites. Read more about what's in this report.

1. Pollutant

Pb

2. Year

2012

3. Geographic Area

Select a State ...

-- or --

Select a City (defined as CBSA) ...

-- or --

CA - Los Angeles

4. Exceptional Events

- (•) Include exceptional events data
- ( ) Exclude exceptional events data

Geographic Area: Los Angeles County, CA
Pollutant: Pb
Year: 2012
Exceptional Events: Included (if any)
About this report

EPA Air Quality Standards:
Lead: 0.15 ug/m3 (3-month avg)
The 3-month avg statistic currently is not available from the AQS Data Mart. Annual 1st-4th maxes will be provided until the 3-month avg becomes available.

The following data links are active for the next 10 minutes, after which you must resubmit your query.
Download PDF (printable page)
Download CSV (spreadsheet)

To sort a column in the table below, click on the column heading.

Duration Description=24 HOUR

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	30	0.011	0.01	0.009	0.009	None	4	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
24 HOUR	29	0.018	0.01	0.01	0.01	None	7	060371002	228 W. Palm Ave., Burbank	Burbank	Los Angeles	CA	09
24 HOUR	51	0.024	0.018	0.016	0.015	None	2	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	53	0.027	0.016	0.014	0.013	None	3	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	20	0.03	0.013	0.011	0.011	None	7	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	51	0.016	0.013	0.013	0.012	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
24 HOUR	44	0.215	0.173	0.151	0.129	None	1	060371402	16345 Raymer (Lot A), Van Nuys, Ca 91406-1212	Los Angeles	Los Angeles	CA	09
24 HOUR	55	0.366	0.207	0.135	0.123	None	1	060371403	9440 Ann Street, Santa Fe Springs, Ca 90670	Santa Fe Springs	Los Angeles	CA	09
24 HOUR	61	0.058	0.051	0.051	0.047	None	1	060371404	500 S. 7th Ave. City Of Industry, Ca 91746	Industry (corporate name for City of Industry)	Los Angeles	CA	09
24 HOUR	134	0.339	0.298	0.284	0.24	None	1	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	120	0.335	0.223	0.188	0.174	None	2	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	132	0.384	0.303	0.282	0.241	None	3	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	119	0.259	0.08	0.06	0.036	None	1	060371406	Rail Road Yard Washington Blvd., Commerce, Ca 90058	Commerce	Los Angeles	CA	09
24 HOUR	60	0.016	0.012	0.011	0.011	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
24 HOUR	58	0.008	0.008	0.008	0.007	None	2	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09

Duration Description	Obs	First Max	Second Max	Third Max	Fourth Max	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
24 HOUR	55	0.008	0.008	0.007	0.007	None	3	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
24 HOUR	26	0.01	0.008	0.008	0.007	None	7	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09
24 HOUR	58	0.011	0.009	0.008	0.008	None	2	060374004	1305 E. Pacific Coast Hwy., Long Beach	Long Beach	Los Angeles	CA	09
24 HOUR	51	0.008	0.006	0.005	0.005	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09

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AirData

Monitor Values Report

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1. Pollutant

Pb

2. Year

2013

3. Geographic Area

Select a State ...

-- or --

Select a City (defined as CBSA) ...

-- or --

CA - Los Angeles

4. Exceptional Events

Include exceptional events data

Exclude exceptional events data

Geographic Area: Los Angeles County, CA
Pollutant: Pb
Year: 2013
Exceptional Events: Included (if any)
About this report

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Lead: 0.15 ug/m3 (3-month avg)
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Duration Description=24 HOUR

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24 HOUR	5	0.004	0.003	0.002	0.001	None	4	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
24 HOUR	5	0.014	0.011	0.005	0.004	None	7	060371002	228 W. Palm Ave., Burbank	Burbank	Los Angeles	CA	09
24 HOUR	60	0.019	0.014	0.013	0.013	None	2	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	59	0.015	0.013	0.012	0.012	None	3	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	1	0.006	.	.	.	None	7	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
24 HOUR	58	0.018	0.016	0.016	0.014	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
24 HOUR	18	0.23	0.183	0.1	0.092	None	1	060371402	16345 Raymer (Lot A), Van Nuys, Ca 91406-1212	Los Angeles	Los Angeles	CA	09
24 HOUR	57	0.126	0.121	0.12	0.119	None	1	060371403	9440 Ann Street, Santa Fe Springs, Ca 90670	Santa Fe Springs	Los Angeles	CA	09
24 HOUR	59	0.244	0.072	0.053	0.043	None	1	060371404	500 S. 7th Ave. City Of Industry, Ca 91746	Industry (corporate name for City of Industry)	Los Angeles	CA	09
24 HOUR	130	0.391	0.365	0.358	0.182	None	1	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	121	0.32	0.247	0.202	0.139	None	2	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	137	1.582	0.377	0.349	0.156	None	3	060371405	4010 E. 26th Street, Vernon, Ca 90058	Vernon	Los Angeles	CA	09
24 HOUR	117	0.036	0.034	0.032	0.031	None	1	060371406	Rail Road Yard Washington Blvd., Commerce, Ca 90058	Commerce	Los Angeles	CA	09
24 HOUR	57	0.026	0.021	0.013	0.012	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
24 HOUR	44	0.01	0.009	0.008	0.008	None	2	060374002	3648 N. Long Beach Blvd., Long Beach	Long Beach	Los Angeles	CA	09

http://www.epa.gov/oaqps001/greenbk/ancl3.html
Last updated on Wednesday, July 02, 2014

Green Book

Criteria Pollutant Nonattainment Summary Report

As of July 02, 2014

View Notes

Mouse over the No. Ctys to see the area name; click on them to see the associated counties. Population in 1000's. [Split] in No. Ctys column explained here.
The NO_2 nonattainment area became a maintenance area on September 22, 1998.
All 1-hour Ozone areas were revoked as of June 15, 2005.
All Carbon Monoxide areas were redesignated to maintenance areas as of September 27, 2010.

		2008 8-Hr Ozone			1997 8-Hr Ozone			2006 PM-2.5			1997 PM-2.5			PM-10			2010 SO2			1971 SO2			2008 LEAD		
State (s)	General Area Name (see footnote)	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Categ Clas
AK	Fairbanks							87	1	Mod															
AL	Troy																						2	1	NonAtt
AZ	Ajo													9	1	Mod									
AZ	Douglas/Paul Spur (Cochise County)													17	1	Mod									
AZ	Hayden/Miami													11	2	Mod	5	2	NonAtt	5	1	P			
														15	1	Mod	15	1	NonAtt						
AZ	Nogales							31	1	Mod				30	1	Mod									
AZ	Phoenix-Mesa	3,850	2	Mar	3,849	2	Mar							3,853	2	Ser									
AZ	Rillito (Pima County)													1	1	Mod									
AZ	West Central Pinal							52	1	Mod				283	1	Mod									
AZ	Yuma													101	1	Mod									
CA	Amador and Calaveras Cos (Central Mountain Cos)	46	1	Mar	84	2	Mod																		
CA	Chico	220	1	Mar	220	1	Mar	218	1	Mod															
CA	Imperial County													147	1	Ser									
		175	1	Mar	175	1	Mod	154	1	Mod															
CA	Los Angeles-South Coast Air Basin	15,719	4	Ext	15,718	4	Ext	15,716	4	Mod	15,716	4	Mod										9,437	1	NonAtt
		1	1	Ser	1	1	Sev7																		
		3	1	Mod																					
CA	Mariposa and Tuolumne Cos (Southern Mountain Cos)	18	1	Mar	74	2	Mod																		
CA	Mono County													7	1	Mod									
														0	1	Mod									
CA	Nevada Co. (Western Part)	82	1	Mar	82	1	Mod																		
CA	Owens Valley													7	1	Ser									
CA		2,241	6	Sev5	2,244	6	Sev5	2,206	5	Mod															

		2008 8-Hr Ozone			1997 8-Hr Ozone			2006 PM-2.5			1997 PM-2.5			PM-10			2010 SO2			1971 SO2			2008 LEAD		
State (s)	General Area Name (see footnote)	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Categ Clas
	Sacramento Metro																								
CA	San Diego	3,095	1	Mar																					
CA	San Francisco -Bay Area	6,973	9	Mar	6,971	9	Mar	6,971	9	Mod															
CA	San Joaquin Valley	95	1	Mar	95	1	Mod																		
		3,842	8	Ext	3,843	8	Ext	3,842	8	Mod	3,842	8	Mod	126	1	Ser									
CA	San Luis Obispo-Paso Robles	2	1	Mar																					
CA	Searles Valley													4	1	Mod									
CA	Southeast Desert Modified AQMA													258	1	Ser									
		868	2	Sev5	868	2	Sev5																		
		426	1	Sev5	425	1	Sev5							237	1	Mod									
CA	Tuscan Bluffs	0	1	Mar																					
CA	Ventura County	823	1	Ser	823	1	Ser																		
CA	Yuba City				0	1	Mar	165	2	Mod															
CO	Denver-Boulder-Greeley-Ft. Collins-Loveland Area	3,330	9	Mar	3,330	9	Mar																		
CT	Greater Connecticut	1,629	5	Mar	1,629	5	Mod																		
DC-MD-VA	Washington	5,136	15	Mar	5,136	15	Mod				5,047	14	Mod												
FL	Jacksonville																6	1	NonAtt						
FL	Tampa-St. Petersburg-Clearwater																17	1	NonAtt				4	1	NonAtt
GA	Atlanta	4,753	15	Mar							5,265	22	Mod												
GU	Piti Power Plant																			1	1	P			
GU	Tanguisson Power Plant																			1	1	P			
IA	Council Bluffs																						13	1	NonAtt
IA	Muscatine County																30	1	NonAtt						
ID	Pocatello													1	2	Mod									
ID	Shoshone County													2	1	Mod									
														10	1	Mod									
IL	Peoria																41	2	NonAtt						
IL-IN-WI	Chicago-Joliet-Napier	9,180	11	Mar													169	2	NonAtt				36	1	NonAtt
IN	Evansville																6	2	NonAtt						
IN	Indianapolis																21	1	NonAtt						
																	389	1	NonAtt						
IN	Muncie																						1	1	NonAtt
IN	Terre Haute																54	1	NonAtt						
KS	Salina																						0	1	NonAtt

		2008 8-Hr Ozone			1997 8-Hr Ozone			2006 PM-2.5			1997 PM-2.5			PM-10			2010 SO2			1971 SO2			2008 LEAD		
State (s)	General Area Name (see footnote)	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Categ Clas
KY-IN	Louisville										1,019	5	Mod				3	1	NonAtt						
LA	Baton Rouge	733	5	Mar																					
LA	New Orleans																36	1	NonAtt						
MA	Springfield (W. Mass)				824	4	Mod																		
MA-NH	Boston-Worcester-Manchester				5,723	10	Mod																		
		17	1	Mar													124	3	NonAtt						
MD	Baltimore	2,663	6	Mod	2,663	6	Ser				2,663	6	Mod												
MD-WV	Hagerstown-Martinsburg										252	2	Mod												
MI	Belding																						2	1	NonAtt
MI	Detroit-Ann Arbor																254	1	NonAtt						
MN	Minneapolis-St. Paul																						9	1	NonAtt
MO	Iron																						0	3	NonAtt
MO-IL	St. Louis																						39	1	NonAtt
		2,571	8	Mar	2,594	9 [Split]	Mod				2,573	9	Mod				62	1	NonAtt				5	1	NonAtt
MO-KS	Kansas City																57	1	NonAtt						
MT	Billings/Laurel																3	1	NonAtt	7	1	P			
MT	Butte													34	1	Mod									
MT	Columbia Falls (Flathead County)													5	1	Mod									
MT	East Helena																			3	1	P,S			
MT	Kalispell (Flathead County)													18	1	Mod									
MT	Lame Deer													1	1	Mod									
MT	Libby										9	1	Mod	3	1	Mod									
MT	Missoula													60	1	Mod									
MT	Polson (Lake County)													4	1	Mod									
MT	Ronan (Lake County)													3	1	Mod									
MT	Thompson Falls													1	1	Mod									
MT	Whitefish (Flathead County)													6	1	Mod									
NC-SC	Charlotte-Gastonia	1,901	8	Mar																					
NM	Anthony													3	1	Mod									
NV	Las Vegas													1,951	1	Ser									
NV	Reno													421	1	Ser									
NY	Albany-Schenectady-Troy				970	7	Mar																		
NY	Buffalo-Niagara Falls				1,136	2	Mod																		
NY	Essex County;				0	1	Mar																		

		2008 8-Hr Ozone			1997 8-Hr Ozone			2006 PM-2.5			1997 PM-2.5			PM-10			2010 SO2			1971 SO2			2008 LEAD		
State(s)	General Area Name (see footnote)	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Categ Clas
	Whiteface Mountain																								
NY	Jamestown	135	1	Mar	135	1	Mod																		
NY	Jefferson County				116	1	Mod																		
NY	Poughkeepsie				770	3	Mod																		
NY	Rochester				1,114	6	Mar																		
NY-NJ-CT	New York-N. New Jersey-Long Island	20,217	24	Mar	20,217	24	Mod							1,586	1	Mod									
OH	Bellefontaine																						6	1	NonAtt
OH	Cleveland-Akron-Elyria	2,882	8	Mar													230	1	NonAtt				8	1	NonAtt
OH	Columbus	1,755	6	Mar																					
OH	Delta																						3	1	NonAtt
OH-KY-IN	Cincinnati-Middletown-Wilmington	1,989	9	Mar													32	2	NonAtt						
OH-WV	Steubenville-Weirton																58	2	NonAtt						
OR	Klamath Falls							47	1	Mod															
OR	Oakridge							4	1	Mod				4	1	Mod									
PA	Clearfield and Indiana Counties																93	2	NonAtt						
PA	Harrisburg-Lebanon-Carlisle							1,072	4	Mod	637	3	Mod												
PA	Johnstown							157	2	Mod	157	2	Mod												
PA	Lancaster	519	1	Mar				519	1	Mod	519	1	Mod												
PA	Pittsburgh-New Castle							21	1	Mod	21	1	Mod				15	1	NonAtt				18	1	NonAtt
		2,356	7	Mar	2,356	7	Mod	2,143	8	Mod	2,143	8	Mod				127	1	NonAtt	5	1	P			
PA	Reading																						19	1	NonAtt
		411	1	Mar							411	1	Mod										29	1	NonAtt
PA	Warren County																18	1	NonAtt						
PA	York										435	1	Mod												
PA-DE-NJ-MD	Philadelphia-Wilmington-Trenton	7,437	16	Mar	7,797	18	Mod	5,798	9 [Split]	Mod	5,798	9 [Split]	Mod												
		197	1	Mar																					
PA-NJ	Allentown-Bethlehem-Easton	712	3	Mar				647	2	Mod										109	1	P,S			
PR	Arecibo																						32	1	NonAtt
RI	Providence (all of RI)				1,053	5	Mod																		
TN	Johnson City-Kingsport-Bristol																27	1	NonAtt				2	1	NonAtt
TN	Knoxville	573	3	Mar				682	5	Mod	682	5	Mod												
TN	Memphis	1,127	3	Mar																					
TN-GA-AL	Chattanooga										471	4	Mod												
TX		6,280	10	Mod	6,221	9	Ser																4	1	NonAtt

		2008 8-Hr Ozone			1997 8-Hr Ozone			2006 PM-2.5			1997 PM-2.5			PM-10			2010 SO2			1971 SO2			2008 LEAD		
State (s)	General Area Name (see footnote)	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Category/ Class	2010 Pop.	No. Ctys	Categ Clas
	Dallas-Fort Worth																								
TX	El Paso													649	1	Mod									
TX	Houston-Galveston-Brazoria	5,892	8	Mar	5,892	8	Sev5																		
UT	Ogden													83	1	Mod									
UT	Provo							518	1	Mod				517	1	Mod									
UT	Salt Lake City							1,665	5	Mod				1,030	1	Mod				1,030	1	P,S			
UT	Tooele County																			58	1	P,S			
UT-ID	Logan							125	2	Mod															
WA	Seattle-Tacoma							540	1	Mod															
WI	Rhinelander																18	1	NonAtt						
WI	Sheboygan	116	1	Mar	116	1	Mod																		
WV-OH	Parkersburg-Marietta																4	2	NonAtt						
WV-OH	Wheeling																20	1	NonAtt						
WY	Sheridan													17	1	Mod									
WY	Upper Green River Basin	11	3	Mar																					

Area Name:

The "State(s) Area Name" column contains a common or general name for the nonattainment areas on the row, but may not reflect the exact name of any area on the row. This column cannot be exact since the nonattainment area for one pollutant may not contain the same counties, cities, or states as the nonattainment area for another pollutant on the same row. to see the area name or click on them to see the associated counties. The abbreviations listed in the "State(s)" column reflect all states identified in row. However, some states on a row may be nonattainment for some pollutants and not for others in the general area.

Split Area:

'Split' in the No. Ctys column indicates that the multi-state area has states that have been redesignated but the area does not become a maintenance area until all states in the area are redesignated. The whole area population is displayed in this report. Clicking on a "Split" No. Ctys will display information for the state(s) that have not been redesignated.

Go Top

LOS ANGELES CIVIC CENTE, CALIFORNIA

Period of Record General Climate Summary - Precipitation

Station:(045115) LOS ANGELES CIVIC CENTE														
From Year=1906 To Year=2012														
	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	3.20	14.94	1969	0.00	1948	5.71	26/1956	6	4	2	1	0.0	0.3	1949
February	3.38	13.68	1998	0.00	1912	4.80	24/1913	6	5	2	1	0.0	0.0	1949
March	2.40	8.37	1983	0.00	1931	5.88	02/1938	6	4	2	1	0.0	0.0	1949
April	1.01	7.53	1926	0.00	1909	2.74	05/1926	3	2	1	0	0.0	0.2	1950
May	0.25	3.57	1921	0.00	1923	2.02	08/1977	2	1	0	0	0.0	0.0	1949
June	0.06	0.98	1999	0.00	1908	0.76	05/1993	1	0	0	0	0.0	0.0	1913
July	0.01	0.18	1986	0.00	1907	0.60	25/1906	0	0	0	0	0.0	0.0	1948
August	0.05	2.26	1977	0.00	1907	2.06	17/1977	0	0	0	0	0.0	0.0	1948
September	0.27	5.67	1939	0.00	1907	3.96	25/1939	1	0	0	0	0.0	0.0	1948
October	0.48	4.56	2004	0.00	1913	1.72	17/1934	2	1	0	0	0.0	0.0	1948
November	1.25	9.68	1965	0.00	1907	3.85	07/1966	3	2	1	0	0.0	0.0	1948
December	2.41	10.23	2010	0.00	1912	5.55	28/2004	5	4	2	1	0.0	0.0	1948
Annual	14.77	34.04	1983	3.85	1953	5.88	19380302	36	23	10	4	0.0	0.3	1949
Winter	8.99	29.11	2005	1.19	1924	5.71	19560126	18	13	6	3	0.0	0.3	1949
Spring	3.66	13.89	1983	0.00	1997	5.88	19380302	11	7	2	1	0.0	0.2	1950
Summer	0.12	2.26	1977	0.00	1912	2.06	19770817	1	0	0	0	0.0	0.0	1949
Fall	2.00	11.48	1965	0.00	1980	3.96	19390925	6	4	1	0	0.0	0.0	1948

Table updated on Oct 31, 2012
For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

LOS ANGELES CIVIC CENTE, CALIFORNIA

Period of Record General Climate Summary - Temperature

Station:(045115) LOS ANGELES CIVIC CENTE															
From Year=1906 To Year=2012															
	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	66.4	48.3	57.3	95	18/1971	28	07/1913	65.9	1986	46.9	1949	0.1	0.0	0.1	0.0
February	67.3	49.5	58.4	95	20/1995	25	19/1911	65.3	1995	51.9	1911	0.1	0.0	0.0	0.0
March	68.8	51.1	60.0	98	26/1988	35	04/1976	66.0	1931	54.6	1945	0.2	0.0	0.0	0.0
April	71.0	53.5	62.2	106	06/1989	39	07/1975	69.6	1992	56.0	1975	0.8	0.0	0.0	0.0
May	72.9	56.5	64.7	102	16/1967	40	12/1933	72.6	1997	58.7	1917	0.8	0.0	0.0	0.0
June	76.9	59.7	68.3	112	26/1990	49	01/1917	77.4	1981	63.4	1944	1.2	0.0	0.0	0.0
July	82.3	63.2	72.7	107	01/1985	53	17/1907	79.9	2006	66.6	1944	3.1	0.0	0.0	0.0
August	83.1	63.8	73.4	105	06/1983	52	25/1909	80.8	1983	68.1	1914	4.1	0.0	0.0	0.0
September	81.9	62.6	72.3	113	27/2010	50	22/1921	81.3	1984	64.6	1933	4.9	0.0	0.0	0.0
October	77.6	58.7	68.1	108	03/1987	41	30/1971	74.2	1983	59.7	1916	3.1	0.0	0.0	0.0
November	72.8	53.3	63.0	100	01/1966	37	28/1919	68.9	1932	57.9	1906	0.8	0.0	0.0	0.0
December	67.4	49.1	58.2	92	08/1938	30	08/1978	64.2	1939	52.6	1916	0.0	0.0	0.0	0.0
Annual	74.0	55.8	64.9	113	20100927	25	19110219	68.9	1981	60.9	1916	19.5	0.0	0.1	0.0
Winter	67.0	49.0	58.0	95	19710118	25	19110219	63.3	1986	51.0	1949	0.2	0.0	0.1	0.0
Spring	70.9	53.7	62.3	106	19890406	35	19760304	67.8	1997	57.8	1917	1.9	0.0	0.0	0.0
Summer	80.8	62.2	71.5	112	19900626	49	19170601	77.6	1981	66.4	1916	8.5	0.0	0.0	0.0
Fall	77.4	58.2	67.8	113	20100927	37	19191128	72.2	1983	61.4	1916	8.8	0.0	0.0	0.0

Table updated on Oct 31, 2012
For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

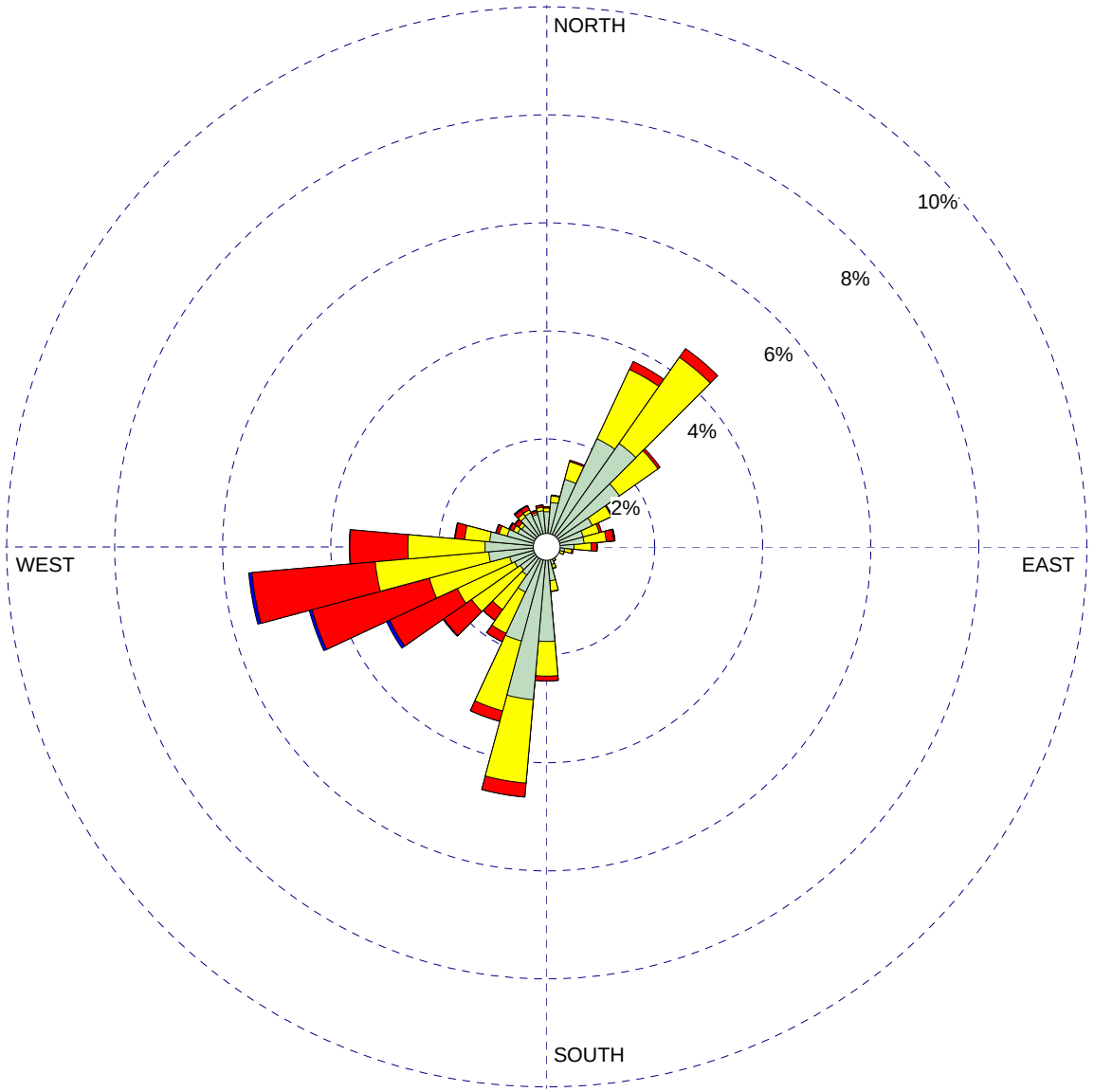
Western Regional Climate Center, wrcc@dri.edu

WIND ROSE PLOT:

Central LA Wind Rose

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

Start Date: 1/1/2006 - 00:00
End Date: 12/31/2009 - 23:00

TOTAL COUNT:	CALM WINDS:
66206 hrs.	**0.32%**

AVG. WIND SPEED:

2.23 m/s

COMPANY NAME:

MODELER:

DATE:

6/13/2014

PROJECT NO.:

Appendix C
Paleontological Literature Search

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

PALEONTOLOGICAL LITERATURE SEARCH OF THE LOS ANGELES COUNTY AND UNIVERSITY OF SOUTHERN CALIFORNIA MEDICAL CENTER CAMPUS MASTER PLAN, LOS ANGELES COUNTY, CALIFORNIA

Prepared for:
ICF International
1 Ada Parkway, Suite 100
Irvine, CA 92618

Authors:
Kim Scott and Sherri Gust

Principal Investigator:
Sherri Gust
Qualified Principal Paleontologist

July 2014

Cogstone Project Number: 2787
Type of Study: Paleontological Literature Search
Localities: None known within the PSA, 5 within one mile of the PSA
USGS 7.5' Topographic Quadrangles: Los Angeles
Total Area of Impact: 86 acres
Key Words: Quaternary alluvium- PFYC 2 low sensitivity but covering PFYC 3a-4 deposits, Quaternary older alluvium- PFYC 4 high sensitivity; late Miocene Puente Formation- PFYC 3a moderate to patchy sensitivity

1518 West Taft Avenue
Orange, CA 92865
Office (714) 974-8300

Field Offices
San Diego • Riverside • Canyon Country
• Morro Bay • West Sacramento

cogstone.com
Toll free (888) 497-0700

Federal Certifications 8(a), SDB, 8(m) WOSB
State Certifications DBE, WBE, SBE, UDBE

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LIST OF ACRONYMS AND ABBREVIATIONS

BLM – Bureau of Land Management
B.A. – Bachelors of Arts
B.S. – Bachelors of Science
CA - California
Caltrans - California Department of Transportation
CEQA – California Environmental Quality Act
CoLA – City of Los Angeles
LAC+USC – Los Angeles County and University of Southern California
LACM – Natural History Museum of Los Angeles County
M.S. – Masters of Science
PFYC – Potential Fossil Yield Classification
PSA – Project Study Area
UCMP – University of California Museum of Paleontology
USGS – United States Geological Survey

EXECUTIVE SUMMARY

The purpose of this Paleontological Literature Study is to assess the potential for impacting fossil resources within the proposed boundaries of the Los Angeles County and University of Southern California (LAC+USC) Medical Center. Specifically the Project Study Area (PSA) is located within the City of Los Angeles, Los Angeles County, California. The LAC+USC Medical Center Master Plan Project consists of construction of new structures and the renovation of others within the PSA. Overall planned improvements are to make the campus more user friendly to students and the public. Should all development be completed then 1,725,000 square feet of the current campus would be impacted.

The project area is mapped as Quaternary alluvium over Quaternary older alluvium and Miocene Puente Formation. No fossils are known within the PSA but five localities are known from locations very near the PSA in the Quaternary older alluvium and Miocene Puente Formation. Based on the fossils recovered from these localities, the Quaternary alluvium is assigned a PFYC value of 2 with a low sensitivity for fossil resources. However, this unit does cover older, fossiliferous units. The Puente Formation is assigned PFYC 3a with a moderate potential for fossils. The Quaternary older alluvium is assigned PFYC 4 with a high potential for fossils based on significant finds adjacent to the PSA

No fossils are known within the project area. However late Pleistocene (50-11 thousand years old) localities that have produced extinct mammoth, mastodon, giant ground sloth, and saber-toothed cat, were previously recovered nearby. In addition, Miocene (22-5 million years old) localities that have produced extinct herring and other fishes are also known nearby.

It is likely that paleontological resources may be encountered during construction activities should excavation extend more than six feet below original ground surface in Quaternary sediments and during any excavation in the Puente Formation. Excavation work described above shall require full-time monitoring under the supervision of a qualified paleontologist with a graduate degree, more than ten years of experience, and a specialty in vertebrate paleontology. A Paleontological Mitigation Plan is recommended to provide procedures to ensure that any adverse effects on paleontological resources are mitigated.

INTRODUCTION

PURPOSE OF DOCUMENT

The purpose of this Paleontological Literature Study is to assess the potential for impacting fossil resources within the proposed boundaries of the Los Angeles County and University of Southern California (LAC+USC) Medical Center. Specifically the Project Study Area (PSA) is located within the City of Los Angeles, Los Angeles County, California (CA) (Figure 1). The lead agency for this project is the County of Los Angeles.

Figure 1. Project Vicinity

PROJECT DESCRIPTION

The LAC+USC Medical Center Master Plan Project includes construction of new structures and the renovation of others within the PSA. The PSA includes 86 acres and should all development be completed then 1,725,000 square feet of the current campus would be impacted. Overall planned improvements are to make the campus more user friendly to students and the public.

Construction activities would include the demolition of several structures, including the current utility and maintenance facility, the outpatient building, the interns and residents building, parking structure 12, several modular buildings, and storage and warehouse buildings. Excavation would be required to lay the foundations for the new buildings and substantial grading is planned for the middle part of the campus. This would be for the parking structures as well as the community amenities, open space, and paths that have been proposed for this part of the campus.

Potential alterations to the campus over a 25 year improvement project include:

- construction of up to three new inpatient towers,
- construction of a new outpatient facility with two new buildings,
- construction of a new office space,
- improve the utilities infrastructure particularly construction of a new central plant,
- improve pedestrian access, particularly with the addition of elevators and escalators,
- improve streetscapes, sidewalks, lighting and vehicular access along State Street, Mission Road, Marengo Street, and Zonal Avenue,
- provide new parking areas for multiple areas of campus,
- construct a new biotech research facility as well as new on-campus housing,
- provide a new exercise courtyard and research gardens,
- provide new community and retail space.

As this is a long term plan, specifics are not available in many cases, however some buildings will include subsurface structures.

PROJECT STUDY AREA

The PSA is mapped within sections 23-26 of Township 1 South, Range 13 West within the San Bernardino Base Meridian on the Los Angeles 7.5-minute United States Geological Survey topographic map (Figure 2).

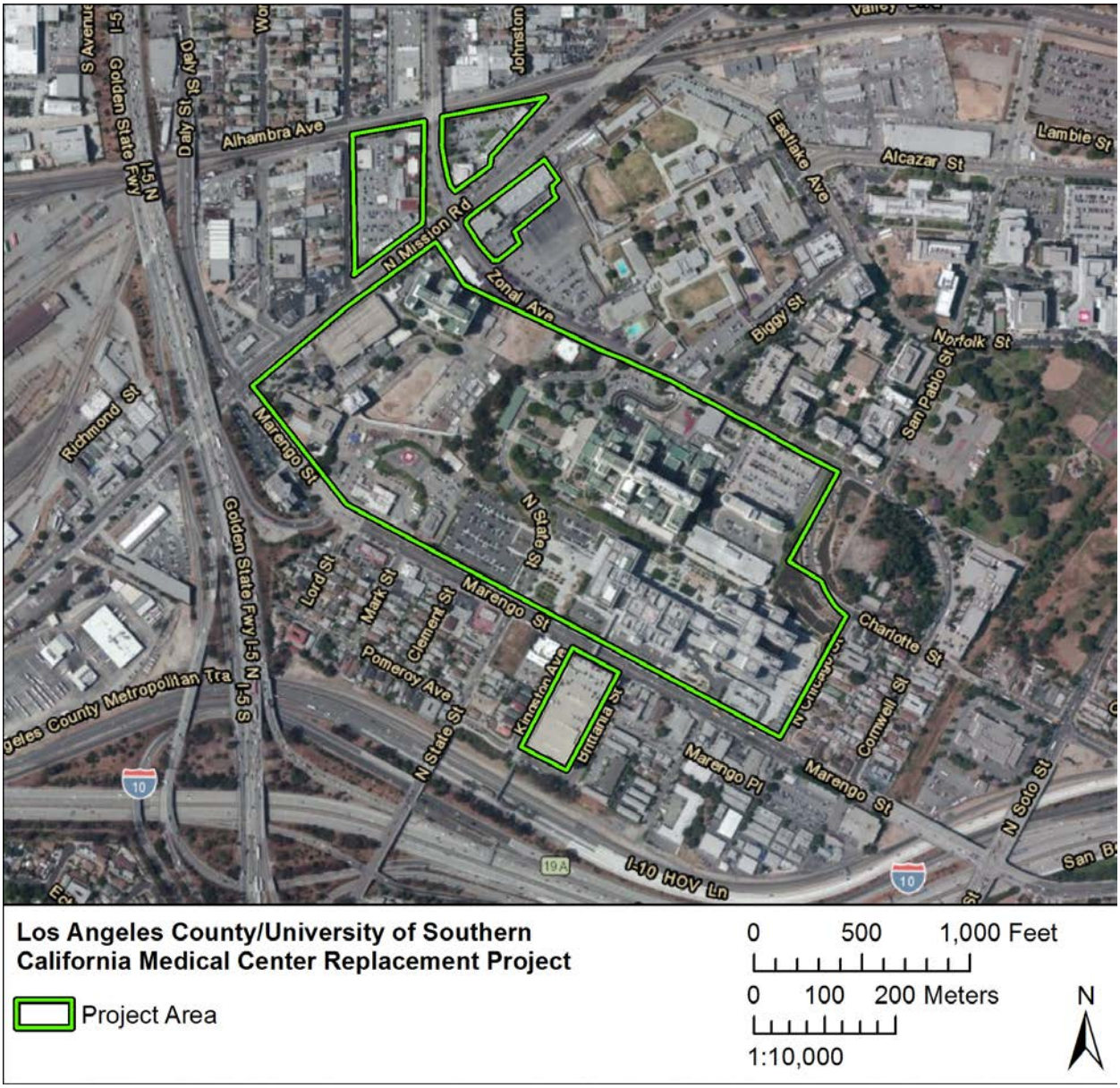

Figure 2. Project Location

PROJECT PERSONNEL

Cogstone Resource Management Inc. prepared this document. Sherri Gust was the Principal Paleontologist. She supervised all work and prepared impact analysis, conclusions and recommendations. She has an M.S. in Anatomy (Evolutionary Morphology) from the University of Southern California, a B.S. in Anthropology from the University of California, Davis and over thirty years of experience in California. Kim Scott wrote the majority of this report. Scott has a M. S. in Biology with an emphasis in paleontology from California State University, San Bernardino and over 18 years of experience in California paleontology and geology. Andre Simmons prepared the GIS maps throughout this report. Simmons has a B.A. in Anthropology, cross-training in paleontology and more than three years of G.I.S. experience. Short resumes are provided (Appendix A).

REGULATORY ENVIRONMENT

This project is subject to state and local legislation and guidelines regarding paleontological resources.

STATE LAWS AND REGULATIONS

Paleontological resources are protected by state law. This protection covers all vertebrate fossils (animals with backbones) and any unique paleontological locality.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

CEQA (Chapter 1, Section 21002) states that: It is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.

If paleontological resources are identified during the Preliminary Environmental Analysis Report (PEAR), or other initial project scoping studies (e.g., Paleontological Evaluations Report (PER), Preliminary Environmental Study (PES), etc.), as being within the proposed project area, the

sponsoring agency (Caltrans or local) must take those resources into consideration when evaluating project effects. The level of consideration may vary with the importance of the resource.

PUBLIC RESOURCES CODE (PRC)

Section 50987.5 states that no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any … vertebrate paleontological site, including fossilized footprints, …, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

CITY LAWS AND REGULATIONS

The City of Los Angeles has adopted a CEQA thresholds guide (CoLA 2006):

> If a project could disturb "surface or subsurface fossils, either through site preparation, construction or operational activities, or through an increase in human activities at or near the fossil site" then "an expanded Initial Study, Negative Declaration, Mitigated Negative Declaration, or EIR may be required" (CoLA 2006, page D. 1-2 section 1C).
>
> Potential mitigation measures for this project include (1) nonexcavation, or (2) retention of "a qualified paleontologist to monitor, and if necessary, salvage scientifically significant fossil remains", "divert grading efforts in the area of an exposed fossil to allow excavation and if necessary salvage of exposed fossils", and to "ensure that scientific specimens become the property of a public, nonprofit educational institution, such as the Los Angeles County Museum of Natural History" (now the Natural History Museum of Los Angeles County; CoLA 2006, page D. 1-5 section 2B).
>
> Additionally, the City of Los Angeles Public works Construction, Section 6-3.2 "Requires that grading, excavation, or other ground disturbing activities for a public project be halted in the area of a paleontological or archaeological find, until such time as a resource expert can review the find, determine its significance, and if required, determine appropriate mitigation measures" (CoLA 2006, page D. 1-8).

DEFINITION OF SIGNIFICANCE FOR PALEONTOLOGICAL RESOURCES

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003; Scott et al. 2004).

RESOURCE CONTEXT

GEOLOGIC SETTING

The project area is situated in the Los Angeles Basin, south of the Santa Monica Mountains. This basin is bounded to the north by the Santa Monica Mountains, to the east by the Santa Ana Mountains and associated hills (Puente/Chino, San Jose, and Repetto), to the south by the San Joaquin Hills and the Pacific Ocean, and to the west by the Palos Verdes Hills and the Pacific Ocean. This area is part of the northernmost Peninsular Ranges, California geomorphic province. The Peninsular Ranges are a series of ranges separated by northwest trending valleys, subparallel to faults branching from the San Andreas Fault which for the most part lies to the east of this geomorphic province.

STRATIGRAPHY

Geologic mapping by Dibblee (1989; Figure 3) maps the area primarily as Quaternary alluvium with Quaternary older alluvium and two units of an unnamed late Miocene marine shale. Yerkes and Campbell (2005; Figure 4) indicates that the surficial deposits of the PSA consist primarily as Quaternary old alluvial fan with some Quaternary alluvial fan and Puente Formation. Based on fossils recovered adjacent to the PSA Dibblee's (1989) mapping of the Quaternary units is considered to be more accurate. Additionally, due to the scale of the maps Dibblee's (1989) sedimentary descriptions are closer to what is seen within the PSA, however Yerkes' and Campbell's (2005) naming system of the Miocene units follows the local naming system more closely.

QUATERNARY ALLUVIUM

Dibblee (1989) describes these sediments primarily as Holocene (<11,000 years old) alluvium (Qa) of the valley floodplains. The Holocene alluvium consists of unconsolidated sediments ranging from silts to gravels.

QUATERNARY OLDER ALLUVIUM

Dibblee (1989) indicates that the Quaternary (11,000 – 2.5 million years old) older alluvium (Qoa) deposits includes weakly consolidated sediments ranging from silts to gravels.

PUENTE FORMATION; UNNAMED SHALE

Yerkes and Campbell (2005) and many prior workers maps the northern portion of the PSA as Puente Formation siltstone (Tpnz) and the southern portion as Puente Formation sandstone (Tpna) while Dibblee (1989) maps the same region as an unnamed silty shale (Tush) and unnamed sandstone (Tuss) respectively. Yerkes' and Campbell's (2005) naming will be followed due to the number of other regional authors following this same system.

Puente Formation, Siltstone; Unnamed Shale, Silty Shale

Yerkes and Campbell (2005) describes this unit as a light grey, well-bedded siltstone (Tpnz). Interbeds are noted lower in the section with thicker beds at the top of the section.

Dibblee (1989) indicates that this unit is a grey to light brown, thinly bedded silty clay shale (Tush). Locally large calcareous nodules are present as well as thin interbeds of fine grained sandstone, diatomite, and semi-siliceous shale.

Puente Formation, Sandstone; Unnamed Shale, Sandstone

Yerkes and Campbell (2005) notes that this medium to light brown and light grey, fine to very coarse sandstone (Tpna) is well-bedded with discoidal concretions locally, becoming more frequent near the base of the unit. Most of the base of the unit is well cemented and becomes more friable in the upper portion of the unit.

Dibblee (1989) describes this unit is a semi-friable, light grey to tan sandstone (Tuss) with thin interbeds of silty shale.

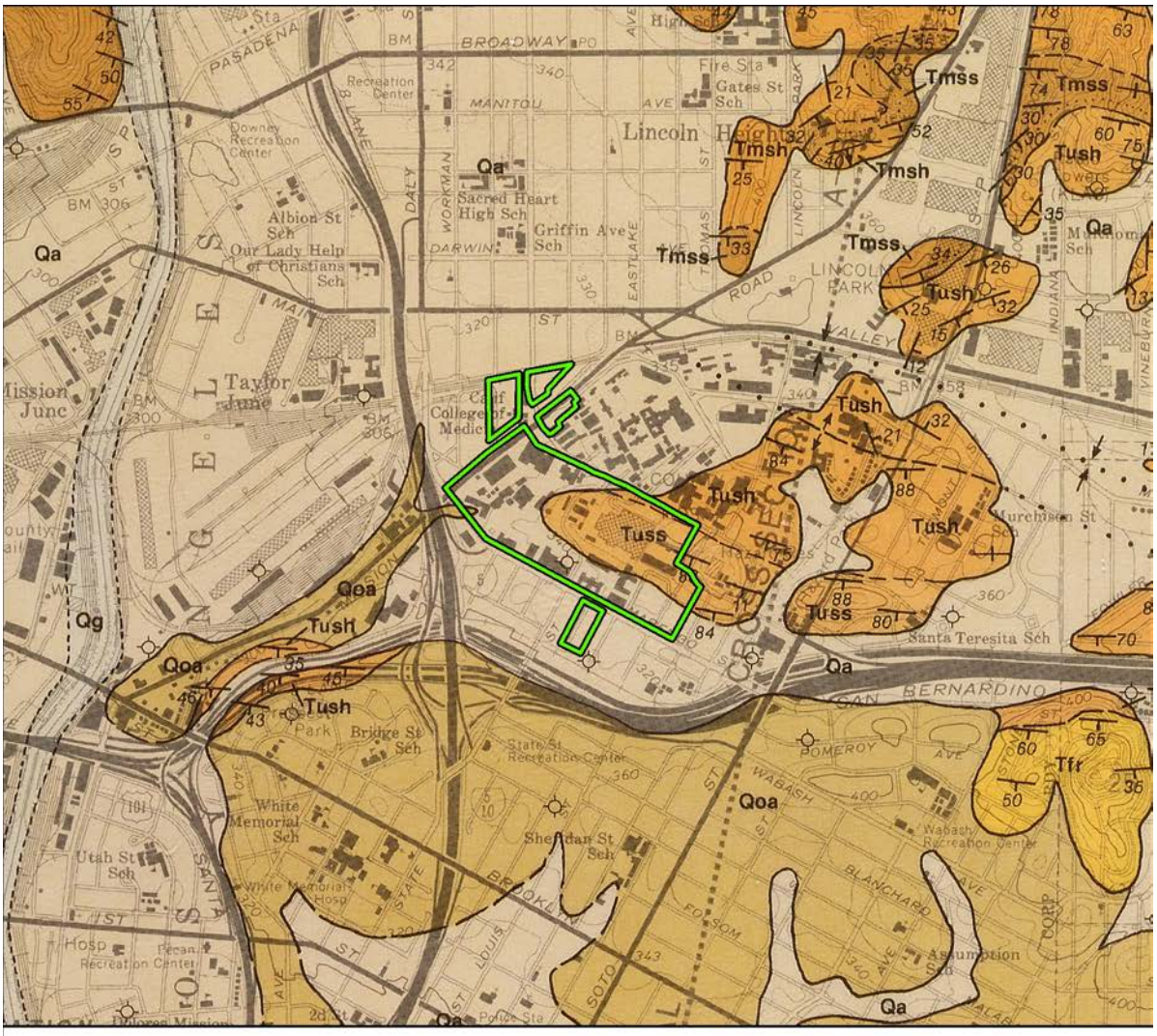

Figure 3. Geology Map, Dibblee (1989)

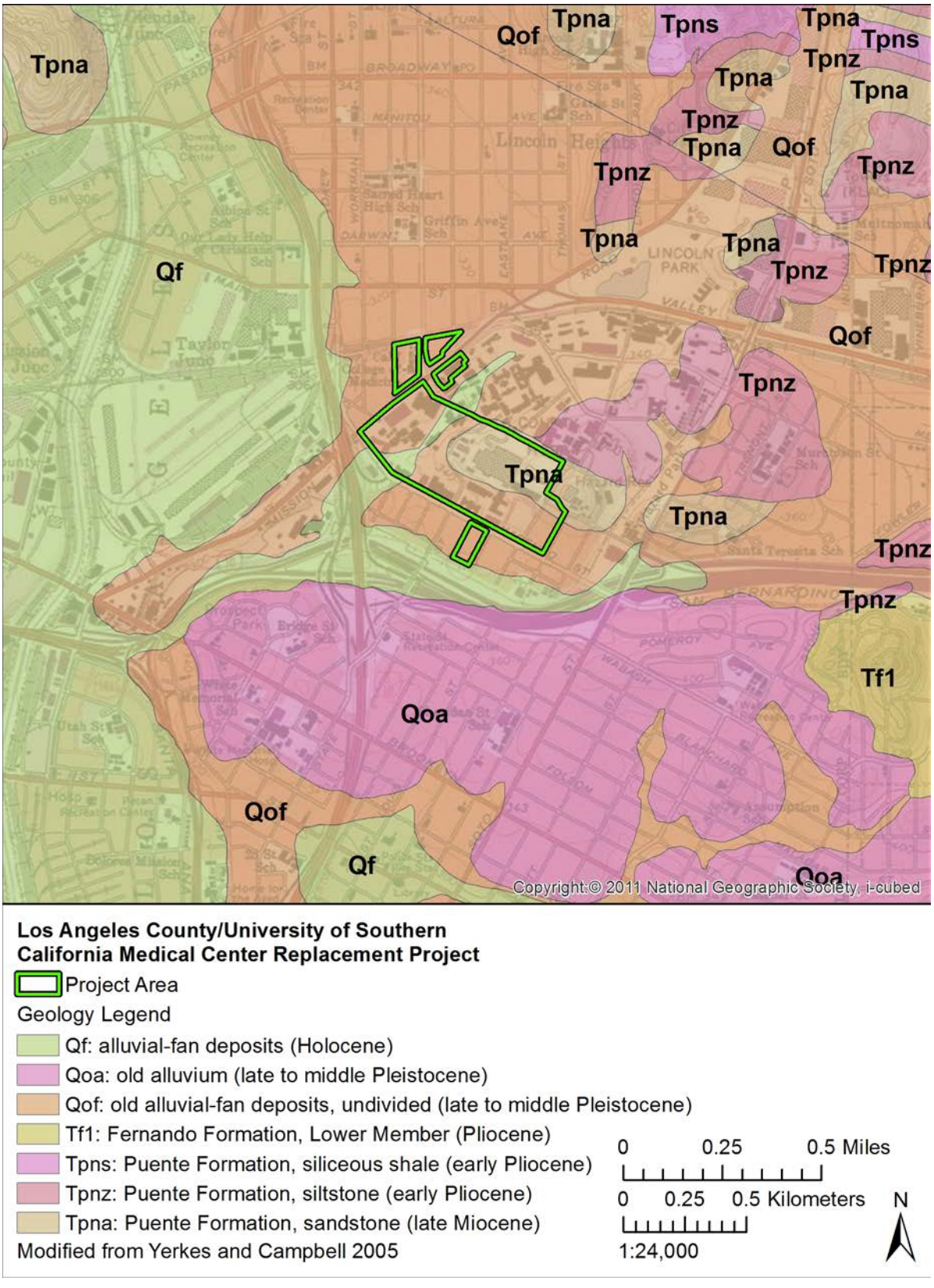

Figure 4. Geology Map, Yerkes and Campbell (2005)

KNOWN PALEONTOLOGICAL RESOURCES

Searches for paleontological records were completed by the Natural History Museum of Los Angeles County (LACM; McLeod 2014), as well as published and online resources (Jefferson 1991a, 1991b; Hay 1927; Miller 1971; Natural History Museum of Los Angeles County Invertebrate Paleontology; 2014; Paleobiology Database 2014; UCMP 2014). A copy of the LACM records search is provided (Appendix B).

There are no known fossil localities within the PSA, however five localities are present within a one mile of the PSA (Miller 1971; McLeod 2014; Table 1, 2).

QUATERNARY ALLUVIUM

Quaternary alluvium typically are not old enough to contain fossils however based on the local geology these units cover older, fossiliferous formations. Additionally these sediments may contain archaeological resources, particularly in an area so close to a large waterway.

QUATERNARY OLDER ALLUVIUM

Numerous localities are known from the City of Los Angeles in these sediments, and two localities are known from the Quaternary older alluvium within 1 mile of the PSA (Table 1).

The Los Angeles Brickyard number 3 at Mission Road and Daly Street just north of the LAC USC complex, LACM 2032 is the closest locality to the PSA and produced fossils between 20 and 35 feet below ground surface (Miller 1971; Jefferson 1919a, 1991b; McLeod 2014 pers. comm.). Mammoth [1] (†), mastodon (†), horse (†), camel (†), giant ground sloth (†), and pond turtle fossils were recovered.

A storm drain excavation at Workman and Alhambra (LACM 1023), also just north of the LAC USC complex, produced fossils of saber-toothed cat (†), horse (†), deer, and turkey (†) (Miller 1971; Jefferson 1919a, 1991b; McLeod 2014).

PUENTE FORMATION; UNNAMED SHALE

Within the Los Angeles area the Puente Formation contains numerous fossils of plants and animals. Although no localities are known from the PSA, 3 localities are known from the Puente Formation within a mile of the PSA (Table 2).

At 1st Street and Hill Street almost due west of the project, LACM 5961 produced a deep sea fish known as a bristlemouth († - likely an extinct species). At LACM 7007 northeast of the project, west of Chester Street and Vaquero Avenue, an unidentified fossil fish was recovered. East of

1 (†) indicates extinct species.

the PSA at Valley Boulevard and Highbury Avenue, a herring (†) was recovered from LACM 1027 (McLeod 2014).

Table 1. Fossil localities near the PSA in the Quaternary older alluvium

Note: † indicates extinct species

Common name	Taxon	Locality; Reference(s)
mammoth, possibly Columbian mammoth	†*Mammuthus* sp. cf. *M. columbi*	Los Angeles Brickyard, Mission and Daly- LACM 2032; Miller 1971, Jefferson 1991a, Jefferson 1991b, McLeod 2014; 20-30' below ground surface
American mastodon	†*Mammut americanum* (much of a single individual)	
horse	†*Equus* sp.	
camel	†*Camelops* sp.	
Harlan's ground sloth	†*Paramylodon harlani*	
western pond turtle	*Clemmys marmorata*	
saber-toothed cat	†*Smilodon fatalis* (originally *Smilodon* cf. *S. californicus*)	Workman Storm drain Workman and Alhambra- LACM 1023; Miller 1971, Jefferson 1991a, Jefferson 1991b, McLeod 2014; storm drain
horse	†*Equus* sp.	
deer, possibly mule deer	*Odocoileus* sp.	
turkey	†*Melegris californica* (originally cf. *Paraparvo* sp.)	

Table 2. Fossil localities near the PSA in the Puente Formation

Note: † indicates extinct species

Common name	Taxon	Locality; Reference(s)
bristlemouth	†*Cyclothone* sp.	1st and Hill streets - LACM 5961; McLeod 2014
fish	unidentified fish	Chester St.and Vaquero Ave. - LACM 7007; McLeod 2014
herring	†*Xyne grex*	Valley Blvd. and Highbury Ave. - LACM 1027; McLeod 2014

PALEONTOLOGICAL SENSITIVITY

A multilevel ranking system was developed by professional resource managers as a practical tool for evaluating potential for paleontological resources. This is the Potential Fossil Yield Classification system (PFYC; BLM 2007; Appendix C).

Using the PFYC system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. This ranking is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment. The system has five numbered scores from 1 to 5 but score 3 is subdivided into a and b (Appendix C).

The Quaternary alluvium is assigned a PFYC value of 2 with a low sensitivity for fossil resources due to the young age of the sediments. However, these units do cover older, fossiliferous units. The Puente Formation is assigned PFYC 3a with a moderate potential for fossils. The Quaternary older alluvium is assigned PFYC 4 with a high potential for fossils based on significant finds adjacent to the PSA (Table 3).

Table 3. Paleontological Sensitivity Rankings

PFYC ranking	5: very high	4: high	3a: moderate-patchy	3b: moderate-undemonstrated	2: low	1: very low
Rock Units						
Quaternary alluvium					X	
Quaternary older alluvium		X				
Puente Formation			X			

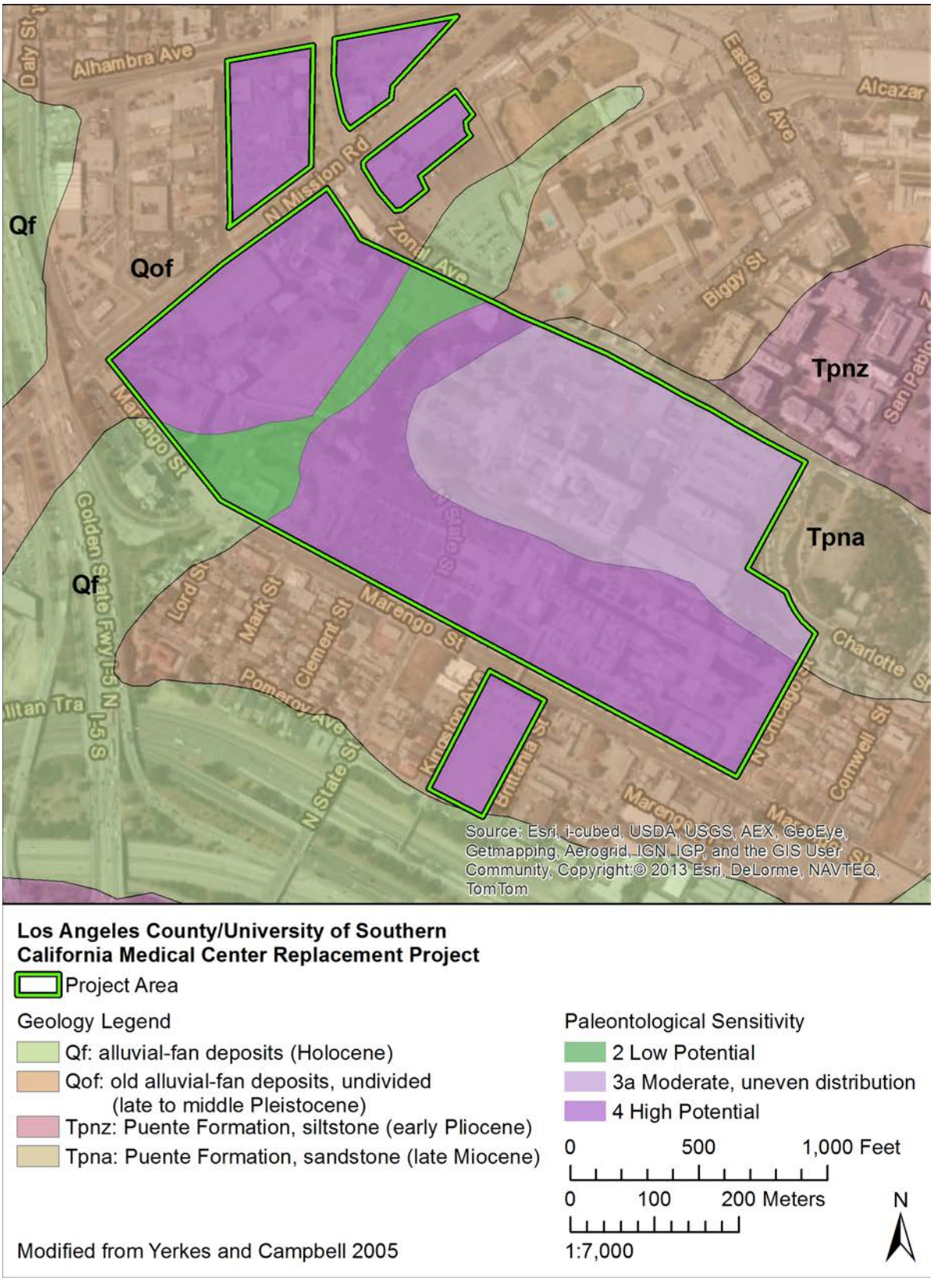

Figure 5. Paleontological sensitivity of the PSA

CONCLUSIONS AND RECOMMENDATIONS

No fossils are known within the project area. However late Pleistocene (50-11 thousand years old) localities that have produced mammoth, mastodon, giant ground sloth, and saber-toothed cat, were previously recovered nearby. In addition, Miocene (22-5 million years old) localities that have produced extinct herring and other fishes are also known nearby.

It is likely that paleontological resources may be encountered during construction activities should excavation extend more than six feet below original ground surface in Quaternary sediments and during any excavation in the Puente Formation. Excavation work described above shall require full-time monitoring under the supervision of a qualified paleontologist with a graduate degree, more than ten years of experience, and a specialty in vertebrate paleontology. A Paleontological Mitigation Plan is recommended to provide procedures to ensure that any adverse effects on paleontological resources are mitigated.

REFERENCES CITED

BLM
2007 Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands. Online at http://www.blm.gov/wo/st/en/info/regulations/Instruction

Caltrans
2012 Paleontology. Standard Environmental Reference, Vol. 1, Chapter 8. http://www.dot.ca.gov/ser/vol1/sec3/physical/Ch08Paleo/chap08paleo.htm

CoLA
2006 CEQA Thresholds Guide. Section D: Cultural Resources. Online at http://environmentla.org/programs/Thresholds/D-Cultural%20Resources.pdf

Dibblee, T. W. Jr.
1989 Geologic map of the Los Angeles Quadrangle, Los Angeles County, California. Dibblee Foundation map DF-22, scale 1:24,000.

Hay, O. P.
1927 Pleistocene of the Western Region of North America and its vertebrated animals. Carnegie Institution of Washington Publication, 322B: 1-345.

Jefferson, G. T.
1991a A Catalogue of late Quaternary Vertebrates from California: Part one, nonmarine lower vertebrate and avian taxa. *Natural History Museum of Los Angeles, Technical Report* #5.
1991b A Catalogue of late Quaternary Vertebrates from California: Part two, Mammals.

Natural History Museum of Los Angeles, Technical Report #7.

McLeod, S. A.
2014 Vertebrate Paleontology Records Check for paleontological resources for the proposed Los Angeles County/ University of Southern California Medical Center Replacement Project, Cogstone Project # 2787, in the City of Los Angeles, Los Angeles County, California. Appendix B this document and on file with Cogstone, Orange CA..

Miller, W. E.
1971 Pleistocene vertebrates of the Los Angeles Basin and vicinity (exclusive of Rancho la Brea). Bulletin of the Los Angeles County Museum of Natural History #10: 124 p.

Natural History Museum of Los Angeles County, Department of Invertebrate Paleontology
2014 Online records search, June 2014.

Paleobiology Database
2014 Online records search, June 2014.

Scott, E. and K. Springer
2003 CEQA and fossil preservation in southern California. *The Environmental Monitor*, Winter: 4-10, 17.

Scott, E., K. Springer, and J. C. Sagebiel
2004 Vertebrate paleontology in the Mojave Desert: the continuing importance of 'follow through' in preserving paleontologic resources, p. 65-70, in M. W. Allen and J. Reed (eds.), *The human journey and ancient life in California's Deserts: Proceedings from the 2001 Millennium Conference*. Maturango Museum Publication No. 15, Ridgecrest, California, USA.

UCMP 2014
Online records search, June 2014.

Yerkes, R. F. and R. H. Campbell
2005 Preliminary geologic map of the Los Angeles 30' x 60' quadrangle, southern California. USGS Open File report 2005-1019, scale 1:100,000. http://pubs.usgs.gov/of/2005/1019/

APPENDIX A. QUALIFICATIONS

SHERRI GUST

Project Manager & Principal Paleontologist

EDUCATION

1994 M. S., Anatomy (Evolutionary Morphology), University of Southern California, Los Angeles
1979 B. S., Anthropology (Physical), University of California, Davis

SUMMARY QUALIFICATIONS

Gust has more than 34 years of experience in California, acknowledged credentials for meeting national standards, and is a certified/qualified principal archaeologist and paleontologist in all California cities and counties that maintain lists. Gust is an Associate of the Natural History Museum of Los Angeles County in the Vertebrate Paleontology and Rancho La Brea Sections. She is a Member of the Society of Vertebrate Paleontology, Society for Archaeological Sciences, Society for Historical Archaeology, the Society for California Archaeology and others.

SELECTED PROJECTS

Eldorado-Ivanpah Transmission Line, Southern California Edison, Eldorado, NV to Ivanpah, CA. Conducted updated assessment and prepared Paleontological Resources Management Plan (PRMP) for 71 miles of SCE electrical lines and associated telecommunications across both BLM and private lands. Subsequently provided paleontological monitoring services and a cultural/paleo field coordinator for the duration of construction. Prepared monitoring compliance report. Project Manager and Principal Paleontologist. 2010-2013

Westside Subway Project, Metro/FTA, Los Angeles. Prepared Paleontological Resources section of FEIS/EIR, Paleontological Resources Management Plan and Cultural/Paleontological Resources Awareness training for 9 mile subway project. Project Manager and Principal Paleontologist. 2011-2013

Exposition Light Rail Phase 2, **Exposition Transit Authority, Culver City to Santa Monic**a. Prepared Paleontological Assessment in support of EIR. Subsequently prepared Cultural and Paleontological Resources Management Plans, Santa Monica Air Line Railroad Data Recovery Plan and Paleontological Resources Management Plan for 7 linear miles of new rail facilities including stations. Supervised monitoring and data recovery programs. Principal Archaeologist and Paleontologist and Project Manager. 2012-present

Westside Subway Exploratory Shaft Project, Metro/FTA, Los Angeles. Prepared Paleontological Mitigation Plan for deep exploration prior to excavation of new subway station near the La Brea tar pits. Project Manager and Principal Paleontologist. 2012-present.

Northside Plan Update, **Los Angeles World Airports, Los Angeles**. Prepared Paleontological Assessment in support of EIR. Principal Paleontologist. 2012.

Scattergood Olympic Line, LADWP, Los Angeles County. Prepared Archaeological and Paleontological Assessment in support of EIR for new 11 mile underground electrical transmission line. Principal Archaeologist and Paleontologist and Project Manager. 2009.

Fountain at La Brea Development, West Hollywood. Prepared Archaeological and Paleontological Assessment in support of EIR for construction of mixed-use residential and commercial developments. Principal Archaeologist and Paleontologist and Project Manager. 2009

First Street Trunk Line, LADWP, Los Angeles. Prepared Paleontological Assessment in support of EIR for 2.8 miles of new water line. Subsequently, directed monitoring during construction and provided monitoring compliance report. Project Manager and Principal Investigator. 2006

Eastside Gold Line Extension, Metro/FTA, Los Angeles. Prepared Paleontological and Cultural Resources Management Plan for six mile extension into East Los Angeles and Alhambra. Subsequently provided monitoring oand prepared monitoring compliance report. Principal Archaeologist and Paleontologist and Project Manager. 2006.

KIM SCOTT

Field & Lab Director for Paleontology

EDUCATION

2013 M.S., Biology with a paleontology emphasis, California State University, San Bernardino
2000 B.S., Geology with paleontology emphasis, University of California, Los Angeles

SUMMARY QUALIFICATIONS

Scott has more than 18 years of experience in California paleontology. She is a qualified geologist and field paleontologist with extensive survey, monitoring and fossil salvage experience. In addition, she has special skills in fossil preparation (cleaning and stabilization) and preparation of stratigraphic sections and other documentation for fossil localities. Scott serves as company safety officer and is the author of the company safety and paleontology manuals.

SELECTED PROJECTS

Los Angeles Metropolitan Transportation Authority, Purple Line Extension (Westside Subway), Exploratory Test Shaft, Los Angeles, CA. Supervised paleontological field monitoring of exploratory test shaft activities in the La Brea Deposit area using ground penetrating radar. She recovered and processed over 500 fossils. Cogstone prepared a Paleontological Mitigation Plan (PMP) to provide guidelines for paleontological monitoring, fossil recovery and subsequent studies to offset adverse impacts to significant paleontological resources. Cogstone also prepared the Memorandum of Understanding (MOU) with Page Museum. The Federal Transit Administration (FTA) is the lead agency for the project. Sub to Parsons Brinckerhoff. Field and Laboratory Director. 2012-2014

SR 99 Arboleda Drive Freeway Project, Caltrans District 10, Merced County, CA. Conducted paleontological resources monitoring, fossil recovery, and fossil preparation for a 5-mile segment. Prepared GIS report maps. Some 128 localities and 1,667 fossils recovered in five months of excavation for detention basins. Paleontology & GIS Technician. 2012

SR 41 Widening, Caltrans District 6, near Kettleman City. Directed monitoring for widening and rehabilitating of an 8.5 mile segment of Highway 41 near Kettleman City. Supervised preparation of about 800 vertebrate, invertebrate and plant fossils recovered, prepared stratigraphic columns and contributed to report. Field / Lab Director and Report Co-author. 2012

Geospatial Paleontology Database, Caltrans District 6, 9, and 10. Conducted paleontological research for 15 counties in central and eastern California for paleontological screening tool. Paleontology Researcher. 2011-2012

Devers-Mirage 115 KV System Split Project, Southern California Edison, Riverside County. Performed preconstruction paleontological survey, directed paleontological monitoring during construction activities and co-authored monitoring compliance report associated with electrical systems upgrade in of Cathedral City, Indian Wells, Palm Desert, Palm Springs, Rancho Mirage, Thousand Palms and unincorporated Riverside County. Field and Lab Director and Report Co-author. 2011

Eldorado-Ivanpah Transmission Line, Southern California Edison, Eldorado, NV to Ivanpah, CA. Conducted paleontological survey and prepared assessment report for 71 miles of SCE electrical lines and associated telecommunications across both BLM and private lands. Field and Lab Director. 2010

Tehachapi Renewable Transmission Project, Segments 1-3. Paleontological resources management plans, paleontological monitoring, fossil recovery, lab work, multiple supplemental survey and variance reports for construction of new electrical transmission facilities in Los Angeles and Kern Counties. Paleontology Field and Lab Director. 2007-9

ANDRE-JUSTIN C. SIMMONS
GIS Specialist, Archaeologist and Cross-trained Paleontologist

EDUCATION

2010 B.A., Anthropology and History, California State University, Fullerton, graduated *cum laude*

SUMMARY QUALIFICATIONS

Mr. Simmons is a qualified archaeologist and cross-trained paleontologist with field experience in survey, monitoring, faunal analysis, and excavation. Simmons also has expertise in laboratory preparation and analysis gathered from internships at CSUF and volunteer experience at the Page Museum at the La Brea Tar Pits. His key research interests include architecture and use of space among Paleoindians, the American Southwest, early historic and prehistoric California, and historical Mexico. Simmons is currently completing his Master's Degree in Anthropology at California State University, Fullerton. He has more than 24 hours of paleontology training and two years of experience as a paleontological monitor.

SELECTED PROJECTS

Eldorado-Ivanpah Transmission Project, Southern California Edison, Eldorado, NV to Ivanpah, CA. Performed paleontological monitoring for project that involves construction of 195 miles of new transmission lines and associated fiber optic lines across BLM and private lands. Paleontological Monitor. 2012-2013

Paradise Valley Specific Plan, Riverside County, CA. Prepared GIS maps for an assessment encompassing approximately 5,411 acres to determine the potential effects on paleontological, archaeological, and historical resources by the development of a resort community in an unincorporated area of Riverside County near Indio. GIS Technician. 2011

Pioneer High School Project, Whitter, Los Angeles County, CA. Conducted a cultural resources records search, prepared GIS maps, and authored a resources assessment report for a stadium improvement project. GIS & Archaeology Technician. 2013

California High School Project, Whittier, Los Angeles County, CA. Conducted a cultural resources records search, prepared GIS maps, and authored a resources assessment report for a stadium improvement project. GIS & Archaeology Technician. 2013

Trabuco Canyon Project, Orange County. Conducted a paleontological and cultural resources survey, prepared GIS maps, and authored portions of a resources assessment report for a 0.5 acre residential development project. GIS & Field Technician. 2012

Washington Place Project, Culver City, Los Angeles County. Conducted an archaeological survey and prepared GIS report maps as part of a cultural resources technical study for a proposed commercial space development project. GIS & Archaeology Technician. 2012

Desert Restoration Archaeological Survey, Bodie Hills, Bureau of Land Management, Bishop Field Office, Mono County, CA. Performed all GIS work, produced all maps and uploaded the GIS data to the BLM system for an intensive field survey of approximately 3,500 acres of BLM lands in the Bodie Hills region, near Bridgeport. The project involved recordation of over 40 new archaeological sites, updated conditions assessment of 17 previously recorded sites and provided initial NRHP eligibility recommendations to Principal Investigator. GIS Specialist. 2013–2014

Fort Irwin, National Training Center, San Bernardino County, CA. Prepared GIS maps of sites and artifacts recorded during an intensive 14,367 acre archaeological field survey on the Fort Irwin Training Center in the Mojave Desert. Prepared GIS survey coverage maps. Archaeology Field Technician. 2012-2013

APPENDIX B. RECORDS SEARCH

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325
FAX: (213) 746-7431
e-mail: smcleod@nhm.org

16 June 2014

Cogstone Resource Management, Inc.
1518 West Taft Avenue
Orange, CA 92865-4157

Attn: André Simmons

re: Vertebrate Paleontology Records Check for paleontological resources for the proposed Los Angeles County / University of Southern California Medical Center Replacement Project, Cogstone Project # 2787, in the City of Los Angeles, Los Angeles County, project area

Dear André:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Los Angeles County / University of Southern California Medical Center Replacement Project, Cogstone Project # 2787, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Los Angeles USGS topographic quadrangle map that you sent to me via e-mail on 21 May 2014. We do not have any vertebrate fossil localities that occur within the boundaries of the proposed project area, but we have localities nearby from the same sedimentary deposits that occur in the proposed project area.

Most of the proposed project area, the southern two-thirds or so, has surface deposits composed of younger Quaternary Alluvium, both as alluvial fan deposits from the elevated terrain to the northeast and east as well as fluvial overbank deposits from the Los Angeles River that flows just to the west. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but at relatively shallow depth they may be underlain with older sedimentary deposits that do contain significant vertebrate fossils. Our closest vertebrate fossil locality from older Quaternary deposits beneath the younger Quaternary Alluvium is LACM 1023, immediately west of the northern-most part of the proposed project area near the intersection of Workman Street and Alhambra Avenue, where excavations for a storm drain recovered fossil specimens of turkey, *Meleagris californicus,* sabre-toothed cat, *Smilodon fatalis*, horse, *Equus*, and deer, *Odocoileus*, at unstated depth. A specimen of the turkey, *Meleagris*, from this locality was published in the

scientific literatus by D. W. Steadman (1980. A Review of the Osteology and Paleontology of Turkeys (Aves: Meleagridinae). Contributions in Science, Natural History Museum of Los Angeles County, 330:131-207).

In the northeastern one-third or so of the proposed project area, and in the surrounding elevated terrain, there are exposures of the marine late Miocene Puente Formation [that may also be referred to as the Modelo Formation or an unnamed shale in this area], and these deposits may occur at unknown depth throughout the other portions of the proposed project area. Our closest vertebrate fossil locality from the Puente Formation is LACM 5961, situated just south of due west of the southern-most portion of the proposed project area in downtown Los Angeles at the intersection of 1st Street and Hill Street. Locality LACM 5961 yielded a deep sea fish specimen of bristlemouth, *Cyclothone*. Our next closest vertebrate fossil locality from the Puente Formation is LACM 7007, east-northeast of the proposed project area west of Alhambra Avenue west of the intersection of Chester Street and Vaquero Avenue, that produced a specimen of undetermined fossil fish, Osteichthyes. A little farther east and just south, near the intersection of Valley Boulevard and Highbury Avenue, our Puente Formation locality LACM 1027 produced fossil fish specimens of the extinct herring *Xyne grex*.

Shallow excavations in the younger Quaternary Alluvium exposed in the southwestern portion of the proposed project area are unlikely to uncover any significant vertebrate fossils. Deeper excavations in that area that extend down into the older sedimentary deposits, or any excavations in the Puente Formation exposed in the northeastern portion of the proposed project area, however, may well encounter significant vertebrate fossil remains. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

APPENDIX C. SENSITIVITY RANKING CRITERIA

PFYC Description	**PFYC Rank**
Very Low. The occurrence of significant fossils is non-existent or extremely rare. Includes igneous or metamorphic and Precambrian or older rocks. Assessment or mitigation of paleontological resources is usually unnecessary.	1
Low. Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils. Includes rock units too young to produce fossils, sediments with significant physical and chemical changes (e.g., diagenetic alteration) and having few to no fossils known. Assessment or mitigation of paleontological resources is not likely to be necessary.	2
Potentially Moderate but Undemonstrated Potential. Units exhibit geologic features and preservational conditions that suggest fossils could be present, but no vertebrate fossils or only common types of plant and invertebrate fossils are known. Surface-disturbing activities may require field assessment to determine appropriate course of action.	3b
Moderate Potential. Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered and of low abundance. Common invertebrate or plant fossils may be found. Surface-disturbing activities may require field assessment to determine appropriate course of action.	3a
High. Geologic units containing a high occurrence of significant fossils. Fossils must be abundant per locality. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. If impacts to significant fossils can be anticipated, on-the-ground surveys prior to authorizing the surface disturbing action will usually be necessary. On-site monitoring or spot-checking may be necessary during construction activities.	4
Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area. On-the-ground surveys prior to authorizing any surface disturbing activities will usually be necessary. On-site monitoring may be necessary during construction activities.	5

Appendix D
Preliminary Geotechnical Evaluation

PRELIMINARY GEOTECHNICAL EVALUATION
LAC+USC MEDICAL CENTER MASTER PLAN
1200 NORTH STATE STREET
LOS ANGELES, CALIFORNIA

DRAFT

PREPARED FOR:
ICF International
601 W. Fifth Street, Suite 900
Los Angeles, California 90071

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

June 13, 2014
Project No. 209126002

June 13, 2014
Project No. 209126002

Mr. Lee Lisecki
ICF International
601 W. Fifth Street, Suite 900
Los Angeles, California 90071

Subject: Preliminary Geotechnical Evaluation
LAC+USC Medical Center Master Plan
1200 North State Street
Los Angeles, California

DRAFT

Dear Mr. Lisecki:

In accordance with your request and authorization, Ninyo & Moore has performed a preliminary geotechnical evaluation for the LAC+USC Medical Center Master Plan project located at 1200 North State Street in Los Angeles, California. Our evaluation was conducted in general accordance with the scope of services presented in our proposal dated July 23, 2013. This report presents our findings and conclusions regarding the subject site. We understand that the results of this evaluation will be utilized in the preparation of an Environmental Impact Report for the project.

We appreciate the opportunity to provide geotechnical consulting services for this project.

Sincerely,
NINYO & MOORE

Michael Rogers, PG, CEG
Senior Geologist

Jalal Vakili, PhD, PE
Principal Engineer

ZH/MER/CAP/JV/sc

Distribution: (1) Addressee (via e-mail)

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DRAFT

1. INTRODUCTION

In accordance with your request and authorization, we have performed a preliminary geotechnical evaluation for the LAC+USC Medical Center Master Plan project (project) located at 1200 North State Street in Los Angeles, California (Figure 1). We have performed a geotechnical evaluation of the site geologic conditions and the impacts associated with potential geologic and seismic hazards for inclusion in the Environmental Impact Report (EIR) for the project.

DRAFT

The purpose of our preliminary geotechnical evaluation was to assess the geologic conditions at the site and develop preliminary conclusions regarding potential geologic and seismic impacts associated with the project in accordance with the California Environmental Quality Act (CEQA). Where appropriate, recommendations to mitigate potential geologic hazards, as noted in this report, have been provided. Our geotechnical evaluation was based on review of readily available geologic and seismic data and published geotechnical literature pertinent to the project site, and site reconnaissance.

Ninyo & Moore conducted previous geotechnical evaluations at the site associated with repairs to the medical center following the 1994 Northridge earthquake (Ninyo & Moore, 1995).

2. SCOPE OF SERVICES

Ninyo & Moore's scope of services has included review of geotechnical background materials, geologic reconnaissance of the project area, and geotechnical analysis. Specifically, we have performed the following tasks:

- Review of readily available topographic and geologic maps, published geotechnical literature, geologic and seismic data, soil data, groundwater data, aerial photographs, and in-house information related to our previous work at the site.
- Review of geotechnical aspects of project plans and documents pertaining to the site.
- Geotechnical site reconnaissance by a representative from Ninyo & Moore conducted on June 3, 2014, to observe and document the existing surface conditions at the project site.
- Compilation and analysis of existing geotechnical data pertaining to the site.

- Assessment of the general geologic conditions and seismic hazards affecting the area and evaluation of their potential impacts on the project.

- Preparation of this report presenting the results of our study, as well as our conclusions regarding the projects' geologic and seismic impacts, and recommendations to address the impacts to be included in the EIR.

3. PROJECT DESCRIPTION

Based on our understanding, the proposed project involves the development of a new long-term master plan to guide future medical campus development and delivery of health care services and health-related community programs. Future development under the master plan would include demolition of existing buildings, and renovation or construction of new medical, office and retail structures, open space areas, and parking areas (ICF International, 2014).

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4. SITE DESCRIPTION

The project site is located north of Interstate 10 and east of Interstate 5 in the Lincoln Heights community of Los Angeles (Figure 1). Topography of the site slopes gently to moderately down toward the west and south, varying from an approximate elevation of 420 feet above mean sea level (MSL) near the east part of the project area to an approximate elevation of 320 feet above MSL in the west part of the project area.

The campus is approximately 75 acres and is bounded by Zonal Avenue to the north, Chicago Street to the east, Marengo Street to the south and North Mission Road to the west (Figure 2). The project site is improved with an inpatient hospital, outpatient clinics, research/development and education facilities, and community/public service areas. The site is also improved with paved roads and parking areas, landscaped areas, retaining walls and developed pedestrian open space.

5. GEOLOGY

5.1. Regional Geology

The project site is located within the Peninsular Ranges Geomorphic Province of southern California. This geomorphic province encompasses an area that extends approximately 125 miles from the Transverse Ranges and the Los Angeles Basin south to the Mexican border, and beyond another approximately 775 miles to the tip of Baja California. The Peninsular Ranges province varies in width from approximately 30 to 100 miles and is characterized by northwest-trending mountain range blocks separated by similarly trending northwest-trending faults (Norris and Webb, 1990).

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The project is situated in the Los Angeles Basin, a region divided into four structural blocks that include uplifted zones and synclinal depressions. The structural blocks are generally bounded by fault systems. The project site is situated in the Central block, which is largely a synclinal depression bounded on the southwest by the Newport-Inglewood fault zone, on the northwest by the Santa Monica-Hollywood-Raymond Hill fault system, and on the northeast by the Whittier and Elysian Park fault system (Norris and Webb, 1990). Active northwest-trending fault zones in the Peninsular Ranges province include the San Jacinto fault zone, Elsinore fault zone (Whittier fault), and Newport-Inglewood fault zone. The predominant tectonic activity associated with these and other faults within this regional tectonic framework is right-lateral, strike-slip movement (Norris and Webb, 1990).

The predominant rock type that underlies the Peninsular Ranges province is a Cretaceous-age igneous rock (granitic rock) referred to as the Southern California batholith. Older Jurassic-age metavolcanic and metasedimentary rocks and older Paleozoic limestone, altered schist, and gneiss are present within the province. Cretaceous-age marine sedimentary rocks and younger Tertiary-age rocks comprised of volcanic, marine, and non-marine sediments overlie the older rocks (Norris and Webb, 1990). More recent Quaternary sediments, primarily of alluvial origin, comprise the low-lying valley and drainage areas within the region, including the area where the LAC+USC Medical Center Campus project site is located.

5.2. Site Geology

The project site is located on the north edge of the Los Angeles coastal plain at the base of hilly terrain that ascends to the north of the site. The medical center is situated approximately 1 mile east of the Los Angeles River on a gently sloping alluvial fan at the base of the nearby hills. Regional geologic maps indicate that the elevated northeastern portion of the site is underlain by Tertiary-age Puente Formation (Yerkes and Campbell, 2005) generally comprised of sandstone. The lower western and southern portions of the site are mapped as being underlain by young (Holocene) and older (late- to middle-Pleistocene) alluvial deposits generally comprised of silt, sand, and gravel. A regional geologic map of the site vicinity is shown on Figure 3.

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Previous geotechnical evaluations performed at the site by Ninyo & Moore in 1995 encountered artificial fill soils in portions of the campus related to the original development of the medical center (Ninyo & Moore, 1995). The soils encountered in our previous explorations were generally comprised of silty clay and silty to clayey sand. Puente Formation generally comprised of interbedded sandstone and shale was observed in open space areas in the northeast corner of the site during our 2014 geologic reconnaissance.

The project site is not located in a City of Los Angeles Methane Zone or Methane Buffer Zone (Moore, 2002).

5.3. Groundwater

The site is located within the Central basin of the Los Angeles Coastal Groundwater Basin. Historic groundwater monitoring well data from the State of California Water Resources Control Board's GeoTracker website (State of California, 2014) were reviewed for wells located on adjacent properties that border the west, south, and east sides of the site. Based on the groundwater measurements in these wells from 2005 to 2013, groundwater levels at these locations have ranged from approximately 13 to 44 feet below the ground surface. Previous subsurface evaluation at the project site by Ninyo & Moore in 1995 encountered groundwater in borings ranging between approximately 21 and 58 feet below the ground surface (1995). The historic high groundwater in the site vicinity is approximately 20 feet

deep (California Department of Conservation, Division of Mines and Geology [CDMG], 1998).

Groundwater levels may be influenced by seasonal variations, precipitation, irrigation, soil/rock types, groundwater pumping, and other factors and are subject to fluctuations. Shallow perched conditions may be present.

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6. FAULTING AND SEISMICITY

6.1. Regional Seismicity

The project area is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion at the site is considered significant. Figure 4 shows the approximate site location relative to the principal faults in the region. Blind thrust faults are low-angle faults at depths that do not break the surface and are, therefore, not shown on Figure 4. Although blind thrust faults do not have a surface trace, they can be capable of generating damaging earthquakes. The active Upper Elysian Park blind thrust fault is located approximately 0.4 mile north of the approximate center of the site, the active Raymond fault is located approximately 4.2 miles north of the approximate center of the site, and the active Hollywood fault is located approximately 4.3 miles northwest of the approximate center of the site. The site is not located within a State of California Earthquake Fault Zone (State of California, 1977).

Table 1 lists selected principal known active faults within approximately 50 miles of the project area and the maximum moment magnitude (M_{max}) as published by the California Geological Survey (CGS) (Cao, et al., 2003). The fault distances in Table 1 are measured from the approximate center of the project area.

Table 1 – Principal Regional Active Faults

Fault	Approximate Fault-to-Site Distance [1] miles (kilometers)	Maximum Moment Magnitude [2] (M_{max})
Upper Elysian Park Blind Thrust	0.4 (0.7)	6.4
Raymond	4.2 (6.8)	6.5
Hollywood	4.3 (6.9)	6.4
Puente Hills Blind Thrust	5.6 (8.9)	7.1
Verdugo	5.9 (9.5)	6.9
Newport-Inglewood (Los Angeles Basin)	9.6 (15.4)	7.1
Whittier	10.3 (16.5)	6.8
Sierra Madre	10.4 (16.7)	7.2
Santa Monica	11.6 (18.7)	6.6
Clamshell-Sawpit Canyon	14.6 (23.4)	6.5
Malibu Coast	18.2 (29.4)	6.7
San Gabriel	18.3 (29.4)	7.2
Palos Verdes	18.9 (30.1)	7.3
San Jose	19.0 (30.6)	6.4
Northridge (East Oak Ridge)	19.8 (31.8)	7.0
Anacapa-Dume	19.9 (31.9)	7.5
Santa Susana	24.5 (39.5)	6.7
Chino-Central Ave. (Elsinore)	26.7 (42.9)	6.7
Cucamonga	27.9 (44.9)	6.9
San Joaquin Hills	29.7 (47.8)	6.6

Notes:
[1] USGS, 2008
[2] Cao, et al., 2003

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7. METHODOLOGY FOR GEOLOGIC IMPACT AND HAZARD ANALYSES

As outlined by the CEQA, the proposed project has been evaluated with respect to potential geologic and seismic impacts associated with the project. Evaluation of impacts due to potential geologic and seismic hazards is based on our review of readily available published geotechnical literature and geologic and seismic data pertinent to the proposed project, and site reconnaissance. The references and data reviewed include, but are not limited to, the following:

- Geologic maps and fault maps from the CGS and United States Geological Survey (USGS).
- Topographic maps from the USGS.
- State of California Earthquake Fault Zone Maps.

- State of California Seismic Hazards Zones Reports and Maps.
- Previous geotechnical evaluation performed by Ninyo & Moore.
- Aerial photographs.
- Seismic data from the CGS and USGS.
- Geotechnical publications by the CGS and USGS.
- Safety Element of the Los Angeles City General Plan.

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8. THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA guidelines (California Environmental Resources Evaluation System [CERES], 2005a, 2005b), a project is considered to have a geologic impact if its implementation would result in or expose people/structures to potential substantial adverse effects, including the risk of loss, injury, or death involving hazards involving one or more of the geologic conditions presented in Table 2. Table 2 also presents the impact potential as defined by CEQA associated with each of the geologic conditions discussed in the following sections.

Table 2 – Summary of Potential Geologic Impacts/Hazards

Geologic Condition	Impact Potential[1]			
	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Earthquake Fault Rupture			x	
Strong Seismic Ground Shaking		x		
Seismically Related Ground Failure, Including Liquefaction		x		
Landslides			x	
Substantial Soil Erosion			x	
Subsidence				x
Compressible/Collapsible Soils		x		
Expansive Soils		x		
Corrosive Soils		x		
Shallow Groundwater		x		

Note:
[1]Reference: CERES, 2005, Appendix G – Environmental Checklist Form, Final Text, dated October 26. Website: http://ceres.ca.gov/topic/envlaw/ceqa/guidelines/appendices.html

9. CONCLUSIONS AND RECOMMENDATIONS FOR POTENTIAL GEOLOGIC AND SEISMIC IMPACTS/HAZARDS

Based on our review of geologic and seismic background information, and geotechnical site reconnaissance, implementation of the proposed project is not anticipated to have a significant impact on the geologic environment. However, future development within the project area may be subjected to potential impacts from geologic and seismic hazards. Potential impacts on the proposed project based on our evaluation are provided in the following sections.

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The potential geologic and seismic hazards described below may be addressed by employing sound engineering practice in the design and construction of future development in the project area. This practice includes the implementation of appropriate geotechnical recommendations prior to the design and construction of the facilities in the project area. Typical methods to reduce potential hazards that may be encountered during the construction of future improvements are described in the following sections. Where appropriate, recommendations to mitigate potential geologic hazards are provided. Prior to design of future improvements, detailed subsurface geotechnical evaluation should be performed to address the site-specific conditions at the locations of the planned improvements and to provide detailed recommendations for design and construction.

9.1. Surface Fault Rupture

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. Based on our review of referenced geologic and fault hazard data and site reconnaissance, the project site is not transected by known active or potentially active faults. The active Upper Elysian Park blind thrust fault is located approximately 0.4 mile north of the approximate center of the site, the active Raymond fault is located approximately 4.2 miles north of the approximate center of the site, and the active Hollywood fault is located approximately 4.3 miles northwest of the approximate center of the site. Therefore, the potential for surface rupture is relatively low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

9.2. Seismic Ground Shaking

Earthquake events from one of the regional active or potentially active faults near the project area could result in strong ground shaking which could affect the project area. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking.

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In order to evaluate the level of ground shaking that might be anticipated in the project area, site-specific analysis was performed. The 2013 California Building Code recommends that the design of structures be based on spectral response accelerations in the direction of maximum horizontal response (5 percent damped) having a 1 percent probability of collapse in 50 years. Such spectral response accelerations represent the Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion. The horizontal peak ground acceleration (PGA) that corresponds to the MCE_R for the site was calculated as 1.02g using the USGS (USGS, 2014) seismic design tool (web-based). The mapped and design PGA were estimated to be 0.97g and 0.68g, respectively, using the USGS (2014) calculator and the American Society of Civil Engineers 7-10 Standard. These estimates of ground motion do not include near-source factors that may be applicable to the design of structures on site.

These potential levels of ground shaking could have high impacts on future improvements in the project area without appropriate design mitigation, and should be considered during the detailed design phase of the project. Mitigation of the potential impacts of seismic ground shaking can be achieved through project structural design. Structural elements of future improvements can be designed to resist or accommodate appropriate site-specific ground motions and to conform to the current seismic design standards. Appropriate structural design and mitigation techniques would reduce the impacts related to seismic ground shaking to low levels.

9.3. Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to rapid rise in pore water pressure causing the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet bgs. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking. The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of slabs due to sand boiling, buckling of deep foundations due to liquefaction-induced ground settlement.

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According to Seismic Hazard Zones Maps published by the State of California (CDMG, 1999), a portion of the project area in the western part of the site is located within an area considered susceptible to liquefaction (Figure 5). Other areas of the site not indicated on the State map could also be subject to liquefaction. This would be evaluated with site-specific subsurface evaluation. Based on the geologic mapping of Puente Formation sandstone under the elevated northeast part of the site, that portion of the site would not be subject to liquefaction. Liquefaction and its associated manifestations could cause damage to future project improvements if not mitigated during detailed project design, and could have a potentially high impact on the project. The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of pavement due to sand boiling, buckling of deep foundations due to liquefaction-induced ground settlement.

Assessment of the liquefaction potential would be evaluated prior to detailed design and construction of project improvements and incorporated into the design, as appropriate. Structural design and mitigation techniques would be developed to reduce the impacts

related to liquefaction to low levels. Therefore, the potential impacts due to liquefaction are considered to be minimal with incorporation of techniques such as structural design, in-situ ground modification, or supporting foundations with piles at depths designed specifically for liquefaction.

To evaluate the potential liquefaction hazard for the proposed project, subsurface evaluation could be performed. Site-specific geotechnical evaluations to assess the liquefaction and dynamic settlement characteristics of the on-site soils would include drilling of exploratory borings, evaluation of groundwater depths, and laboratory testing of soils.

DRAFT

Methods for construction in areas with potential liquefaction hazard may include in-situ ground modification, removal of liquefiable layers and replacement with compacted fill, or support of project improvements with piles at depths designed specifically for liquefaction. Pile foundations can be designed for liquefaction hazard by supporting the piles in dense soil or bedrock below the liquefiable zone or other appropriate methods as evaluated during the site-specific evaluation. Additional recommendations for mitigation of liquefaction may include densification by installation of stone columns, vibration, deep dynamic compaction, and/or compaction grouting.

9.4. Landslides

Landslides, slope failures, and mudflows of earth materials generally occur where slopes are steep and/or the earth materials are too weak to support themselves. Earthquake-induced landslides may also occur due to seismic ground shaking. Landslides are not shown at the site on the geologic maps reviewed. The project site has been extensively developed and is primarily covered with pavements, hardscape and structures. The site includes some graded slopes associated with landscaping and pedestrian areas. The northeast corner of the site contains a slope that ascends approximately 60 feet toward the edge of the property. This slope is landscaped and is lined with a series of concrete drainage swales to route water runoff away from the slope face.

Accordingly, the potential for future landslides or mudflows to affect developments within the project areas is relatively low, and significant impacts related to landslides or mudflows within the project area are not anticipated. Slopes created for future developments within the project area should also be designed to reduce the potential for landslides or mudflows.

9.5. Soil Erosion

Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur in the project area where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses.

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Based on our review of geologic references, previous site exploration and site reconnaissance, the materials exposed at the surface of the project site include silty clay and silty to clayey sand soils, and interbedded sandstone and shale rock formation. Sandy soils typically have low cohesion, and have a relatively higher potential for erosion from surface runoff when exposed in cut slopes or utilized near the face of fill embankments. Surface soils with higher amounts of clay tend to be less erodible as the clay acts as a binder to hold the soil particles together.

Future construction at the project site would result in ground surface disruption during excavation, grading, and trenching that would create the potential for erosion to occur. However, a Storm Water Pollution Prevention Program (SWPPP) incorporating Best Management Practices (BMPs) for erosion control would be prepared prior to the start of construction in accordance with governing agencies. In addition, the topographic gradients at the project site are relatively gentle. During long-term operation of future developments at the project site, surface drainage provisions, as appropriate, would reduce the potential for soil erosion at the site. Therefore, potential soil erosion would be reduced with incorporation of appropriate BMPs.

With the implementation of BMPs incorporated in the project SWPPP during future construction, water- and wind-related soil erosion can be limited and managed within construction site boundaries. Examples of these procedures could include surface drainage measures for erosion due to water, such as the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices. Positive surface drainage should be accommodated at project construction sites to allow surface runoff to flow away from site improvements or areas susceptible to erosion. To reduce wind-related erosion, wetting of soil surfaces and/or covering exposed ground areas and soil stockpiles could be considered during construction operations, as appropriate. The use of soil tackifiers may be considered to reduce the potential for water- and wind-related soil erosion.

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During long-term operation of future developments in the project area, soil erosion can be mitigated through site drainage design and maintenance practices. Design procedures can be performed to reduce soil erosion such as appropriate surface drainage design of roadways and facilities to provide for positive surface runoff. Design would address reducing concentrated run-off conditions that could cause erosion and affect the stability of project improvements.

9.6. Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas, and can generally occur where deep soil deposits are present. Subsidence in areas of deep soil deposits is typically associated with regional groundwater withdrawal or other fluid withdrawal from the ground such as oil and natural gas. Subsidence can result in the development of ground cracks and damage to subsurface vaults, pipelines and other improvements.

The City of Los Angeles and County of Los Angeles references do not indicate mapped areas of subsidence. The Safety Element of the Los Angeles City General Plan (1996) includes information regarding the City's program to preclude potential subsidence within the City. Subsurface extraction activities within the City of Los Angeles are regulated by the Oil Drilling District procedures, which contain provisions for monitoring and imposing

measures to preclude subsidence related to oil and gas extraction. Therefore, the potential for subsidence in the Project area is relatively low.

9.7. Compressible/Collapsible Soils

Compressible soils are generally comprised of soils that undergo consolidation when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon where the soils undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. Buildings, structures and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present.

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Based on our background review, the project area is underlain by fill soils, alluvial sediments, and sedimentary rock formations. The alluvial deposits underlying the site are generally unconsolidated, based on the young nature of the deposits, reflecting a depositional history without substantial loading, and may be subject to collapse. Older, undocumented fill soils are considered potentially compressible/collapsible. Due to the presence of potentially compressible/collapsible soils at the site, there is a potential for differential settlement to cause damage to project improvements. The potential impacts of settlement are significant without appropriate mitigation during detailed project design and construction.

Since future development within the project area will involve construction of new improvements that would be loaded upon the existing soils, potential settlement and/or collapsible soils will be a consideration in the detailed design and construction of project improvements. Assessment of the potential for soils prone to settlement would be evaluated prior to detailed design and construction of project improvements and mitigation techniques would be developed, as appropriate, to reduce the impacts related to settlement to low levels.

To evaluate the potential for settlement to affect future project components, surface reconnaissance and subsurface evaluation would be performed. During the detailed design phase of the project, site-specific geotechnical evaluations would be performed to assess the

settlement potential of the on-site natural soils and undocumented fill. This may include detailed surface reconnaissance to evaluate site conditions, and drilling of exploratory borings or test pits and laboratory testing of soils, where appropriate, to evaluate site conditions.

Examples of possible mitigation measures for soils with the potential for settlement include removal of the compressible/collapsible soil layers and replacement with compacted fill; surcharging to induce settlement prior to construction of improvements; allowing for a settlement period after or during construction of new fills; and specialized foundation design, including the use of deep foundation systems to support structures. Varieties of in-situ soil improvement techniques are also available, such as dynamic compaction (heavy tamping) or compaction grouting.

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9.8. Expansive Soils

Expansive soils include clay minerals that are characterized by their ability to undergo significant volume change (shrink or swell) due to variations in moisture content. Sandy soils are generally not expansive. Changes in soil moisture content can result from rainfall, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors.

Volumetric change of expansive soil may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs-on-grade, or pavements supported on these materials. Based on our background review and site reconnaissance, the near-surface soils in the project site are predominantly comprised of sandy, coarse-grained materials. These soils typically have a low expansion potential. However, clayey soils may be present in areas not observed. Constructing project improvements on soils known to be potentially expansive could have a significant impact on future improvements.

Detailed assessment of the potential for expansive soils would be evaluated during the design phase of the project and mitigation techniques would be developed, as appropriate, to reduce the impacts related to expansive soils to low levels. Therefore, the potential impacts

due to expansive soils would be reduced to low levels with incorporation of techniques such as overexcavation and replacement with non-expansive soil, soil treatment, moisture management, and/or specific structural design for expansive soil conditions developed during design of the project.

9.9. Corrosive Soils

The project site is located in a geologic environment that could potentially contain soil conditions that are corrosive to concrete and metals. Corrosive soil conditions may exacerbate the corrosion hazard to buried conduits, foundations, and other buried concrete or metal improvements. Corrosive soil could cause premature deterioration of these underground structures or foundations. Constructing future project improvements on corrosive soils could have a substantial impact to the project. Assessment of the potential for corrosive soils would be evaluated during the detailed design phase of the project through soil testing procedures, and mitigation techniques would be developed, as appropriate, to reduce the impacts related to corrosive soils to low levels.

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To evaluate the potential for corrosive soils to affect future project improvements, subsurface evaluation including laboratory testing would be performed. Evaluation of the corrosive soil potential can be accomplished by testing and analysis of soils at foundation design depths. The laboratory tests conducted on the soils prior to construction and improvement plan preparation would include corrosivity tests to evaluate the corrosivity of the subsurface soils. Review of these data by a corrosion engineer would result in corrosion protection measures suitable to the project elements. Evaluation of the potential corrosive soils hazard would be performed prior to detailed design and construction so that, in the event the hazard exists, mitigation techniques can be implemented. To avoid site-specific subsurface evaluation, corrosion protection measures can be included in the initial design for the proposed project improvements.

Mitigation of corrosive soil conditions may involve the use of concrete resistant to sulfate exposure. Corrosion protection for metals may be needed for underground foundations or structures in areas where corrosive groundwater or soil could potentially cause deterioration.

Typical mitigation techniques include epoxy and metallic protective coatings, the use of alternative (corrosion resistant) materials, and selection of the appropriate type of cement and water/cement ratio. Specific measures to reduce the potential effects of corrosive soils would be developed in the detailed design phase.

9.10. Groundwater

Based on our background review and previous site exploration, groundwater levels in the vicinity of the project site may vary from approximately 13 to 58 feet below the ground surface. The depth to historic high groundwater is approximately 20 feet. Future improvements in the project area are anticipated to consist of excavations and site grading for new medical, office and retail structures, pedestrian areas, landscaping, open space areas, and parking area improvements. Based on the reported depth of groundwater in the project area and the anticipated depth of these construction activities, groundwater could have a significant impact on excavations for future project improvements. In addition, areas of shallower perched groundwater may be encountered during excavations. Groundwater levels may be influenced by seasonal variations, precipitation, irrigation, soil/rock types, groundwater pumping, and other factors and are subject to fluctuations.

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Wet or saturated soil conditions encountered in excavations during construction for the project can cause instability of the excavations, and present a constraint to the construction of foundations. Excavations for foundations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and provide access for construction. Saturated soils encountered in excavations below the groundwater can be difficult for the contractor to handle.

Shallow groundwater can also impact ground stability, and foundation design of proposed improvements, as well as the methods and costs of construction. If not adequately monitored by the contractor, dewatering of excavations could induce consolidation of the underlying soils, which could cause differential settlement of existing structures and improvements located near the excavation. The amount of consolidation due to dewatering would depend on many factors, including the areal extent and depth of dewatering, soil type, soil density,

and the methods used by the dewatering contractor. Excavations for underground structures would need to be performed with care to reduce the potential for lateral deflection of excavation sidewalls and/or shoring, which could also cause differential movement of structures located near the excavation.

Further study, including subsurface exploration, would be performed during the detailed design phase of future improvements to evaluate the presence of groundwater, seepage, and/or perched groundwater at the site and the potential impacts on design and construction of project improvements. Assessment of the potential for shallow groundwater would be evaluated during the design phase of the project and mitigation techniques would be developed, as appropriate, to reduce the impacts related to shallow groundwater to low levels. Therefore, the potential impacts due to groundwater would be reduced with incorporation of techniques such as construction dewatering.

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10. LIMITATIONS

The purpose of this study was to evaluate geotechnical conditions and potential geologic and seismic hazards at the site using readily available geotechnical data, site reconnaissance, and to provide a preliminary geotechnical report which can be utilized in the preparation of an EIR for the project.

The geotechnical analyses presented in this report have been conducted in accordance with current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, implied or expressed, is made regarding the conclusions, recommendations, and professional opinions expressed in this report. Our preliminary conclusions and recommendations are based on a review of readily available geotechnical literature, geologic and seismic data, and an analysis of the observed conditions. Variations may exist and conditions not observed or described in this report may be encountered.

11. REFERENCES

California Building Standards Commission, 2013, California Building Code (CBC): California Code of Regulations, Title 24, Part 2, Volumes 1 and 2.

California Department of Conservation, Division of Mines and Geology (CDMG), State of California, 1998, Seismic Hazard Evaluation of the Los Angeles 7.5-Minute Quadrangle, Los Angeles County, California: Open-File Report 98-20.

California Department of Conservation, Division of Mines and Geology, State of California, 1999, Seismic Hazard Zones Official Map, Los Angeles Quadrangle, 7.5-Minute Series: Scale 1:24,000, Open-File Report 98-20, dated March 25.

California Environmental Resources Evaluation System (CERES), 2005a, The California Environmental Quality Act, Title 14; California Code of Regulations, Chapter 3; Guidelines for Implementation of the California Environmental Quality Act, Article 9; Contents of Environmental Impact Reports, Final Text dated May 25, Website: http://ceres.ca.gov/ topic/env_law/ceqa/guidelines/art9.html.

California Environmental Resources Evaluation System (CERES), 2005b, The California Environmental Quality Act, CEQA Guidelines Appendices, Appendix G – Environmental Checklist Form, Final Text dated May 25, Website: http://ceres.ca.gov/topic/env_law/ceqa/guidelines/appendices.html.

Cao, Tianqing, Bryant, William A., Rowshandel, Badie, Branum, David, and Wills, Christopher J., 2003, The Revised 2002 California Probabilistic Seismic Hazard Maps, Adapted by California Geological Survey (CGS), dated June.

Dibblee, T.W., Jr., 1989, Geologic Map of the Los Angeles Quadrangle, Los Angeles County, California: Dibblee Foundation, DF-22, Scale 1:24,000.

Google Earth, 2014, Website: http://earth.google.com.

Hart, E.W., and Bryant, W.A., 1997, Fault-Rupture Hazard Zones in California, Alquist-Priolo Special Studies Zone Act of 1972 with Index to Special Studies Zones Maps: California Division of Mines and Geology, Special Publication 42.

ICF International (ICFI), 2014, Initial Study – Checklist, For the Proposed LAC+USC Medical Center Master Plan Project, Los Angeles California, dated May.

Jennings, C.W., and Bryant, 2010, Fault Activity Map of California: California Division of Mines and Geology, California Geologic Data Map Series, Map No. 6, Scale 1:750,000.

Los Angeles Department of City Planning, 1996, Safety Element of the Los Angeles City General Plan, dated November 26.

Moore, G.L., 2002, Methane and Methane Buffer Zones, City of Los Angeles, City of Los Angeles Bureau of Engineering.

Ninyo & Moore, 1995, Geotechnical Evaluation, Earthquake Recovery Project, LAC + USC Medical Center, Los Angeles, California, Project No. 200570-001, dated April 27.

DRAFT

Ninyo & Moore, 2013, Proposal for Geotechnical and Environmental Consulting Services for the LAC+USC Medical Center Campus Master Plan, County of Los Angeles, Proposal No. S-9390, dated July 23.

Norris, R.M., and Webb, R.W., 1990, Geology of California: John Wiley & Sons, 541 pp.

State of California, 1977, Special Studies Zones, Los Angeles Quadrangle, 7.5 Minute Series: Scale 1:24,000, dated January 1.

State of California, State Water Resources Control Board, 2014, GeoTracker Database System, http://geotracker.swrcb.ca.gov/, accessed June 5, 2014.

United States Geological Survey, 1966 (Photorevised 1981), Los Angeles, California Quadrangle Map, 7.5 Minute Series: Scale 1:24,000.

United States Geological Survey, 2008, National Seismic Hazard Maps, http://geohazards.usgs.gov/cfusion/hazfaults_search/hf_search_main.cfm.

United States Geological Survey, 2014, US Seismic Design Maps, US Seismic Design Maps Ground Motion Calculator – Version 3.1.0; http://geohazards.usgs.gov/designmaps/us/application.php.

Yerkes, R.F. and Campbell, R.H., 2005, Preliminary Geologic Map of the Los Angeles 30' x 60' Quadrangle, Southern California, Version 1.0: United States Geological Survey, Open-File Report 2005-1019, Scale 1:100,000.

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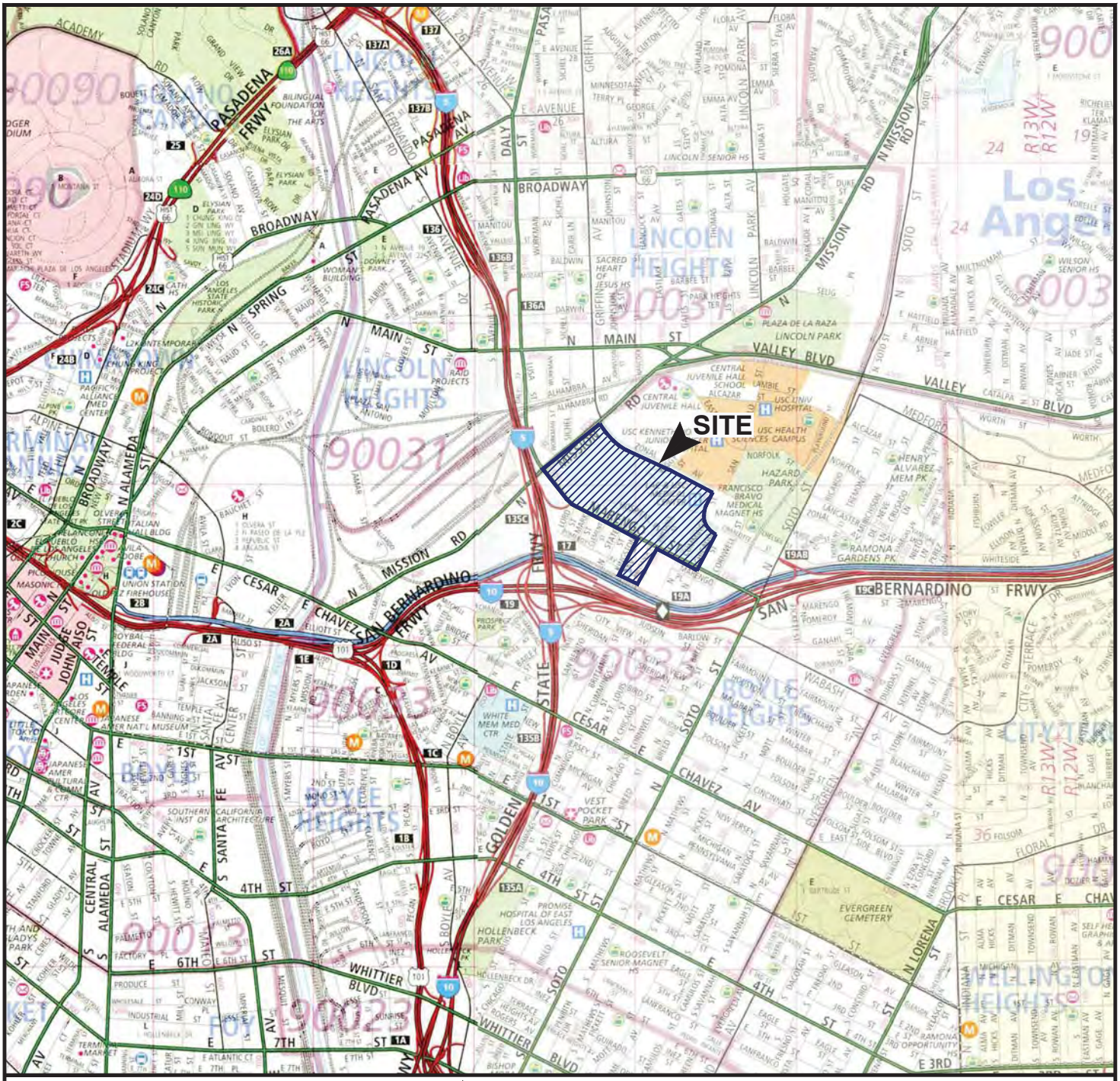

REFERENCE: 52ND EDITION, THOMAS GUIDE FOR LOS ANGELES/ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

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SCALE IN FEET

0 2,400 4,800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Map © Rand McNally, R.L.07-S-129

Ninyo & Moore	SITE LOCATION	FIGURE
PROJECT NO. 209126002 / DATE 6/14	LAC + USC MEDICAL CENTER MASTER PLAN 1200 NORTH STATE STREET LOS ANGELES, CALIFORNIA	1

209126002-SL.dwg, Jun 11, 2014, 9:26am, GK

REFERENCE: GOOGLE EARTH IMAGERY, 2014.

N

SCALE IN FEET

0 400 800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND	
	SITE BOUNDARY

Ninyo & Moore		SITE AERIAL	FIGURE
PROJECT NO.	DATE	LAC + USC MEDICAL CENTER MASTER PLAN 1200 NORTH STATE STREET LOS ANGELES, CALIFORNIA	2
209126002	6/14		

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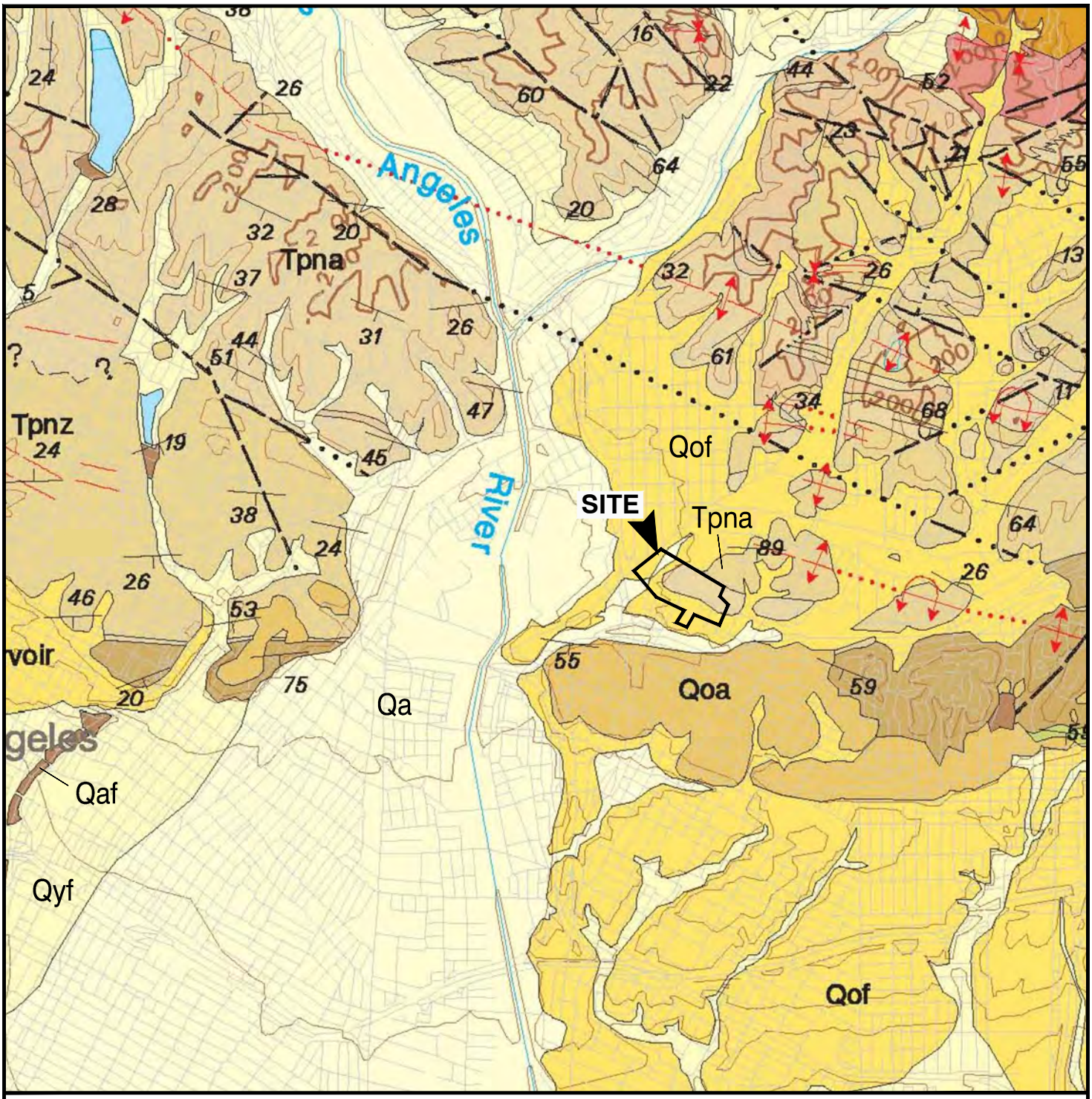

REFERENCE: ROBERT F. YERKES AND RUSSEL HH. CAMPBELL, 2005, GEOLOGIC MAP OF THE LOS ANGELES 30'X60' QUADRANGLE, SOUTHERN CALIFORNIA.

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LEGEND

Qa	ALLUVIAL DEPOSITS	Tpna	PUENTE FORMATION SANDSTONE
Qoa	OLD ALLUVIAL DEPOSITS		GEOLOGIC CONTACT
Qof	OLD ALLUVIAL FAN DEPOSITS		FAULT; DOTTED WHERE CONCEALED
Tpnz	PUENTE FORMATION	89	STRIKE AND DIP OF BEDDING

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

REGIONAL GEOLOGY

FIGURE 3

PROJECT NO.	DATE
209126002	6/14

LAC + USC MEDICAL CENTER MASTER PLAN
1200 NORTH STATE STREET
LOS ANGELES, CALIFORNIA

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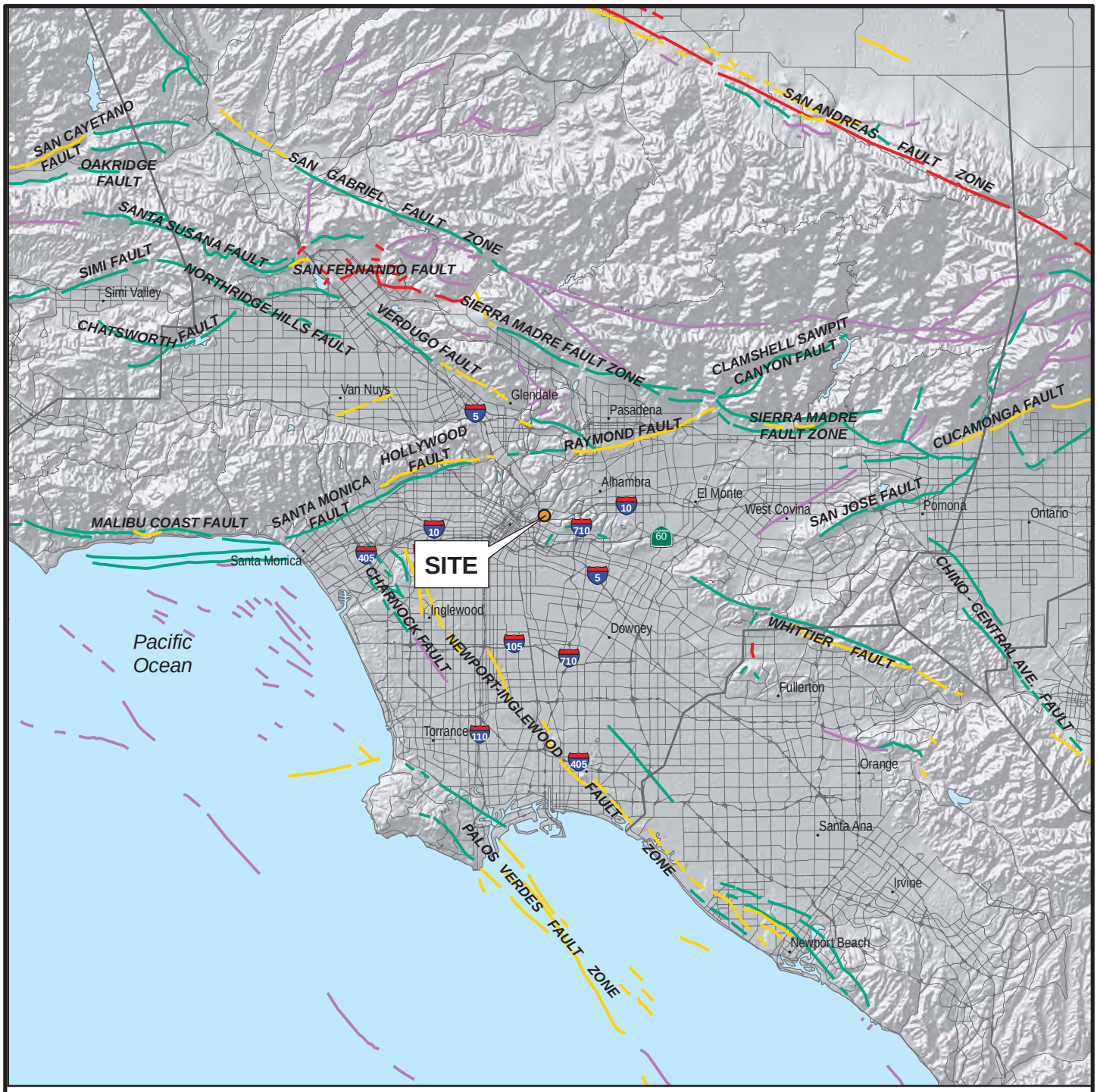


GIS DATA SOURCE: CALIFORNIA GEOLOGICAL SURVEY (CGS); ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI)
REFERENCE: JENNINGS, 2010, FAULT ACTIVITY MAP OF CALIFORNIA AND ADJACENT AREAS

LEGEND

FAULT ACTIVITY:

- HISTORICALLY ACTIVE
- LATE QUATERNARY
- HOLOCENE ACTIVE
- QUATERNARY
- COUNTY BOUNDARIES

N

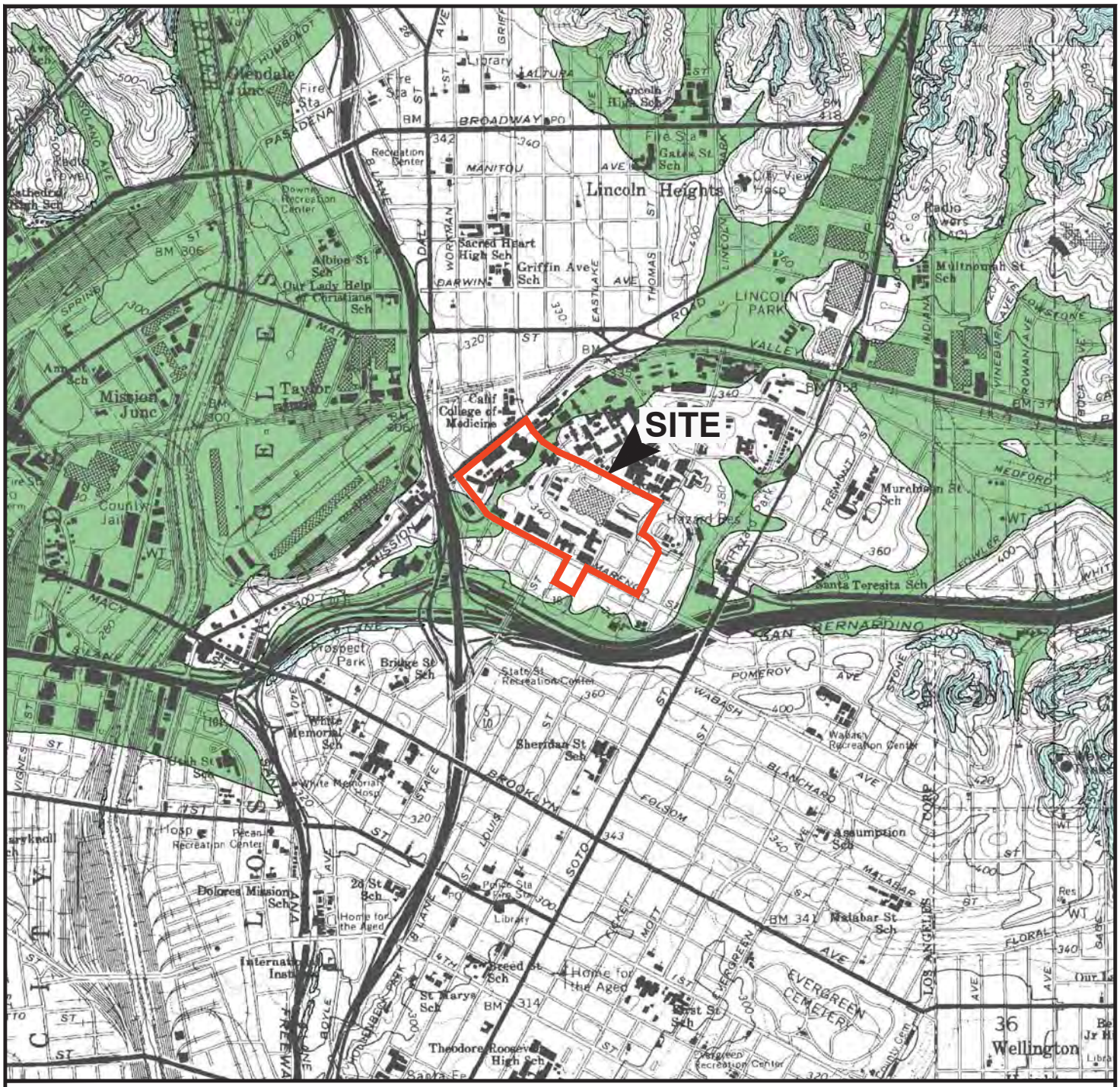
10 0 10

Miles

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore	FAULT LOCATIONS	FIGURE
PROJECT NO. 209126002 / DATE 6/14	LAC + USC MEDICAL CENTER MASTER PLAN 1200 NORTH STATE STREET LOS ANGELES, CALIFORNIA	4

209126002_FL.....GK



REFERENCE: CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF MINES AND GEOLOGY, STATE OF CALIFORNIA, 1999, SEISMIC HAZARD ZONES MAP OFFICIAL REVISED MAP LOS ANGELES QUADRANGLE, 7.5-MINUTE SERIES: SCALE 1:24,000.

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SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

EARTHQUAKE-INDUCED LANDSLIDES

Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

LIQUEFACTION:

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Ninyo & Moore

SEISMIC HAZARD ZONES

PROJECT NO.	DATE
209126002	6/14

LAC + USC MEDICAL CENTER MASTER PLAN
1200 NORTH STATE STREET
LOS ANGELES, CALIFORNIA

FIGURE

5

209126002-SHZ.dwg 10:15:13 06/13/2014 GK

Appendix E
Hazardous Materials Assessment

HAZARDOUS MATERIALS ASSESSMENT
LAC +USC MEDICAL CENTER
1200 NORTH STATE STREET
LOS ANGELES, CALIFORNIA

DRAFT

PREPARED FOR:
ICF International
601 W. Fifth Street, Suite 900
Los Angeles, California 90071

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

June 12, 2014
Project No. 209126001

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June 12, 2014
Project No. 209126001

Mr. Lee Lisecki, Project Manager
ICF International
601 West Fifth Street. Suite 900
Los Angeles, California 90071

Subject: Hazardous Materials Assessment
LAC+USC Medical Center
1200 North State Street
Los Angeles, California

Dear Mr. Lisecki:

In accordance with our subcontract agreement No. 14DDSK0214, effective May 21, 2014, Ninyo & Moore has performed a Hazardous Materials Assessment of the above-referenced property (site). The attached report presents our methodology, findings, opinions, and conclusions regarding the environmental conditions at the site.

DRAFT

We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE

Jonathan Johnson
Senior Staff Geologist

John Jay Roberts, PG, CEG
Senior Geologist

JJJ/MSC/JJR/lr

Distribution: (1) Addressee (via e-mail)

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1. INTRODUCTION

ICF International (ICF) authorized Ninyo & Moore to perform a Hazardous Materials Assessment (HMA) of the Los Angeles County + University of Southern California (LAC+USC) Medical Center at 1200 North State Street in the city of Los Angeles, California (site; Figure 1). The HMA was conducted in general accordance with Ninyo & Moore's subcontract agreement No. 14DDSK0214, effective May 21, 2014. The following sections identify the purpose, involved parties, scope of services, and limitations and exceptions associated with the HMA.

1.1. Purpose

The purpose of this HMA was to evaluate existing or potential soil or groundwater contamination at the site due to current or past land uses at the site. Information herein is intended to aid ICF during their preparation of environmental documents for the LAC+USC Medical Center redevelopment project.

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1.2. Involved Parties

Mr. Jonathan Johnson of Ninyo & Moore conducted the site reconnaissance and regulatory inquiries. Mr. Michael Cushner and Mr. John Jay Roberts of Ninyo & Moore performed project oversight and quality review. Resumes of professionals conducting this HMA are provided in Appendix A.

1.3. Scope of Services

Ninyo & Moore's scope of services for this HMA includes the activities listed below.

- Reviewed readily available maps and reports pertaining to the site, as provided by the client.
- Performed a site reconnaissance to observe areas of possibly contaminated surficial soil or surface water, improperly stored hazardous materials, possible sources of polychlorinated biphenyls (PCBs), and possible risks of contamination from activities at the site and adjacent properties.
- Reviewed available regulatory agency databases for the site and for properties located within a specified radius of the site. The purpose of this review was to evaluate the possible environmental impact to the site. These databases list locations of known hazardous waste sites, landfills, leaking underground storage tanks (LUSTs), permitted

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facilities that utilize underground storage tanks (USTs), and facilities that use, store, or dispose of hazardous materials.

- Prepared this HMA report documenting findings and providing opinions and conclusions regarding possible environmental impacts at the site.

1.4. Limitations and Exceptions

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Please note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards. In addition, it should be noted that this HMA does not include analysis of the following: asbestos-containing materials (ACMs), methane gas, radon, lead-based paint (LBP), lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines.

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This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein.

Ninyo & Moore should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Our findings, opinions, and conclusions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control. Ninyo & Moore cannot warrant or guarantee that not finding indicators of any particular hazardous material means that this

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particular hazardous material or any other hazardous materials do not exist on the site. Additional research, including invasive testing, can reduce the uncertainty, but no techniques now commonly employed can eliminate the uncertainty altogether.

1.5. User Reliance

This report may be relied upon and is intended exclusively for use by the client. Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than the client is undertaken at said parties' sole risk.

1.6. Physical Limitations

Physical limitations were not encountered during the site reconnaissance with the exception of access into the Women and Children's Hospital facility, which has been abandoned and access restricted since the 1994 Northridge earthquake and access to a storage room (Room 364) located in the General Hospital building.

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1.7. Data Gaps

Data gaps were not encountered during this HMA.

2. GENERAL SITE CHARACTERISTICS

The following sections describe the location and the current uses of the site and adjacent properties.

2.1. Location

The site is an approximately 72-acre, irregularly-shaped property at 1200 North State Street in the city of Los Angeles, California (Figure 1). The site is occupied by the LAC+USC Medical Center.

2.2. Current Title Information

A Title Report was not provided to Ninyo & Moore for review.

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2.3. Site Description and Current Site Uses/Operations

The following paragraphs present a description of the structures present at the site, the tenants currently occupying the site, if any, the activities being conducted on-site, the heating and cooling systems utilized in the site buildings, the sewage disposal system, and the potable water provider for the site.

2.3.1. Site Description

The approximate 72-acre site is developed with the LAC+USC Medical Center (Figure 2). The site consists of multiple buildings and parking lots/structures. Ninyo & Moore was provided a Building Index which grouped buildings and referenced each building with a number. For the purposes of this report we will reference buildings by name and parking lots by designated lot numbers. The following table includes the building index number, and name or description of each major building referenced in the report.

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Table 1 – Building Index

Building Number	Building Name
100 Block	
101	General Hospital
121	Outpatient Building
122	IR Building
200 Block	
201	Clinic Tower
202	Diagnostic and Treatment Tower
203	Inpatient Tower
204	Central Plant (East)
300 Block	
302	General Laboratories
308	Telephone Exchange
400 Block	
401	Women and Children's Hospital
500 Block	
502	Pharmacy
508	New Coroner's Office
516	Central Plant (West)
517	Old Coroner Administration
518	Medical Examiner
Parking Lots/Structures	
Lot 1D	

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Table 1 – Building Index

Building Number	Building Name
Lot 5	
Lot 5A	
Lot 5W	
Lot 9 (Parking Structure)	
Lot 10 (Parking Structure)	
Lot 12 (Parking Structure)	

The site is bound by Zonal Avenue to the north, North Cummings Street and North Chicago Street to the east, Marengo Street to the south, and North Mission Road to the west. North State Street bisects the site from Marengo Street in the south, to Zonal Avenue in the north. An additional parking structure (herein after referred to as Lot 9 parking structure) connected to the main campus by a bridge perpendicular to Marengo Street is associated with the site and is bound to the north by Marengo Street, to the east by Brittania Street, to the south by Pomeroy Avenue, and to the west by Kingston Avenue.

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2.3.2. Occupants

The site is currently occupied by the LAC+USC Medical Center.

2.3.3. Heating and Cooling Systems

Heating and cooling systems are powered by electricity and natural gas. The City of Los Angeles Department of Water and Power provides electricity to the site. The Southern California Gas Company provides natural gas to the site.

2.3.4. Sewage Disposal/Septic Systems

The City of Los Angeles Department of Public Works Bureau of Sanitation provides sewer service to the site.

2.3.5. Potable Water

The City of Los Angeles Department of Water and Power provides water to the site.

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3. SITE RECONNAISSANCE

On April 15, 2014, Mr. Jonathan Johnson of Ninyo & Moore conducted a site reconnaissance and was accompanied by Mr. Steven Prieto, the LAC+USC Safety Assistant/Hazardous Materials Coordinator for the site. The reconnaissance involved a visit to the site and visual observations of adjoining properties. Weather conditions were sunny and clear at the time of the site reconnaissance. Selected photographs taken during the site reconnaissance are included in Appendix B.

3.1. Physical Limitations

Physical limitations were not encountered during the site reconnaissance with the exception of access into the Women's and Children's Hospital, which has been abandoned and access restricted since the 1994 Northridge earthquake and access to a storage room (Room 364) located in the General Hospital Building.

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3.2. Use and Storage of Hazardous Substances and Petroleum Products

The site contained four emergency power generators with petroleum fuel tanks, one near the Telephone Exchange, a generator near the IR Building, a generator between The Pharmacy Building and the Old Coroner Administration Building, and a generator adjacent south of the Lot 9 Parking Structure (Figure 2). Significant evidence of releases or spills was not observed at these areas and therefore these are not considered potential environmental concerns (PECs).

3.3. Storage and Disposal of Hazardous Wastes

The site contained 12 areas where hazardous waste materials were containerized and stored. The following table summarizes observed areas.

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Table 2 – Hazardous Storage Areas

Building	Location	Description	Comments
General Hospital	Room 364	Storage room containing 55-gallon drums and polyurethane drums containing hazardous waste materials.	Access to room was not granted. Staining not noted based on limited visibility.
Telephone Exchange	Room 2260 E	Storage room located on south end of Telephone building. Contained flammable storage locker and cardboard boxes with medical supplies.	No staining observed, secondary containment noted
	Western Portion, behind building	Storage area within a fenced area containing drums and trash bins of biohazard waste.	No staining observed, no secondary containment
Inpatient Tower	C1F103	Storage area containing flammable waste lockers, polyurethane containers, 55-gallon steel drums with mixed solvents and contaminated rags, 5-gallon buckets, and cardboard boxes.	No staining observed, secondary containment noted
Central Plant (East)	West end of the plant	Storage area contained 55-gallon steel drums containing waste oil, polyurethane drums, flammable waste lockers, and 5-gallon buckets.	No staining observed, secondary containment noted, and waste stored near storm drain
Central Plant (West)	Northeast portion of area	Storage contained universal waste such as batteries.	No staining observed.
	Northwest corner of building	Storage contained 55-gallon non-hazardous waste steel drums, and polyurethane drum.	No staining observed
	Northwest portion of the area	Storage area contained 55-gallon steel drums, 5-gallon containers, polyurethane containers, and cardboard boxes	No staining observed, secondary containment noted,
Women's and Children's Hospital	Northeast portion of the area	Storage contained gas cylinders/tanks and plastic storage containers.	No staining observed

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Significant evidence of releases or spills was not observed at these areas and therefore these are not considered PECs.

3.4. Unidentified Substance Containers

Unidentified substance containers were not observed during our site reconnaissance.

3.5. Aboveground and Underground Storage Tanks (ASTs and USTs)

ASTs were observed at the site near the following buildings: General Hospital, Central Plant (East), Women's and Children's Hospital, and Central Plant (West). Detailed AST information can be found in Table 3.

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Table 3 – AST Information

Building	Location	Contents	Comments
General Hospital	Northeastern portion	Liquid Oxygen	No staining observed
Central Plan (East)	Adjacent to east	Liquid Oxygen	No staining observed
Central Plant (West)	Adjacent to east	Salt	No staining observed
	Adjacent to west	Sulfuric Acid	No staining observed
Women's and Children's Hospital	Northeastern portion	Liquid Oxygen	No staining observed.

ASTs observed during the site reconnaissance included tanks containing liquid oxygen, one tank containing sulfuric acid, and one tank storing salt near the Central Plant (West) Building. No staining was observed around the tanks, no cracks were observed in containment areas. These ASTs do not represent PECs for the site.

Evidence of USTs was observed near the following buildings: north of the General Hospital, east of the Central Plant (East) Building, north of the Central Plant (West) Building, and north of the Women's and Children's Hospital Building. Ninyo & Moore was provided with a list of UST data for the LAC+USC Medical Center which list addresses, number of tanks, tank capacity, and product information for USTs currently at the site. According to site representative, Mario Garcia, Assistant Chief Stationary Engineer, the UST listed for the Women's and Children's Hospital has currently been removed. Locations of historic USTs and currently active USTs are shown on Figure 3. USTs are further discussed in Sections 6 and Section 7. A copy of the UST Data list is presented in Appendix C.

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3.6. Evidence of Releases

Evidence of chemical releases on site (i.e., odors, stressed vegetation, stains, leaks, pools of liquids, and spills) was not observed during our site reconnaissance.

3.7. Polychlorinated Biphenyls (PCBs)

Electrical transformers, which can be a source of PCBs, were not observed during our site reconnaissance.

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3.8. Suspect Asbestos-Containing Materials (ACMs)

Based on the construction date of the site buildings (prior to 1980), ACMs may be present on building materials at the site. Suspect ACMs were observed to be in good condition.

3.9. Lead-Based Paint (LBP)

Based on the construction date of the site buildings (prior to 1980), LBP may be present on building materials at the site. Painted surfaces were observed to be in good condition with the exception of the tunnel located between the General Hospital and the Pharmacy. The condition of the paint within the tunnel presents a PEC. Previous studies pertaining to the conditions of the tunnel were provided to Ninyo & Moore and are further discussed in Section 5.6.

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3.10. Wastewater Systems

Wastewater systems other than clarifiers were not observed at the site during the site reconnaissance (Section 3.13).

3.11. Storm Water Systems

Storm water catch basins and drains were observed at the site during the site reconnaissance.

3.12. Wells

Water production wells were not observed at the site during the site reconnaissance. Groundwater monitoring wells were observed at the site north of the General Hospital Building, suspected to be part of the remediation process occurring at the site, which is further discussed in Section 7.2. Groundwater monitoring well locations are presented on Figure 2.

3.13. Surface/Subsurface Structures

Surface structures or evidence of subsurface structures (e.g., sumps, vaults, oil/water separators, and other surface impoundments) were observed at the site. A clarifier was observed adjacent south of the Telephone Exchange near a hazardous materials storage room. According to Mr. Prieto, the clarifier has not been in use, since approximately 2006.

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Three clarifiers were also observed adjacent north to the Central Plant (West) Building, and one clarifier adjacent east of the Medical Examiner Building. Locations of observed clarifier systems are presented on Figure 2. The presence of on-site clarifiers represent a PEC.

3.14. Adjoining Properties

The following table describes the current uses of properties surrounding the site.

Table 4 – Adjoining Properties

Location	Adjoining Properties and Associated Land Use
North	Zonal Avenue, beyond which are commercial properties.
South	Marengo Street, beyond which are commercial properties
East	North Cummings Street, beyond which is Hazard Reservoir to the northeast and North Chicago Street beyond which are residential and commercial properties.
West	North Mission Road beyond which are commercial properties such as Chevron , Jack in the Box, and additional facilities associated with the LAC+USC Medical Center.

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3.15. Other On-Site and Off-Site Potential Environmental Concerns (PECs)

A representative for the site provided a list of building and parking structure locations at the site which contain elevators and the type of mechanical operation for each elevator. Elevator types included hydro, traction, and gearless. Hydro elevators typically operate using hydraulic oil which could potentially leak and stain the ground floor. The operation of these elevators in the Coroner Building, General Labs Building, the General Hospital Building, and the Inpatient Tower represent PECs for the site. The list of elevators is included in Appendix C.

Two gas stations adjacent to the site were observed during the site reconnaissance. The presence of these gas stations do not represent PECs, however, the addresses for these gas stations appear on regulatory agency lists reporting LUST incidents. These facilities are further discussed in Section 6.14.

4. PHYSICAL SETTING

The following sections discuss the topography, geology, and hydrology at the site.

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4.1. Site Topography

Based on the review of the United States Geological Survey (USGS) 7.5 Minute Series, Los Angeles, California, Topographic Quadrangle Map, dated 1966 and photorevised in 1994, the site is situated at an approximate surface elevation between 315 and 400 feet above mean sea level. The site slopes gently to the southwest.

4.2. Geology

The site is located in the northern part of the Los Angeles Basin within the Transverse Ranges Geomorphic Province (Norris & Webb, 1990). The Los Angeles Basin is bounded by the Santa Ana Mountains to the east; the Santa Monica Mountains and Puente Hills to the north; and the Pacific Ocean to west and south. The site vicinity is underlain by Quaternary older alluvium consisting of silt, sand, and gravel and bedrock generally consisting of siltstone of the Puente Formation.

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4.3. Site Hydrology

The following sections discuss the site hydrology in terms of both surface waters and groundwater.

4.3.1. Surface Waters

No natural surface waters are located on the site. Hazard Reservoir is adjacent east of the site and the Los Angeles River is approximately 1 mile west of the site.

4.3.2. Groundwater

Ninyo & Moore reviewed the Los Angeles County-USC Medical Center First Event 2013 Semi-Annual Groundwater Monitoring Report dated July 31, 2013 on the State Water Resources Control Board's GeoTracker website for groundwater information at the site. According to the report, groundwater beneath the site was measured at approximately 16 to 24 feet below ground surface (bgs). Groundwater flow is generally to the northeast beneath the north portion of the site (Astech, 2013). Additionally, Ninyo & Moore reviewed two groundwater reports for off-site properties: First Quarter 2014 Quarterly Groundwater Monitoring Report for facility address 1748 Workman Street,

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Los Angeles, California (west of site), dated April 9, 2014 (Reynolds Group, 2014) which reports groundwater depth between 42 and 45 feet bgs and groundwater flow in a west direction, and Al Sal Oil Company, Inc. Monitoring and Status Report Second Half 2013 for facility at address 1848 Marengo Street, Los Angeles, California (south of site), dated January 15, 2014 (SGI, 2014) which reports groundwater between 19 and 29 feet bgs and flowing in a west to south direction. Groundwater flows generally to the northeast in the north portion of the site and to the south in the south portion of the site, which is consistent with site topography.

5. HISTORICAL LAND USE

Historical aerial photographs, fire insurance rate maps, city directories, historic topographic maps, and oil and gas maps were reviewed as part of Ninyo & Moore's HMA for the site. Historical documents are provided in Appendix D.

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5.1. Historical Aerial Photographs

Historical aerial photographs for selected years between 1928 and 2012 were provided by Environmental Data Resources, Inc. (EDR). A summary of the aerial photograph review is presented in following table.

Table 5 – Aerial Photograph Review

Photograph Date	Subject Property	Site Vicinity	
1928	The site appeared developed with structures. One large structure was being developed in the central portion of the site. North State Street did not continue north through the site. The western portion of the site appeared developed with buildings and the eastern and southern portions of the site appeared developed with residential properties.	North	Zonal Avenue beyond which is developed with residential properties and to the west is developed with large structures.
		South	Marengo Street beyond which is developed with residential and commercial properties.
		East	North Cummings Street beyond which is developed with residential properties and the northeast portion developed with a reservoir.
		West	Mission Road beyond which is developed with commercial properties.

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Table 5 – Aerial Photograph Review

Photograph Date	Subject Property	Site Vicinity	
1938	The site appeared developed with buildings in the central portion and western portion. A large structure, possibly the General Hospital was developed east of North State Street. Southern and eastern portions of the site appeared developed with residential properties. North State Street travels north through the middle of the site from Marengo Street to Zonal Avenue.	All	Site vicinity appeared generally as it did in the 1928 aerial photograph.
1948	The site appeared similar to that observed in the 1938 aerial photograph.	All	Site vicinity appeared generally as it did in the 1938 aerial photograph.
1952	The site appeared similar to that observed in the 1948 aerial photograph. The residential properties south of the General Hospital building were no longer present and replaced with several buildings. East of the General Hospital building was developed with residential properties.	North	Zonal Avenue beyond which is generally vacant land. A structure is observed adjacent northeast and large structures are observed adjacent northwest.
		South	Site vicinity appeared generally as it did in the 1948 aerial photograph.
		East	
		West	
1964	The site appeared similar to that observed in the 1952 aerial photograph, with the exception that the area directly east of the General Hospital building to Britannia Street was developed with buildings and the site east of Britannia was developed with residential properties. The northwest corner of the site was developed with the Women's and Children's building.	North	Zonal Avenue beyond which is developed with commercial properties.
		South	Developed with commercial properties. Two possible gas stations are observed.
		East	Developed with residential properties and a reservoir to the north.
		West	Mission Road beyond which is developed with commercial properties. Three possible gas stations observed.
1972	The site appeared similar to that observed in the 1964 aerial photograph with the exception of two gas stations added and located in the southeast portion of the site adjacent south of the residential properties east of Britannia.	All	The site vicinity appeared generally as it did in the 1964 aerial photograph.
1981	The site appeared similar to that observed in the 1972 aerial photograph.	North	Zonal Avenue beyond which appeared developed with large structures. USC Medical Campus.
		South	Marengo Street, beyond which appeared developed with commercial properties.

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Table 5 – Aerial Photograph Review

Photograph Date	Subject Property	Site Vicinity	
		East	Cummings Street, beyond which appeared developed with a reservoir and North Chicago Street, beyond with appeared developed with residential properties.
		West	The site vicinity appeared similar to that observed in the 1972 aerial photograph.
1989	The site appeared similar to that observed in the 1981 aerial photograph.	All	The site vicinity appeared similar to that observed in the 1981 aerial photograph.
1994	The site appeared similar to that observed in the 1989 aerial photograph.	North South East West	The site vicinity appeared similar to that observed in the 1989 aerial photograph.
2005	The site appeared similar to that observed in the 1994 aerial photograph with the exception of the buildings located south of the General Hospital had been replaced with a building under construction.	North South East West	The site vicinity appeared similar to that observed in the 1994 aerial photograph. A building adjacent of the site has a connector from the site across Marengo Street.
2009	The site appeared developed with the hospital from Mission Road east to North Chicago Street.	All	The site vicinity appeared similar to that observed in the 2005 aerial photograph.
2010	The site appeared similar to that observed in the 2009 aerial photograph.	All	The site vicinity appeared similar to that observed in the 2009 aerial photograph.
2012	The site appeared similar to that observed in the 2010 aerial photograph.	All	The site vicinity appeared similar to that observed in the 2010 aerial photograph.

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The 1928 aerial photograph shows the site as developed with structures for the hospital. One large structure (General Hospital Building) appeared to be developed in the central portion of the site near North State Street. North State Street did not appear to bisect the site completely. The 1938 through 1948 aerial photographs show the site developed with the hospital and North State Street bisects the site from Marengo Street in the south through to Zonal Avenue in the north. The site is developed with structures associated with the hospital from approximately Mission Road to Britannia Avenue. East of Britannia Avenue is

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developed with residential structures. From at least 1952 through 1964 the site appeared generally the same and the entire site had expanded from Brittania Avenue to approximately Cummings Street in 1964. From at least 1964 through 1994, the site appeared generally the same with gradual developing structures in the southeast portion of the site. From at least 1972 through 1981, two gas stations were observed in the southeast portion of the site, west of the intersection of North Chicago Street and Marengo Street. From at least 1989 through 1994, the two gas stations were no longer observed to be present at the site and were replaced with commercial properties. In the 2005 aerial photograph, the site had expanded east to Cummings Street and Chicago Street, and the development of a large structure was observed in the southeast portion of the site. From 2005 through 2012, the site appeared generally the same and developed with the hospital and medical center structures up through the time of the site reconnaissance. The gas stations observed on the southeast portion of the site in the 1972 aerial photographs are indicative of a PEC for the site.

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The site vicinity appeared generally developed with commercial and residential properties from 1928 through the time of the site reconnaissance. Several gas stations were observed in the site vicinity adjacent south and west of the site.

5.2. Fire Insurance Rate Maps

Sanborn Fire Insurance Rate Maps for the subject site and surrounding area were requested from EDR. Due to the large area of the site, several Sanborn Fire Insurance Maps were provided. EDR provided Sanborn maps for the years 1890, 1894, 1906, 1920, 1951, and 1970. The following table presents a summary of the Fire Insurance Map review.

Table 6 – Sanborn Fire Insurance Map Review

Year	Site	Adjacent Areas
1890	Los Angeles County Hospital	Storage north of Mission Road.
1894	Los Angeles County Hospital, laundry facility near northeast corner of Mission Road.	Commercial properties north of Mission Road.
1906	Building labeled “Contagious Pavillion” south of Griffin Avenue (now Zonal Avenue).	Commercial properties (north), mission feed yard (beyond Mission Road), Los Angeles Brick Co. (south of Marengo Street), Pacific College of Osteopathy (Marengo-Mission Road intersect).

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Table 6 – Sanborn Fire Insurance Map Review

Year	Site	Adjacent Areas
1920	Psychopathic Wards, Chapel, Preservation Ward, Contagious Pavillion, Leper Ward, Nurse Quarters, Library, Surgical Ward, Administration Building, Medical Ward, Kitchen and dining, Laundry, Service Building, Auto House Parking, Power House, Commercial and residential properties.	North of South Griffin Street (now Zonal Avenue) is commercial properties and vacant properties, Beyond Mission Road is commercial properties, Tubercular Ward, Beyond Marengo Street Los Angeles Brick Co, vacant and commercial properties.
1951	County General Hospital Acute Unit, Auditorium stage and film vaults, classrooms, residential properties, Auto Parking, Contagious Pavillion, Leper Ward, Nurse Quarters, Library, Surgical Ward, Administration Building, Medical Ward, Kitchen and dining, Laundry, Service Building, Auto House Parking, Power House, Commercial and residential properties, Psychopathic Wards, Osteopathic Ward, Dormitory, Patients Building.	Beyond Zonal Avenue: Commercial and residential properties. Beyond Cummings and Charlotte intersection: residential properties, Hazard Reservoir, Beyond Marengo Street: residential properties, Fruit Syrup Mfg, church, wire works, Mortuary College, commercial properties, Los Angeles, Brick Co. Beyond Zonal Avenue: Tile Show Case Manufacturing and Wood Working, Los Angeles County Garage, residential properties, commercial properties, Gas station (northwest corner of Griffin and Mission Road). Beyond Mission Road: Auditorium, three gas stations, Auto Repair shop, commercial properties.
1970	Los Angeles County General Hospital, nurses quarters, gas stations, Psychopathic Unit, New Osteopathic Unit, Research Building.	Beyond Zonal Avenue: USC, Los Angeles County Juvenile Dept., General Hospital, Chapel, church. Beyond Cummins Street: residential properties, Hazard Reservoir. Beyond Marengo Street: County of Los Angeles Crippled Children Service, residential properties, City Health Center, gas & oil, Mortuary College, parking structure. Beyond Zonal Avenue: Los Angeles County Assoc Risk, maintenance shop, general storage (iron), church. Beyond Mission Road: gas & oil, parking, commercial properties, Rehabilitation Clinic.

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At least the west portion of the site appeared generally to be developed with the General Hospital prior to 1890. Structures associated with the hospital appeared from at least 1894 through at least 1970. Gas stations were observed in the southeast portion of the site in the 1970 Sanborn map. The site vicinity has generally been developed with commercial and residential properties from at least 1890. Hazard Reservoir was observed northeast of the

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site since at least 1951. Three gas stations were observed west of the site beyond Mission Road since at least 1951. The gas stations observed on the southeast end of the site are indicative of PECs for the site.

5.3. City Directories

EDR provided a historical city directory report for the site and site vicinity. City directories for the site were searched from 1920 through 2013. There were no listings for the site prior to 1937. Based on site use information from the city directories, the site address at 1200 North State Street has generally been used as a hospital and residential property since at least 1937. Other addresses within the site vicinity listed in the city directories are summarized below:

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Table 7 – City Directories

Year	Address	Use	Source
1924	1144 North State Street 1152 North State Street 1158 North State Street 1170 North State Street 1188 North State Street	Residential	Los Angeles Directory Co.
1942	1972 Hospital Place	Residential	Los Angeles Directory Co.
1986	1937 Hospital Place	Residential	Pacific Bell
1990	1937 Hospital Place	Residential	Pacific Bell

These site uses noted in the city directories do not represent a PEC for the site. The city directories are provided in Appendix C.

5.4. Historical Topographic Maps

Historical topographic maps dated 1896, 1900, 1901, 1928, 1953, 1966, 1972, 1981, 1988, and 1994 were provided by EDR. The historical topographic maps from 1896 through 1901 show most of the site as vacant land with several structures present around the vicinity of the site. The historical topographic map from 1928 shows the site as developed with the county hospital on the western side of the site west of State Street and residential properties on the eastern side of the site east of State Street. A reservoir is seen adjacent and northeast of the

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site boundary. The historical topographic map from 1953 shows the area of the County Hospital has expanded to include the area east of State Street and north of Zonal Avenue and the General Hospital building is present. Structures south of the General Hospital are also present and the reservoir adjacent northeast of the site boundary is depicted as a covered reservoir. The maps from 1966 through 1994 show the site generally the same, developed with the County Hospital. Copies of the historical topographic maps are included in Appendix C.

5.5. Oil and Gas Maps

According to the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), Online Mapping System (DOGGR, 2012), the site does not lie within the administrative boundaries of an oil field. One oil well, Santa Fe Springs Mutual Oil Syndicate 1 (API: 03705846), is located on the south end of the site boundary along Marengo Street. According to the DOGGR website, the oil well is active. Based on the location and status of the oil well, it is potentially likely that the oil well has impacted the environmental integrity of the site.

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5.6. Previous Report and Documents

Ninyo & Moore was provided several reports which discussed previous investigations and assessments conducted at the site. The following sections summarize the reports reviewed. Copies of the reports provided to Ninyo & Moore are included in Appendix C.

5.6.1. Phase I Environmental Site Assessment dated January 5, 1999

Ninyo & Moore reviewed a Phase I ESA prepared by Dames & Moore and dated January 5, 1999. The Phase I ESA addressed "recognized environmental conditions" (RECs) associated with the subject property which included the Pediatrics Pavillion, Muir Hall, Psychiatric Hospital, Grad Hall, Parking Structures 6, 11, and 12, the former Burger King Restaurant, the former strip mall, and ten trailers used for office space. The subject property encompassed the area south of the General Hospital to Marengo Street and from North State Street east to Chicago Street. RECs were not observed during the site reconnaissance. RECs noted in the Phase I ESA included a UST observed adjacent

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to the Pediatrics Pavillion which was removed on October 20, 1998 and was formerly used to store diesel for a generator. In the 1970's a gasoline service station and an automobile repair facility occupied the northern portion of Marengo Street, between Cummings and Chicago Streets. The automotive activities had been removed from the property by the end of the 1970's. According to databases, five USTs ranging in size from 200 gallons to 6,000 gallons were installed on the property for the automobile repair facility and the gasoline service station. The LAC-USC medical center has up to 14 registered USTs onsite, ranging in size from 300 gallons to 50,000 gallons, for the storage of gasoline, diesel, and waste oil. On November 7, 1988, a release of gasoline from an UST registered to the General Hospital Building was reported to have impacted groundwater. Several subsurface investigations conducted for the LAC-USC Medical center included soil, soil vapor, and groundwater investigations and reported the following:

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- Results of previous soil investigations indicated high total recoverable petroleum hydrocarbons (TRPH) indicative of severely degraded naturally occurring crude oil were found in several borings completed in the Puente Formation bedrock soils in the southern portion of the subject property at approximately 25 to 60 feet bgs.

- Soil vapor surveys have identified relatively low concentrations of methane for the majority of the sampling locations tested within the residential area between Cummings and Chicago Streets. This area was identified as an area where local residence had dumped used motor oil. TRPH and inorganic lead were also reported in a single sample collected at a depth of 6 inches bgs within the residential area.

- The results of the groundwater investigation provided no evidence of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) with the exception of low concentrations of chloroform and phthalate esters. Chloroform was detected in two of the seven groundwater monitoring wells adjacent to the Outpatient Clinic and the Interns Residence Hall (IR Building).

- Additionally, Dames & Moore reported that transformers, light ballasts, and other electrical equipment potentially containing PCB-laden dielectric fluids were identified at the subject property.

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5.6.2. LAC+USC Medical Center Replacement Project Environmental Assessment/ Environmental Impact Report dated June, 2000

Ninyo & Moore reviewed an Environmental Assessment (EA)/ Environmental Impact Report (EIR) prepared by Environmental Science Associates and dated June, 2000. The EIR addressed changes to a previous EIR certified in 1994 by the County of Los Angeles Board of Supervisors (referred to as the 1994 EIR) and proposed to redevelop the LAC+USC Medical Center and associated facilities in response to severe damage caused by the January 17, 1994 Northridge earthquake as well as aging and obsolescence of the facilities. Prior to the earthquake, the County of Los Angeles Department of Health proposed a 950-bed replacement facility, but after the earthquake, it became necessary to change the project as a result of the damage to facilities at the property and for financial considerations. The newly proposed project would replace hospital and outpatient buildings damaged in the earthquake with a newly proposed replacement facility adjacent to General Hospital which is at 1200 North State Street in the City of Los Angeles, California. The EA/EIR addressed the potential impacts of the 600-bed alternative as well as the originally proposed 950-bed alternative and the No-Project alternative.

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The EA/EIR updated readers to changes that occurred at the site and site vicinity after the certification of the 1994 EIR. Changes at the site since the certification of the 1994 EIR included the following: the Pediatric Pavilion and the Psychiatric Hospital were closed, the 3,000 Marengo Street Parking Structure (#9) was completed, the 1,200-space parking structure (#12) was closed, and 8 acres of residential land east of the site was acquired by the County, and the Project included the demolition of the structures (residential and commercial buildings) and expanded the site to now be encompassed and bounded by the city blocks Cummings Street, Marengo Street, Zonal Street, and Chicago Street.

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5.6.3. LAC+USC Tunnel dated January 30, 2013

Ninyo & Moore reviewed a Phase II Tunnel Assessment report conducted by Vanir Construction Management, Inc. for 1200 North State Street and dated January 30, 2013. The Phase II included a structural and mechanical assessment of the E tunnel on the LAC+USC campus between the central plant and juvenile hall and associated steam pipes and asbestos survey of materials within the tunnel. An initial investigation of the tunnel was conducted on June 29, 2012 and reported in the Phase I report provided to the Department of Public Works (DPW) and dated July 11, 2012 which resulted in a requirement for additional information including compressive strength of concrete, thickness of the concrete walls, ceiling rebar sizing and spacing, and a corrosion study. The DPW expanded the scope of work to include a mechanical assessment of the steam pipes and asbestos survey. Results of the structural assessment concluded the remaining service life of the tunnel was expected to be less than five years as visible deterioration was viewed throughout the tunnel, delaminating concrete on ceilings and walls exposing corroded reinforcing bars, and 25% of the tunnel ceiling has completely spalled off its concrete cover exposing the reinforcing. In addition, reinforcing is corroded, broken, or missing, the walls of the tunnel demonstrate severe efflorescence and damage due to the sulfate attacks, corrosion testing indicates more than 90% of the reinforcing in the areas tested are actively corroding or are at risk of corrosion, and the concrete is described as “soft” in many areas and crumbles when scraped with a steel tool.

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An asbestos survey was conducted on Friday, December 7, 2012. Analysis of 14 samples collected and analyzed for suspect ACM positively identified eight samples as being ACM. The black wall joint sealant on the tunnel walls was determined to be non-friable asbestos occurring over approximately 80 joints. The thermal system insulation (TSI) pipe insulation is friable asbestos (Amosite and Chrysolite) and in fair condition and occurs throughout the length of the tunnel on the steam pipes. The TSI presence in fair condition would represent a PEC.

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Recommendations provided for the tunnel included the following: restricting access to the tunnel until a shoring system was installed, restricting parking in the footprint directly above the existing tunnel, upon decommissioning of the steam system, the tunnel should be filled with a slurry and abandoned, and provide natural gas-fired high efficiency water boilers for space heating and water heaters for domestic hot water at the location of the buildings served.

5.6.4. LAC+USC Medical Center 1744 Zonal Avenue Phase I Environmental Site Assessment (ESA) dated October 21, 2013

Ninyo & Moore reviewed a Phase I Environmental Site Assessment (ESA) conducted by Kimley-Horn and Associates, Inc (KHA) and dated October, 2013 on a 20-acre area portion of the LAC USC Medical Center campus situated between North Mission Road and North State Street and southwest of Zonal Avenue at 1744 Zonal Avenue Los Angeles, Los Angeles County, California. The subject area of the KHA Phase I ESA was exclusive of the area occupied by the former Women and Children's Hospital and at the time of the assessment was relatively vacant and surrounded by various buildings, medical offices, and facilities that constitute the Medical Center campus. Findings during the Phase I ESA included recognized environmental conditions such as the following: trash compactor area on the eastern side of this area, existing waste incinerators on the eastern side of this area, immediately north of the trash compactor structure, petroleum contaminated ground water contamination on-site associated with the facility known as "Site 5", petroleum contamination in the ground water adjacent to this area associated with the facility known as "Site 4", designated hazardous materials storage area located east of the former Women and Children's Hospital, former powerhouse and boilers previously located on the eastern side of this area, west of North State Street, former incinerator previously located on the south central portion of this area, former laundry facility previously located in the south central portion of this area, former maintenance shop previously located north and adjacent to the laundry, former utility building previously located in the central portion of this area north of the laundry, former paint shop previously located northwest of the laundry, and designated

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biohazard storage area located on the eastern side of this area north of the existing incinerators.

6. ENVIRONMENTAL DATABASE SEARCH (EDR)

A computerized, environmental information database search was performed by EDR on March 28, 2014. A copy of the EDR report is included in Appendix E.

The following paragraphs describe the databases that contain noted properties of environmental concern, and include a discussion of the regulatory status of the facilities and potential environmental impact to the subject site. Based on our review of the GeoTracker website operated by the Regional Water Quality Control Board (RWQCB) and hydrologic information contained on that website, discussed in Section 4.3.2 of this report, shallow groundwater flow in the site vicinity is generally to the northeast in the north portion of the site, south in the southern portion of the site, and to the west to south near the western portion of the site.

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6.1. National Priorities List (NPL): Distance Searched – 1 mile

The NPL is the United States Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste properties listed for priority remedial actions under the Superfund program.

Neither the site nor properties located within the searched distance are listed on this database.

6.2. Proposed and Delisted National Priorities List (NPL): Distance Searched – ¼ mile

The Proposed NPL database lists properties that are currently being evaluated for priority remedial actions for the Superfund program. The Delisted NPL database includes properties that are deleted from the NPL database based upon the National Oil and Hazardous Substances Pollution Contingency Plan. This deletion takes place after no further response to the NPL is appropriate.

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Neither the site nor properties located within the searched distance are listed on either database.

6.3. Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List: Distance Searched – ¼ mile

The CERCLIS database contains properties which are either proposed or on the NPL and properties which are in the screening and assessment phase for possible inclusion on the NPL.

The site was not listed on this database. One facility, Nu Way Plating Co at 1805 Sichel Street, approximately 0.14 miles north-northwest and crossgradient of the site was listed on this database. The facility is listed with a date completed of August 30, 1995, is not listed as a federal facility, and is reported as a removal only site with no assessment work needed. This listing is not indicative of a PEC to the site.

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6.4. CERCLIS/No Further Remedial Action Planned (NFRAP) List: Distance Searched – ¼ mile

CERCLIS sites designated as NFRAP have been removed from the CERCLIS database following an initial investigation where no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.

The site was not listed on this database. One facility, Builders Hardware Finishers at 1846 Sichel Street, approximately 0.19 miles north-northwest and crossgradient of the site was listed on this database. The facility is not listed on the NPL and is reported as a removal only site with no assessment needed. This listing is not indicative of a PEC to the site.

6.5. Corrective Action Report (CORRACTS): Distance Searched – ¼ mile

The EPA maintains this database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing corrective action. A corrective action order is issued when a

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release of hazardous waste or constituents into the environment from a RCRA facility has occurred.

Neither the site nor properties located within the searched distance are listed on this database.

6.6. Resource Conservation and Recovery Act (RCRA) Treatment, Storage and Disposal (TSD) Facilities List: Distance Searched – ¼ mile

The RCRA TSD database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste.

Neither the site nor properties located within the searched distance are listed on this database.

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6.7. Resource Conservation and Recovery Act (RCRA) Generators List: Distance Searched – Site and Adjacent

This list identifies sites that generate hazardous waste as defined by RCRA. Inclusion on this list is for permitting purposes and is not indicative of a release.

The site was listed on this database as a large quantity generator (LQG) with universal waste including batteries, lamps, and thermostats. The site was also listed as a historical generator from 1981 through 2008. Hazardous wastes listed at the site include the following: ignitable hazardous wastes, corrosives, reactives, mercury, silver, spent non-halogenated solvents, sodium azide, and formaldehyde. Additionally, the site was listed as a small quantity generator (SQG). No violations were reported for the site.

Five additional facilities listed as LQG were listed on the database within the searched distance. Four of the listed facilities had no violations reported. One facility, Chromal Plating Company at 1748 Workman Street approximately 0.09 miles northwest and crossgradient of the site was listed on this database and has received several notices of violation that included a preparedness and prevention, container use and management, and a generators violation. Thirteen additional facilities were listed on this database as SQGs. One

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facility, Former TMT Pathway, at 1021 North Mission Road approximately 0.12 miles west and crossgradient from the site was listed on this database with reported violations. As of July 7, 1994, all violations for the facility have achieved compliance. These listings are not indicative of a release and would not be considered a PEC for the site.

6.8. Emergency Response Notification System (ERNS) List: Distance Searched – Site

The ERNS database contains information of reported releases of oil and hazardous substances and is maintained by the EPA.

The site is not listed on this database.

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6.9. United States Engineering Controls: Distance Searched – ¼ mile

This database is an EPA listing of facilities with engineering controls in place, such as various forms of caps, building foundations, liners, and treatment methods intended to eliminate pathways for regulated substances to enter environmental media or affect human health.

Neither the site nor properties located within the searched distance are listed on this database.

6.10. United States Institutional Controls: Distance Searched – ¼ mile

This database is an EPA listing of facilities with institutional controls in place, such as administrative measures, groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements, intended to prevent exposure to contaminants remaining on site.

Neither the site nor properties located within the searched distance are listed on this database.

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6.11. State Sites: Distance Searched – ¼ mile

The State Sites database consists of potential or confirmed hazardous substance release properties. Ninyo & Moore reviewed the State Response Sites database for this information.

Neither the site nor properties located within the searched distance are listed on this database.

6.12. State CERCLIS: Distance Searched – ¼ mile

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's EnviroStor database identifies facilities that have known contamination of sites for which there may be reasons to investigate further.

The site was not listed on this database. Three facilities were listed on this database within the searched distance. Two facilities were listed as "inactive-need evaluation" and one facility was listed as "inactive- action required." Potential medium affected is listed as soil for two sites. Based on the distance, potential media affected, and groundwater gradient, it is unlikely these listings are indicative of a PEC for the site.

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6.13. Solid Waste Landfill Sites (SWL): Distance Searched – ¼ mile

The SWL database consists of open and closed solid waste disposal facilities and transfer stations. The data comes from the Integrated Waste Management Department's Solid Waste Information System database.

Neither the site nor properties located within the searched distance are listed on this database.

6.14. State Leaking Underground Storage Tank (LUST) Lists: Distance Searched – ¼ mile

Databases of the LUST information system are maintained by the California State RWQCBs.

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The site was listed on the LUST database. The site has open remediation cases affecting groundwater which is further discussed in Section 7.2. The site listed on the LUST database is a PEC for the site.

Nineteen additional listings, representing 15 off-site facilities were listed on the LUST database and are summarized below.

Table 8 – State LUST Database Review

Listing and Address	Distance and Direction	Gradient Direction	Regulatory Status	Closure Date	Environmental Concern (Y/N)
Al-Sal Oil #17 1848 Marengo Street	adjacent south	downgradient	Pollution Characterization	NA	N
Al-Sal Oil #17 1848 Marengo Street	adjacent south	downgradient	Open-Assessment & Interim Remedial Action	NA	N
Lincoln Magnet High School – LAU 1200 Cornwell Street	0.07 miles east-southeast	crossgradient	case closed	7/27/1995	N
Estelle Doheny Eye Hospital 1537 Norfolk Street	0.21 miles east-northeast	crossgradient	case closed	NA	N
Estelle Doheny Eye Hospital 1537 Norfolk Street	0.21 miles east-northeast	crossgradient	case closed	7/19/1996	N
Shell 1203 North Soto Street	0.21 east-southeast	crossgradient	open-site assessment	NA	N
Shell/Soto-Charlotte 1203 North Soto Street	0.21 east-southeast	crossgradient	case closed	8/1/1996	N
Mobil #11-KXI 1010 North Soto Street	0.24 miles southeast	crossgradient	case closed	10/11/1996	N
Moza Automotive Repair 1201 North Mission Road	0.004 miles northwest	crossgradient	open-remediation	NA	N
Chevron #9 – 3960 1101 North Mission Road	0.01 miles west-northwest	crossgradient	open-remediation	NA	N
Shell (Former) 2000-2012 Marengo Street	adjacent south	crossgradient	case closed	1/2/2013	N
Stoddard Automotive 1721 Workman Street	0.04 miles northwest	crossgradient	case closed	7/17/1998	N

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Table 8 – State LUST Database Review

Listing and Address	Distance and Direction	Gradient Direction	Regulatory Status	Closure Date	Environmental Concern (Y/N)
Stoddard Automotive 1721 Workman Street	0.04 miles northwest	crossgradient	case closed	7/17/1998	N
Gannett Outdoor Systems, Inc. 1731 Workman Street	0.06 miles northwest	crossgradient	Remedial action (cleanup) underway	NA	N
Morton Int'l Whittaker Corp. 1021 North Mission Road	0.12 miles west	crossgradient	Remedial action (cleanup) underway	NA	N
Norris Cancer Hospital 1441 Eastlake Avenue	0.15 miles east-northeast	crossgradient	case closed	10/11/2001	N
San Antonio Winery 1016 North Mission Road	0.17 miles west	crossgradient	case closed	1/22/1998	N
Union Railroad – LA Trans 2100 Alhambra	0.19 miles northwest	crossgradient	case closed	1/22/1998	N
Union Railroad – LA Trans 2100 Alhambra	0.19 miles northwest	crossgradient	case closed	1/22/1998	N
A-1 Eastern Homade Pickle Comp 1832 Johnston Street	0.20 miles north	downgradient	open-site assessment	8/15/2008	N
Mobil-Cardenas, Richard 2829 North Main Street	0.24 miles north-northwest	crossgradient	case closed	10/17/2011	N

Notes:
N – No
N/A – Not Applicable
Y – Yes

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Based on the current regulatory status, the potential contaminants of concern, the media affected, and location, these listings are not indicative of a PEC to the site.

Two facilities, one located at 1848 Marengo Street, and one facility located at 2000-2012 Marengo Street are adjacent south of the site and discussed in Section 3.15 as off-site concerns based on monitoring wells observed during the site reconnaissance. Based on regulatory status as "case closed" for 2000-2012 Marengo Street, this would not be indicative of a PEC to the site. According to GeoTracker, the monitoring well located

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adjacent south of the site associated with the open case remediation for 1848 Marengo Street has not reported contamination in groundwater. Based on information reported for the facility, location, and groundwater flow direction, this would not be a PEC for the site.

6.15. Underground Storage Tank (UST) Registration List: Distance Searched – Site and Adjacent

According to EDR, UST records are provided by the Department of Building and Fire Safety. Inclusion of facilities on this list does not necessarily indicate a release.

The site is listed on this database under several addresses with registered USTs. The following is a list of addresses associated with the site that appear on the UST database:

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Table 9 – Site UST Database Review

Listing and Address	Listed on LUST Database (Y/N)
LAC+USC Medical Center 1175 North Cummings Street	N
LAC+USC Medical Center 1635 Marengo Street	N
LAC+USC Medical Center 1129 North State Street	N
LAC/USC Medical Center 1950 Marengo Street	N
LA County USC Medical Center – R 1900 Zonal Avenue	N
LA County Medical Center Telephone Exchange 1200 North State Street	Y
Medical Examiner – Coroner 1104 North Mission Road	N
Notes: N – No Y – Yes	

The following adjacent properties additionally were listed on the UST database:

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Table 10 – Adjacent Property UST Database Review

Listing and Address	Listed on LUST Database (Y/N)
Al Sal Oil #17 1848 Marengo Street	Y
LAC/USC Medical Center 1950 Marengo Street	N
Chevron Station #9-3960 1101 North Mission Road	Y
East Los Angeles Occup/Center 2100 Marengo Street	N
Notes: N – No Y – Yes	

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Additional information was not provided for the listed properties. These listings alone are not indicative of a release; however the site additionally listed on the LUST database, would be a PEC for the site.

6.16. Permitted Aboveground Storage Tank (AST) List: Distance Searched – Site and Adjacent

According to EDR, AST records are provided by the Department of Building and Fire Safety. Inclusion of facilities on this list does not necessarily indicate a release.

The site and adjacent properties are not listed on this database.

6.17. State Engineering Controls: Distance Searched – ¼ mile

This database is a California Environmental Protection Agency (Cal-EPA) listing of facilities with engineering controls in place, such as various forms of caps, building foundations, liners, and treatment methods intended to eliminate pathways for regulated substances to enter environmental media or affect human health.

Neither the site nor properties located within the searched distance are listed on this database.

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6.18. State Institutional Controls: Distance Searched – ¼ mile

This database is a Cal-EPA listing of facilities with institutional controls in place, such as administrative measures, groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements, intended on preventing exposure to contaminants remaining on site.

Neither the site nor properties located within the searched distance are listed on this database.

6.19. Brownfields: Distance Searched – ¼ mile

This database is a DTSC tracking system of California Brownfields sites.

Neither the site nor properties located within the searched distance are listed on this database.

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6.20. State Other: Distance Searched – ½ mile

This database is a DTSC database of sites with known contamination or uncharacterized properties where further studies may reveal problems.

Neither the site nor properties located within the searched distance are listed on this database.

6.21. Indian Reservation: Distance Searched – ¼ mile

USGS map layer portrays Indian administered land within the United States with an area equal to or greater than 640 acres.

No Indian reservation land was found to be within the searched distance.

6.22. Indian Leaking Underground Storage Tank (LUST): Distance Searched – ½ mile

This database is a database maintained by the EPA of LUSTs on Indian land in Arizona, California, New Mexico, and Nevada.

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Neither the site nor properties located within the searched distance are listed on this database.

6.23. Indian Underground Storage Tank (UST): Distance Searched – ¼ mile

This database is a database maintained by the EPA of USTs on Indian land.

Neither the site nor properties located within the searched distance are listed on this database.

6.24. Additional Databases

The following databases listed addresses associated with the site and included the following: CA FID UST, HIST UST, SWEEPS UST, CHMIRS, HIST CORTESE, HAZNET, RGA LUST. Abandoned USTs are discussed in Sections 7.4 and 7.5 and removed and in place USTs are shown on Figure 3.

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7. ENVIRONMENTAL RECORDS REVIEW

Ninyo & Moore reviewed records from the DTSC EnviroStor website (EnviroStor), State Water Resources Control Board GeoTracker website (GeoTracker), and the South Coast Air Quality Management District (SCAQMD) for the site and based on database records, Ninyo & Moore also reviewed the following addresses found to be historically associated with the site:

Table 11 – Historic Site Addresses

1129 North State Street, Los Angeles, California
1900 Zonal Avenue, Los Angeles, California
1910 Zonal Avenue, Los Angeles, California
1175 North Cummings Street, Los Angeles, California
1635 Marengo Street, Los Angeles, California
1950 Marengo Street, Los Angeles, California
2039 Marengo Street, Los Angeles, California
2055 Marengo Street, Los Angeles, California

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Table 11 – Historic Site Addresses

1104 North Mission Road, Los Angeles, California
1240 North Mission Road, Los Angeles, California

Additionally, Ninyo & Moore contacted the Los Angeles Department of Public Health (LADPH) and the Los Angeles City Fire Department (LAFD) to review available records for the site and historic addresses associated with the site. Regulatory agency documentation is provided in Appendix E.

7.1. Department of Toxic Substances Control EnviroStor website

Ninyo & Moore reviewed the DTSC EnviroStor website for information regarding the site addresses. According to the EnviroStor website, there are no records pertaining to the site address.

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7.2. State Water Resources Control Board GeoTracker Website

Ninyo & Moore reviewed the SWRCB GeoTracker website for information regarding the site address. According to the GeoTracker website, the site address for 1200 North State Street is currently under groundwater monitoring for a LUST case and is open for closure. A request for closure work plan, dated September 3, 2013 was reviewed on the website.

According to the Request for Closure work plan reviewed on GeoTracker, in May 1988, one 2,000-gallon and one 8,000-gallon gasoline USTs were removed from the ambulance garage located along the north side of the General Hospital building just southwest of the Zonal Avenue and Biggy Street intersection. The 2,000-gallon UST was reportedly badly corroded and holes were observed in the seams of the tank. Approximately 32 gallons of gasoline product were observed in the excavation pit after removal. Soil samples collected from beneath the tank contained total petroleum hydrocarbons as gasoline (TPHg) ranging from 5,400 milligrams per kilogram (mg/kg) to 34,000 mg/kg.

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In late December 1988, IT Corporation drilled and installed 7 groundwater wells (MW-1 through MW-7). One well (MW-6) encountered refusal at 12 feet bgs and was abandoned. Chemical results for soil samples collected during well install indicated TPHg at 15 feet bgs, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) at 35 feet bgs. Two 10,000-gallon diesel fuel USTs were installed at the west end of the site. In June 1992, Toxguard installed well TGMW-7 next to the abandoned MW-6 well, but did not encounter groundwater. Chemical analysis for soil samples indicated TPHg, and BTEX were detected at 15 and 20 feet bgs.

In June 1992, Toxguard drilled and installed MW-6 in vicinity of a 4,000-gallon gasoline UST along the north side of the general storage building. TPHg was detected at 10 and 25 feet bgs. Benzene was detected at 10 feet bgs. In July 1992, a tank integrity test was conducted and reported a leak rate of 0.098 gallons per hour. A line test conducted in August 1992 also indicated leakage. In June 1995, Targhee and Moines removed the 4,000-gallon gasoline UST, dispenser, and associated piping. Chemical results indicated TPHg and benzene below the tank. A soil and groundwater assessment conducted in February 1999 by ENCON identified groundwater was not laterally persistent beneath the site and the plume appeared to be stable and well defined. In June 2003, ENCON advanced two borings near the former tank pit north of the General Hospital building and converted one boring to ITMW-1 and abandoned the second boring due to a dry borehole.

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In December 2005, ASTECH submitted a closure work plan to the LARWQCB for termination of sampling activities. Pursuant to the 60-day Rule and the priority status (Priority D) assigned to the site by the LARWQCB, ASTECH suspended groundwater monitoring activities at the site. The presence of residual petroleum hydrocarbons in soil and groundwater represents a PEC for the site.

7.3. South Coast Air Quality Management District

Ninyo & Moore reviewed the SCAQMD's Facility Information Detail Search website for permits regarding the site address. According to the SCAQMD, several addresses associated with the site had records at the SCAQMD. The following table summarizes our findings:

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Table 12 – SCAQMD Agency Search

Listing and Address	Status	Description	Equipment listed at facility	Notice of Violations
LAC+USC Medical Center 1200 North State Street	Active	NA	I C E (>500 HP) EM Elec Gen Diesel – active	3/16/1987 – Closed Case
			Title V Permit Revision	3/7/2003 – Closed Case
			Rule 1415 Plan Notifications Storage Tank Ammonia Compliance Plan for Rule 1146	8/27/1990-Close Cased
			Boiler (>20-50 MMBTU/HR) Comb gas Distil	9/1/2007 – Closed Case
			Selective Catalytic Reduction Title V Permit Renewal Application	12/1/1997 – Closed Case
			Compliance Plan – Rule 1470-Emer Ice>3 Operators Serv Stat Storage & Dispensing Gasoline – active	10/3/2007 – Closed Case
			ICE (50-500 HP) EM Elec Gen- Diesel R-461-Gasoline Transfer and Disp (GDF)	4/21/2006 – Settled Compliance Only
LAC+USC Medical Center 1200 North State Street	Active	NA	None	None
LAC+USC Medical Center 020197 1200 North state Street	Duplicate	Office/Clinic of Mdcl Doctors	None	None
Morrison Custom Management 1200 North State Street	Active	NA	None	None
LA Co, Health Services 020197 1240 North Mission Road	Duplicate	General med/Surgical Hospitals	None	None
LA Co Univ So CA Medical Center 1104 North Mission Road	Active	General Government, NEC	Storage Tank Petroleum Light Distillate – inactive	None

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Table 12 – SCAQMD Agency Search

Listing and Address	Status	Description	Equipment listed at facility	Notice of Violations
LA County Department of Coroner 1104 North Mission Road	Active	NA	I C E (>500 HP) EM Elec Gen Diesel – active	None
LA Co, Health Services 020197 1129 North State Street	Duplicate	General med/Surgical Hospitals	None	None
LA Co, Health Services 020197 1175 Cummings Street	Duplicate	General med/Surgical Hospitals	None	None
LA Co, Health Services 020197 1635 Marengo Street	Duplicate	General med/Surgical Hospitals	None	None
Westinghouse Electric Corporation 1635 Marengo Street	Out of Business	Electrical Apparatus and Eqpmt	Boiler Nat Gas/ No. 3 Oil Fired	None
MCH, A Join Venture 1849 Marengo Street	Inactive	Excavating and Foundation Work	Plan Rule 1166 (Contaminated Soil Hand)	None
LA Co, Health Services 020197 1934 Hospital Place	Duplicate	General med/Surgical Hospitals	None	None
LA Co, Health Services 020197 2020 Zonal Avenue	Duplicate	General med/Surgical Hospitals	None	None
LAC+USC Medical Center 2020 Zonal Avenue	Duplicate	NA	None	None
ARCO DLR, Ramon Juarez Y 2039 Marengo Street	Out of Business	Gasoline Service Stations	Serv Stat Storage & Dispensing Gasoline – inactive Amine (Or DEA) Regeneration – inactive Serv Stat Storage & Dispensing Gasoline - inactive	None
Burger King #4541 2039 Marengo Street	Active	Eating Places	Charbroiler – Natural Gas - inactive	None

Note:
N/A – Not Applicable

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A review of records from the SCAQMD website, Ninyo & Moore found there were two gas serving pumps at the site associated with 2039 Marengo Street, and 1200 North State Street, and there is an active permit for a petroleum storage tank associated with 1104 North Mission Road.

7.4. Los Angeles Department of Public Health (LADPH)

Ninyo & Moore contacted the LADPH to review records pertaining to the site address and addresses historically associated with the site. According to the LADPH, records were available for the following addresses: 1200 North State Street, 1175 North Cummings Street, 1104 and 1240 North Mission Road, and 1129 North State Street. A review of available records for the addresses included the following:

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7.4.1. 1200 North State Street

LAC+USC Medical Center – Proposed AIDS Clinic Site, Mission Road and Zonal Avenue (N.E. Corner) letter prepared by the LAFD dated November 17, 1994: According to the letter, there appears to be petroleum hydrocarbon contamination near groundwater at the site with no obvious source of contamination on-site. Five borings were advanced in November 1993 (two borings to 40 feet bgs and three borings to 25 feet bgs) by hollow stem auger with soil samples collected and analyzed for VOCs, SVOCs, and total petroleum hydrocarbons (TPH). Results of the analyses indicated TPH was present in soil beneath the site. Possible sources of contamination were indicated as a utility shed east and adjacent to the site, or other nearby medical center areas.

Hazardous Substance/Waste Oversight letter dated November 23, 1994: According to the letter, the LAFD site mitigation unit became the lead agency for site oversight.

LAC+USC Medical Center Replacement Project letter dated December 2, 1994: According to the letter, the site does not appear to present significant hazards to public health or the environment, although there is evidence of pockets of crude oil beneath the

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site in sharply folded geologic formations and the possibility of methane gas and some solvent like contamination threatening groundwater.

LAC+USC Medical Center Replacement Project letter dated February 28, 1995: The letter was written in regards to a Draft Report, Subsurface Contamination Investigation; Medical Center Replacement Project dated January 27, 1995 submitted by Dames and Moore. According to the letter, the LAFD concluded the objectives of the subsurface investigation were reasonably met and the site did not present a significant threat to human health. Exceptions presented by LAFD included a discussion about the small amount of VOCs detected in soils not being significant, but coming from an uncertain source. LAFD also mentioned small amount of chloroform found in groundwater, and methylene chloride and tetrachloroethene found in soil from below 35 feet bgs could be significant. LAFD indicated chlorinated water leakage from the Hazard Reservoir could be a potential source for chloroform in groundwater.

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Main Hospital Replacement Site letter dated May 11, 1995: According to the letter, plans to relocate the main hospital at the site for a location southeast of the original site were submitted and would require the demolition of the outpatient clinic, the Intern/Residents building, several parking structures, a Los Angeles City DWP reservoir, other hospital support buildings, and residential houses from Cummings Street to Zonal on the east. Construction of the new hospital building would require further assessment of the area. Assessment conducted in the southeast portion of the site from June through August, 1994 indicated the presence of TRPH and waste oil stained soil, lead, diesel range TRPH, and severely graded crude oil, and benzene, chloroform, perchlorate, and methylene chloride in groundwater.

Closure Report dated March 27, 1996: The report indicated two sites, the first at Marengo and Cummings Street (Main site), and the second, an AIDS Clinic Site at Zonal and Mission Road. According to the report, no remedial action has taken place and extensive site assessment occurred, including deep HSA borings and monitoring well installation and sampling. Light mineral spirits of hydrocarbon contamination was

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found at the AIDS Clinic site at 20 feet bgs, with first groundwater at 25 feet bgs and was referred to the RWQCB. Of major interest at the main site was the occurrence of groundwater between 10 and 50 feet bgs and the appearance of halogenated volatile organic compounds in monitoring well samples, such as chloroform. Crude oil exists in pockets near Marengo and although not found in significant amounts, methane gas is expected to be a possibility at the site.

Critical Hazardous Material Incident dated August 24, 2000: According to the file, the site had a reported spill of formaldehyde within a laboratory, which required evacuation and fire department involvement for clean-up.

Inspection Report dated August 31, 2011: According to the report, the site was in violation for hazardous waste storage and was notified to comply.

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Additionally, the LADPH provided several documents pertaining to the 1200 North State Street site address. Documents provided by the LADPH included draft workplans, case reports, a supplement to workplan, environmental audit, seismic hazards evaluation, pre-construction evaluation and site characterization draft report, site assessment workplan, subsurface contamination investigation report, and interim report of findings for the leak detection investigation and tank monitoring report. Most of the documents were reports and workplans pertaining to the replacement project discussed above and detailed subsurface information for the 5P21 Building Relocation Site north of the site. A draft environmental audit report of the site by Environmental Science Associates and dated October 1992 was included in the documents and included the following findings:

- In 1980, an oil spill incident occurred in the parking lot immediately northeast of the Central Steam Plant (West) on a fully paved parking lot, and clean-up and soil remediation were implemented to remove oil residue and contamination in the area.

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- Previous investigations from 1989 made in an area north of the General Hospital Building indicated volatile fuel hydrocarbons (VFH) and BTEX were present in soil and groundwater beneath the area as a result of releases from USTs removed from the area.

- A Site Assessment Proposal by Calscience Engineering, Inc (Calscience) and dated April, 1992 for soil sampling near a UST located northwest of the Medical Examiner Building.

- A Final Workplan Pre-Construction Evaluation Report by Dames & Moore and dated February 25, 1994 indicated the presence of TPH in the subsurface at approximately 30 to 60 feet bgs in the southern portion of the new hospital; TPH detected is possibly due to the presence of naturally occurring crude oil beneath the site.

- Oil stained ground surfaces were observed between Chicago Street and Cummings Street observed.

- Low concentrations of methane were detected during a soil vapor survey in an area surveyed within an alleyway between Cummings and Chicago Streets, elevated concentrations of TRPH (resulting from severely degraded crude oil) and inorganic lead was recorded in subsurface soil, gasoline and diesel were not present in soils, and significant VOCs and SVOCs were not present in soils.

Additionally, an Interim Report of Findings for the Leak Detection Investigation and Tank Monitoring Plan at LAC+USC Medical Center prepared by Toxguard Systems, Inc. and dated September 4, 1992 was included in the documents provided by the LADPH. The report was in regards to the performance of leak detection tests at 5 tank locations at the site. The report included the following:

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Site 1 - Tank Cluster on the North side of the Steam Plant (Building 516)

The site contained nine tanks in a cluster constructed of concrete and lined with steel. The cluster included three fuel tanks, a condensate tank, and five clarifier tanks. Results of the leak test found that petroleum hydrocarbons are present in soil between the filler inlets on the north side of the tank wall, and free diesel is present on the surface of the water table.

Site 2 – 1,000-Gallon Diesel Fuel Tank on the South Side of the Steam Plant (Building 516)

The site has a 1,000-gallon single wall UST containing diesel fuel placed on a concrete foundation slab and backfilled with sand. Results of the leak test indicated no petroleum hydrocarbon leakage was detected. According to records, the tank was removed in December 1998 and is further discussed in Section 7.5.

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Site 3 – South Side of the Out-patient Clinic (Building 121)

The site has a 500-gallon, single wall UST containing diesel fuel placed on a reinforced concrete foundation slab and backfilled with sand. Results of the leak test indicated no petroleum hydrocarbon leakage had been detected.

Site 4 – Two 10,000-Gallon Diesel Fuel Tanks North of the General Hospital Emergency Room Entrance (Building 101)

The site contains two single wall 10,000-gallon tanks containing diesel fuel. The tanks are buried beneath a six-inch thick reinforced concrete slab. Adjacent to the site were two gasoline tanks which were removed on May 13, 1988, which had apparently leaked. Six borings and groundwater monitoring wells were installed and water was found to be contaminated with significant quantities of gasoline, but no further action was taken after reporting to the LARWQCB. Results of the leak detection test indicated diesel fuel does not appear to contaminate water or soil surrounding the two tanks, both soil and water surrounding the tanks are impacted by gasoline, and both tanks are suitable for

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tank level monitoring. According to records, the tanks were removed in December 1998 and replaced with two USTs.

Site 5 – General Storage Area, 4,000-Gallon Gasoline Tank (Building 120)

The site has a 4,000-gallon single wall UST used for unleaded gasoline, dispenser and related piping. The tank is capped with concrete and the area is paved with asphaltic concrete and concrete. Results of the leak detection test indicated soil and water are impacted by gasoline and BTEX in excess of State Action Levels, the probable source is the tank or related piping, and hydrocarbon impacted soil and groundwater have not been delineated by the investigation.

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7.4.2. 1129 North State Street

Ninyo & Moore reviewed a letter dated July 25, 1986 pertaining to a pesticide evaluation in dwellings for the residential properties east of Cummings Street. The letter indicated home evaluations for pesticide were conducted at the request of the LADPH.

7.4.3. 1104 North Mission Road

Hazardous Material Incident Report dated May 31, 2002: According to the incident report, an undetermined solid material was released at the site and required hazmat attention. A second incident report dated September 25, 2002 indicated a liquid acid spill occurred at the site and was cleaned up.

Based on the review of files at the LADPH, the presence of contaminants in groundwater and soil beneath the site are PECs for the site.

7.5. City of Los Angeles Fire Department (LAFD)

Ninyo & Moore contacted the LAFD to review available records pertaining to the site and historical addresses associated with the site. According to the LAFD, records were available for review. The following table summarizes the review.

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Table 13 – LAFD Report Summary

Site Address	Review Summary
1200 North State Street	Tank inspection report dated August 2, 1988: A 500-gallon diesel subterranean tank west of the Telephone Exchange (Building 308) was inspected and found to be free of visible contamination. The tank was also monitored for combustible gas and oxygen and was determined to be free of contamination and gas.
	Underground Tank Removal and Soil Sampling report dated May 31, 1995: On May 22, 1995, one 30,000-gallon diesel tank, and two 12,000-gallon tanks were removed from a location southeast of the Women's and Children's Hospital complex (Building 401). According to the report, five tanks were to be removed, but only three diesel tanks were removed. During excavation, groundwater or a source of water flowed into the excavation area. Soil samples collected from beneath the tanks indicated total petroleum hydrocarbons as diesel (TPHd) was present in soil from the excavation.
	Removal of Two 10,000-Gallon Underground Storage Tanks for Diesel Fuel for Backup Generator at General Hospital dated October, 1999: Two USTs adjacent to the backup generator room of the General Hospital building (Building 101) were removed and replaced with double walled tanks in December 1998. Soldier pile shoring was installed on November 16, 1998 and soil above the tanks was excavated and removed December 17, 1998. Soil removed from soldier pile borings, which extended into a gasoline-contaminated groundwater plume was removed separately. Once USTs were removed, new USTs were installed and the excavation backfilled with pea gravel and excavated clean soil.
	Closure Report for Tank Removal for LAC+USC Medical Center dated March 1996: A tank northeast of the Pharmacy Building (Building 502) which contained some fuel, but had not been used for many years was removed. The tank pit was overexcavated by a 30 foot by 30 foot footprint to a depth of 15 feet below ground surface (bgs) and the tank was removed on February 14, 1996. Soil sampling and analysis was conducted for soil beneath the tank and was found to be contaminated. Groundwater was encountered in a nearby boring at approximately 30.5 feet bgs. Upon observation of the removed tank, two holes were discovered on the bottom end of the tank.

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Table 13 – LAFD Report Summary

Site Address	Review Summary
	Underground Storage Tank Removal at the LAC+USC Medical School report dated June 17, 2005: A 500-gallon diesel UST and all its piping was removed and not replaced from the site at an unknown location. The tank was inspected upon removal and found to have no holes, pits, or corrosion. Soil sampling and analysis was conducted on soil beneath the tank at approximately 12 and 13 feet bgs. The sample at 12 feet bgs had total petroleum hydrocarbon (TPH) concentration of approximately 1,400 mg/kg. The 13-foot sample had non-detect concentrations for TPH, methyl-tertiary-butyl-ether (MTBE) and BTEX.
1240 North Mission Road (Building 401)	Field Activity Daily Log dated May 4, 1988: Cleaning for the removal of two 500-gallon tanks north of the Women's and Children's Hospital Building (Building 401). Tanks were located approximately 21 to 23 feet bgs. Tanks were inspected and found to be gas free and a visible inspection found the tanks to be free of visible contamination.
1104 North Mission Road (Building 517)	Closure Report for Excavation and Disposal of Contaminated Soil at 1104 North Mission Road, Los Angeles, California dated May 19, 1992: A total of 16.6 cubic yards of contaminated soil were excavated from the site on June 25, 1992 and confirmatory samples collected and analyzed from the pit. Soil was transported to a waste facility on July 2, 1992.
	Correspondence for Helium Line Pinpoint Test for Los Angeles County USC Medical Center dated March 24, 1992: Contaminated soil was encountered at approximately six feet bgs along a product line. Calscience performed a helium line pinpoint test and determined the leakage point along the product line on January 23, 1992. The test determined there is a leak between the tank and block wall (approximately 10 feet). No leaks were discovered from the wall to the generator room.
	Abandonment Information Sheet dated May 28, 1992: Application for the abandonment of piping only at the site address. Correspondence for Permit #6177 dated October 1, 1997: On September 26, 1997 a 1,500-gallon Modern Welding Glasteel II was installed at the site address. The UST was set on a 12 inch pea gravel bed and the excavation was backfilled with the same.

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Table 13 – LAFD Report Summary

Site Address	Review Summary
	Correspondence from LAFD regarding Tank Closure Report dated September 25, 1997: The LAFD determined no further action was required based on information provided pertaining to a 1,500-gallon diesel UST removed from the site. The tank appeared intact with no obvious holes or cracks and no field evidence of petroleum hydrocarbon soil contamination within the pit. Soil samples analyzed from stockpiles and beneath the tank indicated no TPHd and BTEX contamination occurred from the tank.
	Correspondence for Environmental Oversight for Product Piping Removal and Soil Sampling Activities Report dated June 20, 2013: Construction activities involved the removal of a 1,500-gallon diesel fuel UST and its associated piping, and the replacement by a 3,000-gallon aboveground storage tank northeast of the Coroner Building (Building 517). Removal activities occurred at the site between March 26 to 28, 2013. Excavated soil was monitored using a photo-ionization detector (PID) and did not exceed 50 parts per million (ppm). The UST was cleaned, triple rinsed, certified inert, removed, and inspected and appeared to be in good condition on March 28, 2013. Soil samples were collected from below the UST, piping trench, and transfer pump from 11, 6, and 11 feet bgs, respectively. Samples were analyzed for TPHd, BTEX, and fuel oxygenates. Samples collected from below the UST had a TPHd concentration of 5.1 mg/kg and BTEX and fuel oygenates were not detected. Samples analyzed from the fuel line did not have concentrations of TPHd, BTEX, and fuel oxygenates detected. Based on information provided to the CUPA (LAFD), the CUPA required no further action for the site.
1900 Zonal Avenue (Building 120)	Closure letter and report titled Removal of a 500-gallon Underground Storage Tank for Waste Alcohol at General Hospital dated February 1999: Based on the information provided in the report, the LAFD determined no further action is required for the removal of the 500-gallon UST west of the Mini Warehouse (Building 120) and north of the General Hospital Building Building 101).

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Table 13 – LAFD Report Summary

Site Address	Review Summary
1635 Marengo Street (Building 516)	Removal of 1,000-gallon UST for Diesel Fuel for Emergency Generator at Central Power Plant dated April 1999: The pad and soil overlying the UST was removed on December 16, 1998 from east of the Central Plant (West) Building (Building 516). The 1,000-gallon UST was removed using a crane and appeared intact with no holes or cracks. After the UST removal, two soil samples were collected from the soil stockpile and the tank pit at approximately 8 feet bgs. Groundwater was not encountered. The tank pit sample reported non detect concentrations of TPHd, and the stockpile sample reported 60 mg/kg of TPHd. The pit was backfilled with the removed soil and imported pea gravel. The filled excavation was covered with a concrete pad for the replacement AST.
	UST Closure report dated May 18, 1994: Two 48,000-gallon USTs were removed from north of the Central Plant (West) Building (Building 516). No history of leakage was reported for the USTs. On April 26, 1994 the USTs were removed including the fuel vault liners and associated piping. On May 6, 1994 seven soil samples were collected including three from below tank 1, three samples from below tank 2, and a duplicate for the LAFD. All samples analyzed reported non-detect concentrations of TPHd and BTEX.
1950 Marengo Street (Lot 9 Parking Structure)	Monitoring System Certification dated December 9, 2003: Detailed an inventory for a monitoring system located at the LOT 9 Parking Structure.
	Correspondence for Installation of Underground Fuel Storage Tank dated March 30 1995: Wilpac Plumbing installed one 4,000-gallon, double wall type, fuel storage tank at 1950 Marengo Street, Los Angeles, California. The tank was set in a minimum of 12 inches of clean backfill material.
2039 Marengo Street (Building 204)	Notification of Underground Tank Abandonment dated March 7, 1985: Five USTs (two 6,000-gallon tanks, two 4,000-gallon tanks, and one 550-gallon tank) were removed from northeast corner of Marengo Street and Cummings Street.

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Based on the review of these documents at the LAFD, the historic presence of USTs and current remediation activities at the site represent PECs for the site.

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8. CONCLUSIONS

Ninyo & Moore completed a HMA for the LAC+USC Medical Center in Los Angeles, California. The site has been developed with the Medical Center from at least 1890 from Mission Road to Brittania Avenue. East of Brittania Avenue was developed with residential structures through at least 1970. Two gas stations were observed within site boundaries in the southeast portion of the site from at least 1970 through at least 1981. The site boundary expanded from Brittania Avenue to Cummings Street from at least 1994 through 2005. From at least 2005 through 2014, the site boundaries extended from Mission Road on the west to Chicago Street on the East. The HMA revealed the following potential issues of concern:

- **Building Materials** – Based on the dates of construction, site buildings designated for future demolition or renovation may contain ACMs and LBP.

- **Hazardous Materials** – The site contained four areas with generators, which included petroleum aboveground tanks located west of the Telephone Exchange, south of the IR Building, between the Pharmacy and Old Coroner Administration Building, and south of the Lot 9 Parking Structure. Petroleum tanks and generators were placed within secondary reinforced containment platforms. Staining within the vicinity or evidence of leaks or spills was not observed. Additional hazardous materials indications are as follows:

    - The site contained 12 areas where hazardous materials were containerized and stored within secondary catch basins. Staining within the vicinity or evidence of leaks or spills was not observed.

    - ASTs located at the site were observed near the General Hospital, Central Plant (East), Central Plant (West), and the Women's and Children's Hospital and included contents such as liquid oxygen, sulfuric acid, and salt. Staining within the vicinity or evidence of leaks or spills was not observed.

    - Indications of USTs were observed during the site reconnaissance near the General Hospital Building, Central Plant (East), Central Plant (West), and Women's and Children's Hospital. According to a list of USTs currently present at the site, the LAC+USC Medical Center is reported to have up to six registered active USTs onsite, ranging in size from 4,000 gallons to 50,000 gallons, for the storage of gasoline, diesel, and waste oil. Based on available historical records, 36 USTs total are suspected to have been located on site.

        - 25 USTs have been removed.

        - Six USTs are reported to still be present on-site.

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- ♦ One UST was removed from the site from an unknown location.
- ♦ Four USTs are approximately located, but their presence is uncertain.

- Groundwater wells were observed at the site north of the General Hospital Building in an area of known open remediation process. On November 7, 1988, a release of gasoline from an UST registered to the General Hospital Building was reported to have impacted groundwater.
- The results of groundwater investigations provided no evidence of VOCs and SVOCs with the exception of low concentrations of chloroform and phthalate esters from groundwater wells sampled near the IR Building located in the northeast portion of the site.
- Clarifiers were observed at the site south of the Telephone Exchange, within the Central Plant (East) Building, north of the Central Plant (West) Building, and east of the Medical Examiner Building.
- A list of elevators and their type of mechanical operation was provided and mechanical hydraulic oil operation types included hydro, traction, and gearless. Transformers, light ballasts, and other electrical equipment potentially containing PCB-laden dielectric fluids were previously identified at the subject property.
- The site does not lie within the administrative boundaries of an oil field, but the site does have an active oil well located along the south side of the site. The presence of TRPH indicative of naturally occurring crude oil at approximately 25 to 60 feet bgs near Marengo Street was reported during a subsurface investigation in that area.
- Soil vapor surveys have identified relatively low concentrations of methane.
- Twelve addresses historically associated with the site were listed on the SCAQMD agency database. Listings included registration for gasoline serving pumps at the site and an active permit for a petroleum tank at the site.
- In the 1970's a gasoline service station and an automobile repair facility occupied the northern portion of Marengo Street, between Cummings and Chicago Streets. According to databases, five USTs ranging in size from 200-gallons to 6,000 gallons were located on the property for the automobile repair facility and the gasoline service station.
- TRPH and inorganic lead were reported in a surface sample analyzed between Cummings and Chicago Streets.
- Results of a structural assessment concluded the remaining service life of the tunnel present at the site connecting the General Hospital Building to the Pharmacy Building

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was expected to be less than five years. In addition, analysis of 14 samples collected and analyzed for suspect ACM positively identified eight samples as being ACM. The black wall joint sealant on the tunnel walls was determined to be non-friable asbestos occurring over approximately 80 joints. The TSI pipe insulation is friable asbestos (Amosite and Chrysolite) and in fair condition and occurs throughout the length of the tunnel on the steam pipes.

- Former powerhouse and boilers were previously located west of North State Street.

- **Environmental Database Report** – The site was listed on several databases including the RCRA Generators, State LUST, UST Registration, CA FID UST, HIST UST, SWEEPS UST, CHMIRS, HIST CORTESE, HAZNET, and RGA LUST.

  - The site was listed as a LQG and SQG on the RCRA database for universal waste storage at the site. No violations were reported for the site.

  - The site and historical addresses associated with the site were listed on the LUST database and UST databases. The site address of 1200 North State Street is listed as an open remediation case on the LUST database. Seven addresses historically associated with the site were listed on the UST database.

- **Off-Site Issues –** Two off-site gas stations were observed adjacent west and south to the site, one facility south of the site is currently under an open remediation process with the RWQCB.

  - A groundwater monitoring well associated with the remediation process was located immediately south of the site. Additionally, several abandoned groundwater monitoring wells were observed adjacent and east of the Lot 9 Parking Structure.

  - The Hazard Reservoir northeast of the site is suspected of being a source of chloroform in groundwater beneath the site due to chlorinated water leakage from the facility.

  - Fifteen facilities in the site vicinity within the searched radius were listed on the LUST database including one facility adjacent south of the site as an open remediation case.

9. PROJECT IMPACTS AND MITIGATION MEASURES

The following paragraphs discuss the Potential Significant Project Impacts, Feasible Mitigation Measures, and Potential Project Impacts not Fully Mitigated to Less than Significant.

9.1. Potential Significant Project Impacts

Potential Significant Project Impacts include the known or probable presence of soil contamination where remediation has not been performed, is incomplete, or is not

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documented. Potential Significant Project Impacts also include asbestos and LBP in buildings that may be demolished or renovated. The following direct Potential Significant Project Impacts have been identified:

- **Building Materials** – Based on the dates of construction, site buildings designated for future demolition or renovation may contain ACMs and LBP.
    - Presence of ACMs and LBP is a PEC.
    - The presence of TSI in fair condition within the tunnel is a PEC.
- **Hazardous Materials** – Indications of USTs were observed during the site reconnaissance near the General Hospital Building, Central Plant (East), Central Plant (West), and Women's and Children's Hospital. The presence of USTs at the site is a PEC.
    - Monitoring wells indicating groundwater impacted with petroleum hydrocarbons were observed at the site north of the General Hospital Building in an area of known open remediation process is indicative of a PEC.
    - Clarifiers were observed at the site south of the Telephone Exchange, within the Central Plant (East) Building, north of the Central Plant (West) Building, and east of the Medical Examiner Building. Clarifiers at the site are indicative of a PEC.
    - A list of elevators and their type of mechanical operation was provided and mechanical operation types included hydro, traction, and gearless. Hydraulic oil used in hydro elevators is indicative of a PEC for the site.
    - Two gas stations were found formerly occupying the southeast portion of the site during historical document review. The presence of gas service stations indicates the potential for releases from USTs to be present at the site which represents a PEC for the site.
    - Review of the DOGGR online system indicated an active oil well was present along the south margin of the site north of Marengo Street and west of North State Street. The presence of an active oil well located on the south end of the site is indicative of a PEC.
    - Twelve addresses historically associated with the site were listed on the SCAQMD agency database. Listings included registration for gasoline serving pumps at the site and an active permit for a petroleum tank at the site. Active permits for petroleum tanks and pumps are indicative of a PEC for the site.

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- Previous reports prepared for the site included Phase II Assessments, Environmental Assessments and Impact Reports, Tunnel Assessments, and Phase I ESAs. Observed RECs noted in the reports that have not been further evaluated or remedied are indicative of PECs for the site.

- **Environmental Database Report** – The site was listed on several databases including the RCRA Generators, State LUST, UST Registration, CA FID UST, HIST UST, SWEEPS UST, CHMIRS, HIST CORTESE, HAZNET, and RGA LUST.

  - The site and historical addresses associated with the site were listed on the LUST and UST databases. The site is listed as an open remediation case on the LUST database. The site listed on the LUST database is a PEC for the site. The site and associated addresses listed on the UST database do not represent a PEC for the site, however, lack of information regarding removal, abandonment, closure, and location of some (4) USTs represent a PEC for the site.

- **Off-Site Issues** – Fifteen facilities in the site vicinity within the searched radius were listed on the LUST database including one facility adjacent south of the site as an open remediation case.

  - The Hazard Reservoir northeast of the site is suspected of being a source of chloroform in groundwater beneath the site due to chlorinated water leakage from the facility. The location of the Hazard Reservoir in a higher elevation than the site is indicative of a PEC for the site.

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9.2. Feasible Mitigation Measures

Feasible mitigation measures are proposed to reduce each of the listed project impacts to less than significant, as follows:

- Prior to construction activities, surveys for ACMs and LBP shall be evaluated in the buildings to be demolished or renovated. Abatement measures shall be implemented in accordance with the recommendations of these evaluations.

- Prior to start of construction, additional investigation of the site LUST facility shall be conducted to evaluate its potential impact on the site development.

- Prior to construction, additional investigations at the former suspected locations of USTs (both abandoned in place and where no records of removal have been found) and the former boilers and powerhouse shall be conducted to evaluate their potential impact on site development.

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9.3. Potential Project Impacts Not Fully Mitigated to Less Than Significant

Based on the information evaluated to date, there are no direct Potential Significant Project Impacts that cannot be mitigated to less than significant.

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10. REFERENCES

Astech Environmental Services, Inc., 2013, First Even 2013 Semi-Annual Groundwater Monitoring Report, December 19 2012 through July 15, 2013, Site 4 Los Angeles County-USC Medical Center, 1200 North State Street, Los Angeles, California, dated July 31.

Dames & Moore, 1999, Phase I Environmental Site Assessment, LAC-USC Medical Center Replacement Project, Los Angeles, California, dated January 5.

Environmental Data Resource Incorporated, 2013, The EDR Radius Map with GeoCheck Report: North State Street, Los Angeles, California, 90033 dated March 28.

Environmental Data Resources, Inc., 2014, Certified Sanborn(R) Map Report: North State Street, Los Angeles, California, dated March 27.

Environmental Data Resources, Inc., 2014, The EDR-City Directory Abstract: North State Street, Los Angeles, California, dated March 26.

Environmental Data Resources, Inc., 2014, EDR Historical Topographic Map Report: North State Street, Los Angeles, California, 90033, dated March 25.

Environmental Data Resources, Inc., 2014, The EDR Aerial Photo Decade Package: North State Street, Los Angeles, California, 90033 dated March 26.

Environmental Science Associates, Environmental Assessment/ Environmental Impact Report for Los Angeles County+University of Southern California Medical Center Replacement Project, dated June.

Kimley-Horn and Associates, Inc., 2013, Phase I Environmental Assessment for LAC+USC Medical Center, 1744 Zonal Avenue, Los Angeles, Los Angeles County, California, dated October 21.

Norris, Robert M., and Webb, Robert W., 1990, Geology of California, Second Edition

Reynolds Group, 2014, Quarterly Groundwater Monitoring Report, First Quarter 2014, 1748 Workman Street, Los Angeles, California, dated April 9.

Source Group, Inc., 2014, Al Sal Oil Company, Inc. Monitoring and Status Report, Second Half-2013, 1848 Marengo Street, Los Angeles, California, dated January 15.

State of California's State Water Resources Control Board, 2013, GeoTracker Database System at http://geotracker.swrcb.ca.gov/.

United States Geological Survey (USGS) 7.5 Minute Series, Los Angeles, California, Topographic Quadrangle Map, dated 1966 and photorevised in 1994.

Vanir Construction Management, Inc. 2013, LAC USC Tunnel Structural and Mechanical Assessment and Asbestos Survey, dated January 30.

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11. QUALIFICATIONS STATEMENT AND SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

Mr. John Jay Roberts states that the Phase I HMA was performed under his direct supervision and that he has reviewed and approved the report and the methods and procedures employed in the development of the report confirm to the minimum industry standards. Mr. Roberts certifies that Ninyo & Moore project personnel and subcontractors are properly licensed and/or certified to do the work described herein.

John Jay Roberts, PG, CEG
Senior Geologist

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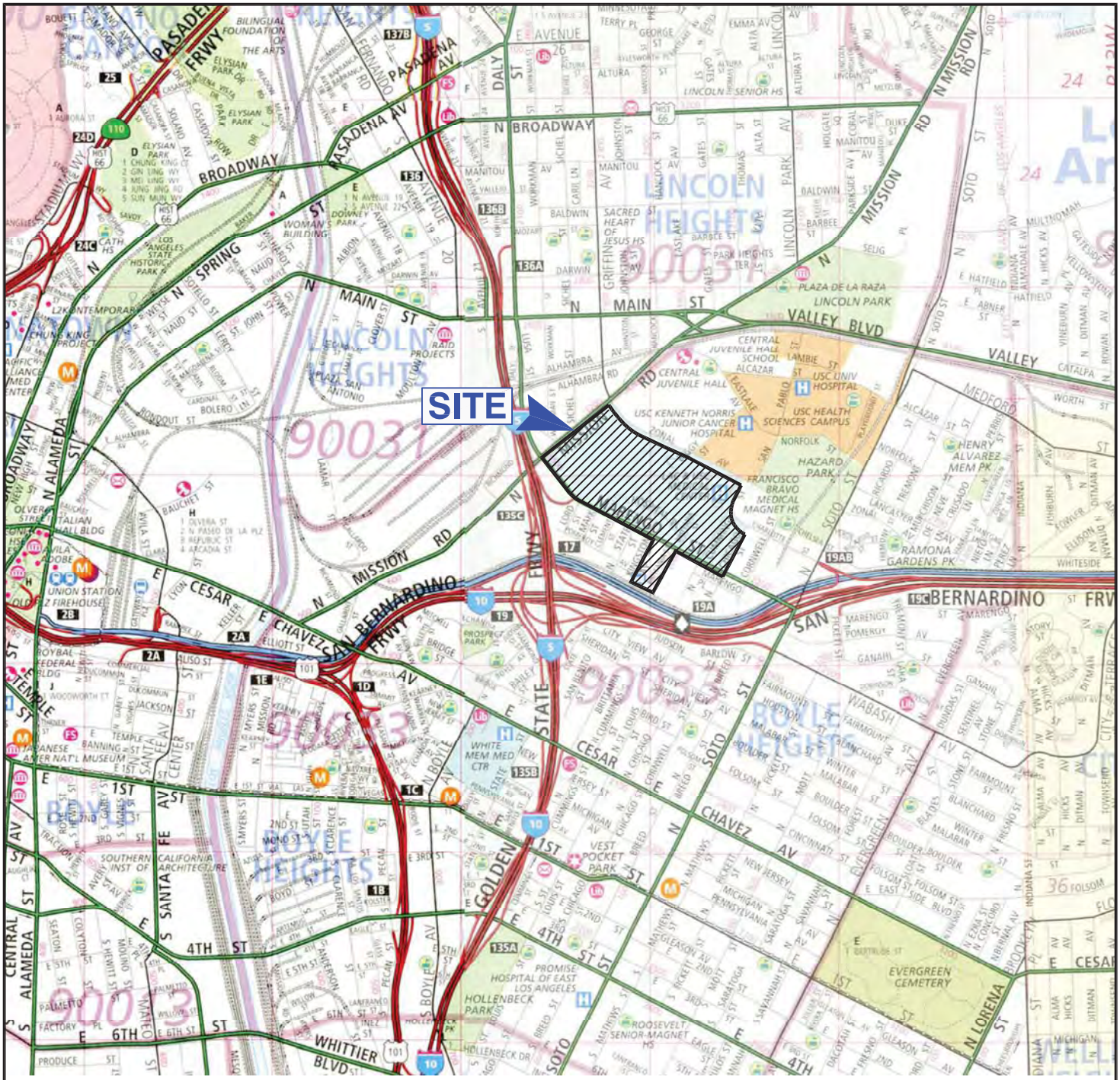


REFERENCE: STREET GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, THOMAS GUIDE, 2008.

N

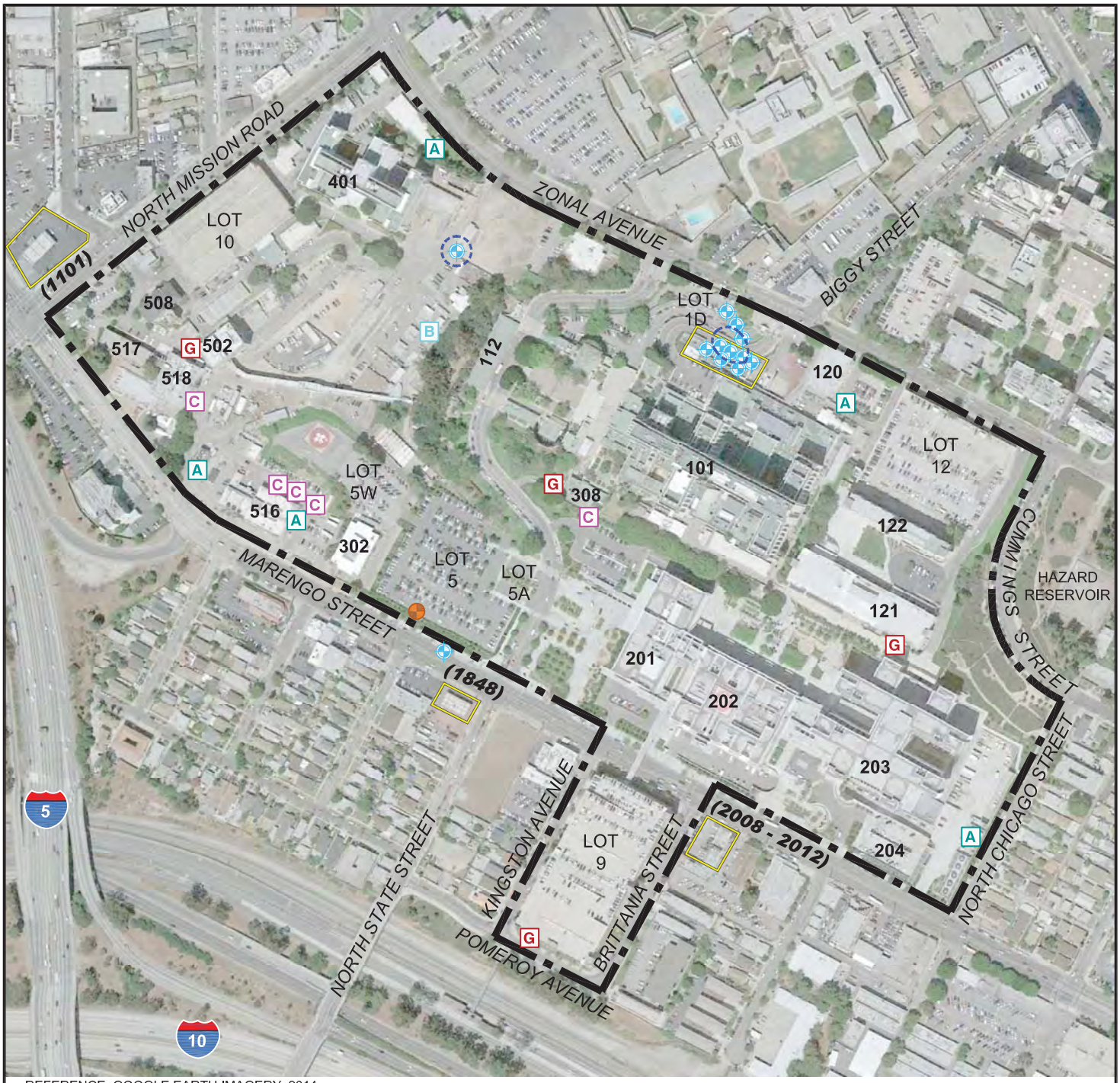
SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	SITE LOCATION	FIGURE
PROJECT NO. 209126001 / DATE 6/14	1200 NORTH STATE STREET LOS ANGELES, CALIFORNIA	1

209126001-SL.dwg, Jun 06, 2014, 3:57pm, SN



REFERENCE: GOOGLE EARTH IMAGERY, 2014.

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

- SITE BOUNDARY
- 517 BUILDING INDEX NUMBER
- (1848) ADDRESS
- A ABOVE GROUND STORAGE TANK
- B FORMER POWERHOUSE BOILER BUILDING
- C CLARIFIER
- G GENERATOR/DIESEL AST
- LUST
- MONITORING WELL
- OIL WELL
- AREA OF CONTAMINATED GROUNDWATER

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Ninyo & Moore	SITE VICINITY	FIGURE
PROJECT NO. 209126001 / DATE 6/14	1200 NORTH STATE STREET LOS ANGELES, CALIFORNIA	2

209126001-SV.dwg, Jun 11, 2014, 12:03pm, SN

REFERENCE: GOOGLE EARTH IMAGERY, 2014.

N

SCALE IN FEET

0 400 800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

- SITE BOUNDARY
- 517 BUILDING INDEX NUMBER
- SUSPECTED ON-SITE UNDERGROUND STORAGE TANK (UST)
- REMOVED UST

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Ninyo & Moore	HISTORIC UNDERGROUND STORAGE TANKS	FIGURE
PROJECT NO. 209126001 / DATE 6/14	1200 NORTH STATE STREET LOS ANGELES, CALIFORNIA	3

209126001-HUST.dwg, Jun 11, 2014, 12:06pm, SN

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APPENDIX A

RESUMES OF PROFESSIONALS

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JOHN JAY ROBERTS, PG, CEG
SENIOR GEOLOGIST

EDUCATION

B.S., Geology, 1973, University of Southern California, Los Angeles

REGISTRATIONS AND CERTIFICATIONS

PG 3489, California

CEG 1018, California

EXPERIENCE HIGHLIGHTS

Environmental Assessments for Schools

Human Health Risk Screening Evaluations for School Sites

Environmental and Geotechnical Services for Redevelopment of an Existing School Site

Brownfields Clean-up Grant Application for Industrial Property

Environmental Services for a New High School

Pipeline Risk Analyses

Groundwater Discharge Evaluation for Dewatering Subdrain

Environmental Assessment for Redevelopment of a Commercial Site

Environmental Consulting Services for Commercial, Industrial, and Residential Properties

Redevelopment of Former Lockheed B-1 Facility

Hazardous Waste Landfill Expansion

Hazardous Waste Ponds Investigations

Geological Logging and Coordination During the Installation of Three Groundwater Production Wells

Hydrogeological Assessment Report

PROFESSIONAL AFFILIATIONS

Association of Engineering Geologists

National Groundwater Association

As a Senior Geologist, Mr. Jay Roberts has extensive experience performing environmental and geotechnical investigations of commercial and industrial properties and environmental site assessments of school sites, including Phase I, PEA, SSI, RAW, RAP, and O&M plans. Mr. Roberts has completed characterization, remediation, and human health assessments on numerous properties. He has prepared successful applications for Brownfields clean-up grants and managed and performed hydrogeologic investigations, groundwater resource evaluations, and water supply studies. He also provides expert witness and litigation support for environmental, geotechnical, and mining matters.

REPRESENTATIVE PROJECT EXPERIENCE

Environmental Assessments for Three School Sites, Northern Orange County, California: Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the lead regulatory agency. One site was located in Brea-Olinda Oil Field; investigations included thorough research into potential oil wells on-site. Investigations also included detailed soil characterization for suspected oil field wastes, and methane and hydrogen sulfide soil gas studies in accordance with Orange County Fire Authority guidelines.

Environmental Consulting Services for Commercial, Industrial, and Residential Properties Throughout California, Oregon, and Washington: Project Manager for Phase I studies throughout the western United States. Mr. Roberts managed, directed, coordinated a staff conducting Phase Is, and reviewed and signed each report. These services were performed for a variety of fiduciary institutions, attorneys, and school districts. These services included complete investigations to meet ASTM standards, as well additional studies required by the client. In order to fully characterize conditions, Phase II investigations were recommended and completed, ranging from additional historical research through soil and/or groundwater sampling.

Environmental Assessments for Three High School Sites, Southern Los Angeles County, California: Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the leadregulatory agency. All three sites required DTSC's rigorous PEA investigations, including soil gas and soil matrix sampling. One site required preparation of a soil Removal Action Workplan (RAW) and implementation. Public participation services in accordance with DTSC requirements were also provided to the client school district.

Environmental Services for a New High School, Corona, California: Project Manager for Phase I and II studies through complete environmental site closure status granted by DTSC, the lead regulatory agency. The approximate seven-acre site was part of the U.S. Navy Corona Naval Weapons Center. Detailed records research indicated a former incinerator for burning wastes and an existing landfill were located on-site. Through cost-effective soil borings, sampling and laboratory analyses, the extent of the existing landfill was found, in order to prepare a Remedial Action Plan, which was implemented relatively effortlessly. In fact, the project is listed as one of DTSC's Success Stories on its website.

REPRESENTATIVE PROJECT EXPERIENCE (continued)

Environmental Assessments for 12 School Sites, Western Riverside County, California: Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the lead regulatory agency. All 12 sites required DTSC's rigorous PEA investigations, including soil gas and/or soil matrix sampling. One site required a soil RAW and implementation. Public participation services in accordance with DTSC requirements were also provided.

Environmental Assessments for 10 School Sites, Western San Bernardino County, California: Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the lead regulatory agency. All 10 sites required DTSC's rigorous PEA investigations, including soil gas and/or soil matrix sampling. Sampling and analyses was conducted on the sites primarily for past agricultural activities. One site required an additional investigation for an on-site burn dump. Public participation services in accordance with DTSC requirements were also provided to the client school district.

Environmental Assessment for Redevelopment of a Commercial Site, Santa Fe Springs, California: Project Manager for a Phase I and II environmental investigations for an approximately eight-acre parcel, which contained 5 previously abandoned oil wells. Thorough research of California DOGGR's files for each well was conducted to determine the known condition of the on-site wells. Detailed investigations were augmented by geophysical surveys and soil borings, sampling and laboratory analyses for suspected oil field wastes, and methane and hydrogen sulfide in accordance with City of Santa Fe Springs requirements. Services also included preparation, scheduling and observation of reabandonment of the oil wells which had insufficient seals and caps, and development of methane mitigation specifications for the new commercial building.

Environmental Assessments for Three School Sites, Northern Orange County, California: Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the lead regulatory agency. One site was located in Brea-Olinda Oil Field; investigations included thorough research into potential oil wells on-site. Investigations also included detailed soil characterization for suspected oil field wastes, and methane and hydrogen sulfide soil gas studies in accordance with Orange County Fire Authority guidelines.

Environmental Assessments for Three High School Sites, Southern Los Angeles County, California: Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the leadregulatory agency. All three sites required DTSC's rigorous PEA investigations, including soil gas and soil matrix sampling. One site required preparation of a soil Removal Action Workplan (RAW) and implementation. Public participation services in accordance with DTSC requirements were also provided to the client school district.

Environmental and Geotechnical Services for Redevelopment of an Existing Elementary School Site, Fountain Valley, California: Project Manager for Phase I and II studies, including Preliminary Geotechnical Foundation Investigation for the planned redevelopment of an existing elementary school site. The school district planned to redevelop the approximate seven-acre existing school site into a single-family residential tract. The services included a thorough Phase I in accordance with the new "All Appropriate Inquiry" ASTM Standards, and soil sampling and analyses during a Phase II. In addition, the District required subsurface geotechnical investigation consisting of soil borings and laboratory analyses, sufficient to satisfy the California Building Code for the proposed redevelopment.

Environmental Services for a New High School, Corona, California: Project Manager for Phase I and II studies through complete environmental site closure status granted by DTSC, the lead regulatory agency. The approximate seven-acre site was part of the U.S. Navy Corona Naval Weapons Center. Detailed records research indicated a former incinerator for burning wastes and an existing landfill were located on-site. Through cost-effective soil borings, sampling and laboratory analyses, the extent of the existing landfill was found, in order to prepare a Remedial Action Plan, which was implemented relatively effortlessly. In fact, the project is listed as one of DTSC's Success Stories on its website.

Environmental Assessments for 12 School Sites, Western Riverside County, California: Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the lead regulatory agency. All 12 sites required DTSC's rigorous PEA investigations, including soil gas and/or soil matrix sampling. One site required a soil RAW and implementation. Public participation services in accordance with DTSC requirements were also provided.

MICHAEL S. CUSHNER, CAC, LI/A, LPM

PROJECT MANAGER

EDUCATION

B.S. Management, Widener University

REGISTRATIONS AND CERTIFICATIONS

California Division of Occupational Safety and Health Certified Asbestos Consultant, CAC No. 11-4711

California Certified Site Surveillance Technician, SST No. #03-3281

California Department of Health Services Lead Inspector / Assessor No. 16953

California Department of Health Services Lead Project Monitor No. 16953

OSHA 40-Hour Health and Safety Training w/ Annual Updates

XRF – RMD Training

NIOSH 582 Equivalency Course

Mold – Indoor Air Quality Course, Professional Service Industries (PSI)

Mr. Michael Cusher has over seven years experience performing asbestos, moisture intrusion, lead inspection surveys, and other hazardous materials surveys. His abatement monitoring experience includes work in occupied commercial buildings and educational facilities. He is trained to perform on site analysis of air samples in accordance with NIOSH Method 7400. He is responsible for performing asbestos assessment, abatement specification, operations and maintenance, and abatement oversight projects; conducting environmental site assessments and subsurface investigations; evaluating regulatory compliance; and providing client liaison services.

REPRESENTATIVE PROJECT EXPERIENCE

Phase I and Phase II Environmental Site Assessments, Southern CA: As a Senior Staff Environmental Scientist, Mr. Cushner has performed the necessary tasks to determine past and/or preset land use and to locate possible sources of hazardous materials/wastes. Tasks include site reconnaissance, review of agency files, aerials photographs, personnel interviews, and Phase I and Phase II report writing. Performed all aspects of Phase II field work including permitting, drilling, and sampling soil and groundwater.

Los Angeles Unified School District (LAUSD): Mr. Cushner has performed numerous Phase 1 AHERA Asbestos Inspections at the following schools. Allesandro Elementary School, Alto Loma Elementary School, Wilson High School, Garfield High School, Eagle Rock High School, Huntingdon Park High School, Edison Middle School, Fishburn Avenue Elementary School, Franklin High School, Manchester Elementary School, Mark Twain Middle School, Pico Elementary School, South Gate Middle School, State Street Elementary School. The scope of work at these schools varied from school to school. Some examples of the scope of work are Safety & Technology, Replacement of Deteriorated Floor Covering, Painting, Roof Replacement, Fire Alarm Replacement, Attics, Crawl Spaces, Re-pipes, Electrical Panels, Ceilings, Window Replacements, Lunch Shelter Demolition and Dimmer Board Replacements. Mr. Cushner has also performed Phase 3 monitoring services at approximately forty (40) various LAUSD schools. He has provided daily monitoring services according to LAUSD standards with on site analysis (NIOSH 582) and conducting TEM air clearance testing at most of these sites.

Housing Authority of Los Angeles (HACLA): Mr. Cushner has been working with HACLA since approximately 2004. He has performed initial asbestos inspections, lead paint inspections (XRF and Paint Chip) and moisture intrusion surveys. In addition to the inspections he has experience with the abatement monitoring at the housing communities. Representative communities include: San Fernando Gardens, Ramona Gardens and William Mead Homes

County of Los Angeles, Banning Museum and Andre Pico Adobe, Los Angeles County, CA: Mr. Cushner has completed asbestos and lead-paint inspections of two historic properties and has prepared the plans and specifications for the removal and abatement/remediation for the identified building materials.

Interstate 5 and State Route 74 Interchange, Caltrans, San Juan Capistrano, CA: Mr. Cushner was the Senior Staff Environmental Scientist for the aerially deposited lead soil assessment for the road widening project along the freeway and on/off ramps. Conducted hand augering, collecting GPS coordinates of the boring locations, analytical data interpretation, and final report preparation.

REPRESENTATIVE PROJECT EXPERIENCE (continued)

Bonita Unified School District (BUSD): Mr. Cushner conducted AHERA re-inspection surveys on five (5) schools to fulfill the clients obligations under the Asbestos Hazard Emergency Response Act, to re-inspect all friable and non-friable known or assumed asbestos-containing materials identified during the initial AHERA inspection and indicated in the management plan in buildings leased, owned, or otherwise used as school buildings. Report documentation was prepared specific to the asbestos containing materials at each school.

Hemet Unified School District (HUSD): Mr. Cushner has performed AHERA Asbestos Inspections and Monitoring at the following schools for the years 2004, 2005 and 2006 Modernization Projects. Acacia Middle School, Idyllwild Elementary School, Little Lake Elementary School, Ramona Elementary School, Santa Fe Middle School, Whittier Elementary School, Winchester Elementary School. The modernization projects scope of work varied from Roof Replacement, Room Expansions, Replacement of Deteriorated Floor Covering, Boiler Replacement and Painting projects.

Alcoa Fastening Systems: Mr. Cushner has completed approximately four (4) asbestos and lead paint inspections at the Torrance and Fullerton Plants. He has performed initial asbestos inspections and lead paint inspections (XRF and Paint Chip) surveys. In addition to the inspections he has accomplished abatement monitoring at these facililties which included on site analysis of asbestos air samples by the NIOSH method 7400.

Kimley-Horn and Associates, Inc: Mr. Cushner has completed five (5) hazardous building inspections of 20,000- to 30,000 –square-foot commercial buildings. Lead, asbestos, and other hazardous building materials were identified and summarized in reports for this project.

United States Gypsum Company (US Gypsum): Mr. Cushner has completed a lead and asbestos inspection of the US Gypsum facility in Santa Fe Springs which was being shut down. 12 buildings were inspected for asbestos containing materials, and all building components and equipment were inspected for lead paint. All findings were summarized in detail reports. In addition, Mr. Cushner performed 5 asbestos post abatement visual inspections and TEM air clearances during the abatement process.

Hawaii Military Communities: Mr. Cushner was involved in the environmental component of the demolishing of four (4) Naval Housing Neighborhoods. Approximately 90 homes were inspected for Asbestos, Lead (Risk Assessments), Lead (Risk Assessments), Mold, and Geotechnical testing was completed.

JONATHAN JOHNSON
STAFF GEOLOGIST

EDUCATION

B.S., Geology, 2007, University of California, Riverside

REGISTRATIONS AND CERTIFICATIONS

40-Hour OSHA Health and Safety Training (updated annually)

24-hour OSHA First Responder, Operations Level

CPR Training, Standard First Aid, and Preventing Disease Transmission

As a Staff Geologist for Ninyo & Moore, Mr. Johnson conducts Phase I and Phase II Environmental Site Assessments, performs microbial and indoor air quality assessments, coordinates and observes subsurface drilling activities, conducts investigations of subsurface contamination, including site reconnaissance, mapping, and logging of exploratory borings, and prepares correspondence, permit requests, reports, and other documents. Mr. Johnson has received training in soil description and classification, encore sampling and preparation, monitoring of air knife and auger drilling, well abandonment monitoring and site surveying.

REPRESENTATIVE PROJECT EXPERIENCE

Laboratory Technician: Ran samples for bottom sediment and water analysis, and testing of samples for flammability, corrosiveness and chlorine detection in oil to assure they fall under EPA and RCRA standards. Monitored microorganisms for bioremediation process, organized and filed paperwork, and tested samples for peroxide, chlorine and water reactivity.

Staff Geologist: Supervised subcontractors/drillers and ensured compliance with health and safety regulations, collected and classified soil samples and performed Phase I and Phase II assessments, prepared bore logs and well logs, assisted project geologists in preparing quarterly monitoring reports, and monitored air quality using a PID.

Student Laboratory Assistant: Worked on various research projects that used Carbonate Associated Sulfite, a carbon and sulfate analyzer, x-ray diffraction, and chromium reduction. Assisted with various projects involving core sample preparation and the making of solutions. Duties included preparing core samples for research projects, running samples through the Carbonate Associated Sulfate process, operating the carbon and sulfur analyzer, running the chromium reduction process and collecting and inputting data into excel. Also prepared thin sections and solutions for chemical analysis.

DRAFT

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION

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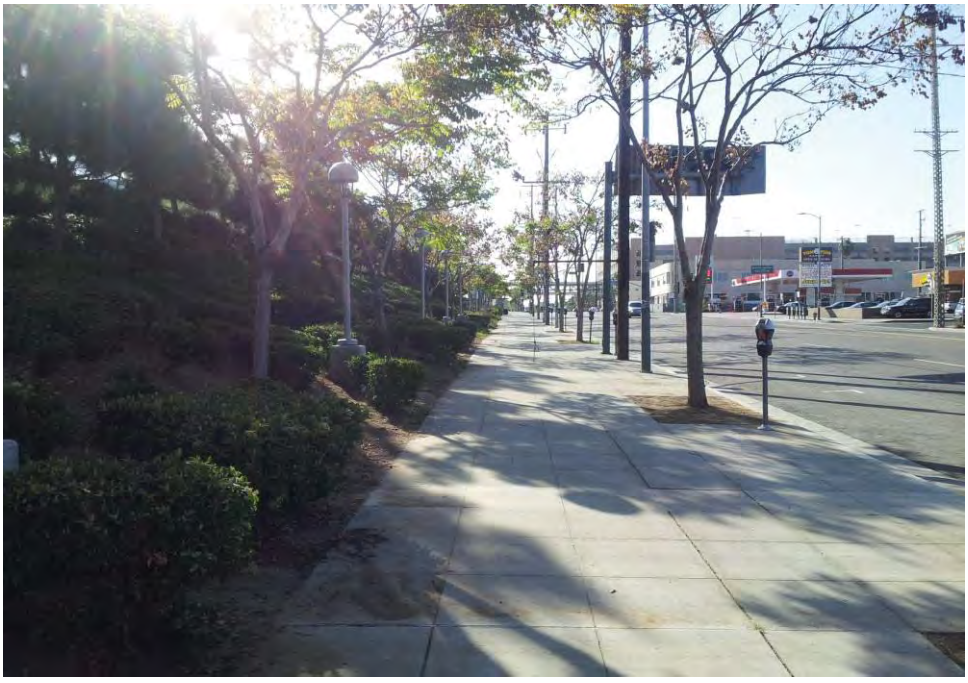
Photograph 1: **Looking at site from Marengo Street.**



Photograph 2: **Looking east along Marengo Street.**

Photograph 3: **Looking west along Marengo Street.**

Photograph 4: **Looking south at LOT 9 and Pedestrian Bridge.**

Photograph 5: **Looking south along Brittania east of Lot 9.**

Photograph 6: **Looking inside Lot 9 parking structure.**

Photograph 7: **Looking west at south end of Lot 9 parking structure along Pomeroy Avenue.**

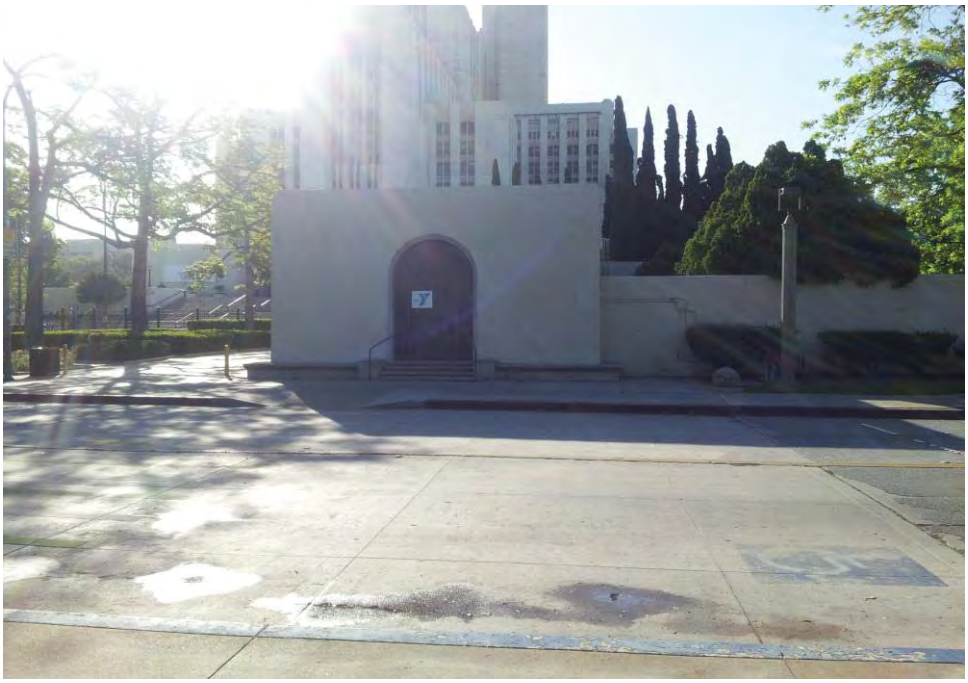
Photograph 8: **View of generator located south of Lot 9 parking structure.**

Photograph 9: **Looking north along Kingston Avenue at west side of Lot 9 parking structure.**

Photograph 10: **Looking east at north side of Lot 9 Parking structure along Marengo Street.**

Photograph 11: **Looking north at site along North State Street.**

Photograph 12: **Looking east at General Hospital Building from North State Street.**



Photograph 13: **Looking east at General Hospital Building and Y Building from North State Street.**

Photograph 14: **Looking east at General Hospital Building and Finance Building from North State Street.**

Photograph 15: **Looking south at General Hospital Building from Zonal Avenue.**

Photograph 16: **Looking at hazardous waste storage room and possible underground storage tanks (USTs) located near General Hospital Building.**

Photograph 17: **Looking inside hazardous storage area in General Hospital Building.**

Photograph 18: **Possible USTs located near General Hospital Building.**

Photograph 19: **Groundwater monitoring wells north of the General Hospital Building near hazardous storage room.**

Photograph 20: **Groundwater monitoring well north of General Hospital Building.**

Photograph 21: **Groundwater monitoring well located in staff parking lot north of General Hospital Building.**

Photograph 22: **Aboveground storage tanks (ASTs) containing liquid oxygen north of General Hospital Building.**

Photograph 23: **Looking at typical elevator found in General Hospital Building.**

Looking west toward North State Street at elevator located outside of the General Hospital Building.

Photograph 24: **Looking at elevator located outside of the General Hospital Building.**

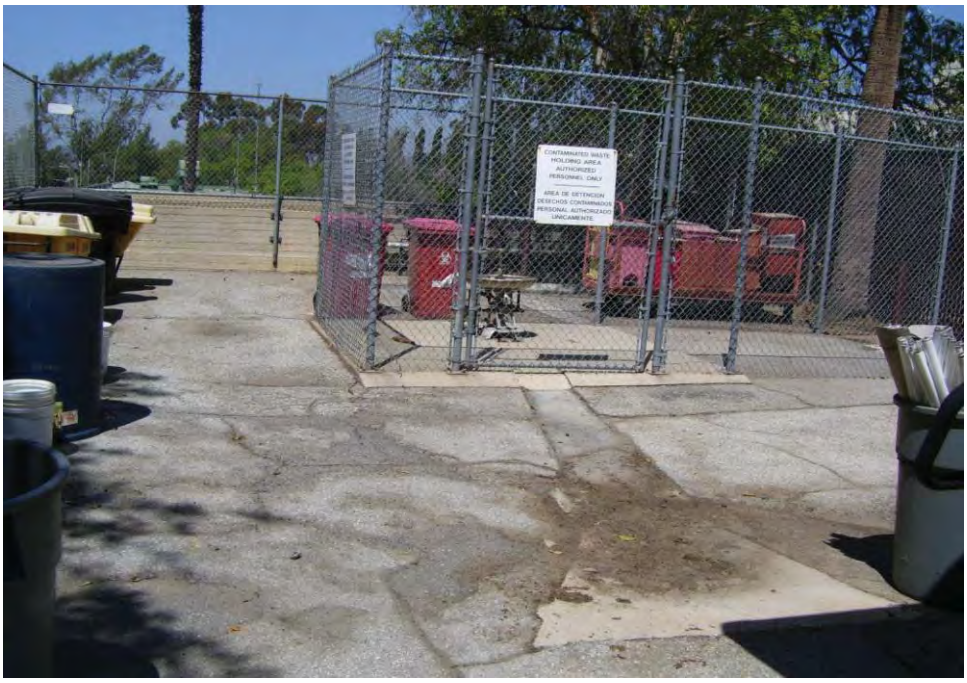
Photograph 25: **Looking south from the General Hospital Building at generator located adjacent southwest of the Telephone Building.**

Photograph 26: **Looking west at the Telephone Building.**

Photograph 27: **Looking east at possible clarifiers south of the Telephone Building.**

Photograph 28: **Hazardous storage room located in the Telephone Building.**

Photograph 29: **Looking inside hazardous storage room located in the Telephone Building.**



Photograph 30: **Looking west toward North State Street at biohazard storage area located behind the Telephone Building.**

Photograph 31: **Looking at biohazard storage area located behind the Telephone Building.**

Photograph 32: **Petroleum generator adjacent west of the Telephone Building.**

Photograph 33: **Petroleum generator adjacent west of the Telephone Building.**

Photograph 34: **Looking east at the Outpatient Building and Inpatient Building.**

Photograph 35: **Petroleum generator adjacent south of the Outpatient Building.**

Photograph 36: **Looking east at generator adjacent south of the Outpatient Building.**

Photograph 37: **Looking North at generator adjacent east of the Outpatient Building.**

Photograph 38: **Looking west at generator adjacent east to the Outpatient Building.**

Photograph 39: **Generator room on basement floor of Outpatient Building.**

Photograph 40: **Looking inside generator room.**

Photograph 41: **Hazardous waste storage room inside the Inpatient Tower.**

Photograph 42: **Looking inside hazardous storage room.**

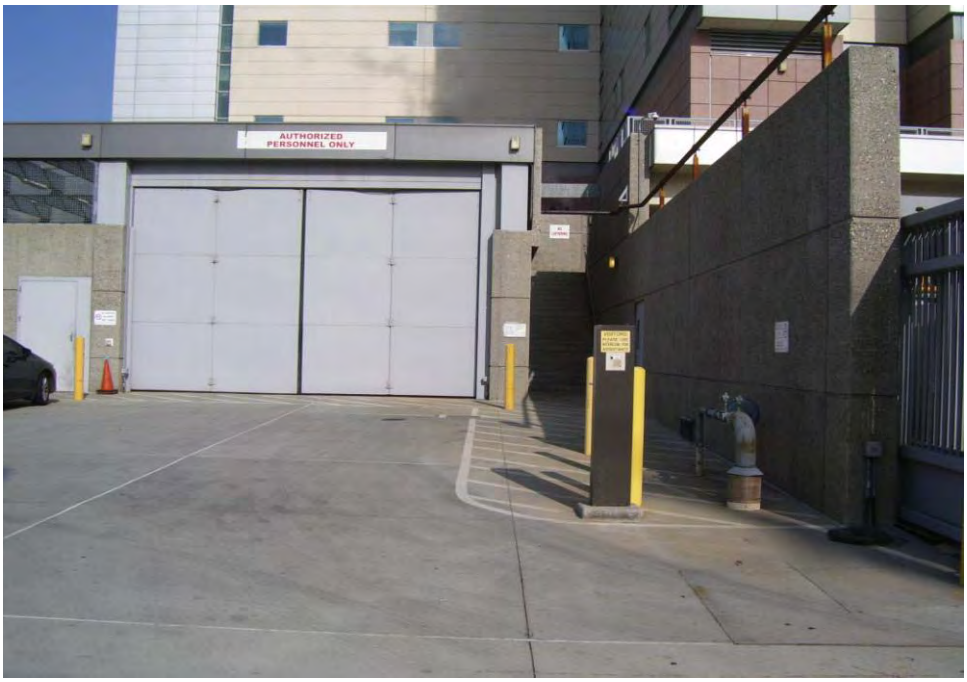
Photograph 43: **Looking inside hazardous storage room.**

Photograph 44: **Looking north at area behind the Inpatient Tower.**

Photograph 45: **Looking east at area behind the Inpatient Tower.**

Photograph 46: **Looking west at area behind the Inpatient Tower.**

Photograph 47: **Looking east at area behind the Inpatient Tower. Staining noted near drains.**



Photograph 48: **Restricted area east of the Inpatient Tower.**

Photograph 49: **Looking south toward Marengo Street.**

Photograph 50: **AST area east of Central Plant (East).**

Photograph 51: **AST area east of the Central Plant (East).**

Photograph 52: **Looking north toward Marengo Street at USTs located east of the Central Plant (East).**

Photograph 53: **Looking west at Central Plant (East).**

Photograph 54: **Looking at generators inside the Central Plant (East).**

Photograph 55: **Looking at generators inside the Central Plant (East).**

Photograph 56: **Looking west at hazardous storage area and possible USTs near the Central Plant (East).**

Photograph 57: **Flammable storage lockers in hazardous waste storage area near the Central Plant (East).**

Photograph 58: **Waste storage containers near Central Plant (East). Stormwater drain south of storage containers.**

Photograph 59: **Universal waste storage area east of North State Street.**

Photograph 60: **Universal waste storage area.**

Photograph 61: **Looking west at the Central Steam Plant (West) building.**

Photograph 62: **ASTs adjacent east of the Central Steam Plant (West) building.**

Photograph 63: **Waste storage containers behind Central Plant (West)**

Photograph 64: **Potential UST north of the Central Plant (West) Building.**

Photograph 65: **Potential clarifiers north of the Central Plant (West) Building.**

Photograph 66: **Potential remediation system adjacent north of Central Plant (West) building.**

Photograph 67: **Looking east at north side of Central Plant (West) building and possible UST.**

Photograph 68: **Drums stored near Central Plant (West) building.**

Photograph 69: **Looking east at hazardous storage area north of Central Plant (West) building.**

Photograph 70: **Hazardous waste storage area north of Central Plant (West) building.**

Photograph 71: **Looking north at tunnel connecting General Hospital Building to Pharmacy Building.**

Photograph 72: **Looking at tunnel.**

Photograph 73: **Looking north at tunnel from Marengo Street driveway entrance.**

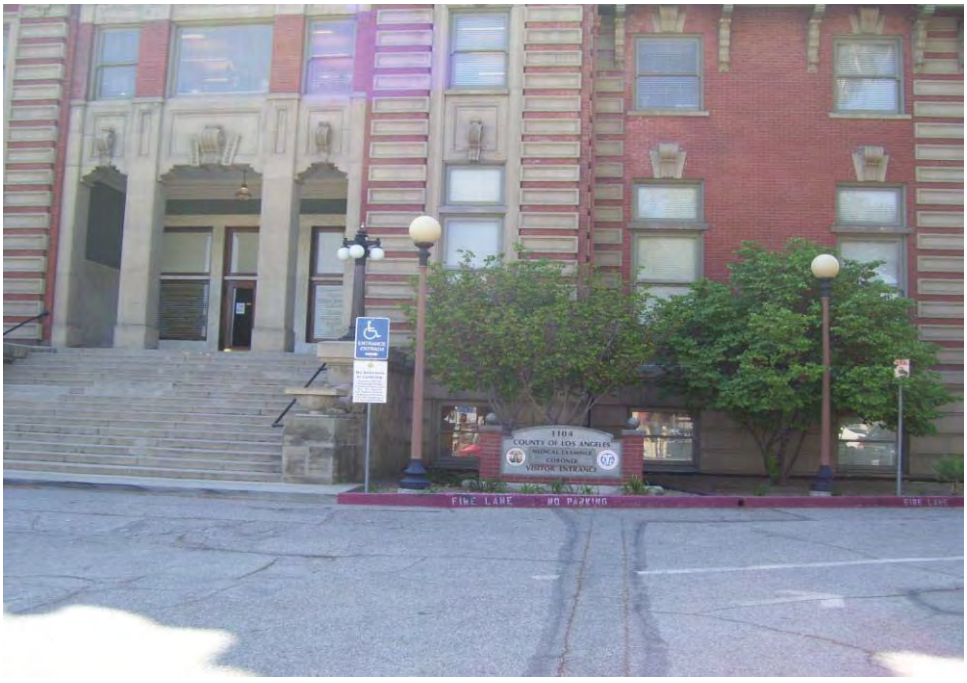
Photograph 74: **Clarifier located east of the Medical Examiner Building.**

Photograph 75: **Looking west at Pharmacy Building on the right and Coroner Building on the left.**

Photograph 76: **Looking east at generator containment area between the Coroner Building and the Pharmacy Building.**

Photograph 77: **Looking at generator containment area between the Coroner Building and the Pharmacy Building.**

Photograph 78: **Looking west at possible UST area near Coroner and Pharmacy Buildings.**



Photograph 79: **Looking east at Coroner Building.**

Photograph 80: **Looking east at Pharmacy Building and entrance to tunnel.**

Photograph 81: **ASTs near Women's and Children's Hospital Building.**

Photograph 82: **Looking east at north side of Women's and Children's Hospital Building.**

Photograph 83: **Possible UST area near north side of Women's and Children's Hospital Building.**

Photograph 84: **Possible UST area near north side of Women's and Children's Hospital Building.**

Photograph 85: **Looking east at ASTs near the Women's and Children's Hospital Building.**

Photograph 86: **Storage area near Women's and Children's Hospital Building.**

Photograph 87: **Looking east away from Women's and Children's Hospital Building at trash compactor.**

Photograph 88: **Looking north at bio hazardous waste storage area east of Women's and Children's Hospital Building.**

Photograph 89: **Looking at groundwater monitoring well east of Women's and Children's Hospital Building.**

Photograph 90: **Women's and Children's Hospital Trailer east of Women's and Children's Hospital Building.**

Photograph 91: **Looking west at bio hazardous waste storage area from North State Street.**

Photograph 92: **Looking north at Patient Financial Services Building along North State Street.**

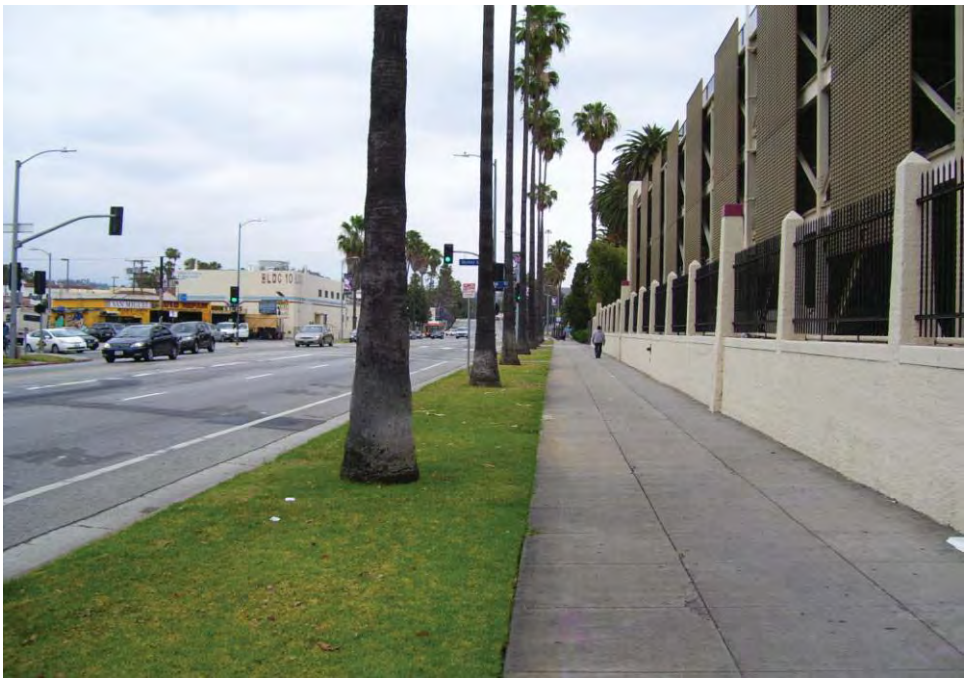
Photograph 93: **Looking west away from General Hospital Building along North State Street at Patient Financial Services Building.**

Photograph 94: **Looking south at Outpatient Building.**

Photograph 95: **Generator east of General Hospital Building.**

Photograph 96: **Generator east of General Hospital Building.**

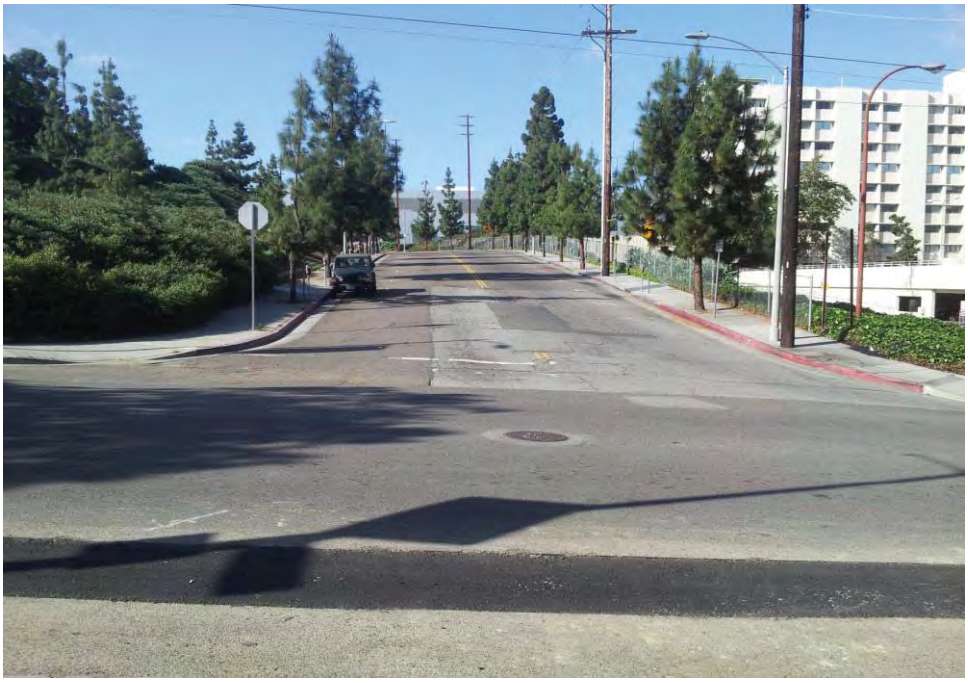
Photograph 97: **Looking south along Mission Road toward Marengo Street.**



Photograph 98: **Looking north along Mission Road toward Zonal Avenue.**

Photograph 99: **Looking east from site along Zonal Avenue.**

Photograph 100: **Looking west along Zonal Avenue.**



Photograph 101: **Looking south at Cummings Street from Zonal Avenue.**

Photograph 102: **Looking north away from site along Cummings Street at Hazard Reservoir.**

Photograph 103: **Looking south along Chicago Street.**

DRAFT

APPENDIX C

USER PROVIDED INFORMATION

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LAC+ USC UST DATA

① 1200 N. STATE ST.
TANK ② 10,000 GAL D.W. STEEL "JOOR" TWO TANKS IDENTICAL SET UPS
VEEDER ROOT TLS 350
ANNULAR SENSOR V.R. 794390-420 - DRY-
SPILL BUCKET POMECO (IN SUMP)
FILL + PIPE SUMP SENSOR V.R. 794380-208 (SINGLE WALL)
PIPING - PRODUCT 3"x2" F. GLASS D.W.
- VENT 3"x2" F. GLASS D.W.
NO UDC
NO LEAK DETECTORS

② 2053 MARENGO ST
TANK 5000 GAL. D.W. STEEL "MODERN"
VEEDER ROOT TLS 350
ANNULAR SENSOR V.R. 794390-420 - DRY-
SPILL BUCKET OPW (IN SUMP)
FILL / PIPE SUMP SENSOR 794380-208
PIPE SUMP SENSOR 794380-208
PIPING: PRODUCT 4"x2" F. GLASS D.W.
VENT 4"x3" F. GLASS D.W.
NO UDC
NO LEAK DETECTORS
DOUBLE WALL SUMPS VR 794380-304 - LIQUID

② 1635 MARENGO ST.
TANK ② 20,000 GAL. D.W. FIBERGLASS "OWENS CORNING" OR "CONTAINMENT SOLUTIONS"
VEEDER ROOT TLS 350
ANNULAR SENSOR V.R. 794390-420 - DRY-
SPILL BUCKET CNE (IN SUMP)
FILL SUMP V.R. 794380-208
PIPING SUMP V.R. 794380-208
PIPING: PRODUCT 4"x3" F. GLASS D.W.
VENT 3"x2" F. GLASS D.W.
PIPING: RETURN 3"x2" F.G. GLASS D.W.
NO LEAK DETECTORS
NO UDCS
SINGLE WALL SUMPS

OCT.21.2011 06:48 AM

LAC+USC UST DATA

④ Womens + Childrens From Alarm Records Only:
VR TLS ____
ANNULAR U.R. 794390-480
SUMP SENSOR U.R 794380-208 } one sump together
FILLSUMP VR 794380-208 }
NO UDC / LEAK DETECTORS

⑤ 1950 Marengo Lot #9 4000 6/L TANK Brand Unknown WHITE? DW. FIBERGLASS
VR TLS 300C
ANNULAR SENSOR 794380-303 V.R.- WET -
SPILL BUCKET REMOTE OPW
PIPE SENSOR U.R. 794380-208
PIPING PRODUCT 1" FLEX x 3" FIBERGLASS D.W
VENT 3" x 2" D.W. FIBERGLASS
RETURN 1" FLEX x 3" FIBERGLASS D.W
NO U.D.C NO LEAK DETECTOR
SINGLE WALL SUMPS

⑥ 1830 GRIFFIN TRANS 5,000 6/L Brand Unknown WHITE TANK DW. STEEL ? NOT SURE
VR TLS 300C
ANNULAR SENSOR U.R 794390-480 Dry
SPILL BUCKET OPW IN SUMP
APE+FILL SUMPS SENSORS 794380-208 (TWO)
PIPING PRODUCT 3" x 2" D.W FIBERGLASS
VENT 2" S.W. FIBERGLASS
VAPOR 2" S.W. FIBERGLASS
UDC BRAVO FIBERGLASS 12" DEEP SINGLE WALL
UDC SENSOR U.R. 794380-208
GAS PUMP WAYNE WITH HEALY SET UP for U.R.

LAC+USC MEDICAL CENTER-FACILITIES MANAGEMENT

ELEVATOR LOCATION AND STATE NUMBERS

ELEVATOR NUMBER	TYPE	MANUFACTURE	CAB EMERG PHONE NO.	BLDG NO.	ROOM NO.	PM CONTL#	STATE PERMIT
CANCER RESEARCH BLDG. 1303 N. Mission Road Los Angeles 90033							
1	Hydro	US Elevator	323 226-4893	416	113	09034	**061543**
CCM-10/20 BLDG (School of Nursing) 1237 N. Mission Road Los Angeles 90033							
1	Hydro	Otis	323 226-5066	403	B27	09032	**027109**
2	Hydro	Otis	323 226-5066	614	40	09033	**031309**
CORONERS 1102 N. Mission Road Los Angeles 90033							
1	Traction	Otis	323 343-4839	517	MB-1	09924	**053288**
CORONERS 1104 N. Mission Road Los Angeles 90033							
1	Traction	Otis	323 343-8099	518	MB-11	11960	**053258**
2	Traction	Otis		518	MB-11	11960	**053259**
Dumbwaiter				518	MB-11	11962	**053234**
CORONERS 1100 N. Mission Road Los Angeles 90033							
1	Hydro	Otis	323 226-4845	508	G002	117670	**053288**
GENERAL LABS (RESEARCH 4) 1801 Marengo St. Los Angeles 90033							
1	Hydro	US Elevator	323 226-3833	302	1G31	09023	**045051**
GH BLDG 1200 N. State St. Los Angeles 90033							
Tower #1	Gearless	Haughton	323 226-6644	101	19432A	09600	**052331**
#2	Gearless	Haughton	323 226-6644	101	19432A	20742	**052332**
#3	Gearless	Haughton	323 226-6644	101	19432A	20743	**052333**
#4	Gearless	Haughton	323 226-6649	101	19432A	20744	**052334**
#5	Gearless	Haughton	323 226-6649	101	19432A	20745	**052335**
#6	Gearless	Haughton	323 226-6649	101	19432A	20746	**052336**
027	Gearless	Haughton	323 226-6640	101	14027	09003	**054266**
127	Gearless	Haughton	323 226-6640	101	14027	20738	**054267**

ELEVATOR NUMBER	TYPE	MANUFACTURE	CAB EMERG PHONE NO.	BLDG NO.	ROOM NO.	PM CONTL#	STATE PERMIT
GH BLDG 1200 N. State St. Los Angeles 90033 (Continued)							
001 (Out-of-Service)	Gearless	Haughton	323 226-6640	101	2001		**050024**
227	Gearless	Haughton	323 226-6643	101	12227		**053838**
300A	Gearless	Haughton	323 226-7972	101	17300A		**056729**
300B	Gearless	Haughton	323 226-6505	101	19300B		**056719**
327	Gearless	Haughton	323 226-6642	101	12327		**056023**
357 (Morgue)	Gearless	Haughton	323 226-6642	101	3357		**050050**
427	Gearless	Haughton	323 226-6642	101	19427		**053874**
467	Gearless	Haughton	323 226-5067	101	2467		**051416**
627 (Out-of-Service)	Gearless	Haughton	323 226-6555	101	19627		**056651**
667 (Out-of-Service)	Gear	Haughton	323 226-5067	101	2667		**049350**
700A	Gearless	Haughton	323 226-6662	101	19700A		**054664**
700B	Gearless	Haughton	323 226-6662	101	17700B		**054656**
727	Gear	Haughton	323 226-6673	101	12727		**056641**
827	Gear	Haughton	323 226-6673	101	12827		**055367**
Patient Elevator	Hydro	Haughton	323 226-6641	101	Drs Garage		**051415**
GH MINI-WAREHOUSE 1900 Zonal Ave. Los Angeles 90033							
1	Hydro	US Elevator		120			**079818**
IRD BLDG 2020 Zonal Ave. Los Angeles 90033							
1	Traction	Virginia	323 226-4990	122	DR1100	09017	**041376**
2	Traction	Virginia	323 226-4990	122	DR1100	09017	**041377**
OUT-PATIENT DEPT. BLDG 2010 Zonal Ave. Los Angeles 90033							
1	Traction	Otis	323 226-5060	123	5P50	09016	**037417**
2	Traction	Otis	323 226-5060	123	5P50	09016	**037418**
3	Traction	Otis	323 226-5060	123	5P50	09016	**037419**
4	Traction	Otis	323 226-5071	123	5P50	09016	**037420**
5	Traction	Otis	323 226-5071	123	5P50	09016	**037421**

ELEVATOR NUMBER	TYPE	MANUFACTURE	CAB EMERG PHONE NO.	BLDG NO.	ROOM NO.	PM CONTL#	STATE PERMIT
PHARMACY BLDG 1100 N. Mission Road Los Angeles 90033							
1	Traction	Baker	No Phone	502	507D	09037	**011201**
2	Traction	Baker	No Phone	502	507D	09037	**011202**
3	Traction	Baker	No Phone	502	507C-1	09037	**011203**
4	Traction	Baker	No Phone	502	507C-1	09037	**011204**
PARKING LOT 9 STRUCTURE 1950 Marengo St. Los Angeles 90033							
1	Traction	Dover Elevator	Auto Dailer	307	8-1	17354	**106791**
2	Traction	Dover Elevator	Auto Dailer	307	8-1	20733	**106792**
3	Traction	Dover Elevator	Auto Dailer	307	8-2	17355	**106793**
4	Traction	Dover Elevator	Auto Dailer	307	8-2	20734	**106794**
5	Traction	Dover Elevator	Auto Dailer	307	8-3	17356	**106795**
6	Traction	Dover Elevator	Auto Dailer	307	8-3	20734	**106790**
RAND/SCHRADER CLINIC (5P21 BLDG) 1300 N. Mission Road Los Angeles 90033							
A	Hydro	Otis	Auto Dailer	428	151	12556	**98271**
B	Hydro	Otis	Auto Dailer	428	151	12557	**98272**
Dumbwaiter				428	110	12558	**98273**
WOMEN'S & CHILDREN'S BLDG 1240 N. Mission Road Los Angeles 90033							
1 (Out-of-Service)	Traction	Virginia	323 226-2993	401	11M1	09025	**031915**
2 (Out-of-Service)	Traction	Virginia	323 226-2993	401	11M1	09025	**031916**
3 (Out-of-Service)	Traction	Virginia	323 226-2993	401	11M1	09025	**031917**
4 (Out-of-Service)	Traction	Virginia	323 226-2987	401	11M1	09025	**031918**
5 (Out-of-Service)	Traction	Virginia	323 226-2987	401	11M1	09026	**031919**
6	Traction	Virginia	323 226-2987	401	11M1	09026	**031920**
7	Traction	Virginia	323 226-2991	401	11M1	09027	**031921**
Dumbwaiter				401			**031922**

ELEVATOR NUMBER	TYPE	MANUFACTURE	CAB EMERG PHONE NO.	BLDG NO.	ROOM NO.	PM CONTL#	STATE PERMIT
CLINIC TOWER 1100 N. State St. Los Angeles 90033							
21	Traction	Fujitec	323 441-7280	201			**144349**
22	Traction	Fujitec	323 441-7281	201			**144350**
23	Traction	Fujitec	323 441-7282	201			**144396**
24 (Staff)	Traction	Fujitec	323 441-7283	201			**144397**
25 (Staff)	Traction	Fujitec	323 441-7284	201			**144398**
26	Traction	Fujitec	323 441-7285	201			**144399**
27	Traction	Fujitec	323 441-7286	201			**144400**
DIAGNOSTIC & TREATMENT TOWER 1983 Marengo St. Los Angeles 90033							
S1	Hydro	Fujitec	323 441-7279	202			**147669**
13	Traction	Fujitec	323 441-7271	202			**147661**
14	Traction	Fujitec	323 441-7272	202			**147662**
15	Traction	Fujitec	323 441-7273	202			**147665**
16	Traction	Fujitec	323 441-7274	202			**147666**
17	Traction	Fujitec	323 441-7275	202			**147667**
18	Traction	Fujitec	323 441-7276	202			**147668**
19	Traction	Fujitec	323 441-7277	202			**147663**
20	Traction	Fujitec	323 441-7278	202			**147664**
INPATIENT TOWER 2051 Marengo St. Los Angeles 90033							
D1	Hydro	Fujitec	323 441-8013	203			**147758**
1	Traction	Fujitec	323 441-8001	203			**147761**
2	Traction	Fujitec	323 441-8002	203			**147762**
3	Traction	Fujitec	323 441-8003	203			**147763**
4	Traction	Fujitec	323 441-8004	203			**147764**
5	Traction	Fujitec	323 441-8005	203			**147765**
6	Traction	Fujitec	323 441-8006	203			**147766**
7	Traction	Fujitec	323 441-8007	203			**147656**
8	Traction	Fujitec	323 441-8008	203			**147657**
9	Traction	Fujitec	323-441-8009	203			**147759**
10	Traction	Fujitec	323 441-8010	203			**147760**
11	Traction	Fujitec	323 441-8011	203			**147767**
12	Traction	Fujitec	323 441-8012	203			**147768**

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REPORT
PHASE I ENVIRONMENTAL SITE ASSESSMENT
LAC-USC MEDICAL CENTER
REPLACEMENT PROJECT
LOS ANGELES, CALIFORNIA

PREPARED FOR:
COUNTY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS
D&M JOB NO. 00499-059-015

JANUARY 5, 1999

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SI 13634

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

911 Wilshire Boulevard, Suite 700
Los Angeles, California 90017
213 996 2200 Tel
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January 5, 1999

Mr. Bradford Bolger, Project Director
Medical Center Replacement Project
1200 North State Street, Box 121
Los Angeles, California 90033

Re: Report
Phase I Environmental Site Assessment
LAC-USC Medical Center
Replacement Project
Los Angeles, California
Dames & Moore Job No. 00499-059-015

Dear Mr. Bolger:

Transmitted with this letter is one copy of our report entitled "Phase I Environmental Site Assessment Update" for the LAC-USC Medical Center Replacement Project in the City of Los Angeles, California. We trust this report provides you with the information you require at this time. Should you have any questions regarding the information presented in this report, or need further assistance, please contact us.

Sincerely,
DAMES & MOORE

Robert A. Forster
Geologist

Richard N. Stout, R. G.
Managing Principal in Charge

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FIGURES

Figure 1 - Vicinity Map

Figure 2 - Site Plan

APPENDICES

Appendix A - Site Photographs

Appendix B - EDR-Radius Map Report

EXECUTIVE SUMMARY

Presented in this report are the results of the Dames & Moore Phase I Environmental Site Assessment, conducted for the Los Angeles County-University of Southern California (LAC-USC) Medical Center Replacement Project.The scope of work performed is in accordance with our proposal to the County of Los Angeles Department of Public Works, dated May 20, 1998. The format and content of this Phase I ESA is in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process E-1527-97.

The purpose of this Phase I ESA was to review past and present land use practices and site conditions to assess potential environmental impacts and to identify Recognized Environmental Conditions (RECs) in connection with the subject property. By definition under ASTM designation E-1527, the term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The subject property at the time of the site visit included the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, Parking Structures #6 , #11, and #12, the former Burger King Restaurant, the former strip mall, and ten trailers used for office space. The LAC-USC Medical Center experienced severe damage during the 1994 Northridge Earthquake, and many of the buildings have been "red-tagged" since the event. The majority of the buildings in the Replacement Project have functionally deteriorated and are deficient to the point that they no longer are safe as part of the medical facility. The purpose of the Replacement Project is to remove the existing

buildings on the southern portion of the hospital campus and construct new medical facilities and a new Metropolitan Transportation Authority (MTA) Transit Center.

Recognized environmental conditions were not observed at the time of the site reconnaissance. However, one underground storage tank was observed adjacent to the former Pediatrics Pavilion. The tank was used to store diesel fuel for the emergency generator in the former Pediatrics Pavilion. On October 20, 1998, the tank was removed. At the time of this report, analytical results from the tank excavation were not available in order to determine whether the tank had leaked diesel fuel into the subsurface. This information will be supplied in the final version of this report.

Historical information about the subject property indicated that the first building for the hospital was constructed in 1878. Historical information reviewed by Dames & Moore indicated that the subject property has been used primarily for medical and residential buildings. In the 1970's, a gasoline service station and an automobile repair facility (Auto Service and Jasper Wrecking & Trucking) occupied the northern portion of Marengo Street, between Cummings and Chicago Streets. The automotive activities had been removed from the property by the end of the 1970's.

Dames & Moore reviewed readily available records regarding past and current site use, contacted applicable agencies regarding environmental concerns at the site, and reviewed the agency database list search for environmental concerns at surrounding properties. None of the hospital buildings on the subject property were reported in available agency databases. However, the gasoline service station and the automobile repair facility were included in databases indicating the presence of underground storage tanks. According to the databases, five USTs ranging in size from 200-gallons to 6,000-gallons were installed on the property in 1957 for the storage of gasoline and waste oil. No violations were reported. Based on our knowledge of these historical facilities, it is the opinion of Dames & Moore that there is a potential for either of these sites to have impacted the subject property.

Several of the LAC-USC Medical Center buildings not included in the current scope of work were also included in the agency database search. The LAC-USC Medical Center has up to fourteen registered USTs onsite, ranging in size from 300-gallons to 50,000-gallons, for the storage of gasoline, diesel, and waste oil. On November 7, 1988, a release of gasoline from an UST registered to the General Hospital at 1200 North State Street was reported to have impacted local groundwater. A pollution characterization study was conducted, but no remediation actions and no current status were reported in the database. Based on the upgradient location of this site from the subject property, the release from the General Hospital has the potential to have impacted the subject property.

Several subsurface investigations have been conducted at the LAC-USC Medical Center. Activities from these investigations have included soil, soil vapor, and groundwater investigations. Previous studies have indicated the following conclusions:

- The results of previous soil investigations indicated high total recoverable petroleum hydrocarbons indicative of severely degraded naturally occurring crude oil were found in several of the borings completed in the Puente Formation bedrock soils in the southern portion of the subject property, approximately 25 to 60 feet bgs.

  No significant concentrations of volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) were found in soil samples at the site.

- Soil vapor surveys have identified relatively low concentrations of methane for the majority of the sampling locations tested within the residential area between Cummings and Chicago Streets. This area was identified the as an area where local residence had dumped used motor oil. TRPH and inorganic lead were also reported in a single sample collected at a depth of 6 inches bgs within the residential area. Dames & Moore concluded that the contamination by the hydrocarbons was most likely due to waste motor oil disposed into the ground at the rear of several of the residential homes.

- The results of the groundwater investigation provided no evidence of VOCs or SVOCs with the exception of low concentrations of chloroform and phthalate esters. Chloroform was detected in two of the seven groundwater monitoring wells adjacent to the Outpatient Clinic and the Interns Residence Hall (north of the current subject property). Although chloroform has been commonly used at medical facilities in the past, the source of the chloroform identified in the groundwater was not apparent. The phthalate esters were identified in samples from three of the wells, but were most likely indicative of laboratory contamination, and were therefore not identified as a concern.

Based on the Scope of Services performed for this Phase I ESA, real and potential recognized environmental conditions have been identified at the subject property. These and relevant recommendations are described below:

- Hazardous materials in numerous containers throughout the facilities have remained in storage in the hospital buildings proposed to be demolished for the replacement project since the buildings were closed in 1994. Prior to demolition, Dames & Moore recommends that hazardous materials onsite should be collected and properly disposed or recycled.

- Transformers, light ballasts, and other electrical equipment potentially containing PCB-laden dielectric fluids were identified at the subject property. Dames & Moore recommends a comprehensive survey to locate, establish PCB presence/absence, and quantify PCB-containing electrical equipment prior to demolition.

- There exist potential subsurface impacts from the former gasoline and automobile service facilities in the southeastern portion of the subject property (on the north side of Marengo, between Cummings and Chicago Streets). Dames & Moore recommends additional soil samples be collected in this area in order to determine the potential impacts of the former automotive activities on the subject property.

- Based on information available during the review of agency databases, a leaking underground storage tank from the LAC-USC Medical Center (north of the subject property) has been identified as having the potential to impact the subject property. Dames & Moore recommends a comprehensive file review of the upgradient leaking tank in order to assess whether the tank has the potential to impact groundwater beneath the subject property.

- In previous subsurface investigations, naturally occurring crude oil has been identified in the bedrock beneath the subject property. Dames & Moore recommends further subsurface investigations in order to identify the location and quantify the amount of naturally occurring crude oil that may be encountered during future excavations for the replacement project.

- Petroleum hydrocarbon and lead contamination was detected during previous investigations in shallow soils in the former residential area. We recommend further assessment of the extent of this contamination.

- Previous investigations also indicated the presence of low levels of volatile compounds in groundwater samples collected from onsite wells. Dames & Moore recommends further evaluation of groundwater conditions at the site.

All recommendations indicated above are currently being addressed through ongoing environmental investigations by Dames & Moore; the results of which will be presented in a separate report.

1.0 INTRODUCTION

Presented in this report are the results of the Dames & Moore Phase I Environmental Site Assessment (ESA), conducted for the Los Angeles County-University of Southern California (LAC-USC) Medical Center Replacement Project in the City of Los Angeles, California (Figure 1). The subject property for this investigation generally included all of the buildings north of Marengo Street, south and southeast of the General Hospital and Outpatient Clinic, east of the Central Plant and Laboratory, and west of Chicago Street. The onsite structures included on the subject property at the time of the site visit were the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, Parking Structures #6, #11, and #12, the former Burger King Restaurant, the former strip mall, and ten trailers used for office space (Figure 2).

The LAC-USC Medical Center experienced severe damage during the 1994 Northridge Earthquake, and many of the buildings have been "red-tagged" since the event. The majority of the buildings in the Replacement Project have functionally deteriorated and are deficient to the point that they are no longer safe. The purpose of the Replacement Project is to remove the existing buildings on the southern portion of the hospital campus and construct new medical facilities and a new Metropolitan Transportation Authority (MTA) Transit Center.

Information from previous environmental reports has been reviewed for the assessment of this property. These reports included:

- Environmental Science Associates, Inc., *Los Angeles County + USC Medical Center: Environmental Audit*, Draft Report, October 1992.
- Dames & Moore, *Environmental Subsurface Investigation: LAC+USC Medical Center Replacement Project*, Draft Report, July 22, 1993.
- Environmental Science Associates, Inc., *LAC + USC Medical Center Replacement Project: Environmental Impact Report*, Draft Report, March 1994.
- Dames & Moore, *Subsurface Contamination Investigation: Medical Center Replacement Project*, Final Report, July 28, 1995.

1.1 PURPOSE

The purpose of this Phase I ESA was to review past and present land use practices and site conditions to assess potential environmental impacts and to identify Recognized Environmental Conditions in connection with the subject property. By definition under ASTM designation E 1527, the term "Recognized Environmental Conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

1.2 SPECIAL TERMS AND CONDITIONS

The Scope of Services performed is in accordance with our proposal to the County of Los Angeles, Department of Public Works, dated May 20, 1998. The format and content of this Phase I ESA is in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process (ASTM E1527-97).

1.3 LIMITATIONS AND EXCEPTIONS OF THE ASSESSMENT

The conclusions presented in this report are professional opinions based solely upon indicated data described in this report, visual observations of the site and vicinity, and our interpretation of the available historical information and documents reviewed, as described in this report. The conclusions are intended exclusively for the purpose outlined herein and the site locations and project indicated. The Scope of Services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

Opinions and recommendations presented herein apply to the site conditions existing at the time of our investigations and cannot necessarily apply to site changes of which Dames & Moore is not aware and has not had the opportunity to evaluate. Changes in the conditions of this property may occur with time due to natural processes or the works of man on the subject site or adjacent properties. Changes in applicable standards may also occur as a result of legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

1.4 LIMITING CONDITIONS AND METHODOLOGY USED

This assessment was accomplished by, and limited to, a site reconnaissance, a drive -by survey of the site vicinity, and a review of available pertinent documentation available through Dames & Moore's standard resources regarding past and current land use for indications of the manufacture, generation, use, storage and/or disposal of hazardous substances at the site. To meet the objective of this assessment, Dames & Moore completed the following tasks:

- Performed a reconnaissance survey of the subject property to make visual observations of existing site conditions and activities, and a drive-by survey of the area within ¼-mile of the site to observe the general land use within the search area. Photographs of site are provided in Appendix A.

- Conducted interviews with site personnel to evaluate the site history, and operation and maintenance procedures.

- Reviewed the federal, state, and local database list search provided by Environmental Data Resources, Inc., (EDR) of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations. The agency lists and search radii are provided in Appendix B.

- Conducted inquiries in person, by telephone, or in writing to the appropriate regulatory agencies for information regarding environmental permits, violations or incidents, and/or the status of enforcement actions at the subject property.

- Reviewed pertinent, available documents and maps regarding local physiographic and hydrogeologic conditions in the site vicinity including the potential presence of wetlands, flood plains, coastal zones, sole source aquifers, aquifer recharge areas, and nearby environmentally sensitive sites.

- Reviewed and interpreted archival U.S. Geological Survey (USGS) topographic maps of the site and the area within ¼-mile of the subject property for information regarding historical land use potentially involving the manufacture, generation, use, storage and/or disposal of hazardous substances. The quadrangle and years reviewed are provided in the References Section of this report.

- Reviewed and interpreted available historical Sanborn Fire Insurance Maps for the site and vicinity.

- Prepared this report describing the research performed and presenting Dames & Moore's findings and professional opinions regarding the potential for adverse environmental impacts to the subject site.

Inspections were conducted for all buildings included in the subject property (Section 1.0). Dames & Moore focussed mainly on laboratories, mechanical rooms, and other areas where hazardous materials were used and stored. The scope of work for this project specifically excluded asbestos or lead-based paint surveys. Electrical rooms, unoccupied areas of Muir and Grad Halls, and former tenant spaces in the former strip mall at the northwestern corner of Marengo and Chicago Streets were not viewed in their entirety due to restricted access in these areas. These areas will be further inspected during ensuing asbestos/hazardous materials surveys.

2.0 SITE DESCRIPTION

2.1 LOCATION

The subject property for this investigation generally included all of the property north of Marengo Street, south and southeast of the General Hospital and Outpatient Clinic, east of the Central Plant and Laboratory, and west of Chicago Street (Figure 1). Parking structure #12 and the IMS Trailer, located outside of this general area, were also included in the site reconnaissance. Other properties in the vicinity included commercial and office buildings, fast food restaurants, and residences.

2.2 SPECIALIZED USER KNOWLEDGE

Interviews were conducted onsite with Mr. Terence McNeal of the LAC-USC Medical Center, Mr. George Jones of the Los Angeles County Department of Public Works, Mr. Ken Pruett of CRSS Constructors, and Mr. Osman Kuran of CRSS Constructors. Mr. Bob Higgins and Mr. Fernando Vizcarra were also contacted for information about the subject site.

2.3 SITE RECONNAISSANCE & INTERVIEWS

On September 22, 1998, Mr. Robert Forster and Ms. Jessica Davis, Dames & Moore representatives, conducted a reconnaissance of the subject property. The reconnaissance consisted of the observation and documentation of existing site conditions and nature of the neighboring property development within ¼ mile of the site.

The onsite structures included on the subject property at the time of the site visit were the Pediatric Pavilion (1129 North State Street), Muir Hall (1937B Hospital Place), Psychiatric Hospital (1934 Hospital Place), Grad Hall (1937 Hospital Place), Parking Structures #6, #11 and #12, the former Burger King Restaurant and strip mall, and ten temporary-trailers used for administrative office space (Figure 2).

Psychiatric Hospital (1934 Hospital Place)

The former Psychiatric Hospital, located at 1934 Hospital Place, is an approximately 149,500 square foot eight-story building. At the time of the site visit, the building had been closed since the 1994 Northridge Earthquake and appeared to be in a state of disarray, with furniture, equipment, and papers scattered throughout the building. The building was mostly used for patient rooms and administration offices, except for the seventh floor and the sub-level basement. The seventh floor was formerly used as a laboratory with a chemical and poisonous substances storage space. According to Mr. McNeal, the seventh floor had not been used since the early 1980's. The basement level has the former mechanical and electrical rooms for the building. Hazardous materials and empty biohazardous containers, as well as a diesel emergency generator with an internal 500-gallon tank, were observed in the mechanical room (Section 3.2.1). There are three electric elevators that service this building. No evidence of spills, leaks, or other environmental concern related to onsite equipment or materials was observed during the site reconnaissance.

There are also four administrative trailers associated with the former Psychiatric Hospital building, including a security trailer for the onsite hospital security. The trailers are used for office, meeting, and storage spaces, and appeared to be occupied and operational. No hazardous materials were observed in the onsite trailers.

Grad Hall (1937 Hospital Place)

The Grad Hall, located at 1937 Hospital Place, is an approximately 53,000 square foot three-story building. Currently the building is used for the administrative offices for the psychiatric services. The basement level of the building has a mechanical room, where hazardous materials are stored (Section 2.3.1).

To the north of the Grad Hall are two administrative trailers identified as the M.S.W. Administration Building and Home Care. According to Mr. McNeal, these trailers are only used for administrative office space.

Parking Structures #6, #11 and #12

Parking Structure #6 is an approximately 158,500 square foot six-level parking garage (including sublevel) located on the northern side of Marengo Street, adjacent to the east of the former Psychiatric Hospital. Parking Structure #11 is an approximately 215,000 square foot three-level parking garage and adjacent asphalt parking lot to the east of the Parking Structure #6. Parking Structure #12 is also several hundred thousand square feet and five levels, but is not currently being used due to Northridge Earthquake damage.

The parking structures are used only for parking staff and patient automobiles. No hazardous materials are used or stored in the parking areas. Typical automotive staining was observed in the parking areas. Such staining is considered *de minimis* and not a recognized environmental condition. The parking structures appeared to be generally clean and well maintained.

Vacant Eastern Properties

Several buildings in the northern and eastern portions of the subject property had been removed at the time of the site visit. Adjacent to the north of the Parking Structure #11 was the former AIDS Clinic, formerly 1115 Cummings Street. This former four-story, approximately 30,000-square foot building was removed from the subject property in 1994. No information was provided regarding the operations prior to the displacement of the building.

An estimated 30 residences east of Parking Structure #11, between Cummings and Chicago Streets, were also demolished prior to our site visit. The parcels are vacant with exposed dirt. No visible indications of environmental concern were noted.

South of the former residences are two vacant buildings. On the northeastern corner of Marengo and Cummings Streets is a former Burger King Restaurant. On the northwestern corner of Marengo and Chicago Streets is a single-story, former multi-tenant strip mall. Former tenants included a Chinese food restaurant, a hair salon, a Pita Express restaurant, and several office spaces. Indications of the former activities were not observed during the site reconnaissance, but based on the operations known at this portion of the property, it is unlikely that hazardous materials were used, stored, or disposed. No evidence of stains, spills, or other indication of environmental concern was observed.

The following utilities provide service to the site:

Natural Gas	:	Southern California Gas Company
Water	:	County of Los Angeles, Department of Water & Power
Electric	:	County of Los Angeles, Department of Water & Power
Sanitary Wastewater	:	County of Los Angeles, Department of Water & Power, and the City of Los Angeles

2.3.1 Hazardous Substances

Present Use

In an x-ray room on the first floor of the former Pediatric Pavilion was approximately 20 gallons of fixer and developer chemicals, as well as a silver recovery unit at half capacity (approximately 10 gallons). Several 5-gallon cans of mineral spirits, lubrication oil, paint, and gasoline were observed in the basement mechanical and storage rooms. Two diesel generators with internal diesel tanks were also observed in the basement.

In the basement of Muir Hall were three mechanical rooms. A canister of propane, a 10-gallon container of air conditioner oil, and six compressed oxygen cylinders were all observed. Also in the basement of Muir Hall, several lead-acid batteries were kept on a storage rack. Two air compressors, one active and one stand-by, were observed with compressor oil. *De minimis* compressor oil staining was observed on the floor adjacent to the air compressors.

In the former Psychiatric Hospital mechanical rooms were several 5-gallon to 10-gallon containers of motor oil, gasoline, paint, and degreasers. A 5-gallon metal can of 1,1,1-trichloroethane and a 30-pound container of Freon were also observed.

The basement of the Grad Hall is mostly for mechanical rooms and furniture storage. Several 1-gallon cans of paint, approximately 20 gallons of coolant of unspecified contents, and two air compressor units with oil were observed. *De minimis* compressor oil staining was observed on the floor adjacent to the air compressors.

In all buildings the hazardous materials appeared to be stored properly and in good condition. No evidence of spillage or leakage was observed at the time of the site visit.

Past Use

Available information indicates that the subject property has been used for residential and medical purposes since the early 1900's.

2.3.2 Storage Tanks

One underground storage tank (UST) of a currently unknown capacity was observed adjacent to the southern portion of the former Pediatric Pavilion, along Marengo Street. The tank was used to store diesel fuel for the emergency generator onsite. On October 20, 1998, the UST was removed. Soil samples were reportedly collected, but analytical data has not yet been provided for review. Reportedly, no visual or olfactory indication of impacted soil was detected during the excavation.

Three 500-gallon aboveground storage tanks (ASTs) are reported to be internal tanks in the emergency generators for the former Pediatric Pavilion and Psychiatric Hospital. No evidence of leakage or spillage in the vicinity of the generators was observed during the site visit.

2.3.3 Polychlorinated Biphenyls (PCBs)

Evidence of PCBs was not observed during the site visit. Electrical rooms, which were not accessed, will be further inspected during ensuing investigations for asbestos and other hazardous materials. Pad-mounted transformers and light ballasts were observed throughout the subject property. There is the possibility that onsite transformers, light ballasts and other electrical equipment onsite utilize PCB-containing dielectric fluids.

2.3.4 Waste Disposal

At the time of the site visit, no waste was generated on or disposed from the subject property. Empty biohazardous, sharps, and cytotoxic waste containers indicated that hazardous and biohazardous waste was generated and stored prior to the closing of the facilities on the subject property.

2.3.5 Drums/Other Chemical Containers

Numerous drums and other containers with hazardous materials were observed on the subject property (see Section 2.3.1).

A storage room in the basement level of the former Psychiatric Hospital had approximately fifty empty containers of various sizes for biohazardous waste and sharps. The room for the diesel emergency generator also stores approximately 500 gallons of diesel fuel in an internal tank, three lead-acid batteries, and three 5-gallon containers of motor oil.

2.3.6 Dumping

No evidence of illegal dumping was observed during the site visit. According to previous investigations, used motor oil and automotive liquids were dumped in an alleyway in the former residential area between Cummings and Chicago Streets (note Section 3.3). At the time of the site reconnaissance, the residences had been removed and no evidence of the automotive liquids disposal was observed.

2.3.7 Pits, Ponds, Lagoons, Septic Systems, Cisterns, Sumps, Drains

No pits, ponds, lagoons, septic systems, or cisterns were observed at the subject property during the site visit. Outdoor drains, draining to the street gutter, were observed between buildings. A sump was observed in the loading dock area for the former Psychiatric Hospital to control onsite runoff. No evidence of hazardous materials discharge to drains or the sump was observed.

2.3.8 Pesticide Use

No pesticide use was observed or reported.

2.3.9 Staining and Discolored Soils

No significant staining or discoloration of soils was observed during the site visit.

2.3.10 Stressed Vegetation

None observed.

2.3.11 Unusual Odors

None detected at the time of the site reconnaissance.

2.3.12 Onsite Wells

Several groundwater investigations have been conducted at the LAC-USC Medical Center. Three groundwater monitoring were observed on the subject property, and several others are known to be located beyond the subject property within the LAC-USC Medical Center. For a review of the previous groundwater investigations, please refer to Section 3.3.

2.3.13 Nearby Environmentally Sensitive Sites

None observed or reported.

2.3.14 Asbestos

Dames & Moore's scope of work for the Phase I project specifically excluded asbestos surveys. However, asbestos surveys will be performed under a separate work task.

2.3.15 Other Concerns

No other environmental concerns were observed or reported during the site reconnaissance.

2.4 CURRENT USES OF ADJACENT PROPERTY

The site is located within an area that primarily consists of commercial properties and undeveloped land in the City of Los Angeles, California (Figure 2). In general, prominent adjoining land uses are as follows:

North:	Adjacent to the north are the General Hospital and Outpatient Clinic buildings.
South:	Across Marengo Street are several fast-food restaurants, offices, and commercial buildings. To the southwest is a gasoline service station.
East:	Across Chicago Street is residential development.
West:	Adjacent to the west are a laboratory building and the Central Steam Plant building.

2.5 HISTORICAL USE

Dames & Moore conducted personal interviews and reviewed previous reports as well as selected historical aerial photographs, historical fire insurance maps, and archival topographic maps. These references were reviewed for evidence of activities that would suggest the potential presence of hazardous substances at the subject property and to evaluate the potential for the parcel to be impacted by offsite sources of contamination. The following paragraphs are a chronological summary of the review.

The earliest development for the County of Los Angeles Medical Center was reported to have been in the late 1870's. The Central Administrative Building was reported to have been constructed in 1878 and the General Hospital (Acute Care Unit) was reported to have been constructed in 1928 (ESA, 1992). Prior to construction of the existing structures, the subject property appears to have been occupied by dormitories and residences. In the current location of the former Pediatric Pavilion

were a nursing school and twelve nursing dormitories. The remainder of the subject property and adjacent parcels was occupied by residences or vacant land. To the northeast of the subject property was the Hazard Park Reservoir.

Historical Sanborn fire insurance maps from 1951 show that most of the subject property was occupied by residences. The "Los Angeles County Hospital Psychiatric Unit," constructed in 1934, was in its present configuration on the subject property. To the north, the "Los Angeles County General Hospital Acute Unit" had more than doubled in size since the initial construction in 1928 and six more nurses quarters were constructed in the location of the Muir Building. The remainder of the vicinity was mostly occupied by residences. Aerial photographs and a topographic map from 1953 confirm the presence of the Psychiatric Hospital, nurses quarters, and the newly constructed Grad Hall on the subject property, as well as the General Hospital offsite to the north. Also offsite and downgradient to the southwest, near the corner of Marengo and State Streets, was a gasoline service station.

According to documentation reviewed onsite, the Communicable Diseases Unit (Pediatrics Pavilion) was constructed in 1955. Files from the City of Los Angeles, Department of Building and Safety, indicate that the Standard Oil Company constructed a new gasoline service station on the southwestern corner of Marengo and State Streets, southwest of the subject property.

In 1960 and in 1964, the Richfield Oil Company received demolition and grading permits from the City of Los Angeles for the dwellings on the north side of Marengo Street, between Cummings and Chicago Streets (in the locations of the former Burger King and strip mall). A topographic map from 1966, an aerial photograph from 1968, and fire insurance map from 1970 all confirm that the Pediatric Pavilion, Psychiatric Hospital, and Grad Hall were all present onsite. The 1968 aerial photograph also indicates that the Outpatient Clinic and Interns Residence to the north, as well as the Laboratory and Central Steam Plant Buildings to the west, had been constructed. Asphalt parking was in the locations of Parking Structures #6 and #11. The remainder of the vicinity was occupied by other hospital related buildings and homes. A residential area to the north and northwest of the subject property was cleared and graded for construction.

According to the 1970 Sanborn fire insurance map, the properties on the north side of Marengo Street, between Cummings and Chicago Streets, were occupied by "oil and gas" structures. According to onsite personnel, this area was a Richfield gasoline service station and automobile repair facility. The service station reportedly went out of business in the mid-1970's (Dames & Moore, 1993).

In aerial photographs from 1976, 1989, and 1994, the subject property and vicinity appear mostly as they do today. The onsite structures included the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, the former AIDS Clinic, and Parking Structures #6 and #11. The former Burger King Restaurant, strip mall, and homes to the east were all visible.

Since the 1994 aerial photograph, the former AIDS Clinic and homes formerly on the eastern portion of the subject property have been demolished.

Based on this review of available historical information, potential environmental concerns include the former gasoline service station and automobile repair facilities in the southeastern portion of the subject property.

2.5.1 Oil and Gas Well Maps

A review of the 1997 Munger Map Book indicates that the nearest well to the subject property was a Santa Fe Mutual Oil Syndicate well located within 100 feet north of the intersection of Marengo and State Streets, to the northwest of the subject property. According to materials from the California Division of Oil and Gas reviewed by Dames & Moore in 1995, the Santa Fe Mutual Oil Syndicate well was completed in 1927 to a depth of 2,995 feet, and abandoned as a dry hole.

3.0 RECORDS REVIEW

Dames & Moore reviewed readily available records regarding past and current site use, contacted applicable agencies regarding environmental concerns at the site, and reviewed the agency database list search for environmental concerns at surrounding properties. The information obtained during the records review is provided in the following sections.

3.1 AGENCY RECORD REVIEW

3.1.1 Data Base List Search

Dames & Moore contracted Environmental Data Resources, Inc., (EDR) to provide a review of the publicly available federal, state, and local databases of known or potential hazardous waste sites or landfills and sites currently under investigation for environmental violations for the site address and the surrounding area. The EDR-Radius Map Report along with descriptions of each federal, state, and local agency list is included in Appendix B. Facilities located adjacent to or hydraulically up-gradient from the subject property with respect to the inferred groundwater flow direction, are discussed below.

3.1.1.1 Site

None of the hospital buildings on the subject property were reported in the EDR database search. However, several addresses affiliated with the Los Angeles County - University of Southern California Medical Center were listed. Offsite addresses are described in Section 3.1.1.2.

Towards the southeastern boundary of the subject property, two former businesses were reported in the EDR database search. Ray's Auto Service (C11 and C12) and Jasper Wrecking & Trucking (C13) were located at 2039 and 2055 Marengo Street, in the location of the former Burger King Restaurant and strip mall. This facility was included in the State UST and CA-FID databases. In 1957, five USTs ranging in size from 200 gallons to 6,000 gallons were installed at the subject property for the storage of gasoline and waste oil. No violations were reported. In the 1970's these facilities were demolished (Section 2.5). Based on our knowledge of these historical facilities, it is the opinion of Dames & Moore that there is a potential for at least the Ray's Auto/Jasper Wrecking site to has impacted the subject property.

3.1.1.2 Offsite

No current or former Federal National Priority List sites were reported within a 1 mile search radius of the subject property. One United States Hazardous Waste Site (CERCLIS), one State Hazardous Waste Site (Cal-Site), ten impacted groundwater (CORTESE) sites, and sixteen Leaking Underground Storage Tank (LUST) sites were also reported within a 1 mile search radius. Seven Underground Storage Tank (UST) sites, twenty UST Facility Inventory Database (CA-FID) sites, and ten Small and Large Quantity Generator sites were reported within a ½ mile search radius. Two Hazardous Waste Inventory System (HAZNET) sites were reported within a ⅛ mile search radius.

EDR-listed sites interpreted as hydraulically downgradient or crossgradient from the subject property relative to groundwater flow direction are in our opinion not likely to impact the site with hazardous materials and are therefore excluded from the following discussion, except the properties that are adjacent to the subject property. The subject property sits on a slight slope to the south and southwest, and therefore properties located to the north and east of the subject property would be assumed upgradient of the subject property (see Section 3.2.2).

The following is a summary of information provided regarding listed sites located adjacent to or upgradient from the subject property. The location of these sites is shown on the radius maps accompanying the EDR report in Appendix B. Numbers in parentheses in the following paragraphs refers to the map identification number in the EDR maps and report.

- IT Corp (A1) is located at 1129 North State Street, across the street from the General Hospital. This facility is included in the CA-FID database as an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's crossgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- Esther M Hildago (2) is located at 2006 Marengo Street, across Marengo Street from the subject property. This facility is included in the CA-FID database as an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's downgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- The Los Angeles County - University of Southern California (LAC-USC) Medical Center is included in a range of addresses to the north, northwest, and north east of the subject property: 1200 North State Street (B3, B4, B5, and B6), 1333 San Pablo Street (23), 1744 Zonal Avenue (22), 1910 through 2025 Zonal Avenue (16, E17, 18, E19), 1240 North Mission Road (I30), and 1540 Alcazar Street (P50). These addresses are included in the Large Quantity Generator, UST, LUST, CORTESE, and CA-FID databases. The LAC-USC Medical Center has up to fourteen registered USTs onsite, ranging in size from 300 gallons to 50,000-gallons, for the storage of gasoline, diesel, and waste oil.

  On November 7, 1988, a release of gasoline from an UST registered to the General Hospital at 1200 North State Street was reported to have impacted local groundwater. A pollution characterization study was conducted, but no remediation actions and no current status were reported in the database. Based on the upgradient location of this site from the subject property, the release from the General Hospital has the potential to have impacted the subject property.

  On May 29, 1992, a release of gasoline from a tank registered to the LAC-USC Medical Center Molecular Medicine Unit at 1540 Alcazar Street was reported to have impacted local ground water. A pollution characterization study was conducted, and the case received closure on July 29, 1996. Based on the regulatory status of this site, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

The LAC-USC Medical Center Power Plant (G24 and G25) is located at 1635 Marengo Street, to the west of the subject property. This facility is included CA-FID and State UST databases. The database states that there are four USTs, ranging in size from 1,000-gallons to 55,000-gallons, for the storage of diesel fuel. No violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's crossgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

The Newman Nutrition Center (H26 and H27) is located at 2310 Charlotte Street, northeast of the subject property. This facility is included in the CA-FID, State UST, and Small Quantity Generator databases. This facility is reported to have one 8,000-gallon waste oil tank. No violations are reported. Based on the absence of this facility from agency databases that would indicate a release or other environmental concern, it is the opinion of Dames & Moore that the potential for this facility to have impacted the subject property is low.

- Kwik Gas and Al-Sal Oil (A7, A8, and A9) is located at 1848 Marengo Street, within ⅛ mile southwest of the subject property. This facility is included in the HAZNET, State UST, State LUST, and CA-FID databases. Between 1971 and 1978, six USTs ranging in size from 10,000 gallons to 20,000 gallons were installed at the site for the storage of gasoline. On December 1, 1993, a release of mixed waste oil was reported to have impacted local soil. Based on the media affected and the downgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- East Los Angeles Occupational Center (D14 and D15) is located at 2100 Marengo Street, across Marengo Street south of the subject property. This facility is included in the CA-FID, HAZNET, and Large Quantity Generator databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's downgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- The Lincoln Magnet High School (F20 and F21) is located at 1200 Cornwell Street, approximately ¼ to ½ mile east of the subject property. This facility is included in the CA-FID and the State LUST databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. On April 8, 1988, a release of an unspecified substance was reported to have impacted local groundwater. No further information is provided. Based on the distance and crossgradient location of this site from the subject property, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- The Estelle Doheny Eye Hospital (39) is located at 1537 Norfolk Street, approximately ¼ to ½ mile northeast of the subject property. This facility is included in the CA-FID and State LUST databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. On May 6, 1992, a release of an unspecified substance was reported to have impacted the local groundwater. No current status was reported. Based on the distance of this site from the subject property, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- Celotex Corp (Q52 and Q54) is located at 1632 San Pablo Street, approximately ½ to 1 mile northeast of the subject property. This facility is included in the Cal-Sites and LUST databases. On April 23, 1996, a release of diesel fuel was reported to have impacted local soil. Remediation activities were conducted, and the case was closed on May 13, 1997. Based on the regulatory status for the leaking tank case and the distance of this site from the subject property, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

In addition, twenty six unmapped ("orphan") sites were also reported in the EDR database search. Based on the information provided in the database, most of the reported "orphan" sites are not within the appropriate search radii, and two of the "orphan" sites are duplicates of previously listed facilities associated with the LAC-USC Medical Center. Based on the distances of the sites from the subject property, it is the opinion of Dames & Moore that the potential for these sites to have impacted the subject property is low.

3.1.2 Agency Contacts

In addition to the database list search, Dames & Moore contacted state and local regulatory agencies to obtain information regarding the environmental condition of the subject property. The following information was received from these agencies.

- In a telephone conversation on October 1, 1998, the California Regional Water Quality Control Board indicated that there were no underground tank or site cleanup and mitigation files for the subject property.

- A letter dated October 2, 1998, from the California Environmental Protection Agency, Department of Toxic Substances Control to Dames & Moore states that they have no records on file pertaining to the subject property.

- The South Coast Air Quality Management District (SCAQMD) indicated in a letter dated September 30, 1998, that our request for information is being processed. Access to review files at the SCAQMD has not been granted at this time.

- Files reviewed at the County of Los Angeles, Department of Public Works, Environmental Programs Division, on September 25, 1998, indicated that there are no files related to the subject property.

- A letter dated October 9, 1998, from the Los Angeles County Fire Department states that the subject property is not within the jurisdiction of the Los Angeles County Fire Department.

- Files reviewed at the City of Los Angeles Fire Department, Underground Tank Unit, indicated that there are no files related to the subject property. The Hazardous Materials Unit has chemical inventories for the former Pediatric Pavilion at 1129 North State Street and the former Psychiatric Hospital at 1934 Hospital Place. No violations, reports of releases, or other indications of environmental concern were indicated.

3.2 PHYSICAL SETTING

Dames & Moore reviewed pertinent maps and readily available literature for information on the physiography and hydrogeology of the site. A summary of this information is presented in the following subsections.

3.2.1 Topography

The subject property is located in Township 1 South, Range 13 West, Section 26, at an elevation of approximately 360 feet above mean sea level (U.S.G.S., Los Angeles 7.5 minute quadrangle, 1966, photorevised 1981). The topography across the subject property generally slopes to the south and southwest, and the local topographic gradient is approximately 80 feet per mile towards the southwest. The nearest surface water is the Los Angeles River Channel, approximately 1 mile to the west, and the Hazard Park Reservoir, approximately ¼ mile to the northeast.

3.2.2 Geologic and Hydrogeologic Setting

The subject property is located in the Elysian Park-Repetto Hills are of the Los Angeles Basin. This area is comprised of a series of relatively low-relief hills which trend west-northwest across the north central margin of the basin. The property is underlain by a thick section of uplifted and folded marine sedimentary rocks of Miocene age. The major bedrock strata at the site, identified as Upper Miocene Puente Formation, strikes generally to the west-northwest and forms part of the deep south-dipping limb of the Elysian Park Anticline (Dames & Moore, 1995). Bedrock folding in the vicinity is generally considered to be result of both strike-slip and compression movements along several major faults in the area.

Unconsolidated Quaternary age alluvium overlies the Miocene sedimentary rocks at the site. Based on soils encountered in the borings drilled during a previous geotechnical investigation, the alluvium is generally composed of sand, silt, and silty clay, which were deposited as alluvial fan, alluvial plain, and stream terrace deposits (Dames & Moore, 1993).

Hydrologically, the site is located along the northern edge of the Los Angeles Forebay area of the Central Basin, sub-basin of the Los Angeles Coastal Plain. Within the Forebay area, the site is situated along the southern edge of the Elysian Park-Repetto Hills which are bisected by Los Angeles Narrows, a north-south trending valley underlain by Quaternary alluvium deposited by the Los Angeles River. Quaternary water bearing deposits of the Forebay area pinch out northward against Tertiary sedimentary rocks, such as those which are present at the subject property.

According to the California Department of Water Resources (CDWR, 1961), near-surface alluvial deposits in the southern portion of the subject property represent a portion of the Late Pleistocene Lakewood Formation, which contains the Exposition-Gage Aquifer. The regional direction of the groundwater flow in the vicinity is generally towards to the southwest (CDWR, 1961). Previous subsurface investigations indicate that groundwater was encountered in the eastern section of the subject property between 25 and 55 feet below the ground surface (Dames & Moore, 1993 and 1995).

3.3 OTHER DOCUMENTS

Environmental Science Associates, Inc., *Los Angeles County + USC Medical Center: Environmental Audit*, Draft Report, October 1992

Environmental Science Associates, Inc., (ESA) completed an Environmental Audit at the Los Angeles County - University of Southern California (LAC-USC) Medical Center Facility in October of 1992 for the County of Los Angeles, Department of Health Services, Facilities Implementation Team. ESA observed that the hazardous materials and wastes used and generated by the hospitals are tightly controlled and monitored. However, ESA concluded that spills were likely to have occurred at the Medical Center that could have lead to minor contamination of parts of the onsite soils and groundwater based on the following information. Reportedly in the past, hazardous materials and wastes had been disposed accidentally to the sewer system and storm drains. Any leaks in the sewer and/or storm drain system may have lead to soil contamination. A review of availbale federal and state databases conducted by ESA indicated upgradient leaking underground storage may have the potential to impact the subject property. ESA also concluded that an asbestos survey was recommended prior to the demolition of onsite medical building structures.

Dames & Moore, *Environmental Subsurface Investigation: LAC+USC Medical Center Replacement Project*, Draft Report, July 22, 1993

Dames & Moore completed an Environmental Subsurface Investigation for the LAC-USC Medical Center Replacement Project in July of 1993 for the County of Los Angeles, Department of Health Services. The objective of this investigation was to evaluate potential environmental liabilities associated with the subject property. Portions of the subsurface investigation were completed concurrently with Dames & Moore's geotechnical investigation at the subject property.

The area investigated during this 1993 investigation consist of approximately 15 acres of land located east of the existing main LAC-USC Medical Center, and approximately 4 acres located south of Marengo Street. The subject area defined in the project did not include the former Pediatric Building, Muir Building, or former Psychiatric Hospital that are included in this investigation. The investigation did include several of the LAC-USC Medical Center Buildings north of the current subject property.

Dames & Moore's subsurface investigation included a soil investigation, a groundwater investigation, and a soil vapor survey. The analytical results from the soil and groundwater investigation indicated no evidence of subsurface contamination for the majority of the sampling locations. Soil samples from shallow hand auger borings located next to the Outpatient Clinic underground storage tank (north of the current field of study) indicated the presence of low concentrations of ethylbenzene, toluene, and xylenes (6.9 to 13 micrograms per kilogram (ug/kg)). However, the levels detected were considered insignificant compared to regulatory action criteria. The impacted area identified in the 1993 soil investigation was restricted solely to soil, and was not likely to have migrated into the current subject property for this investigation.

Evidence of hydrocarbons were encountered in the Puente Formation bedrock located in the southern portion of the subject property, from a depth of 30 to 60 feet below ground surface (bgs). The chemical testing results on these soils indicated that hydrocarbons were detected in the range of waste oil and diesel fuel. According to laboratory personnel, the typical gas chromatogram response for crude oil would appear very similar to a mixture of diesel fuel and waste oil.

Based on the available evidence, the fact that the Puente Formation is a known oil source rock, and the analytical testing results, it was Dames & Moore's opinion that the hydrocarbons were most likely to be naturally occurring crude oil.

Oil staining was noted on the ground surface in the alley between Cummings and Chicago Streets. The oil appeared to be waste oil disposed to the ground at the rear of several residences. Each of the areas encompassed about 30 to 100 square feet, and were judged likely to be limited to shallow soil depths due to the mobility of waste oil. At the time of the current investigation, the homes between Cummings and Chicago Streets have been demolished and the parcels are vacant with exposed soil. No visible staining was observed during the site visit. Further soil and soil vapor surveys are planned for this area, and the analytical results will be discussed in a separate report.

Groundwater samples from two wells, adjacent to the Outpatient Clinic and Parking Structure #12 Buildings (north of the current subject property), were found to contain benzene at relatively low concentrations of 0.85 and 1.0 micrograms per liter (ug/l). These concentrations are at or below the maximum contaminant level (MCL) for benzene (1.0 ug/l). The source of benzene was not apparent.

Dames & Moore recommended further subsurface investigations in order to further evaluate the onsite contamination of soil and groundwater and to evaluate the impact that it could have on the proposed replacement project construction.

Dames & Moore, *Subsurface Contamination Investigation: Medical Center Replacement Project*, Final Report, July 28, 1995.

Dames & Moore completed a Subsurface Contamination Investigation July of 1995 for the same subject area as the 1993 investigation in order to further evaluate the extent of subsurface contamination.

The results of the soil vapor survey only identified relatively low concentrations of methane (3 to 9 ppmv) for the majority of the sampling locations tested within the residential area between Cummings and Chicago Streets. This area was identified in the 1992 ESA investigation as an area where local residents had dumped used motor oil. TRPH and inorganic lead were also reported at concentrations of 44,000 mg/kg and 110 mg/kg respectively, in a single sample collected at a depth of 6 inches bgs within the residential area. Dames & Moore concluded that the contamination by the hydrocarbons was most likely due to waste motor oil disposed into the ground at the rear of several of the residential homes. Since the 1995 Dames & Moore soil vapor survey, this portion of the subject property has been demolished and the property has been graded. However, there is no indication that this portion of the property was ever remediated.

The results from the soil investigation indicated no detectable concentrations of ionizing radiation above background readings. High total recoverable petroleum hydrocarbons (TRPH) indicative of severely degraded naturally occurring crude oil were found in several of the borings completed in the Puente Formation bedrock soils in the southern portion of the subject property, approximately 25 to 60 feet bgs. No significant concentrations of volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) were found in soil samples at the site. The crude oil identified in the Puente Formation confirms the findings of the previous Dames & Moore investigation. However, it should be noted that no gasoline, diesel fuel, or any other refined hydrocarbon products (such as benzene) were found in soils.

The results of the groundwater investigation provided no evidence of VOCs or SVOCs with the exception of low concentrations of chloroform and phthalate esters. Chloroform was detected at concentrations of 0.69 and 4.4 ug/l in two groundwater monitoring wells north of the current subject property (adjacent to the Outpatient Clinic and adjacent to the Interns Residence Hall). Although chloroform has been commonly used at medical facilities in the past, the source of the chloroform identified in the groundwater was not apparent. The phthalate esters were identified in samples from three of the wells, but were most likely indicative of laboratory contamination, and were therefore not identified as a concern.

Dames & Moore recommended that prior to finalizing the construction of the new replacement facilities for the LAC-USC Medical Center, at least one or two feet of the uppermost soils in the areas of contaminated with petroleum hydrocarbons in the former residential area be excavated, appropriately classified, and disposed accordingly. Dames & Moore also stated that soils samples from the base of the excavated areas be obtained to confirm the effective removal of petroleum-impacted soil. As stated above, since the 1995 Dames & Moore soil vapor survey, this portion of the subject property has been demolished and the property has been graded. However, there is no indication that this portion of the property was ever remediated.

The conclusions of Dames & Moore's report also emphasized that areas where crude oil-bearing bedrock were discovered should be carefully monitored during excavation for the presence of contaminated soils and explosive gas levels. The removal of such materials, if necessary, should be conducted in accordance with applicable regulations concerning the hauling and disposal of such materials. Likewise, groundwater removed from the excavations during temporary dewatering should also be carefully managed, classified, and disposed accordingly.

Dames & Moore emphasized that until the actual excavation for the replacement project commences, the groundwater monitoring wells should continue to be monitored in order to evaluate impacts from organic compounds.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the Scope of Services performed for this Phase I ESA, real and potential recognized environmental conditions have been identified at the subject property. These and relevant recommendations are described below:

- Hazardous materials in numerous containers throughout the facilities have remained in storage in the hospital buildings proposed to be demolished for the replacement project since the buildings were closed in 1994. Prior to demolition, Dames & Moore recommends that hazardous materials onsite should be collected and properly disposed or recycled.

- Transformers, light ballasts, and other electrical equipment potentially containing PCB-laden dielectric fluids were identified at the subject property. Dames & Moore recommends a comprehensive survey to locate, establish PCB presence/absence, and quantify PCB-containing electrical equipment prior to demolition.

- There exist potential subsurface impacts from the former gasoline and automobile service facilities in the southeastern portion of the subject property (on the north side of Marengo, between Cummings and Chicago Streets). Dames & Moore recommends additional soil samples be collected in this area in order to determine the potential impacts of the former automotive activities on the subject property.

- Based on information available during the review of agency databases, a leaking underground storage tank from the LAC-USC Medical Center (north of the subject property) has been identified as having the potential to impact the subject property. Dames & Moore recommends a comprehensive file review of the upgradient leaking tank in order to assess whether the tank has the potential to impact groundwater beneath the subject property.

- In previous subsurface investigations, naturally occurring crude oil has been identified in the bedrock beneath the subject property. Dames & Moore recommends further subsurface investigations in order to identify the location and quantify the amount of naturally occurring crude oil that may be encountered during future excavations for the replacement project.

- Petroleum hydrocarbon and lead contamination was detected during previous investigations in shallow soils in the former residential area. We recommend further assessment of the extent of this contamination.

- Previous investigations also indicated the presence of low levels of volatile compounds in groundwater samples collected from onsite wells. Dames & Moore recommends further evaluation of groundwater conditions at the site.

All recommendations indicated above are currently being addressed through ongoing environmental investigations by Dames & Moore; the results of which will be presented in a separate report.

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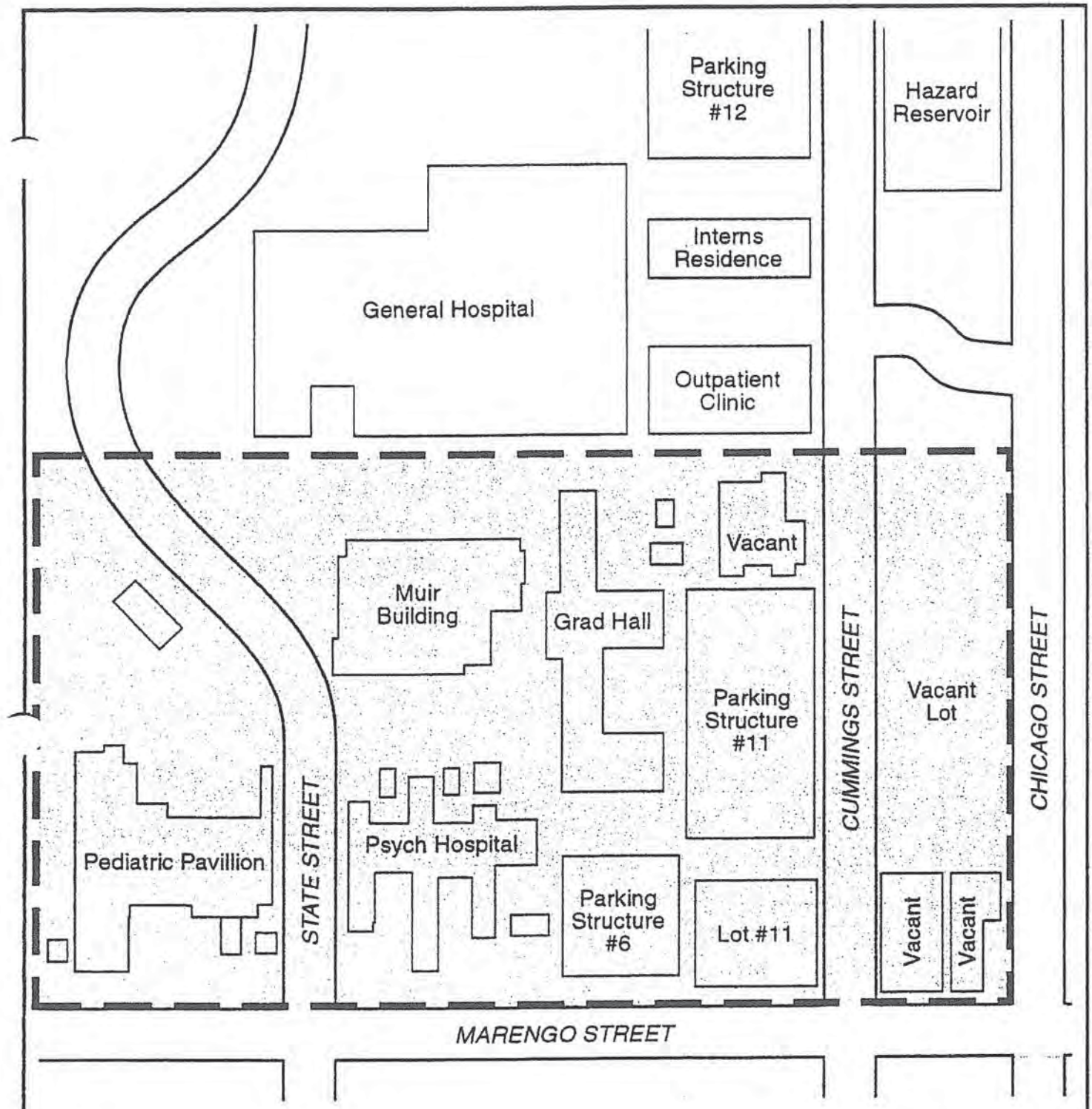

SITE PLAN

LAC - USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA

For: The County of Los Angeles, Department of Public Works

Dames & Moore

FIGURE 2

FINAL

LOS ANGELES COUNTY+ UNIVERSITY OF SOUTHERN CALIFORNIA (LAC+USC) MEDICAL CENTER REPLACEMENT PROJECT

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

SEISMIC HAZARD MITIGATION PROGRAM FOR HOSPITALS

DSR # 47463, 47464, 47465, 47466

P.A. ID # 037 91033

June 2000

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FINAL

LOS ANGELES COUNTY+ UNIVERSITY OF SOUTHERN CALIFORNIA (LAC+USC) MEDICAL CENTER REPLACEMENT PROJECT

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

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FINAL ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT
LOS ANGELES COUNTY/UNIVERSITY OF SOUTHERN CALIFORNIA
MEDICAL CENTER

Prepared for:

COUNTY OF LOS ANGELES

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LIST OF ACRONYMS

1994 EIR	Final Environmental Impact Report for the LAC+USC Medical Center 950-Bed Replacement Project certified by County of Los Angeles Board of Supervisors on April 12, 1994
44 CFR 10	FEMA Environmental Considerations Regulations
ADC	Average Daily Census
APE	Area of Potential Effect
BMP	Best Management Practices
CAO	Chief Administrative Office
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CDMG	California Division of Mines and Geology
CPA	Community Plan Area
CWA	Clean Water Act
DHS	Los Angeles County Dept. of Health Services
DPW	Los Angeles County Dept. of Public Works
EA	Environmental Assessment
EIR	Environmental Impact Report
EO	Executive Order
EO 11988	Floodplain
EO 11990	Wetlands
EO 12898	Environmental Justice
LAC+USC	Los Angeles County + University of Southern California
FEMA	Federal Emergency Management Agency
MOA	Memorandum of Agreement

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LIST OF ACRONYMS (continued)

NEPA	National Environmental Policy Act
NHPA	National Historic Protection Act
OES	Governor's Office of Emergency Services
Section 106	Historic Preservation Consultation
Section 404	Hazard Mitigation Grant Program
Section 1115 Waiver	Federal Medicaid Demonstration Program
SCAG	Southern California Association of Governments
SHPO	State Historic Preservation Officer
SCAQMD	South Coast Air Quality Management District
USGS	U.S. Geological Service

Other acronyms used in specific technical sections of this EA/EIR are defined within those sections.

1.0 INTRODUCTION

OVERVIEW

This Final Environmental Assessment / Environmental Impact Report (Final EA/EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) and its implementing guidelines, and the National Environmental Policy Act (NEPA) and Council of Environmental Quality (CEQ) regulations for implementing NEPA. The County of Los Angeles Department of Public Works is the Lead Agency under CEQA. The Federal Emergency Management Agency (FEMA) is the lead agency under NEPA.

The County of Los Angeles proposes to redevelop Los Angeles County + University of Southern California (LAC+USC) Medical Center and associated facilities in response to severe damage caused by the January 17, 1994 Northridge earthquake as well as aging and obsolescence of these facilities. Prior to the earthquake, the County of Los Angeles Department of Health Services was considering a 950-bed replacement facility. The Los Angeles County Board of Supervisors certified an EIR for the 950-bed LAC+USC Medical Center Replacement Project on April 12, 1994 (hereinafter referred to as the 1994 EIR). However, it became necessary to change the project as a result of the earthquake and financial considerations. In the January 1994 earthquake, four key LAC+USC Medical Center's facilities (General, Pediatric, Psychiatric and Women's) suffered significant structural damage. This damage forced the closure of both the Pediatric and Psychiatric hospital buildings. The Outpatient Clinic suffered minor damage and will remain open until the new Outpatient Clinic is completed. FEMA will provide funding for repair/replacement of damaged hospital buildings, except for the new Outpatient Clinic.

The Northridge Earthquake occurred on January 17, 1994 at 4:31 am, causing damage that spanned a 2,192 square mile area in the counties of Los Angeles, Ventura and Orange, California. The epicenter was located one mile south of Northridge at a depth of 11 miles. The estimated magnitude of the Northridge Earthquake was 6.7. The earthquake resulted in 72 deaths and 11,846 injuries that required hospital treatment. Damage costs were estimated at $25 billion due to the approximately 114,000 residential and commercial structures that were damaged. Additional costs were expected from associated reduction in productivity and business

loss. On January 17, 1994, President Clinton declared a major disaster for Los Angeles, Ventura and Orange Counties under the authority of the Robert T. Stafford Relief and Emergency Assistance Act, (PL) 93-288, as amended.

The project that is now proposed would replace the current hospitals and outpatient buildings damaged in the earthquake. The proposed replacement facility would be located adjacent to General Hospital, which is located at 1200 N. State Street in the City of Los Angeles. As a result of changing healthcare needs and changes to County's planned healthcare delivery system, the number of beds in the replacement facility has been reduced to 600. This EA/EIR addresses the potential impacts of the 600-Bed Alternative as well as the originally proposed 950-Bed Alternative and the No-Project Alternative.

Prior to the 1994 Northridge Earthquake, the LAC+USC campus consisted of over 130 buildings on the project site with a core of five facilities: General Hospital, Women's Hospital, Psychiatric Hospital, Outpatient Clinic and Pediatric Hospital. As discussed above, all four hospital facilities sustained varying degrees of structural damage as a result the Northridge Earthquake. Several of these buildings were already in poor condition as result of old age. General Hospital is eligible for listing in the National Register of Historic Places.

This EA/EIR, where relevant, updates the reader as to changes that have occurred at the project site and in the project site vicinity since certification of the 1994 EIR. Where appropriate, this EA/EIR summarizes information from the 1994 EIR and is a stand alone document. Since certification of the 1994 EIR, the following changes have occurred on and in the vicinity of the site.

- As a result of the earthquake, the Pediatric Pavilion and the Psychiatric Hospital were closed (red tagged) as they were considered unsafe for occupancy.
- The 3,000-space Marengo Parking Structure (#9) was completed (as analyzed in the 1994 EIR).
- As a result of the earthquake, the 1,200-space parking structure # 12 was closed for parking.
- 8 acres of residential land east of the site were acquired and are now County-owned property. The residences and commercial buildings on that land were demolished and the County relocated residents. The site now encompasses the city block bounded by Cummings Street (which would be closed as part of this project), Marengo Street, Zonal Street and Chicago Street. Impacts (identified as significant in the previous EIR) associated with removal of these residential uses have occurred and are now part of the existing conditions for this project.

- In 1994 acquisition of an additional 7.5 acres of land (bounded by Chicago, Marengo, Cornwell and Charlotte) was contemplated in order to provide parking for reuse of General Hospital. Since reuse of General Hospital is not currently foreseeable, this land acquisition is not planned.
- Demand for inpatient services continues to decline as analyzed in the 1994 EIR. An estimated 1,450 functional beds were made available, and continue to be theoretically available (2,045 were licensed); current demand supports 770 budgeted beds (1,779 are currently licensed). This EA/EIR continues to use 1,450 as the number of available functional beds in order to provide a basis for calculation of current impacts. This number is greater than the number currently in use, but less than the number of licensed beds that could theoretically be made available. The build alternatives analyzed in this EA/EIR (950 and 600 beds) similarly represent a maximum number of beds/capacity.

Mitigation measures identified in the 1994 EIR were implemented in conjunction with construction of the Marengo Street parking structure and acquisition, relocation and demolition of residences.

This EA/EIR has been prepared in order to evaluate the environmental effects which may result from the implementation of the proposed project, and has been prepared in conformance with State and County of Los Angeles Guidelines for the implementation of the California Environmental Quality Act (CEQA), and in accordance with the requirements of the National Environmental Policy Act (NEPA), as applied to FEMA pursuant to 44 CFR Part 10. The Code of Federal Regulations (44 CFR Part 10) requires that FEMA take into account environmental considerations when authorizing or approving discretionary actions.

The County of Los Angeles prepared an Initial Study for the LAC+USC Medical Center 600-Bed Replacement Project and used the 1994 EIR to determine which impacts previously have been adequately analyzed. A copy of the Initial Study is included in Appendix B of this document. The study issues identified in the Initial Study to be addressed in the EA/EIR include the following:

- Aesthetics
- Air Quality
- Noise
- Transportation/Traffic
- Geology/Soils
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Cultural Resources

The following issues were determined by the Initial Study not to be significantly impacted by the project and are not addressed in the EA/EIR. However, these issues are discussed in the Initial Study.

- Agricultural Resources
- Biological Resources
- Mineral Resources
- Population/Housing
- Public Services
- Recreation
- Utilities
- Mandatory Findings of Significance
- Land Use/Planning

This Final EA/EIR evaluates potentially significant environmental effects of the proposed project, and also identifies measures that would mitigate potentially significant effects of the project or reduce other non-significant effects. Significance criteria are generally taken from the State of California CEQA Guidelines, supplemented by reference to the federal Council on Environmental Quality (CEQ) NEPA Regulations (40 CFR 1508.27) as appropriate and the NEPA FEMA Desk Reference.[1] CEQA does not require that an EIR identify mitigation measures for impacts that would not be significant (CEQA Sec. 21100(c). NEPA requires that feasible mitigation measures be identified for all impacts if any project impacts would be adverse (40 CFR 1502.14(f); 40 CFR 1502.16(h); Council on Environmental Quality, "Forty Questions," No. 19a). Therefore, even where no mitigation is required by CEQA, this document identifies any feasible mitigation measures that are available to reduce potential adverse project impacts. Mitigation measures included in the project as proposed are so noted; other mitigation measures are those that are identified by this report. If adopted by the County Board of Supervisors as conditions of project approval, mitigation measures would be implemented by the entities identified in each measure; generally, this is the County, acting as project sponsor, which would ensure that the design-build team (which would be responsible for project design and construction) would comply with applicable mitigation.

[1] FEMA implementing regulations for NEPA (40 CFR 10 *et. seq.*) do not include specific criteria for assessing the significance of impacts; rather, the NEPA regulations that focus on determining whether a federal "action" (project) would significantly affect the environment are geared towards a determination of whether an Environmental Impact Statement (as opposed to a less-detailed Environmental Assessment) must be prepared.

In accordance with CEQA Guideline §15121(a), the purpose of an EIR is to serve as an informational document that will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. CEQA Guidelines §15151 contain the following standards for EIR adequacy:

> An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which intelligently takes an account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR would summarize the main points of disagreement among the experts. The courts have looked not for perfection; but for adequacy, completeness, and a good faith effort at full disclosure.

In accordance with NEPA (40 CFR 1508.9(a)), the purpose of an EA is to provide sufficient evidence and analysis to determine whether an Environmental Impact Statement (EIS) is required, to support an agency's compliance with NEPA when no EIS is required, or to facilitate the preparation of an EIS when one is required. An EA is a concise public document that a lead agency prepares when a project is not covered by a categorical exclusion, and the agency does not know whether the impacts will be significant. In practice, the EA is commonly used to document and justify the use of a Finding of No Significant Impact (FONSI); when used for this purpose, the EA should contain the supporting data and references to convincingly demonstrate that there would be no significant effects on the human environment. The significance of an impact for the EA is based on its effects on society as a whole, affected interests, the affected region, and the locality in which it would occur.

The LAC+USC Medical Center Replacement Project EA/EIR is an informational document for decision makers and the public to use in their review of the potentially significant environmental impacts of the proposed project, as well as in the evaluation of alternatives and mitigation measures which may minimize, avoid, or eliminate those impacts. As such, this document includes a full discussion of the project description and the existing environmental setting, significant impacts, mitigation measures with the level of significance after mitigation, and project alternatives.

As discussed above, environmental review pursuant to CEQA has already been completed for a 950-bed alternative. The now-proposed 600-bed alternative (Proposed Alternative) impacts would generally be lesser and included within the range of alternatives considered in the 1994 EIR. However, as a result of the passage of time (five years) and changes in circumstances of the project, as discussed above, as well as changes in site orientation and other issues associated with the project design, and because environmental review in accordance with NEPA is now required, it was decided to prepare a joint CEQA/NEPA environmental document.

PURPOSE AND NEED

The President's Council on Environmental Quality has developed regulations for implementing NEPA. These federal regulations, set forth in Title 40, Code of Federal Regulations (CFR) Parts 1500-1508, require an evaluation of alternatives, and a discussion of the potential environmental impacts of a proposed Federal action, as part of the EA process. The FEMA regulations, which establish FEMA's process for implementing NEPA, are set forth in 44 CFR Subpart 10. This EA was prepared in accordance with FEMA's regulations as required under NEPA. As part of this NEPA review the requirements of other environmental laws and executive orders are addressed.

NEPA requires that an EA identify the purpose and need for a proposed action (40 CFR 1502.13). The purpose is typically defined in terms of the funding program's objectives, and is general in nature. The need for action outlines the historical situation and/or current context that the proposed action and alternatives intend to address.

The January 17, 1994, Northridge earthquake damaged the General, Women's, Psychiatric and Pediatric Hospitals of the LAC+USC Medical Center. As a result, FEMA has been requested to provide assistance, under the authority of Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Stafford Act), to restore the damaged facilities to the pre-disaster condition. The Stafford Act provides discretionary authority to fund measures to reduce future damages to eligible facilities. Utilizing this authority, FEMA created the Seismic Hazard Mitigation Program for Hospitals (SHMPH). The purpose of this program is to significantly improve the seismic performance of structurally damaged general acute care hospital facilities so that they are more likely to be operational immediately following an earthquake.

The purpose of the action alternatives presented in this EA/EIR is to ensure that alternatives that may enhance environmental quality or may have less detrimental effects on the environment have been considered. The need for the project is to continue patient care, educational, research and community service programs at LAC+USC Medical Center while at the same time replacing existing damaged facilities, and constructing a replacement facility. It is intended that the replacement hospital, to be located on the LAC+USC Medical Center campus, will continue to function as the backbone of the County's safety net and as a major regional and community emergency/trauma and critical care provider. This would eliminate the need to evacuate non-ambulatory patients, improve post disaster operations and ensure the continued availability of the facility for disaster victims. The need for this action is to provide seismically sound facilities to perform the functions of the General, Pediatrics, Psychiatric and Women's Hospitals. The LAC+USC Medical Center functions as the County's primary public health care facility. It is the largest single provider of trauma and emergency services in the County. Additionally, the LAC+USC Medical Center also provides unique services not available at other County hospitals or private hospitals (e.g., jail ward). Thus, it provides certain services to the entire County. Primary care is provided to those residents in need of County healthcare facilities generally within an approximate 10 mile radius.

Other objectives that guide the LAC+USC Medical Center Replacement Project include:

- Replace inefficient facilities with a consolidated patient care facility on the LAC+USC medical campus;
- Alleviate current demands on the LAC+USC campus by redistributing services to other County operated medical facilities and/or contracting services with other private or public health care providers so the health care is available in closer proximity to patients in different areas;
- Improve patient access to health-care services;
- Gain efficiencies in operation and delivery of care;
- Bring the facility up to current building/life safety codes and medical planning standards;
- Provide a more efficient facility with greater flexibility to adapt to future needs.

HISTORY

LAC+USC Medical Center is one of the most prestigious teaching hospitals in the country. In its role as a teaching facility, coupled with its patient care delivery capability and broad range of services, the LAC+USC Medical Center has had an extraordinary impact on the local and regional health care delivery system.

The LAC+USC Medical Center is actually represented by a number of separate buildings. Prior to the Northridge Earthquake in January 1994, the Medical Center was represented by the following inpatient facilities: General Hospital, Women's Hospital, Pediatrics Hospital, and Psychiatric Hospital. Between all facilities, 2,045 beds were licensed; an estimated 1,450 beds were functional. Today, 1,450 beds could also theoretically be made available. However, as a result of earthquake damage, only 1,779 are licensed and, due to a decline in demand, only 770 beds are currently budgeted.

In 1994 (prior to the earthquake), many of the key buildings on-site were determined to no longer be in compliance with current building codes at the time and considered to be functionally inefficient for patient care activities. The health care facilities were not efficient or well suited in terms of providing modern health care service. Since the construction of most of the facilities on-campus, in particular General Hospital, health care practices and demands have also changed dramatically. As a result, many buildings lost functional efficiency and, in some cases, demanded creative functional adaptations by the staff.

The Critical Life Safety Systems (fire detection, fire protection, emergency power, grounding, nurses call, doctor's page, emergency telephone and air ventilation) were also considered deficient, in terms of system capacity, reliability and code compliance prior to the earthquake. HCFA (Health Care Financing Administration) determined the General Hospital, Women's, Psychiatric, and Pediatric Hospitals to be deficient in terms of life safety to deliver modern medical health care. Prior to the earthquake, HCFA allowed the buildings to continue under a specific time schedule as health care facilities until they are made compliant. As a result, the County Board of Supervisors proposed and planned for a 950-bed replacement facility, and an EIR for the 950-bed project was certified in April 1994. However, it became necessary to change the project site as a result of the 1994 earthquake, and changing healthcare needs.

The Northridge Earthquake damaged Pediatrics Hospital and Psychiatric Hospital to such an extent that they were closed and ceased to operate as inpatient facilities. A portion of the inpatient pediatrics load was incorporated within the existing Women's Hospital. Inpatient psychiatric patients were accommodated in other County facilities or with private sector hospitals.

General Hospital, the building where the majority of inpatient beds are housed, is over 70 years of age. The structure is eligible for listing in the National Register of Historic Places. As a result of the 1994 earthquake, General Hospital suffered structural damage. It is no longer in conformance with current code requirements for California licensed acute care facilities. Its physical spaces and room configurations are unresponsive to the type of patient care delivery provided in newer academic medical centers or community hospitals. An extraordinary effort, both in terms of cost, time and extent of renovation, would be required to bring the building into conformance. Even with this effort, the building would still be left with numerous compromises in functional effectiveness, adequacy of building systems, and patient care delivery capacity.

Also, in 1995, the County faced a health care financing deficit of $655 million. This resulted in the County entering into a five-year Federal Medicaid Demonstration Project (Section 1115 Waiver) with the Health Care Financing Administration (HCFA) and the State Department of Health Services. This arrangement avoided devastating cutbacks in the County's health care programs, provided financial relief and resulted in a waiver of Medicaid program rules. In turn, the County agreed to restructure its health care system by significantly increasing the availability of community based outpatient and ambulatory care. The primary objectives of Section 1115 Waiver funding are:

- Reduce inpatient census and inappropriate use of emergency and diagnostic services.
- Expand outpatient care by 50% through increased access.
- Align the Demonstration Project with major managed care initiatives.
- Create a seamless system which promotes quality, cost effectiveness, and continuous care.

Since the LAC+USC Medical Center is both the largest inpatient and outpatient service provider in the County's health care delivery system, plans for its replacement were central to the success of the demonstration project. Consequently, extensive analyses were conducted regarding the

capital and operating costs, and service capabilities of the system under multiple replacement scenarios ranging from 391-bed to 950-bed facilities.

The Los Angeles County Board of Supervisors, in September 1998, approved the consolidation of inpatient beds within a 600-bed Replacement Project. Studies supported this proposal and these studies projected operational and staffing savings over the life of the Replacement Project versus maintenance of the existing Medical Center.

By undertaking a Replacement Project, the County of Los Angeles will have the ability to provide needed inpatient and specialty outpatient services in an appropriately designed facility which is capable of operational and staffing efficiencies. The highest level of patient care delivery, and teaching can be accommodated, and the facility will serve as the critical focus of the DHS health care delivery system well into the 21st century.

Under the FEMA Seismic Hazard Mitigation Program for Hospitals (SHMPH), $469 million was allocated for the restoration of the damaged four hospitals (General, Women's, Pediatric and Psychiatric). The County applied for and received an "improved project" status which will allow the County to replace the damaged hospitals with one new facility instead of repairing them. FEMA Funding allocated would be approximately $469 million of the total projected cost of $818 million. FEMA funds are granted to the State of California Office of Emergency Services (OES), as the grantee under the Stafford Act. OES, in turn, disburses the funding to the County's Chief Administrative Office, as the subgrantee. The County will fund the remainder of the project cost. The County's Department of Public Works will be the lead agency and the County's Chief Administrative Office, the State's Office of Statewide Health Planning and Development, and Department of Health Services will be "cooperating" agencies.

2.0 SUMMARY

Section 1502.14 of the President's Council on Environmental Quality Regulations (40 CFR Part 1500-1508) requires that the lead agency evaluate reasonable alternatives in the Environmental Assessment (EA) analysis. In addition, Section 15126(d) of the CEQA *Guidelines* requires that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project, and evaluate the comparative merits of the alternatives". The intent of the alternatives evaluation is to ensure that alternatives that may enhance environmental quality or may have a less detrimental effect on the environment have been considered. The three alternatives presented in detail in this EA include Alternative 1 - No Project Alternative (the "no build" condition), Alternative 2 - 600-Bed Alternative (Proposed Alternative), and Alternative 3- 950-Bed Alternative. The EA/EIR compares the environmental effects of the Proposed Alternative and the 950-Bed Alternative with those of the No Project Alternative.

PROJECT OBJECTIVES

The Los Angeles County+University of Southern California (LAC+USC) Medical Center project includes replacement of the existing five primary health-care facilities with a new hospital south of the existing General Hospital building. The primary objectives of the project are to:

- replace inefficient facilities with a consolidated patient care facility on the LAC+USC medical campus;
- provide more efficient use within the County wide health care system by redistributing services to other private or public medical facilities in the county and/or contracting services with other private or public health-care providers;
- improve patient access to health-care services;
- gain efficiencies in operation and delivery of care;
- bring the facility up to current medical planning standards; and
- provide a more efficient facility with greater flexibility to adopt to future needs.

PROJECT ALTERNATIVES

The following discussion summarizes each of the three alternatives considered and compares the impacts of Alternative 1 - No Project Alternative, Alternative 2 - 600-Bed Alternative (Proposed Alternative) and Alternative 3 - 950-Bed Alternative.

ALTERNATIVE 1 - NO PROJECT ALTERNATIVE

Under the No Project Alternative, the project as proposed would not be constructed. The environmental characteristics of this alternative would be generally as described in the Affected Environments sections of Chapter 4. The five existing primary health-care facilities would not be replaced. The buildings, parking structures and lots to clear the site would not be demolished as described in Table 1. In addition, the 8 acres of land immediately to the east of the existing medical facility would not be developed. Implementation of the No Project Alternative may result in the loss of the facility's license by the Office of Statewide Health Planning and Development, which would result in the closure of the facility at the latest by 2008 (as a result of State seismic upgrade program, SB 1953). Should the facility be closed for any reason, the opportunity for reopening would be lost due to the current ability to "grandfather" many of the existing conditions that do not meet current code for patient care or life safety. Without the improvements, General Hospital would close and the number of available licensed beds at LAC+USC Medical Center would be anticipated to be reduced to about 350 (at Women's Hospital). The LAC+USC Medical Center's facilities under the No Project Alternative would be limited to those now expected to remain open at LAC+USC Medical Center as indicated in Table 1.

ALTERNATIVE 2 – 600-BED REPLACEMENT FACILITY ALTERNATIVE (PROPOSED ALTERNATIVE)

The Proposed Alternative at LAC+USC Medical Center, which is discussed in Section 3, Project Description/Alternatives Considered, results in an approximate 1.5 million square-foot (sf) replacement hospital with 600 licensed beds. The new hospital is designed to respond to changing healthcare needs that are resulting in increased demand for outpatient services and decreased inpatient care. Table 1 provides a summary of the elements of the Proposed Alternative. Table 2, located at the end of this section, provides an alternatives evaluation matrix for the three primary Replacement Project alternatives at LAC+USC Medical Center.

ALTERNATIVE 3 - 950-BED ALTERNATIVE

This alternative would result in an approximate 2 million sf replacement hospital with 950 licensed beds. Table 1 presents the various project components that would occur under this alternative.

TABLE 1: PROJECT COMPONENTS OF LAC+USC MEDICAL CENTER ALTERNATIVES

Project Component (approx. square footage)	**Alternative 1 No Project Alternative**	**Alternative 2 600-Bed (Proposed Alternative)**	**Alternative 3 950-Bed Alternative**
General Hospital (1,292,000 sf)	**Close 2008**	**Close 2008, maintain, vacant**	**Close 2008, maintain, vacant**
8-acres of recently purchased land	**Vacant/Undeveloped**	**Develop w/Hospital Uses**	**Develop w/Hospital Uses**
Cummings Street	**No change**	**Vacate from Marengo to Charlotte**	**Vacate from Marengo to Zonal**
Outpatient Clinic (212,900 sf)	**Open, future use as present**	**Close, vacant**	**Demolish**
Women's Hospital (347,800 sf)	**Close 2008**	**Close, vacant**	**Demolish**
Interns/Residents Building (93,000 sf)	**Open, future use: Medical Office Building/ Employee Health/ Outpatient Psychiatric**	**Open, future use: Medical Office Building/Employee Health**	**Demolish**
Pediatric Pavilion (177,000 sf)	**Demolish**	**Demolish**	**Demolish**
Psychiatric Hospital (145,300 sf)	**Demolish**	**Demolish**	**Demolish**
Grad Hall (53,000 sf)	**Open, future use as present**	**Demolish**	**Demolish**
Muir Hall (132,000 sf)	**Open, future use as present**	**Demolish**	**Demolish**
Lab (24,000 sf)	**Open, future use as present**	**Open, future use as present**	**Demolish**
Central Steam Plant (68,000 sf)	**Open, future use as present**	**Open, future use as present, decreased output**	**Open, future use as present, decreased output**
Parking Structure #6 (158,500 sf) 600 spaces	**Open, future use as present**	**Demolish**	**Demolish**
Parking Structure #10 (400,000 sf) 1,000 spaces	**Open, future use as present**	**Open, future use as present**	**Open**
Parking Structure #11 (215,000 sf) 600 spaces	**Open, future use as present**	**Demolish**	**Demolish**
Parking Structure #12 (441,000 sf) 1,200 spaces	**Rehabilitate**	**Rehabilitate**	**Demolish**
Parking Structure #9 (900,000 sf) 3,000 spaces	**Open, future use as present**	**Open, future use as present**	**Open, future use as present**

Source: ESA, LAC+USC Medical Center 1999.

ALTERNATIVES EVALUATION MATRIX

As indicated previously in this section, three alternatives are fully evaluated in this EA/EIR: the No Project Alternative, the 600-Bed Alternative (Proposed Alternative), and the 950-Bed Alternative. Table 2 represents an alternatives evaluation matrix that compares the environmental and socioeconomic effects of these three alternatives. The environmental and socioeconomic topics included in Table 2 are only those discussed in this EA/EIR and fully discussed in Section 4, Affected Environments and Potential Impacts of the Alternatives Considered.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA *Guidelines* require that an EIR identify an "environmentally superior alternative"; if the No Action Alternative is considered environmentally superior, then the EIR must identify any alternative among the others that is environmentally superior (*Guidelines* Section 15120(c); *Guidelines* Section 15126 (d)(4)). Although Alternative 2 - 600-Bed Alternative and the 950-Bed Alternative would not result in any long term significant unavoidable adverse impacts, Alternative 2 (the proposed alternative) is considered to be environmentally superior because it would involve fewer environmental impacts associated with construction and operation of the hospital. Implementation of this alternative would achieve the County's objective to provide an upgraded hospital structure with 600 licensed beds at the LAC+USC Medical Center.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY

	Alternative 1 - No Project	Alternative 2 - 600-Beds		A
Environmental Topic	**No Project Potential Impacts**	**Proposed 600 Bed Alternative Potential Impacts**	**Mitigation Included in Proposed 600 Bed Alternative**	**950-Bed A Potential**
Geology and Soils	LAC+USC Medical Center would not repair or replace earthquake damaged structures to meet structural requirements for seismic safety under the Office of Statewide Health Planning and Development (OSHPD) mandate and the Senate Bill 1953 requirements.	New construction would be required to meet OSHPD and the applicable California Building Code.	Comply with the seismic provisions of the Office of Statewide Health Planning and Development and the applicable California Building Code. Meet the requirements of the Health and Safety Code, Section 15000 of the 1972, Hospital Seismic Safety Act. The proposed project will include emergency generators, and other back-up systems. The diagnostic center portion of the new hospital would be built using base isolation technology to lessen the shaking and vibration experienced during an earthquake. An emergency plan shall be completed per California Division of Mines and Geology regulations. All areas are to receive fill or are to be used for the future support of structural loads, and will be proofrolled with a rubber-tire loader or other heavy equipment to locate any soft or loose zones.	New constru required to r the applicab Building Co

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			Fills and backfills should be placed in loose lifts not exceeding 8 inches in thickness and moisture conditioned as required to achieve near-optimum moisture content. Granular soils be stockpiled for possible reuse as backfill behind basement walls and over and around foundations. All imported fill and backfill soils should be predominantly granular, less than 3 inches in any dimension and be free of organic and inorganic debris. All fill slopes should be constructed at 2(h): 1(v) or flatter. Benching should be performed during construction of all fill slopes with existing ground surface 5(h): 1(v) or steeper. All excavations must comply with the current CAL/OSHA requirements. Excavation in bedrock may be cut vertically to a depth of up to 5 feet. Temporary excavations deeper than 5 feet in the bedrock may be sloped at ¾(h): 1(v) or flatter to a maximum height of 10 feet.		

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			Temporary excavations deeper than 5 feet in alluvium should be sloped at 1½(h): 1(v) or flatter up to a maximum depth of 10 feet. In alluvium, steeper cuts may be utilized for excavations less than 5 feet deep, depending on the strength and homogeneity of the soils as observed in the field. If the available space will not permit sloping or benching of the excavations, a temporary shoring system will be required. The temporary shoring system should be above values for passive pressure and incorporate a factor of safety of at least 1.5. Footings should be a minimum of 2 feet wide and established at a depth of at least 2 feet below the lowest adjacent final grade. Mats should be established at a minimum depth of 2 feet below the lowest adjacent finished grade. Drilled, cast-in-place piers may be required in areas where access precludes proper site preparation, for		

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			support of pedestrian bridges and for other purposes. Pier construction may require special provisions to prevent or control caving of the drilled shafts. Such provisions may involve the use of casing, or wet methods using bentonitic or polymer slurries. Use grade beams/tie beams between pile caps to provide additional lateral resistance and to maintain foundation alignment and integrity. All drilled pier construction should be performed in accordance with ACI 336.1-91, "Standard Specifications for Construction of Drilled Piers." All floor slabs should be supported on improved subgrade consisting of a minimum of 6 inches free-draining material. A moisture barrier is recommended under all floor slabs in areas to be covered with moisture-sensitive floor coverings. Subgrade soils shall be compacted to 95 percent of the maximum dry density per		

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			ASTM D-1557, for a minimum of 12 inches. The ground surface of the site should be adequately sloped to direct water away from the building and foundations. Areas where water could pond adjacent to the building in planters, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Standard construction practices and concrete mixes may be used for concrete in contact with the site soils using Type II cement. Underground piping may require cathodic protection, epoxy coating and/or wrapping. Geotechnical aspects of the project will be reviewed by a geotechnical firm during the design process. All earthwork and foundation construction should be monitored by a qualified engineer/technician.		
Land Use	The General Hospital and Woman's Hospital would close by 2008. The Pediatric and	Changes in on-site land uses include demolition of Psychiatric and pediatric	The County shall properly maintain and secure General Hospital to avoid disrepair and criminal activity as identified in	Changes in on-site land uses include demolition of Women's Hospital, the	Same as Proposed 600-Bed Alternative.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
	Psychiatric Hospitals would be demolished. A number of existing buildings will be closed and will remain vacant.	Hospitals, Muir Hall, Parking Structures #6 and 11 and Grad Hall and development of an approximate 1.5 million square foot replacement hospital. Residences east of Chicago Street would have a new hospital within approximately 100 feet. Steam from cooling towers placed along Chicago Street would be visible to residences east of the site. These residences would also be located between hospital uses and a railroad right of way. The project site would contain 1,852,700 sf of closed vacant buildings that could be reused in the future.	mitigation measures in Section 4.12, Cultural Resources. The County shall prepare a reuse plant for any building made vacant as a result of the replacement project, including environmental review, prior to reoccupancy. A landscape buffer of a minimum of 15 feet shall be maintained at the periphery of the LAC+USC Medical Center along Chicago Street. The cooling towers on the campus periphery along Chicago Street shall be designed to ensure that they are not visible to residences along Chicago Street. Development shall be designed to ensure that vehicular and pedestrian access points are oriented toward the LAC+USC Medical Center, away from the community. Development shall be designed to minimize impacts of light and glare on adjacent residential uses to the east.	Outpatient Clinic, Interns/Residents Building, Muir Hall, Central Steam Plant, Lab, Parking Structures #6, 10, 11and 12, and Grad Hall and development of an approximate 2 million square foot replacement hospital. Residences east of Chicago Street would have a new 15-story hospital within approximately 100 feet. These residences would also be located between hospital uses and a railroad right of way.	

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			The County shall prepare a reuse plan for any open vacant building on campus, including environmental review, prior to reoccupancy.		
Traffic/ Circulation/ Parking	Existing hospital facilities would continue to generate traffic until the General Hospital closes. While closure would result in reduction of traffic around the site, vehicle trips would be redistibuted to other County facilities in Los Angeles. The demolition of Pediatric and Psychiatric Hospitals would temporarily disrupt traffic circulation in the area during site clearance.	Construction of the replacement project under this alternative may disrupt traffic circulation in the general vicinity of the project site. Based on data from Los Angeles County staff, it is estimated that peak construction trip generation would occur over a two and one half year period. Because this alternative would reduce the number of hospital beds from 1,450 to 600, this alternative is not expected to generate any additional trips at project buildout. Although the project would not create any new trips, it may include realigning and vacating streets, and relocation of parking, which would affect local traffic circulation patterns.	The driveway for emergency walk-in patients is located across Marengo Street at Kingston Avenue. Signalization of the intersection would improve the safety for all pedestrians accessing the parking structure from the north side of Marengo including those using the emergency room. The following improvement is recommended as the appropriate measure required to mitigate the potential impact at the intersection of Kingston Avenue and Marengo Street: Signalization of this intersection would accomplish several objectives which would improve traffic conditions in the area. The driveway for emergency walk-in patients is located across Marengo Street at Kingston Avenue. Signalization of the intersection would improve the safety for all pedestrians accessing the parking structure from the north side of Marengo including those using the emergency room. A signal warrant analysis, which is fully	Construction of the replacement project under this alternative may disrupt traffic circulation in the general vicinity of the project site. Based on data from Los Angeles County staff, it is estimated that peak construction trip generation would occur over a two and one half year period. Because this alternative would reduce the number of hospital beds from 1,450 to 950, this alternative is not expected to generate any additional trips at project buildout. Although the project would not create any new trips, it does include realigning and vacating streets, and relocation of parking, which would affect local traffic circulation patterns.	Same as Proposed 600-Bed Alternative.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
		The addition of project traffic to local intersections would result in the operating conditions at the Kingston Avenue and Marengo Street intersection to deteriorate to LOS F, which would result in a significant impact.	documented in Appendix B of the Traffic Study, was conducted at this location indicating that several warrants would be satisfied justifying the implementation of this proposed improvement.	All of the analyzed intersections are projected to operate at LOS D or better during the morning and afternoon peak hours; this alternative would not significantly impact any of the analyzed intersections.	
Public Health and Safety / Hazardous Waste	Hazardous materials would continue to be used, handled and stored at the site and hazardous waste would continue to be generated at the site until General Hospital closes. This alternative would however represent a potential exposure hazard with asbestos-containing materials, lead based paint or PCBs during demolition. However, this impact would be reduced to less than existing levels through compliance with applicable laws and regulations.	Hospital operations and thus the quantity of hazardous materials use would be less than existing conditions. The replacement project would however represent a potential exposure hazard with asbestos-containing materials, lead based paint or PCBs during demolition similar to the No Project Alternative. However, this impact would be reduced to less than existing levels through compliance with applicable laws and regulations.	When encountered during excavation, removal of all refined and crude oil-containing soil shall be performed in accordance with applicable regulations concerning the handling and disposal of such materials. In areas where crude oil-containing materials were discovered, all on-site excavations shall be monitored for the potential presence of methane gas and soil contamination.	Hospital operations and thus the quantity of hazardous materials use would be less than existing conditions. The replacement project would however represent a potential exposure hazard with asbestos-containing materials, lead based paint or PCBs during demolition similar to the No Project Alternative. However, this impact would be reduced to less than existing levels through compliance with applicable laws and regulations.	Same as Proposed 600-Bed Alternative.
Socio-economic Issues/Env. Justice	General Hospital would close in 2008. The closure would disproportionately affect low-	There would be no long term effects for this alternative. Construction impacts would cause a temporary disruption	LAC+USC Medical Center will devise a procedure whereby transferred patients are given a priority to a facility closer to their home if capacity is the issue. Also,	There would be no long term effects for this alternative. Construction impacts would cause a temporary disruption	None required.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
	income, minority and elderly populations.	to low-income, minority and elderly populations.	contracts will be put in place with area private hospitals to provide beds for those patients that cannot be served in the existing county facilities.	to low-income, minority and elderly populations	
Air Quality	Under this alternative, the project would not be constructed; therefore, no construction-related emissions would occur. However, this alternative would still include the demolition of the Pediatric and Psychiatric hospitals. Estimated emissions generated by construction equipment that would be used for demolition activities would not result in the exceedance of the SCAQMD thresholds of significance, and therefore, would not result in a significant impact on air quality. Under this alternative, existing hospital facilities would continue to generate air pollutant emissions associated with vehicular trips generated by existing uses and energy consumption by existing uses	The SCAQMD threshold for NO_X would be exceeded continually throughout the construction period, commencing at the mass excavation and shoring phase of construction. This would result in a short-term significant impact. However, during project operation, the proposed replacement project under this alternative would have a beneficial impact on air quality as it would reduce the generation of air pollutants compared to existing conditions due to the reduced size of the project and the construction of more energy-efficient facilities.	Maintain and operate construction equipment so as to minimize exhaust emissions. Construction activities shall be phased and scheduled to avoid emissions peaks to the extent practical. General contractors shall maintain regular tune-ups on their construction equipment emissions of NO_x, CO, ROC, and PM_{10} to the minimum. During construction, the site shall be watered appropriately and all equipment cleaned to reduce particulate and dust emissions. The contractor shall install a wheel wash station to remove all debris from earth trucks prior to entering public streets. Silt shall be controlled by providing hard surfaces on any construction roads, sweeping streets, and washing trucks leaving the site. Construction traffic shall be prohibited along the portion of Zonal Avenue	The SCAQMD threshold for NO_X would be exceeded continually throughout the construction period, commencing at the mass excavation and shoring phase of construction. This would result in a short-term significant impact. However, the operation of the project under this alternative would have a beneficial impact on air quality as it would reduce the generation of air pollutants compared to existing conditions due to the reduced size of the project and the construction of more energy-efficient facilities.	Same as Proposed 600-Bed Alternative.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
	until the year 2008, when these facilities are anticipated to be closed down by the County. While closure would result in reductions in traffic generation and would reduce travel around the project site, vehicle trips would be redistributed to other County facilities in Los Angeles, which may increase vehicle miles traveled and result in greater regional air quality impacts. Impacts to local air quality, however, would be less under this alternative.		between San Pablo and Charlotte Streets. Also construction truck traffic shall be prohibited from using residential streets. Dirt runoff and spills on traveled roadways shall be washed or swept as needed during construction.		
Noise	Under this alternative, the project as proposed would not be constructed; therefore, no construction-related noise would occur. However, this alternative would still include the demolition of the Pediatric and Psychiatric hospitals, which would generate high noise levels on and adjacent to the demolition sites intermittently during the demolition period, resulting in	Noise from construction activities assuming the loudest activity and the loudest equipment would affect sensitive receptors in the project vicinity, specifically the residences across from the project site to the east, northeast, and south (of Marengo Street), and Francisco Bravo Medical Magnet Senior High School to the northeast. However, this would be a	Construction activities that generate high levels of noise shall be scheduled between 8 a.m. and 6 p.m., Monday through Friday and 9 a.m. to 5 p.m. on Saturdays. Noisy construction activities shall be scheduled in shifts, where practical, to avoid high noise levels caused by operating several pieces of equipment simultaneously. The project contractor will be required to use power construction equipment with	Noise from construction activities assuming the loudest activity and the loudest equipment would affect sensitive receptors in the project vicinity, specifically the residences across from the project site to the east, northeast, and south (of Marengo Street), and Francisco Bravo Medical Magnet Senior High School to the northeast. However, this would be a	Same as Proposed 600-Bed Alternative.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
	the disturbance of sensitive receptors within the vicinity of the demolition sites. This would be of short-term duration, and would cease at the completion of such activities. Therefore, since the nature of this impact is temporary, it would be considered an adverse, but not a significant impact. Mitigation measures under Alternative 2 would apply during demolition activities. Under this alternative, existing hospital facilities would continue to generate noise associated with on-site uses and vehicular trips generated by these uses until the year 2008, when these facilities are anticipated to be closed down by the County.	short-term significant impact, which would cease upon completion of construction and demolition activities. Traffic generated by the replacement project under this alternative would have a beneficial impact on the ambient noise environment in the project vicinity as it would result in a noise level reduction, which corresponds to the reduction in traffic generation by uses on the project site.	state of the art noise shielding and muffling devices to reduce noise levels associated with construction equipment operation. Noise barrier of up to 10 feet in height at project site along Chicago Street. Loading and staging areas on-site shall be kept away from noise sensitive land uses.	short-term significant impact, which would cease upon completion of construction and demolition activities. Traffic generated by the replacement project under this alternative would have a beneficial impact on the ambient noise environment in the project vicinity as it would result in a noise level reduction, which corresponds to the reduction in traffic generation by uses on the project site.	
Public Services and Utilities	No significant impacts to water, wastewater, gas, schools, as demand for these utilities/services would be greatly reduced. Vacant buildings would need to be	Impacts to water, wastewater, gas, fire protection services and police protection services would be reduced under this alternative. Impacts to schools	<u>Fire</u> Comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety	Impacts to water, wastewater, gas, fire protection services and police protection services would be reduced under this alternatives. Impacts to	Same as Proposed 600-Bed Alternative.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
	properly secured to avoid becoming fire hazards or security problems.	would be the same as the No Project Alternative.	Plan, both of which are elements of the General Plan of the City of Los Angeles to the extent they are consistent with the State Fire Code. Definitive plans and specifications shall be submitted to the Office of Statewide Health Planning and Development's Office of Fire Marshal and requirements for necessary permits shall be satisfied prior to any new construction. Automatic fire sprinklers shall be required throughout any new structure. Adequate off-site public fire hydrants are required. Comply with State Fire Code requirements, including possible improvements to the water system of the area to provide a 9,000 gpm fire-flow. Access for Fire Department apparatus and personnel to and into all structures will be required. The design, location, operation, and maintenance of any gates shall be to the satisfaction of the Fire Department.	schools would be the same as the No Project Alternative.	

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			Where fire lanes are required, the pavement width shall be a minimum 20 feet to 28 feet as allowed by code. The passenger drop-off area must be widened if parking is allowed. Fire lanes shall terminate in a cul-de-sac or other approved turning area. The new building will be fully sprinklered, will have fire-rated corridors, will incorporate smoke barriers, and will have a water storage vault with pumps to supply water to sprinklers in case of a disruption in water supply. The Fire Department shall have access to the building, and normally all exterior walls will be within 150' of a fire lane. However, because the new building will be sprinklered, the permitted distance between fire lanes and all portions of the building is increased to 300 feet. Public and private roadways shall not exceed 15% in grade. Fire lanes shall be signed and shall remain clear. As the old buildings (that are to remain) are vacated, all furniture, papers, boxes,		

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			etc., will be removed from the structures to prevent fire hazards. Police Parking areas may be controlled by an electronic card-key gate in conjunction with a closed circuit television system and/or parking attendants where appropriate. Entryway, elevators, lobbies, and parking areas shall be well illuminated and designed with minimum dead space to eliminate areas of concealment. Ornamental shrubbery shall not be planted in a way that provide cover for persons. Upon completion of the project, the sponsor shall provide the Hollenbeck Area commanding officer with a diagram of the project. The County shall maintain appropriate security measures at General Hospital. Schools None required.		

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			Telephone Off-site improvements are not required. Water Automatic sprinkler systems should be set to irrigate landscaping during early morning hours or during the evening to reduce water losses from evaporation. Installation of water saving devices, which also serve to reduce wastewater generation, shall be included in project design. Selection of drought-tolerant, low water consuming plant varieties shall be used where appropriate to reduce irrigation needs. Special arrangements shall be made with the Department of Water and Power to make improvements to the water system to provide the required fire flow of 9,000 gpm. Sewers Off-site improvements are not required.		

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			Storm Drains A conceptual drainage plan showing the project design for the conveyance of site runoff will be approved by the County DPW prior to issuance of grading permits for the project site. The project sponsor shall file a report with the County of Los Angeles DWP and the Regional Water Quality Control Board (RWQCB) which complies with the National Pollution Discharge Elimination System (NPDES) Permit No. CA0061654. All paved areas shall be designed to carry surface water to the nearest practical street or storm drain. Timely removal and proper disposal of landscape debris, construction debris, fuel and chemical residue or other type of potentially harmful residue from areas susceptible to runoff shall be provided. Runoff shall be diverted from areas exposed by construction through the use of berms (sand bags) or other such devices to minimize stormwater contamination and prevent sediment-filled runoff.		

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
			Parking area maintenance and sweeping shall be conducted regularly. Hazardous materials used by future tenants shall be properly stored and located to prevent contact with precipitation or runoff. <u>Solid Waste</u> The project shall be required to comply with the State's AB939 resource reduction and recycling program. Any asphalt or pavement removed during construction shall be offered for sale for reuse in construction of other projects. As mandated by the California Solid Waste Reuse and Recycling Access Act of 1991; by September 1993, development projects shall provide for an adequate storage area for collection and removal of recyclable materials.		
Water Resources/ Water Quality	The Pediatric and Psychiatric Hospitals would be demolished. It is anticipated that the ground surface would be landscaped, increasing	The replacement project incorporates design features to retain stormwater on-site within landscaped areas. There is however potential for the	Permanent monitoring wells shall be installed within and around the perimeter of each building so that the groundwater levels can be monitored to evaluate the performance of the dewatering system.	The replacement project incorporates design features to retain stormwater on-site within landscaped areas. There is however potential for the	Same as Proposed 600-Bed Alternative.

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
	permeable surface and reducing runoff.	groundwater level to rise above the floor slabs.	The ground surface of the site should be adequately sloped to direct water away from the building and foundations. Areas where water could pond adjacent to the building in planters, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Area drains should not be placed next to or in contact with the building. The ground surface should be adequately sloped away from structures toward the area drains. Roof drainage should be controlled and directed to proper drainage devices in an acceptable manner. The County shall require each contractor to develop a specific erosion control plan, that is compatible with the overall site general erosion control plan, and submit their plan for approval to the governing regulatory agency. The contractor's erosion control plan must comply with the California Stormwater Best Management Practices Handbook.	groundwater level to rise above the floor slabs.	

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alterna Potential Impac
Biological Resources	No impacts to biological communities at LAC+USC Medical Center or in the project's vicinity.	Same as the No Project Alternative.	None required.	Same as the Alternative.
Cultural Resources	No construction would occur. General Hospital would close and could fall into disrepair.	The construction of a new replacement hospital would intensify the land uses at LAC+USC Medical Center. The size and scale would be similar to existing development and would not result in obstruction of any public views of General Hospital. As part of the project, the County would maintain General Hospital in accordance with Department of Interior's standards regarding historic buildings. The General Hospital would be vacated and FEMA funds would be diverted to the new replacement facility. The replacement project would also change views of the project site by developing a hospital adjacent to General Hospital.	Future adaptive use/rehabilitation of General Hospital after decommissioning shall comply with the Secretary of the Interior's Standards for Rehabilitation (Standards, 36, Code of Federal Regulations (CFR) § 67.7). Prior to reuse, comply with Preservation Brief: Mothballing Historic Buildings. Comply with the standards under CEQA Guidelines (Title 14, California Code of Regulations, §15064.5 (b) (3)). FEMA, SHPO and the County have executed a Memorandum of Agreement covering the replacement and reuse of the General Hospital. The Memorandum of Agreement includes stipulations for the development of an adaptive reuse plan and/or the Mothballing of the General Hospital Acute Care Center in accordance with the U.S. Department of the Interior's Preservation Brief 31, Mothballing Historic Buildings.	The construc replacement intensify the LAC+USC Although th would be gr developmen result in obs public views Hospital. A project, the maintain Ge in accordanc of Interior's regarding hi The General vacated and would diver replacement The replace also change project site

TABLE 2: ALTERNATIVES EVALUATION SUMMARY (continued)

Environmental Topic	No Project Potential Impacts	Proposed 600 Bed Alternative Potential Impacts	Mitigation Included in Proposed Alternative	950-Bed Alternative Potential Impacts	Mitigation Measures Included in the 950-Bed Alternative
				hospital adjacent to General Hospital.	

SOURCE: Summary of Potential Impacts presented in Section 3 of this document.

3.0 PROJECT DESCRIPTION/ALTERNATIVES CONSIDERED

BACKGROUND

As discussed in Section 1, replacement of the LAC+USC facility is made necessary as a result of a number of factors. The project's Alternatives were extensively discussed in open meetings with the County Board of Supervisors on November 12, 1997 and September 5, 1998. Testimony was provided by members of Congress, other elected and appointed officials, health care providers and community group representatives. Following the discussion, the Board voted to approve a replacement facility consisting of 600 beds.

The LAC+USC Medical Center campus sustained damage from the 1994 Northridge earthquake that occurred underneath the San Fernando Valley. The Psychiatric Hospital and Pediatric Pavilion are currently closed due to earthquake damage. Adult psychiatric patients were transferred to Metropolitan State Hospital temporarily and adolescent patients were transferred to Hawkins Mental Health Center at King/Drew Hospital. Emergency psychiatric services are currently in operation at General Hospital.

Pediatric and Intensive Care services were transferred to Women's Hospital. The Communicable Disease programs were relocated to General Hospital and to Los Angeles County's Rancho Los Amigos National Rehabilitation Center. The Pediatric Emergency Room was set-up in Women's Hospital. Pediatric clinics have been relocated to buildings and modulars on Mission Street, formerly occupied by Human Resources. Psychiatric inpatients are located at Ingleside Hospital in San Gabriel Valley (leased beds).

General Hospital and Women's Hospital are fully operational. The Outpatient building has also completely reopened and all five floors are fully functional. Except for the damaged Psychiatric and Pediatric Hospitals, all outpatient services are now fully functioning throughout the Medical Center. The Northridge earthquake demonstrated that there was an urgent need to replace the deficient buildings on campus that are currently in use.

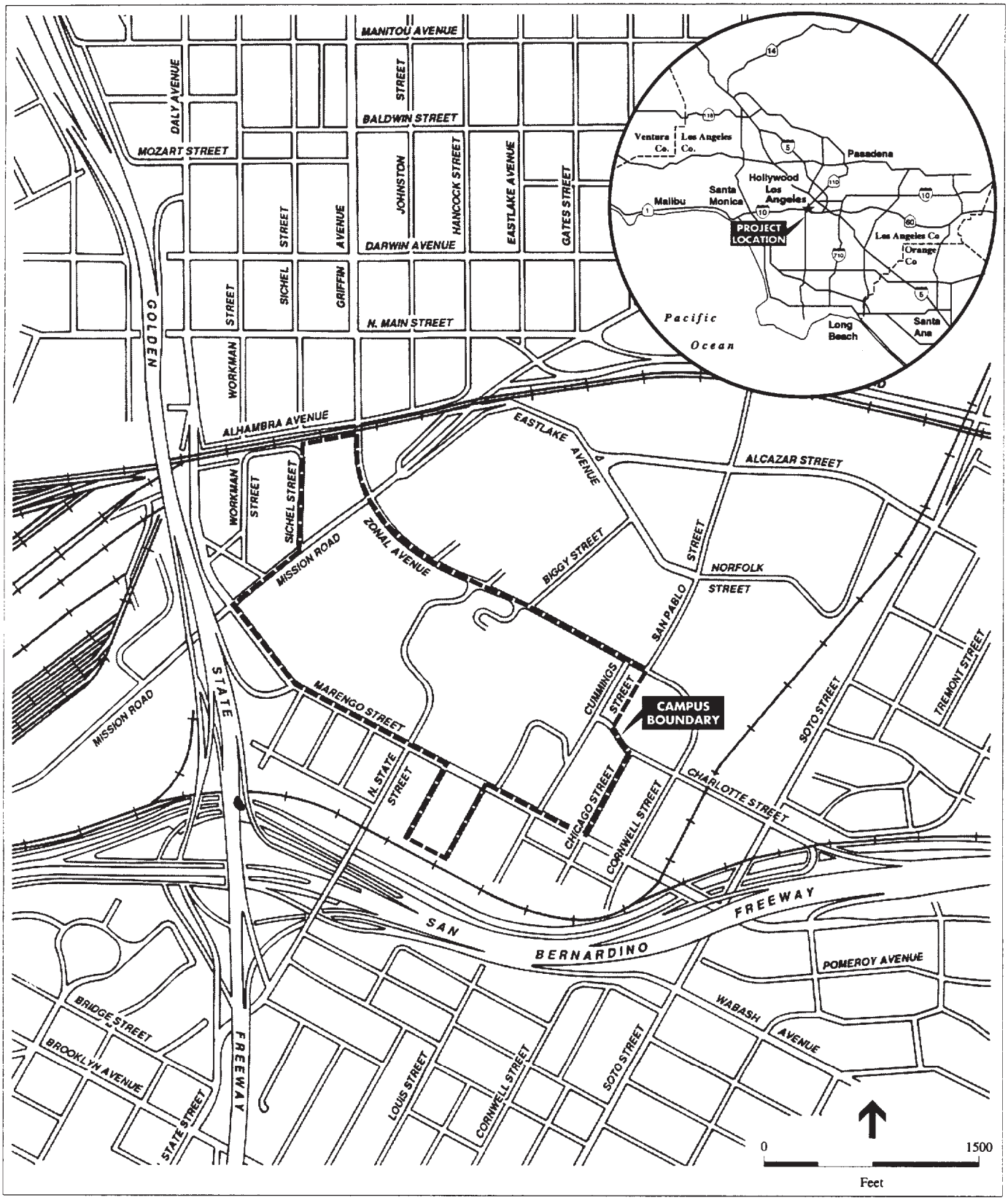
PROJECT LOCATION

The project site is located within the City of Los Angeles. For planning purposes, the City of Los Angeles has divided the City into 35 Community Planning Areas (CPA). The project site is located in the Northeast Los Angeles CPA which covers approximately 24 square miles. The CPA is bounded by the Los Angeles River on the west, the City of Glendale on the north, the Cities of Pasadena, South Pasadena and Alhambra on the east, the San Bernardino Freeway (I-10), and the City-County Line (the boundary line between the City of Los Angeles and unincorporated territory of Los Angeles County) and the Southern Pacific Railroad Line on the south (see Exhibit 1). It includes the communities of Eagle Rock, Glassell Park, Atwater, Highland Park, Mount Washington, Lincoln Heights and El Sereno.

The LAC+USC Medical Center occupies a total of 80 acres of Los Angeles County owned land in the City of Los Angeles, east of downtown. Approximately 64 acres comprise the Medical Center campus with eight acres of Medical Center related facilities surrounding the site. As part of the 1994 EIR, the LAC+USC Medical Center acquired 8 acres located immediately east of the campus. The County thus owns all the land bounded by Zonal Avenue to the north, Chicago Street to the east, Mission Road to the west and Marengo Street to the south, with the exception of the small parcel owned by the Los Angeles Unified School District (LAUSD) across from the Francisco Bravo Medical Magnet High School at the southwest corner of Zonal Avenue and Cornwell Street. LAC+USC Medical Center is on the eastern edge of the city, approximately two miles east of downtown Los Angeles. The site is located immediately northeast of the Golden State (I-5) Freeway and the San Bernardino (I-10) Freeway interchange (see Exhibit 2).

EXISTING USES

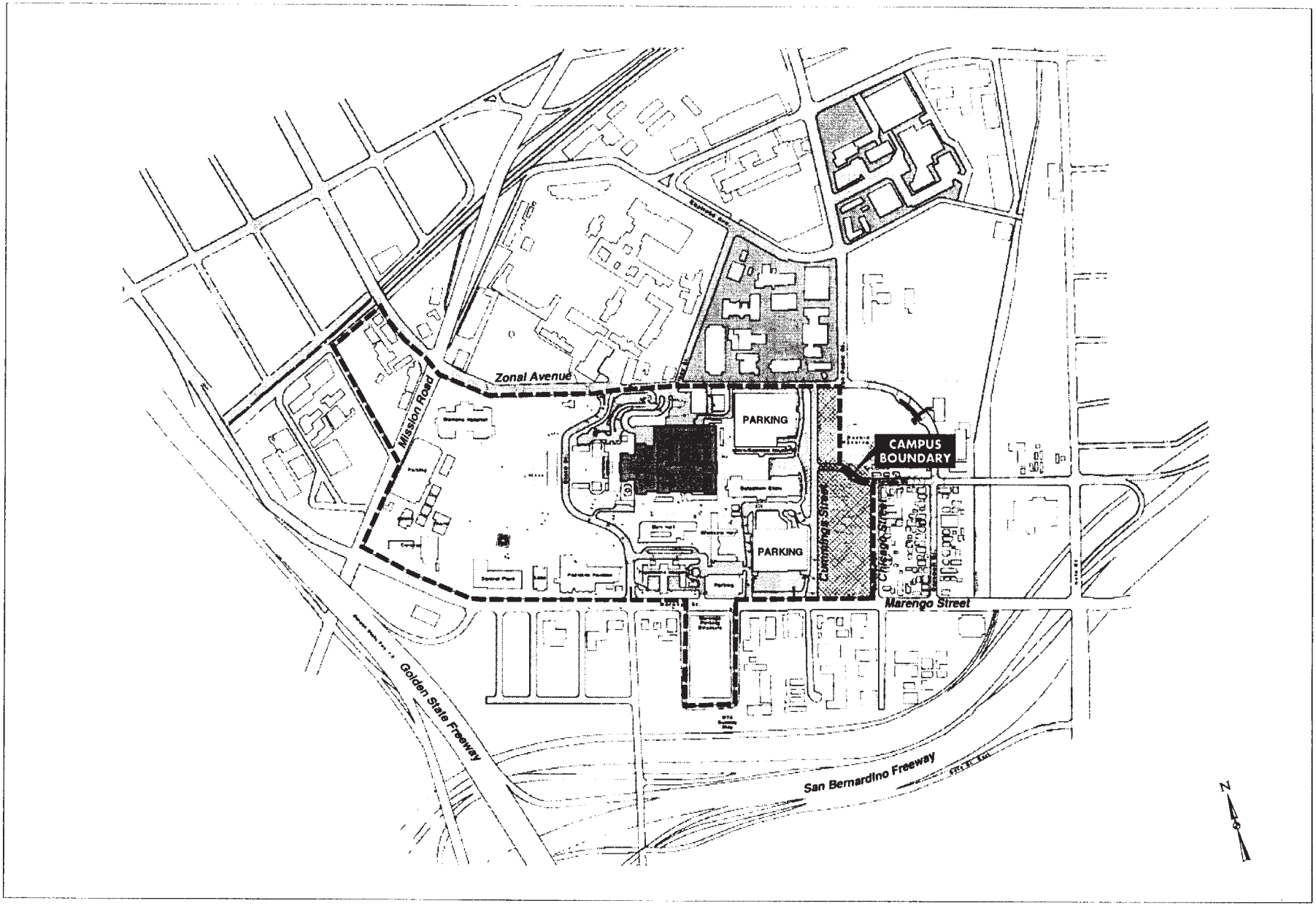
The existing campus is bisected by State Street and bordered by Zonal Avenue on the north, Hazard Reservoir and Chicago Street on the east, Marengo Street on the south and Mission Road on the west. Prior to the earthquake, the campus contained 130 buildings: four hospitals, an outpatient clinic, 92 outlying buildings, 28 trailers, three childcare facilities, Coroners Office and a Magnetic Resonance Imagining (MRI) Center (operated by USC). Exhibit 3 illustrates the existing uses at LAC+USC Medical Center. There are currently 115 buildings on-site, three of which (Psychiatric and Pediatric hospitals and Parking Structure #12) are closed.



SOURCE: Environmental Science Associates

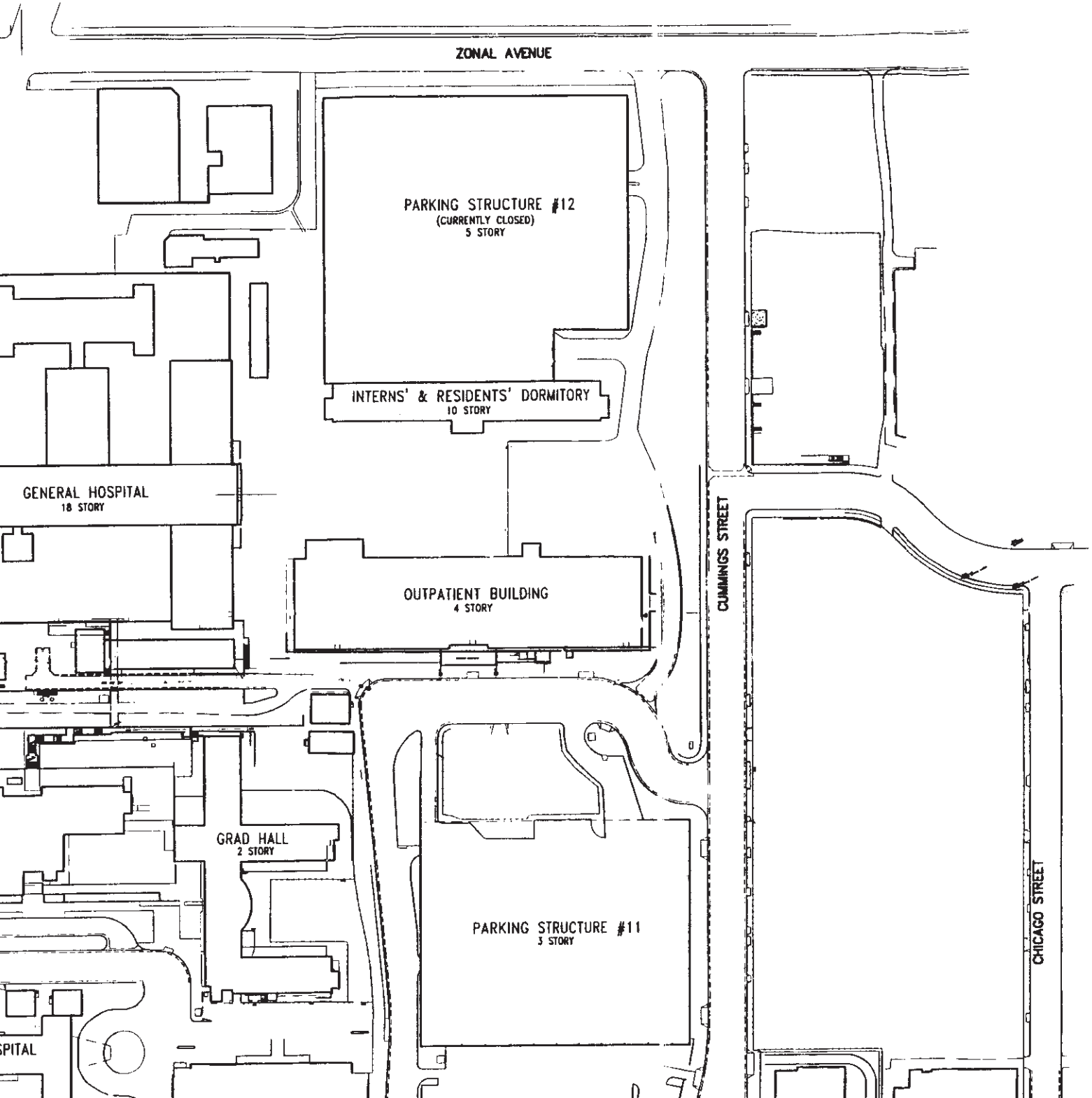
LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 1
Regional Location Map



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu, 1998.

Exhibit 2
Vicinity Map


ZONAL AVENUE
PARKING STRUCTURE #12
(CURRENTLY CLOSED)
5 STORY
INTERNS' & RESIDENTS' DORMITORY
10 STORY
GENERAL HOSPITAL
18 STORY
OUTPATIENT BUILDING
4 STORY
CUMMINGS STREET
GRAD HALL
2 STORY
PARKING STRUCTURE #11
3 STORY
CHICAGO STREET

The Medical Center consists of five primary health care facilities; General Hospital, Women's Hospital, Psychiatric Hospital (currently closed), Pediatric Pavilion (currently closed) and the Outpatient Clinic. Prior to the earthquake there were 1,450 functional beds (2,045 licensed beds) available in the four hospitals. Presently there are about 1,706 licensed beds, about 1,450 could still be readily made available; there are currently 770 budgeted beds available at the two open inpatient facilities. If demand were to increase the hospitals could presently accommodate more beds. Thus, for purpose of analysis, this EA/EIR continues to use the 1,450 functional beds (potential full capacity) as the basis for analysis (baseline).

The medical campus was established in 1878. One of the original buildings remains on-site – the Administration Building (1910). The most prominent building is the General Hospital, built around 1933. Psychiatric, Pediatric Pavilion, and Women's Hospitals were added to the campus in the 1950s and the medical Outpatient Clinic was built in 1961. Over the years, modular structures and/or trailers have been added to provide additional space.

PROJECT OBJECTIVES

The LAC+USC Medical Center project includes replacement of the existing five primary health care facilities with a new hospital south of the existing General Hospital building. Major design, functional, and operational objectives for the Replacement Project Alternatives include the following:

- Allow maintenance of ongoing operations of the existing Medical Center during construction of the Replacement Project.
- Anticipate new technologies or likely modes of patient care delivery.
- Design the facility with planning principles which promote flexibility and modular space uses.
- Design the facility with an orientation towards improving operational effectiveness and staffing efficiencies.
- Provide measures and imagery which promote and achieve security for all users of the Medical Center.
- Use materials and finishes which are durable and which meet heavy use and long life criteria.
- Promote a healing and therapeutic environment through design.

- Avoid an institutional image of the Replacement Project which is frequently associated with large-scale medical projects.
- Create a design and site campus for the Replacement Project which don't rely upon the demolition of the existing Outpatient Clinic Building, and the existing General Hospital.
- Recognize the proximity of the residential area to the East of the campus, and achieve an appropriate design and separation between Medical Center operations and local residents.
- Provide for a higher level of operational functioning for key ancillary services in the event of a major seismic event by base-isolating the Diagnostic and Treatment Building. Capitalize on the availability of parking provided through the existing Marengo Street Parking Structure.
- Achieve appropriate separation of outpatients, visitors, trauma patients, custody patients, inpatients, and service/logistics activities.

ALTERNATIVES CONSIDERED AND NOT SELECTED FOR FURTHER STUDY

ALTERNATIVE LOCATIONS/USES

The 1994 EIR analyzed a number of on-site locations for the replacement project as well as commercial development west of State Street. These alternatives were rejected for various reasons which included: not providing an upgraded and consolidated hospital structure on campus; limited public access; disrupting an area that needs to remain operational for the duration of construction; dividing the campus; expensive construction; increased grading and retaining walls to properly fit the site; relocating the Juvenile Detention Center; and redevelopment of the land west of State Street as a shopping center did not meet current County objectives to use this property to construct the Central Support Facility and provide open space and parking for the new facility. Excluding the General Hospital South Alternative, the alternatives discussed in the 1994 EIR continue to be undesirable for the same reasons.

REHABILITATION OF GENERAL HOSPITAL

It is likely that General Hospital may ultimately be reused. However, General Hospital which is eligible for the National Register of Historic Places, is over 65 years old (built in 1933), in poor condition and would take a considerable amount of time to rehabilitate. Efficient rehabilitation to a hospital use to meet current healthcare practices is not feasible. Even with extensive renovation, the structure would still be left with numerous compromises in functional effectiveness, adequacy of building systems, and patient care delivery capacity. In addition to the practical infeasibility of rehabilitating the hospital use, it is essential that the existing General Hospital remain fully functional until replacement facilities are available. Closing the hospital to rehabilitate it prior to finding alternate facilities would impact Countywide health care facilities. The General Hospital currently contains 1.2 million square feet of space. Reuse of the existing building would require that nearly the entire interior of the hospital be gutted. The building would be required to meet current seismic standards for potential reuse. Removal of all hazardous materials and a service upgrade to the building enclosure would be needed. To accommodate the eventual reuses, every third or fourth floor would become a mechanical and electrical equipment floor to provide and properly distribute the heating, ventilating and air conditioning. After rehabilitation, the building would include approximately 980,000 gsf of usable space. The building could then be code compliant with local codes for uses other than acute medical care.

Certain amenities exist that could be retained for the reuse of the building. These include, but are not limited to, the main entry vestibule and lobby, the first floor auditoriums and meeting rooms, the doctors' dining room and small kitchen, and the basement storage, mechanical and parking areas. As previously discussed in the 1994 EIR, the reuse of the existing 1.2 million square foot General Hospital could include the following uses: academic administration; conference and classroom space; housing; retail; kitchen and dining; research programs; warehouse and building crafts space; and parking. While these uses did at one time seem reasonably foreseeable, such is not the case at the present time. Future use options for the General Hospital are entirely speculative. The hospital will not become available for reuse until 2007. Demand for different types of space cannot be foreseen at this time. The County intends to undertake a thorough study of reuse options starting in 2004/2005. This environmental document does not speculate on future reuse of the General Hospital. Rather it considers closure

of the facility and ongoing maintenance of this historic structure until such time as a reuse option is selected.

600-BED WITH RE-USE OF THE EXISTING OUTPATIENT BUILDING ALTERNATIVE

Under this alternative, on-site medical facilities would be constructed as described for the 600-Bed Alternative, including the re-use of the existing Outpatient Building. A portion of the existing Outpatient Building would be re-used for a nursing school and the remainder for use as a medical office building. Approximately 50,000 square feet of the existing Outpatient Building would be allocated for a nursing school, and the remaining 162,000 square feet of space would be re-used as new medical offices.

This alternative was not selected for further study because it falls within the range of alternatives analyzed in this EA/EIR, including the No Project Alternative, the 600-Bed Alternative, and the 950-Bed Alternative, as presented in Chapter 4.0.

The impacts under this alternative are anticipated to be similar to those associated with the build alternatives considered in this document. Similar to the other build alternatives, traffic generated under this alternative would decrease from existing conditions; however, the reduction would be smaller than that which would result from the build alternatives considered (i.e., 600-Bed Alternative and 950-Bed Alternative) because of the proposed re-use of the existing Outpatient Building. The activities associated with the nursing school and the medical offices would generate additional traffic, which would result in a smaller reduction in the existing traffic. Improvements to the intersection of State Street and Marengo would be required under this alternative (including the intersection in the City of Los Angeles Automated Traffic Surveillance and Control System). Consequently, reductions in air emissions and noise levels generated by vehicular sources would also be slightly smaller.

ALTERNATIVES CONSIDERED AND EVALUATED IN THIS EA/EIR

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Under the No Project Alternative, no new structures would be built. The environmental characteristics of this alternative would be generally as described in the Environmental Setting

portions of Section 4 until at the latest 2008 at which time the hospital would close. The five existing primary health care facilities would not be consolidated into one new hospital. The General Hospital (including Women's Hospital) structures could not be rehabilitated for hospital use to the extent necessary to be brought up to current seismic and fire safety standards. The licensed capacity of General Hospital as determined by the State of California is 2,045 beds (see Table 3), however 339 beds are not available because of the earthquake, so 1,706 licensed beds are theoretically available. There are up to approximately 1,450 functional beds. However, due to declining patient demands, and building age, the number of budgeted beds in 1999 is 770.

Implementation of the No Project Alternative would result in the loss of the facility's license which would result in the closure of the facility. If the facility is closed, the opportunity for reopening as a hospital would be lost due to the current ability to "Grandfather" many of the existing conditions that do not meet current code for patient care or life safety. The closure of this facility would have an impact on the health care community in Los Angeles County. This is due to the hospital's role as the "linch-pin" of the county trauma system and the hospital of last resort for a large population of the uninsured. The County may build or lease new facilities either here or elsewhere and/or may contract with local private hospitals.

General Hospital and Women's Hospital would be closed and secured, however the Pediatric Pavilion and Psychiatric Hospitals would be demolished. The existing Outpatient Clinic would remain open although its future use is uncertain at this time.

ALTERNATIVE 2 – 600-BED REPLACEMENT FACILITY (PROPOSED ALTERNATIVE)

The 600-Bed LAC+USC Medical Center Replacement Facility Alternative is designed to maintain the critical balance between the health care needs of the community and the ability to finance and operate the hospital. Under the 600-Bed alternative, LAC+USC would improve the existing medical services on campus by replacing and consolidating the five primary health care facilities with one new hospital (see Exhibit 4). The new hospital is designed to respond to changing healthcare needs that are resulting in increased demand for outpatient services and decreased inpatient care.

The Proposed Alternative would be located directly southeast of the existing General Hospital structure and would contain 600 beds (accommodating an average of 510 patients) and 1,470,000

TABLE 3: LAC+USC MEDICAL CENTER TABULATION OF SPACE BY FUNCTION

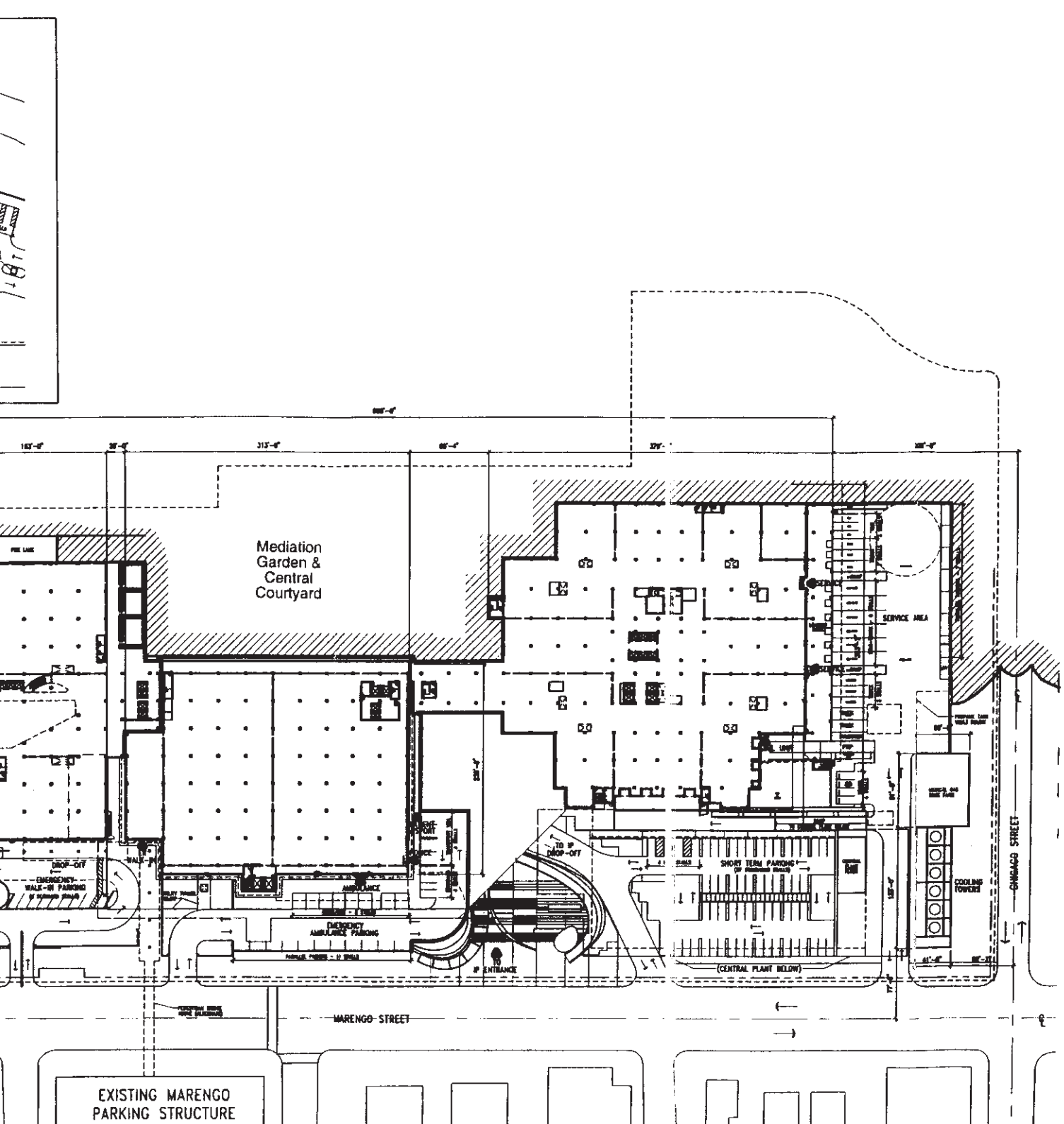
Function	General Hospital	Women's Hospital	Pediatric Hospital	Psychiatric Hospital	Outpatient Building	Misc.[1] Building	Total Existing	Alternative 2 600-Bed[2]	Alternative 3 950-Bed
Licensed Beds	1,356	350	173[3]	166[3]	0	0	2,045/1,706[3]	600	950
Inpatient Services	321,366	71,729	47,320	58,332	0	0	496,767	380,508	576,300
Outpatient Services	41,269	28,051	28,797	7,441	91,127	58,206	254,911	193,756	241,800
Ancillary Services	224,257	60,745	15,403	9,273	47,883	19,379	376,940	0	396,348
Administrative Services	121,597	30,751	10,845	11,739	20,769	167,794	363,495	114,886	196,656
General Services	132,297	25,536	22,385	6,140	9,746	50,538	246,642	75,405	158,090
Diagnostic/Treatment Services	0	0	0	0	0	0	0	301,968	0
Academic Administrative	51,288	21,008	3,355	17,162	1,716	14,300	106,829	0	10,487
Education	0	0	0	0	0	266,727	266,727	0	174,531
Research Programs	24,671	0	0	0	0	29,776	54,447	0	38,895
Miscellaneous Other	0	0	0	0	0	15,415	15,415	0	0
Total Dept. Gross Areas	916,785	237,820	128,105	110,087	171,241	622,135	2,186,173	1,067,123	1,794,157
Central Plant	0	0	0	0	0	0	0	36,000	0
Base Isolation	0	0	0	0	0	0	0	70,000	0
Program Adjustment	0	0	0	0	0	0	0	-10,048	0
Total Grossing Factors	375,313	109,999	48,901	35,178	41,705	142,200	753,296	307,090	574,467
Total Bldg. Gross Areas	1,292,098	347,819	177,006	145,265	212,946	764,335	2,939,469 / 2,615,198[2]	1,470,165	2,368,524

Source: LAC+USC Medical Center, 1999.

[1] Includes buildings demolished after 1994 Northridge earthquake totaling 208,680.

[2] In addition to the new facilities, 1,852,700 sf of existing buildings would remain closed and vacant (General Hospital, Outpatient Clinic, Women's Hospital). The County anticipates closing and maintaining these buildings until such time as a new use is identified and environmental review is completed.

[3] Medical center had a total of 2,045 licensed beds; however Pediatric (173) and Psychiatric (166 beds) were red tagged after the earthquake. These 339 beds must be deducted from total of 2,045 to 1,706 beds. Existing data is pre-earthquake; gross area after earthquake minus Pediatric and Psychiatric is 2,615,198.


Mediation
Garden &
Central
Courtyard
SERVICE AREA
COOLING TOWERS
CHICAGO STREET
SHORT TERM PARKING
(CENTRAL PLANT BELOW)
DROP-OFF
EMERGENCY
WALK-IN PARKING
AMBULANCE
EMERGENCY
AMBULANCE PARKING
TO IP
DROP-OFF
IP ENTRANCE
MARENGO STREET
EXISTING MARENGO
PARKING STRUCTURE

Gross Square Feet (GSF)[1]. Table 4 shows the distribution of the 600 Beds. The proposed project would provide diagnostic and treatment services and outpatient specialty services. The proposed project would consist of four distinct buildings, an underground Central Plant (36,000 GSF) an Inpatient Tower (744,000 GSF), a Diagnostic & Treatment Building (340,000 GSF), and an Outpatient Clinic Building (325,000 GSF) see Exhibits 5 and 6. This alternative reflects the quantities and types of spaces projected to be required to meet future demand (anticipated to be for 175,000 emergency trauma visits per year, 350,000 specialty outpatient visits annually, and 600 inpatient beds at the LAC+USC Medical Center).

Access and Loading

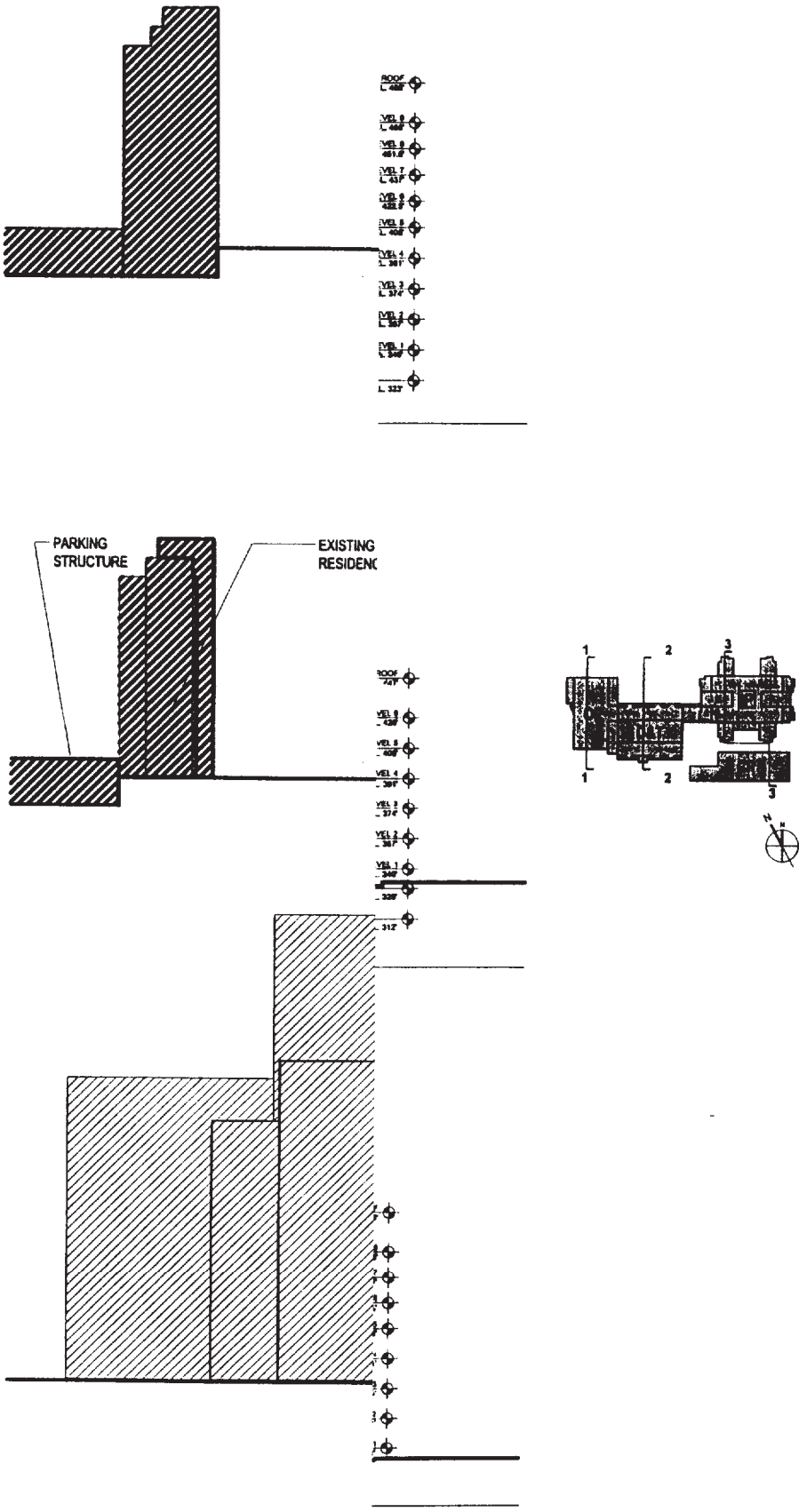
Generally access to the replacement facility would be from Marengo and State Streets; it is expected that there would be minimal hospital-related traffic on Chicago Street. Loading access would be from Marengo Street immediately adjacent to Chicago Street. The major entry orientation to the facility would be from the intersection of Marengo and State Street. This portal with its existing gates was built as part of the original General Hospital project and is the symbolic gateway to the LAC+USC Medical Center campus. At this location, a large entry plaza with drop off for the Outpatient Clinic Building, adjacent terrace and landscaped parking areas would combine to form a large open space.

An entry drive would proceed up the hill, providing access to parking areas, the Emergency Department drop-off, and the Inpatient Tower entry plaza. This plaza would be a significant outdoor space, providing a protected internal hub for circulation not only for the LAC+USC Medical Center Replacement Project and the Marengo Parking Structure, but also for the pedestrian traffic to and from the USC School of Medicine Campus. The County is planning for a pedestrian bridge across Marengo Street (See Figure 4, dotted bridge alignment); the bridge will be provided if funding is available.

Landscaping/Open Space

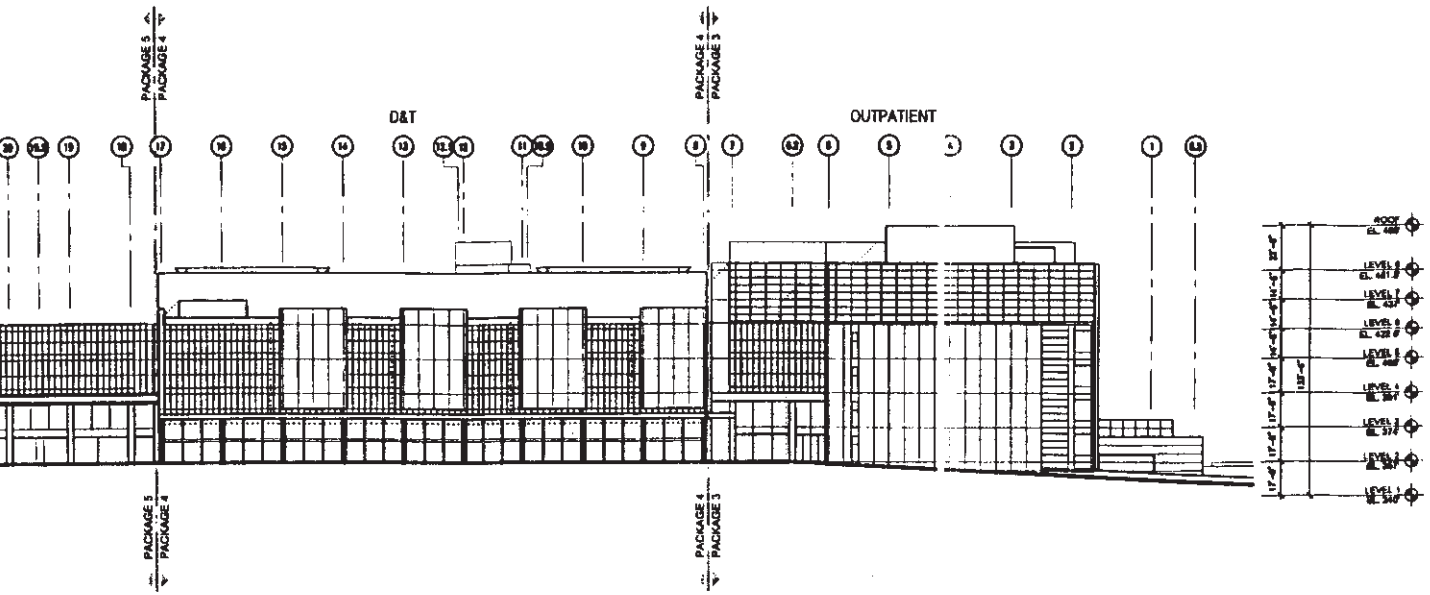
A 15 to 35 foot wide landscaped buffer zone is planned between LAC+USC Medical Center and Chicago Street, with the Inpatient Tower component set back from Chicago Street. The Central

[1] GSF total includes allowances for interdepartmental circulation and building mechanical systems/ penthouse functions.

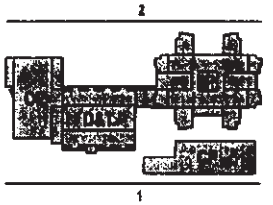


SOURCE: HOK / LBL Associated Architects.

Exhibit 5
Overall Section North + South (Alternative 2)
600-Bed Alternative



2 NORTH ELEVATION
1/32"=1'-0"



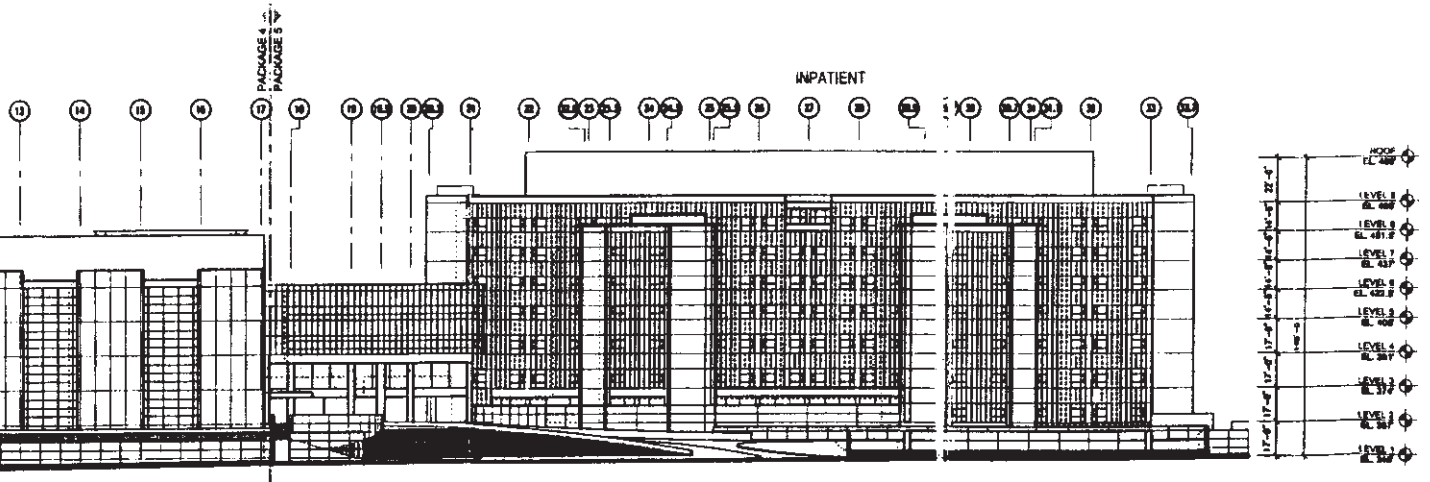


TABLE 4: 600-BED ALTERNATIVE - BED DISTRIBUTION

Adult Intensive Care Unit	130
Adult Med/Surg ACU	295
Burn Acute Care	10
Burn ICU	10
Jail	24
Pediatrics ICU	10
Pediatric Med/Surg ACU	25
Neonatal ICU	40
Obstetrics	32
Psychiatric	24
TOTAL	600

SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu

Plant would be located underground with only cooling towers protruding above ground (12-15 feet). The cooling towers would be located along Chicago Street and would be screened by a twelve-foot wall and trees. The landscaped wall would also provide visual screening for the Emergency Department ambulance entrance, as well as to deter visitors from entering these areas, by directing them to the appropriate building entrance.

At the western end of the site, adjacent to the Outpatient Clinic Building, an open plaza would accommodate a large volume of pedestrian circulation as well as provide shade and seating. This plaza space would provide flexible spaces for patient, visitor and staff use, accommodating daily activities as well as larger, organized hospital events. An oblong lawn panel surrounded by seat walls would provide a green oasis in the middle of the activity that exists within the plaza. Colorful accents would mark key areas to provide gathering places as well as orient visitors around the Medical Center campus.

A Central Courtyard and "Meditation Garden" is meant as a relief from the more public plaza spaces. It be would sheltered from Marengo Street and would be surrounded by the new medical center structures. Offset crescent-shaped walls would embrace a series of linear retaining walls, paths and garden spaces forming the heart of the garden and providing barrier-free access to the

existing campus to the north. A simple planting palette of trees, ground cover, and lawn would give way to a more complex planting palette of masses of textural shrubs, perennials and flowering trees.

Parking

Parking would be provided by the existing 3,000-space Marengo Parking Structure across the street. Visitors would cross Marengo Street. Currently the County is considering whether to install a light at the intersection of Kingston and Marengo or construct a pedestrian bridge from the structure directly to the hospital. The existing 1,200-space Parking Structure #12 located at the south west corner of Zonal Ave and Cummings Street would be rehabilitated. Other surface parking would be available on the western portion of the campus. Over 4,200 parking spaces would be available upon project completion.

Construction Workers Parking

Construction workers would park west of State Street in a temporary staging area and in the 8 acres recently purchased. These areas would provide adequate space for construction vehicles.

Helipads

This Alternative would have one helipad required by code on top of the Diagnostic and Treatment Hospital for trauma cases. It would have direct access to the first floor emergency room via an elevator. The trauma helipad would provide primary air support landing for the project and supplement the existing helipad north of the central steam plant. The frequency of use would remain as present.

Inpatient Building

The Inpatient Building for the 600-Bed LAC+USC Medical Center Replacement Project would consist of an eight-story (496 feet in elevation) structure with a mechanical penthouse. The building would have overall plan dimensions of 460 feet by 350 feet and contains approximately 744,000 square feet. The building would have an irregular H-shaped configuration in plan.

There would be several full story cantilevered retaining walls around the west side of the first floor and a two-story permanent tieback shored wall at the north side of the building.

Diagnosis & Treatment Building

The D&T Building would consist of a five-story (447 feet in elevation) structure with a mechanical penthouse. The building would have overall plan dimensions of 310 feet by 250 feet and would contain approximately 340,000 square feet of habitable space.

Outpatient Building

The Outpatient Building would consist of a seven-story (474 feet in elevation) structure with a mechanical penthouse. The building would have overall plan dimensions of 220 feet by 300 feet and would contain approximately 325,000 square feet.

Central Plant

The Central Plant would be a 36,000 square foot facility located below grade and consisting of the main Central Plant with emergency water storage and two appendages, a sewage tank and a DWP vault. The roof of the Central Plant would be able to support fire truck loading. There would be six cooling towers ranging from 12 to 15 feet in height, to the east of the Central Plant.

Building Codes/Seismic Safety

The Inpatient Tower Building, the D&T Building, and the Central Plant Building would all be designed in accordance with the provisions of the California Building Code applicable for Acute Care facilities[2]. The Outpatient Building would be designed in accordance with the L.A. County Building Code (Uniform Building Code with County Amendments). The D&T Building is designed to remain operational post-earthquake in order to provide a "lifeboat" for the ongoing operations of the LAC+USC Medical Center. A base isolation system would be used in this building to ensure continuing operations.

[2] The Acute Care (Inpatient and D&T buildings) would be built with an Importance Factor of 1.5, the Outpatient building with an Importance Factor of 1.0. Importance Factor relates to structural engineering of the building. A building with an Importance Factor of more than 1.0 is required to meet more stringent seismic standards as described in Title 24.

Street Vacation

Exhibit 7 shows the vacation of Cummings Street. Portions of Cummings Street and alleys located within the 8 acres recently purchased by the County would be vacated and developed as part of this alternative.

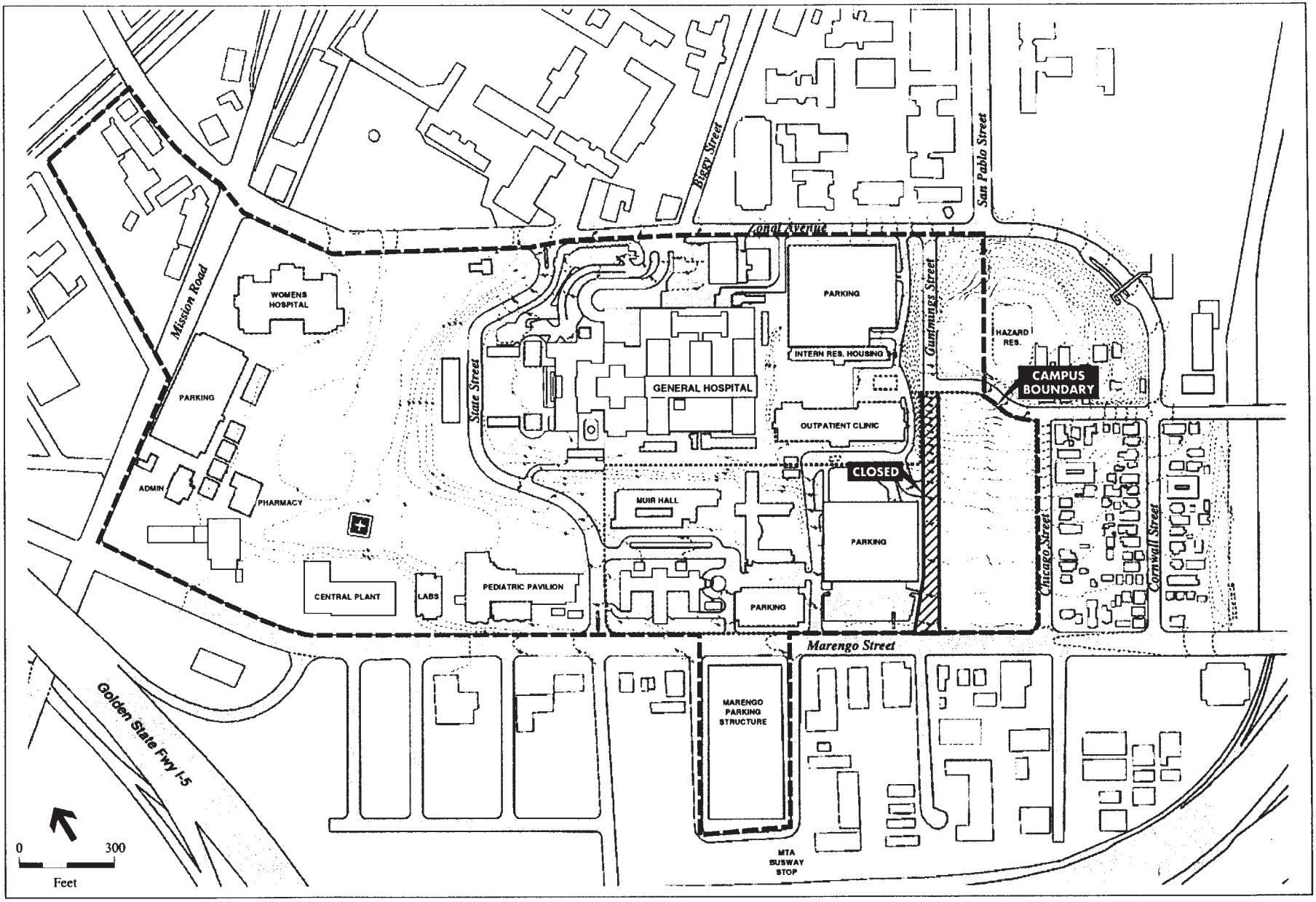
Demolition/Remaining Structures

Exhibit 8 shows the buildings to remain and to be demolished under this alternative. This alternative would demolish a total of 880,800 sf (including parking) and a total of 2,344,700 sf would remain (including parking), 1,852,700 sf of which would be closed and vacant (see Table 1). General Hospital would be closed and maintained (See Section 4.11, Cultural Resources). The existing Outpatient Clinic and Women's Hospital would also be closed and vacant. These buildings would require future reuse plans and complete environmental review prior to reoccupancy.

Table 3 provides a breakdown of existing department (or function) gross area square footages by hospital, for the existing condition and proposed build alternatives (600-Bed and 950-Bed). The existing total square footage on campus is approximately 3.1 million gsf which includes health care facilities, miscellaneous ancillary departments and public areas such as hallways, elevator shafts, stairs, lobbies, restrooms, etc. Of the 3.1 million gsf, the existing department area square footage of all buildings on the Medical Center campus totals about 2.4 million gsf. The 600-Bed Alternative structure would total approximately 1.5 million gsf, housing primary health care departments, and public areas (lobbies, restrooms, hallways, elevator shafts and stairs).

Staffing

Upon completion of Alternative 2 - the 600-Bed Alternative, LAC+USC Medical Center staff would be reduced to 5,130 employees from over 7,000 employees. Based on existing rates of attrition and changing demand for services, while somewhat uncertain at this time, these reductions are not expected to be through employee layoffs, but rather through attrition and relocation to other County facilities. Employee attrition and relocation would take place over eight years.

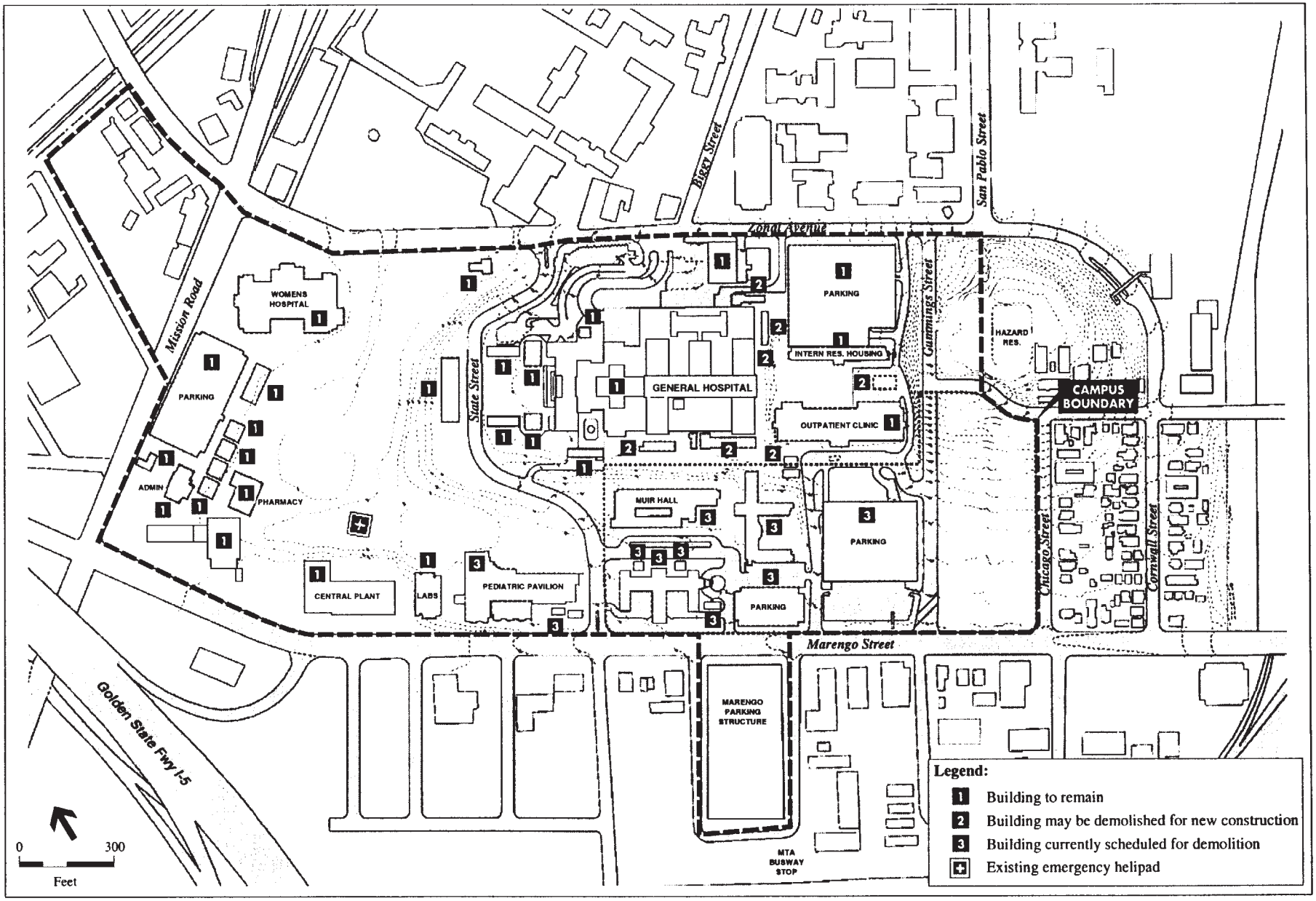


SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu, 1998.

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 7

Street Vacation Under (Alternative 2)
the 600-Bed Alternative



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu, 1998.

Exhibit 8

Buildings to Remain/Demolish (Alternative 2)
600-Bed Alternative

ALTERNATIVE 3 – 950 BED REPLACEMENT FACILITY ALTERNATIVE

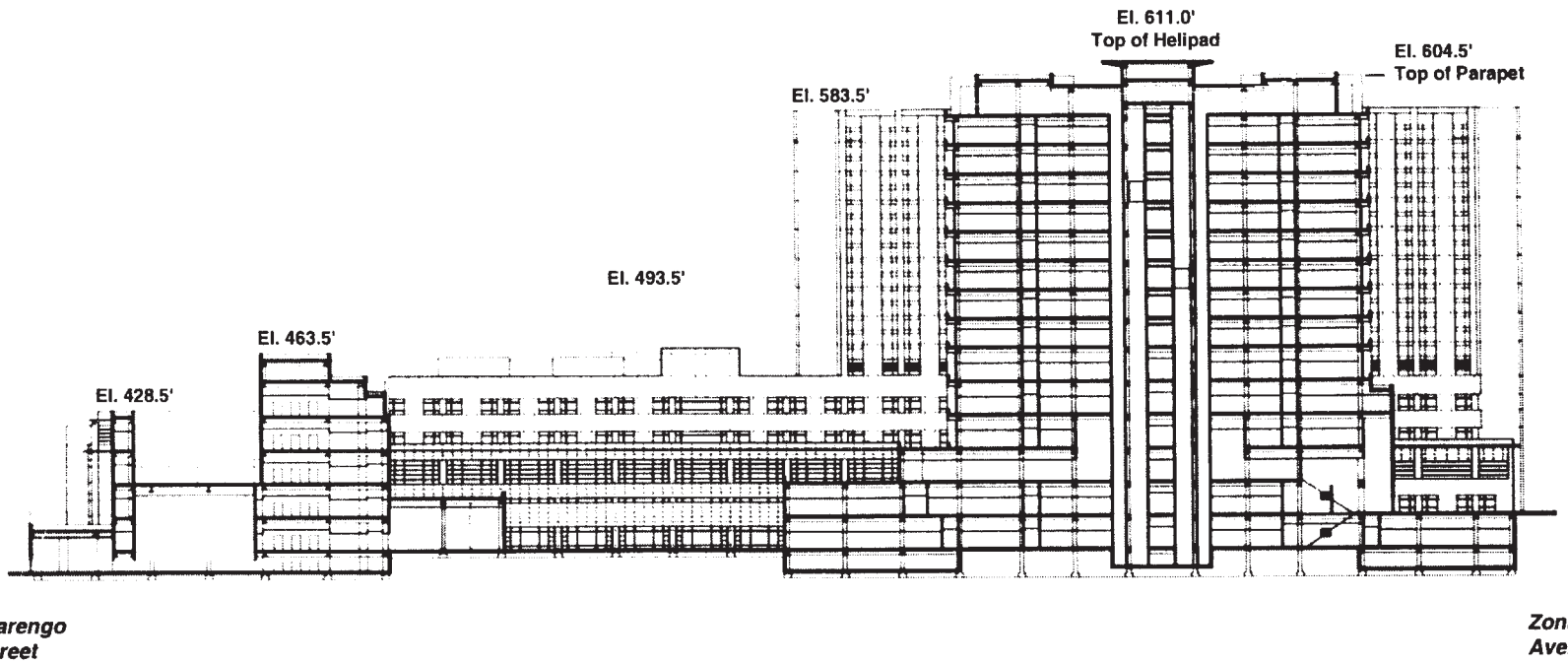
As discussed in Section 1, this alternative has already been reviewed pursuant to CEQA and approved. As described in Table 3, this 950-bed hospital would contain 1.97 million gsf and would house three components: an outpatient clinic and diagnostic center (including surgery, central plant and the emergency room); an education and conference center; and an in-patient care facility. Exhibits 9 and 10 show a cross section and axonometric view of this alternative. As with the Alternative 2 - 600-Bed Alternative, this alternative would also respond to changing healthcare needs that are resulting in increased demand for outpatient services and decreased demand for inpatient care. This alternative reflects the quantities and types of spaces projected to be required to meet a future demand for 233,000 emergency trauma visits per year, 503,000 specialty outpatient visits annually, and 950 inpatient beds at the LAC+USC Medical Center. Table 5 shows the distribution of the 950 beds.

Access

As shown in Exhibit 9, the six-level portion of the building would face Marengo Street, with public access from that street; it would contain the outpatient clinic, the central plant, and would house the diagnostic center and emergency room facilities. The emergency room would have its own entry along realigned Cummings Street on the east side of the building. Adjacent to the 6-level outpatient clinic and the 15-story in-patient tower at the fourth floor would be a multi-level diagnostic and treatment center. Both the education and conference center and the in-patient tower would have entries along realigned Cummings Street (see Exhibit 11). Loading would be located along Zonal Avenue.

Parking

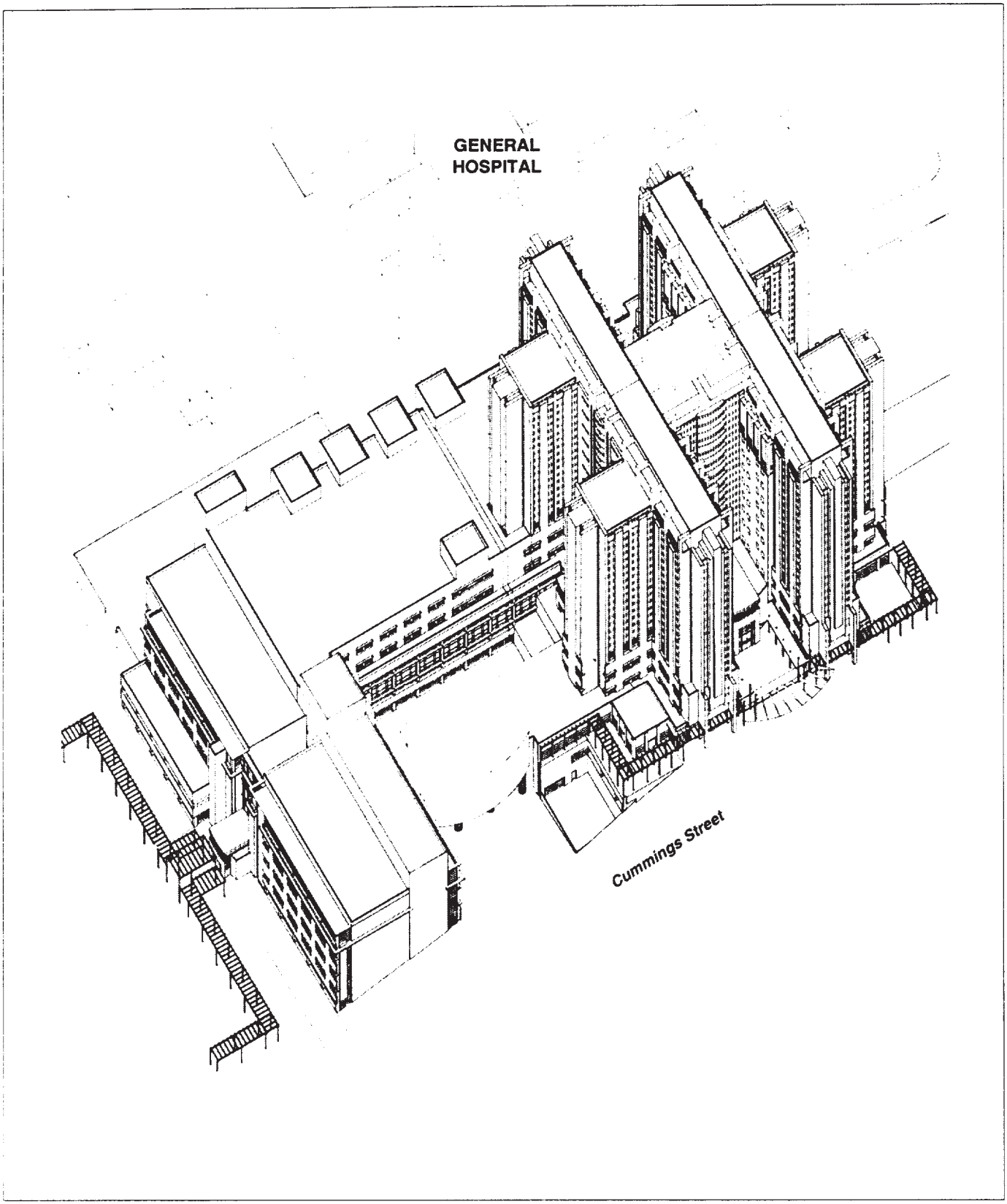
In addition to the recently constructed 3,000 parking space Marengo Parking Structure, short-term parking (200 spaces) for the emergency room and long-term parking for other hospital services and facilities would be provided on the east side of the site (on the 8 acres recently purchased by the County). Cummings Street would be vacated and realigned to the east partially in the location of the existing Chicago Street alignment. The realigned Cummings Street would provide vehicle access to the new hospital and parking facilities from Zonal Avenue to the north and Marengo Street to the south. This alternative would provide over 4,400 parking spaces.



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu.

Exhibit 9

Cross Section of (Alternative 3) 950-Bed Alternative
Looking West from Cummings Street



LAC+USC Medical Center Replacement Project / 910161 ■

SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu.

Exhibit 10
Axonometric of (Alternative 3)
950-Bed Hospital

TABLE 5: 950-BED ALTERNATIVE - BED DISTRIBUTION

Medical/Surgical ACU	510
Medical/Surgical ICU	128
Ante/Post Partum	90
Burn ICU	18
Jail	24
Pediatrics ICU	8
Perinatal ICU	16
Newborn ICU	64
Pediatric ACU	44
Clinical Research	20
Psychiatric	28
TOTAL	950

SOURCE: Medical Planning Associates

Construction Workers Parking

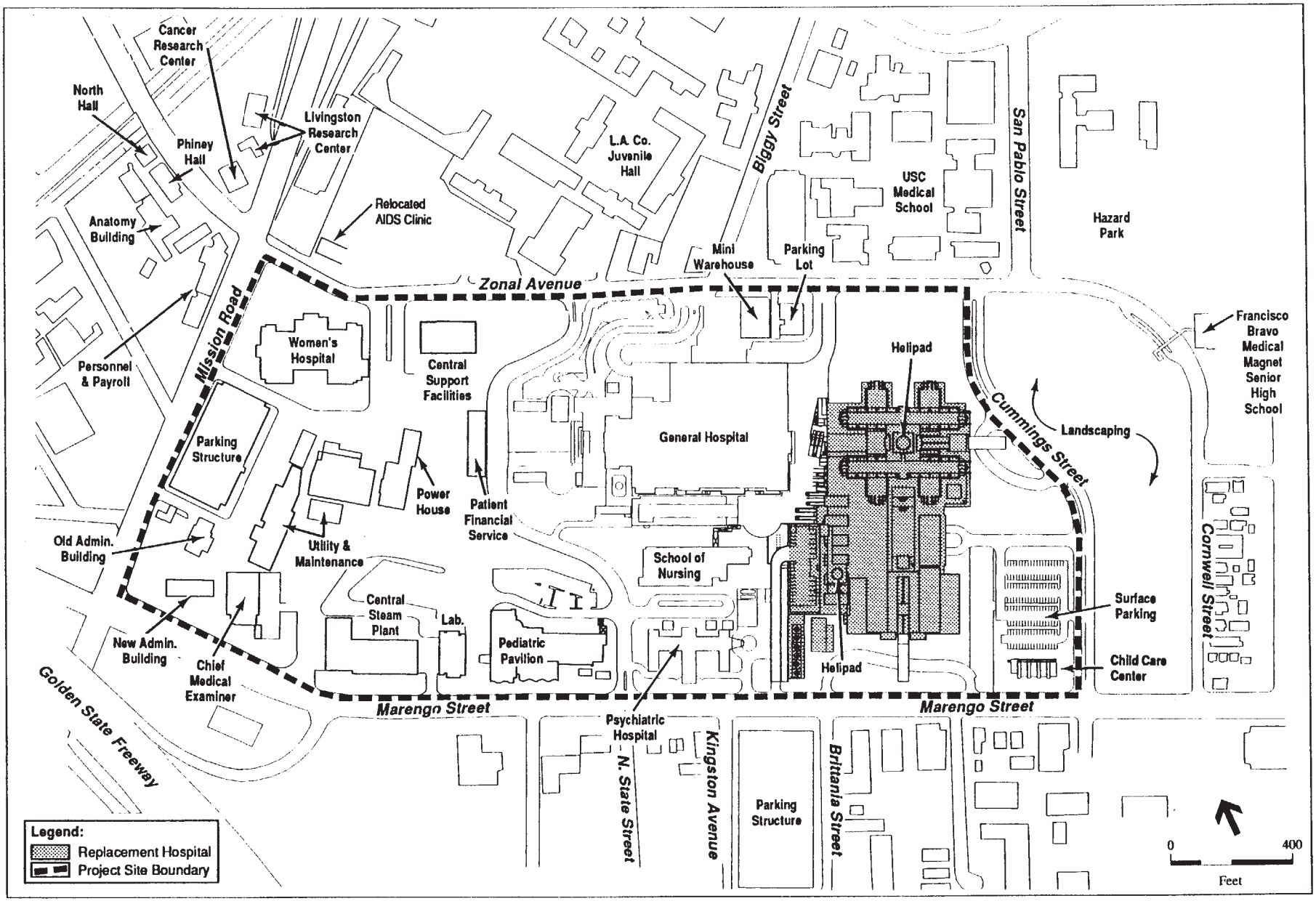
Construction workers would initially park west of State Street in a temporary staging area and in the 8 acres recently purchased. Although Parking Structure # 12 would be demolished, these areas provide adequate space for construction vehicles.

Street Vacation

Cummings Street vacation would be from Zonal Avenue to Marengo Street. Charlotte Street between Cummings and Chicago Streets would also be vacated.

Helipads

This Alternative would have two helipads: one on top of the new hospital tower for evacuation purposes; and one on top of the diagnostic center for trauma cases. The latter would have direct access to the second floor emergency room via an elevator. The trauma helipad would replace



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu.

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 11

(Alternative 3) 950-Bed Site Plan

the existing helipad north of the central steam plant. The frequency of use would remain as present.

Demolition/Remaining Structures

Under this Alternative, General Hospital would also be closed and maintained (See Section 4.11, Cultural Resources). In addition to the Pediatric and Psychiatric Hospitals, the existing Outpatient Clinic and Women's Hospital would also be demolished (see Exhibit 12). This alternative would demolish a total of 2,467,500 sf (including parking) and a total of 1,292,000 sf would remain closed, vacant and maintained. As with the Proposed 600-Bed Alternative, a reuse plan and environmental review would need to be completed prior to reoccupancy.

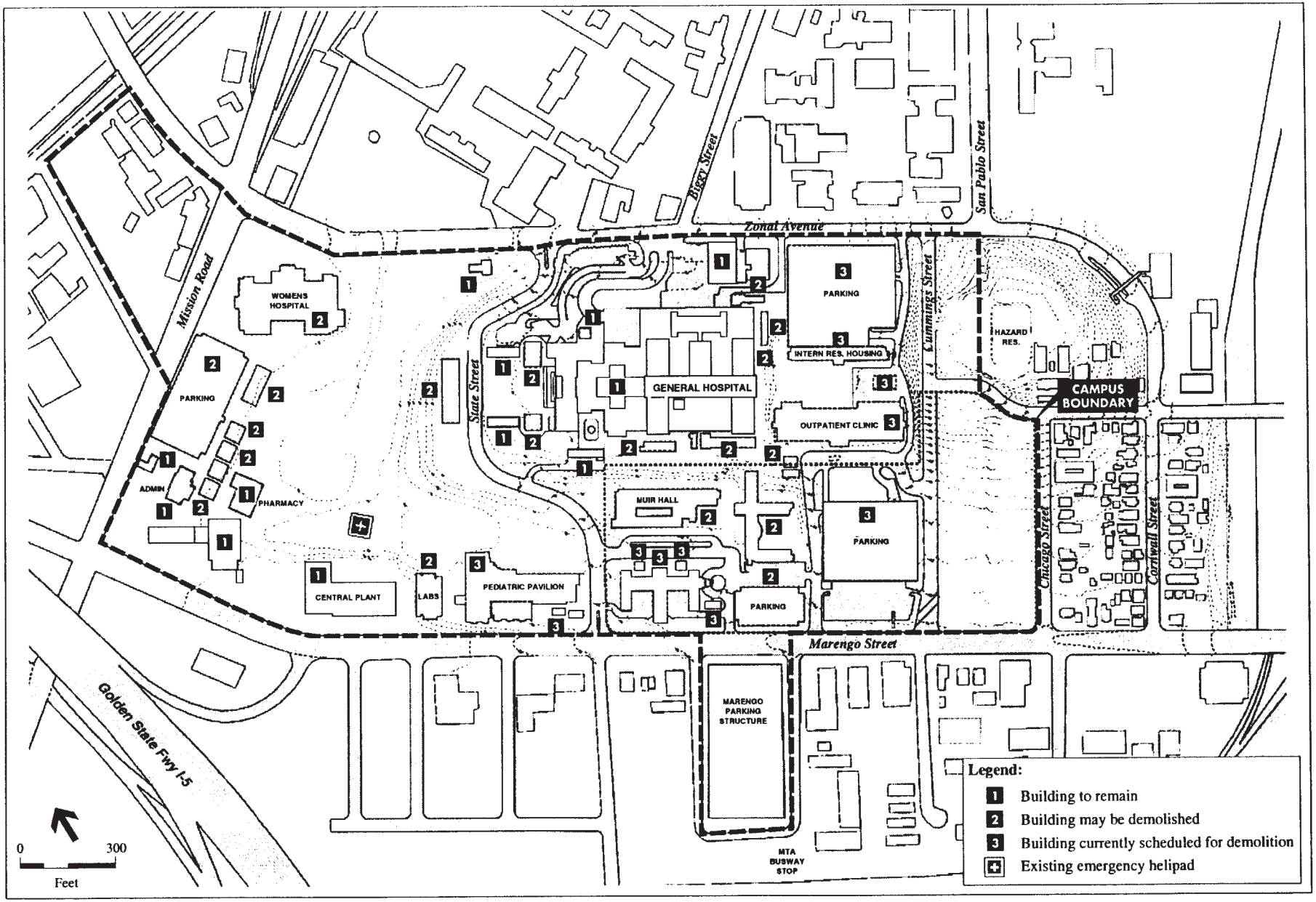
Table 3 provides a breakdown of existing departments (or function) gross area square footages by hospital, for the existing condition and proposed build alternatives 600-Bed and 950-Bed). This Alternative structure would total approximately 1.97 million gsf, housing primary health care departments, and public areas (lobbies, restrooms, hallways, elevator shafts and stairs). The departments that would be incorporated into the new hospital total about 1.5 million gsf.

Staffing

Upon completion of the Alternative 3- the 950-Bed Alternative, LAC+USC Medical Center staff would be reduced by approximately 1,980 employees. Based on existing rates of attrition and changing demand for services, while somewhat uncertain at this time these reductions are not expected to be through employee layoffs, but rather through attrition and relocation to other County facilities.

PROJECT SCHEDULE

Given the scale and complexity of the project, the LAC+USC Medical Replacement Project would be phased in its implementation. As explained above, closure of the General Hospital would occur, at the latest, in 2008. Construction of the 600-bed facility would be conducted in multiple phases, beginning approximately in early 2000 and ending approximately around the year 2006. Construction of the 950–Bed Alternative would occur in approximately the same time frame IPT would require more time at a much more intensive rate (as a result of the larger



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu, 1998.

Exhibit 12

Buildings to Remain/Demolish (Alternative 3)
950-Bed Alternative

size). The anticipated completion date is 2006, with full operation and occupancy expected to occur in 2007.

The County has developed a conceptual phasing plan for the probable sequence of preparation, demolition, and construction of the 600 bed facility. The following conceptual phasing plan is provided for informational purposes and is subject to change, as more detailed planning, design and constructability studies are completed.

Phase	
Environmental Review, Design	July 1998 – July 2000
Site preparation and development	July 2000 – November 2001
Construction of the Outpatient Clinic Building	January 2002 – February 2005
Construction of Central Plant	January 2002 – February 2005
Construction of the Diagnostic and Treatment Building	August 2002 – August 2005
Construction of the Inpatient Tower	August 2002 – August 2006
Final Site Preparation	2005-2006

APPROVALS REQUIRED

In addition to the lead agencies: County of Los Angeles and FEMA, agencies which may have jurisdiction over the project include, but are not limited to:

- Federal Aviation Administration and CALTRANS (approval of helipads)
- Governor's Office of Emergency Services
- State Licensing and Certification of the State Dept. of Health Services (Hospital Operation License)
- Office of Statewide Health Planning and Development (Approval of Medical Center Construction)
- City of Los Angeles Fire Department (Project review)
- Regional Water Quality Control Board – Los Angeles Region (Project review; permit)
- City of Los Angeles (Street vacations; sewer permits)
- All other agencies responsible for any permits, actions or approvals necessary to implement the LAC+USC Medical Center Replacement Project.

4.0 AFFECTED ENVIRONMENTS AND POTENTIAL IMPACTS OF THE ALTERNATIVES CONSIDERED

4.1 GEOLOGY AND SOILS[1]

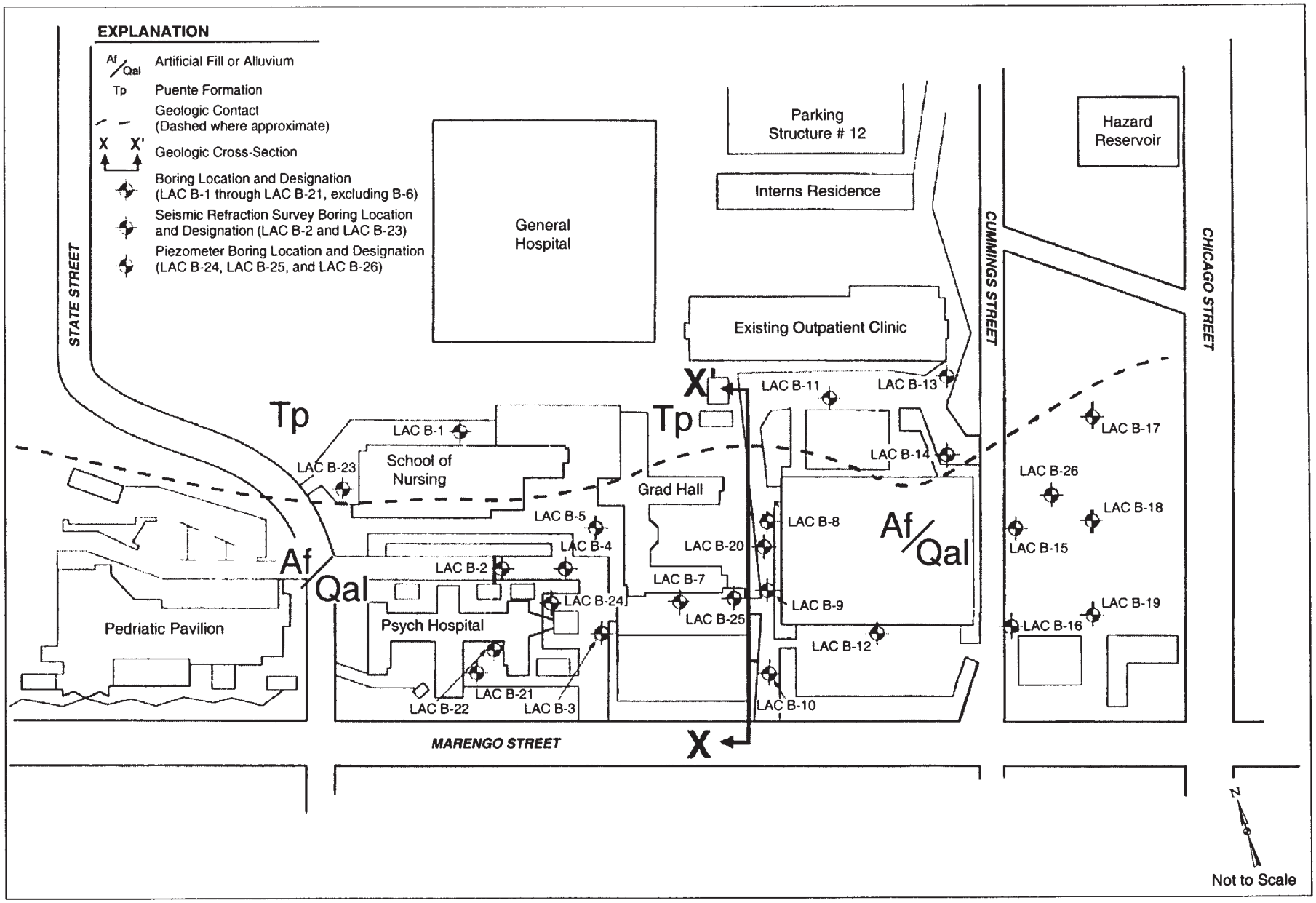
AFFECTED ENVIRONMENT

The proposed LAC+USC Medical Center lies within the Peninsular Ranges geomorphic province of California, which extends approximately 900 miles from Los Angeles to the southern tip of Baja California. Northwest trending mountain ranges, faults and basins dominate this province. One of the major geologic features of this province is the Los Angeles basin, which rests at its northwestern end. The Los Angeles basin is a northwest trending structural depression, up to 6 miles deep, and covers an area approximately 50 miles long by 20 miles wide. It is bounded on the north by the Transverse Ranges geomorphic province, which is noted for its east-west trending structures.

The LAC+USC Medical Center lies within the central block of the basin, which is bounded by the Newport-Inglewood fault zone to southwest, the Santa Monica mountains to the northwest, and the Elysian Park anticline and Whittier fault system to the northeast. Major structural features within the central block include the Elysian Hills along the northeast boundary, the Coyote Hills, and parts of the Repetto Hills. Rocks underlying the central block consist of middle Miocene to Holocene age marine and non-marine sedimentary rocks, up to 31,000 feet thick. Exhibit 13 shows the regional geologic conditions surrounding the LAC+USC Medical Center.

Executive Order 12699 directs Federal agencies to incorporate cost-effective seismic safety measures in all new buildings that are constructed, leased, assisted or regulated by the Federal Government.

[1] This section is based upon the "Geologic and Seismic Hazards Study" dated 12/30/98, and the "Geotechnical Investigation Phase I Report" dated 1/4/99, both by Dames & Moore Group.



SOURCE: Dames & Moore.

Exhibit 13
Geologic Conditions On-Site

Site Geologic Conditions

The LAC+USC Medical Center is elevated approximately 350 feet above mean sea level. The site rests upon the southeastern end of the Repetto Hills, which along with the Elysian and Montebello Hills are a part of a large fold system known as the Elysian Park anticlinorium.

These hills have been uplifted as a result of compressional forces acting in the central portion of the Los Angeles basin. Buried beneath the hills is a blind thrust fault, which was responsible for the 1987 Whittier Narrows earthquake.

The Repetto Hills are underlain by Miocene age marine sedimentary rocks of the Puente Formation, and covered by late Pleistocene to Holocene age alluvial sediments. The Los Angeles River and its tributaries deposited these alluvial sediments.

The LAC+USC Medical Center is underlain by artificial fill and alluvial soils, which overlie marine siltstones of the Puente Formation. The approximate lateral limits of these units are shown on Exhibit 20. The locations of borings taken at the site relative to the proposed hospital buildings are also shown in Exhibit 20. Following are descriptions of the various earth units underlying the site.

Artificial Fill (Map Symbol: Af)

Artificial fill encountered in borings consisted of clayey and silty sands, typically medium dense to dense, and varied in thickness from 3 to 8 feet.

Colluvium and Alluvium (Map Symbol: Qcol and Qal)

Colluvial soils were encountered in a few of the borings, overlying alluvium. The colluvial soil encountered was typically less than 5 feet thick and consisted of stiff silty clay. Due to the scattered occurrence and limited thickness, colluvial deposits are not depicted.

Alluvial soils were encountered in several borings in the central and southern portions of the site. Alluvial soils encountered in borings taken of the site consisted of very dense silty gravels and sands with cobbles, mottled gray, brown, and reddish brown. Alluvial soils varied from

approximately 10 to 30 feet in thickness and increased in thickness from north to south across the site.

Bedrock (Map Symbol: Tp)

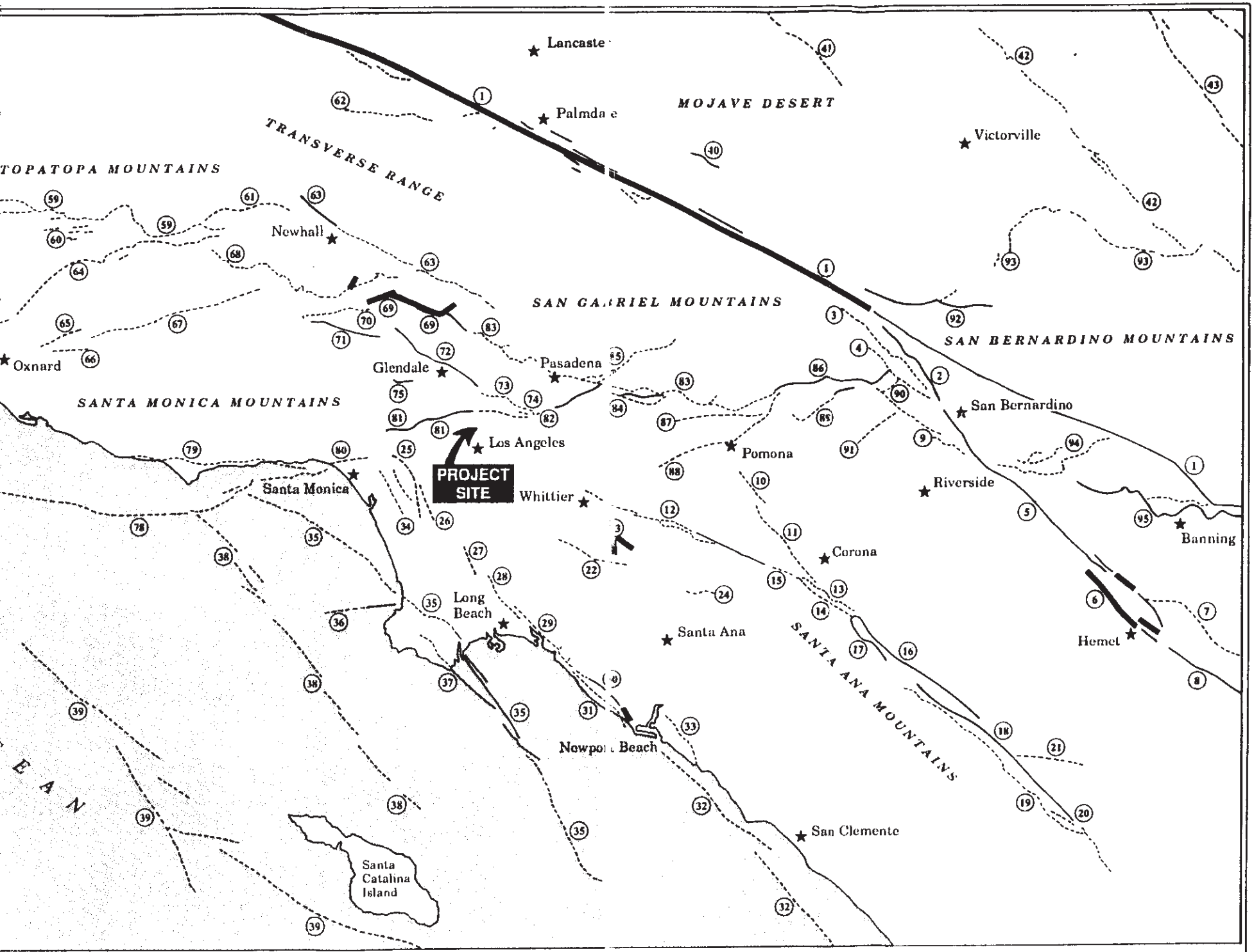
Bedrock of the Miocene age Puente Formation was encountered in borings taken at the site underlying artificial fill and alluvial soils. Bedrock consisted of interbedded sequences of fine sandstone and clayey siltstone, which was highly to slightly weathered and massive to thinly bedded.

Faults

The LAC+USC Medical Center lies between several active and potentially active faults, including the Elysian Park, Newport-Inglewood, Raymond, San Gabriel, Santa Monica, Sierra Madre-San Fernando, Verdugo, and Whittier faults (Exhibit 14). These faults lie within a 15-mile radius of the campus. The closest active faults are the Raymond and Whittier faults, which lie approximately four miles north and two miles southeast. As defined by the California State Mining and Geology Board, an active fault is a fault that has had surface displacement within Holocene time, approximately 11,000 years. Active fault traces do not cross LAC+USC Medical Center; however, the campus does overlie the southeast portion of the Elysian Park blind thrust fault.[2]

The Elysian Park thrust fault is a blind thrust and does not intersect the ground surface. The Elysian Park blind thrust is the result of compressional forces acting between the Santa Monica-Raymond fault system to the north and the Whittier-Elsinore fault system to the southeast. Over the last several 100,000 years these forces have uplifted the Elysian, Repetto, and Montebello Hills. On occasion earthquakes have occurred along blind thrusts like the Elysian Park thrust fault, as evidenced by the 1987 Whittier Narrows and 1994 Northridge earthquakes.

[2] According to Exhibit 16A-2 of the 1995 California Building Code, the site is located in Seismic Zone 4.



85 Clamshell - Sawpit Zone

93 North Frontal Fault Zone of San Bernardino Mountains

GEOLOGIC AND SEISMIC HAZARDS

Geologic Hazards

Geologic hazards such as landsliding, erosion, subsidence, poor soil conditions and volcanic eruptions have a low potential of impacting the site. Slopes at LAC+USC are low in height with shallow inclinations. As such, these slopes have a low potential for landsliding under normal conditions. Most of the site is landscaped or covered with asphalt or concrete and is not readily susceptible to erosion. Subsidence beneath the campus due to oil or groundwater withdrawal is unlikely to occur because the site is located a considerable distance from such activities.

Relatively stiff soil and rock conditions underlie the site, which reduces the potential of damage due to poor soil conditions.

Seismicity

The LAC+USC Medical Center is located in southern California, which is considered an active seismic area resting along the margin of the North American and Pacific tectonic plates. The numerous earthquakes, faults and folds attest to the seismic activity that occurs within Southern California. Most of the displacement between the North America and Pacific plates occurs along the San Andreas fault and associated major faults, such as the San Jacinto and Whittier-Elsinore faults, which lie southeast and east of the site respectively. However, numerous smaller faults also contribute to the seismicity of the region and help to create various fault-bounded crustal blocks. These smaller active faults include the Newport-Inglewood and Whittier fault zones, which are located approximately 11 miles west and three miles southeast of the campus, respectively. Exhibit 14 shows the approximate location of the site with respect to the major active surface faults in southern California. The approximate distance between the site and of the surface trace of the nearest Holocene segment of several of these faults are summarized in Table 6.

Southern California has endured numerous earthquakes in historic times. The largest of these earthquakes was the 1857 earthquake along the San Andreas Fault zone, with an estimated magnitude (M) of around 8. Other significant earthquakes near LAC+USC Medical Center were the 1933 Long Beach (M=6.4), the 1971 San Fernando (M=6.6), the 1987 Whittier Narrows (M=6.0), and the 1994 Northridge (M=6.7) earthquakes (see Table 7). The Whittier Narrows

TABLE 6: DISTANCE TO MAJOR FAULTS AND POTENTIAL EARTHQUAKES

Fault Name	Distance from Site (km)	Potential Earthquake (M)
Raymond	7.5	6.5
Hollywood	9.5	6.6
Elysian Park Thrust	11*	6.8
Verdugo	11.5	6.7
Newport-Inglewood	14	7.0
Sierra Madre	18.5	7.4
San Fernando	27.5	6.7
Palos Verdes	30	7.0
Whittier-Elsinore	31	6.9
San Andreas (Mojave)	52	7.5

SOURCE: Dames & Moore

* Distance to the substance fault plane.

earthquake occurred on a blind thrust fault, which was not recognized prior to the earthquake. The epicenter of the Whittier Narrows earthquake was only seven miles (12 kilometers) east of the site.

Recent studies by the United States Geological Survey and the California Division of Mines and Geology provide seismic data for numerous faults within California. These data include estimates for maximum magnitude, fault length and type, and slip rate.

Estimated maximum magnitudes for earthquakes along the Newport-Inglewood, Raymond and Whittier faults are 6.9, 6.5, and 6.8, respectively.

Seismic Hazards

Seismic hazards are those hazards associated with earthquakes such as ground shaking, ground rupture, liquefaction, differential compaction or seismic settlement, and other phenomena.

TABLE 7: SIGNIFICANT EARTHQUAKES (M≥6) AFFECTING THE SITE

Earthquake	Epicentral Distance (km)	Moment Magnitude (M_w)
1933 Long Beach	44	6.4
1971 San Fernando	44	6.6
1987 Whittier	12	6.0
1994 Northridge	35	6.7
1857 Ft. Tejon	263	7.9

SOURCE: Dames & Moore 1999

LAC+USC Medical Center, like most sites in southern California, is most susceptible to ground shaking generated during earthquakes on nearby faults. The intensity of ground shaking, or strong ground motion, is highly dependent upon on the distance of the fault to the site, the magnitude of the earthquake, and the underlying soil conditions. LAC+USC Medical Center is not considered susceptible to the other seismic hazards such as ground rupture or liquefaction.

Primary Ground Rupture

Primary ground rupture is ground deformation that occurs along the surface trace of the causative fault during an earthquake. The site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on a review of available geologic data, active faults do not cross the LAC+USC Medical Center campus; therefore, primary ground rupture is not a concern.

Strong Ground Motion

Strong ground motion occurs as energy is released during an earthquake. The intensity of ground motion is dependent upon the distance between the site and the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the site. Ground motion is typically measured as a percentage of the acceleration of gravity (g), where g is equal to 32 feet per second squared. Earthquakes occurring on faults closest to the site would most likely generate the largest ground motions. The closest active faults to LAC+USC Medical Center are the Raymond and Whittier faults, which have the potential for generating earthquakes with maximum moment magnitudes of 6.5 and 6.8. There are no mapped active faults within 2 km of the site as mapped in 1998 by the California Division of Mines and Geology (CDMG) for use in conjunction with the 1997 Uniform Building Code.

Peak ground accelerations measured at or near the site during historic earthquakes vary from approximately 0.1 to 0.5 g, with the highest recorded value from the 1994 Northridge earthquake.

Liquefaction

Liquefaction is the transformation of a cohesionless soil from a solid to a liquid state caused by an increase in pore pressure and a reduction in effective stress. Liquefaction can occur when loose saturated cohesionless (sandy) soils are subjected to strong ground shaking during an earthquake. According to the Seismic Hazards Map of the Los Angeles Quadrangle prepared by the CDMG (1998), the site is located outside zones of potential liquefaction (see Exhibit 15).

Soil and bedrock materials underlying the site consist of very dense silty gravels and sands and indurated siltstone and sandstone. Since relatively dense soils and rock underlie the site, its potential for liquefaction is considered very low, even under shallow groundwater conditions.

Seismically-Induced Settlement and Differential Compaction

Seismically induced settlement and differential compaction occurs when relatively soft or loose soils experience a reduction in strength caused by strong ground motion. Soil conditions subject to these hazards include porous poorly cemented soils, or areas where weak soils of variable

Note: Mapped zone of known or potential liquefaction occurrence.

SOURCE: Dames & Moore.

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Exhibit 15
Mapped Liquefaction Zones

thickness overlie firm soil or bedrock. The site is underlain by relatively dense soil and bedrock materials, which are not prone to settlement under earthquake loading conditions.

Earthquake Induced Flooding

Earthquake induced flooding occurs when nearby water retaining structures, such as dams or storage tanks, are breached or damaged during an earthquake. According to the Los Angeles County Safety Element (1990), LAC+USC Medical Center is located within a non-inundation area within the Ascot dam inundation path, which is located about 2 miles northeast of the site.

As such, the site should not incur flood damage if the Ascot dam where to fail during an earthquake. Another water storage facility, the Hazard Reservoir, is located approximately 1,000 feet northeast of the site. The Los Angeles Department of Water and Power operates this facility. Due to its proximity, minor flood damage could occur at the site if the facility were to fail during an earthquake.

Other Seismic Hazards

Other seismic hazards include tsunami, seiches, and earthquake-induced landslides. These hazards will not affect the site due to the site's distance from the Pacific Ocean, nearby enclosed bodies of water, and the low height and shallow inclination of slopes at the site.

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Under the No Project Alternative, no excavation would occur, and earthwork may only occur in conjunction with the demolition of the Pediatric and Psychiatric hospitals. LAC+USC Medical Center would not repair or replace earthquake damaged structures to meet structural requirements for seismic safety under the OSHPD mandate Senate Bill 1953 requirements.

Under the No Project Alternative, the LAC+USC General Hospital would eventually be closed. Future repair and reuse is speculative. The Pediatric and Psychiatric hospitals are scheduled to be demolished under this alternative. Existing hospitals, which would be replaced under the

build alternatives would not be replaced under the No-Project Alternative. Thus, the buildings that would remain would not reflect the latest OSHPD and CBC seismic safety standards and thus would continue to be susceptible to seismically induced damage. The No-Project Alternative would temporarily result in a higher on-site population than the build alternatives; it would continue to expose more people to seismic hazards until the General Hospital closes. Reuse of General Hospital is speculative; prior to any occupancy, the General Hospital would have to comply with appropriate building codes.

ALTERNATIVE 2 – 600-BED REPLACEMENT FACILITY ALTERNATIVE (PROPOSED ALTERNATIVE)

This build alternative would improve facilities, especially their functionality post-disaster. Therefore implementation of this alternative would have no significant impacts.

The proposed Outpatient Clinic Building footings are anticipated to expose native bedrock materials consisting of weathered claystones and sandstones of the Puente Formation and very dense to hard alluvium materials. However, an approximately 5,000 to 7,500 square-foot area located at the southwest corner of this building is underlain by up to 35 feet of a medium dense to dense alluvium.

The proposed Inpatient Tower footings are anticipated to expose native bedrock materials consisting of weathered claystones and sandstones of the Puente Formation and very dense to hard alluvium materials.

The proposed D&T Building footings are anticipated to expose native bedrock materials consisting of weathered claystones and sandstones of the Puente Formation and/or very dense to hard alluvium materials.

The subsurface data obtained indicate that the materials encountered at the anticipated foundation levels are generally competent with geotechnical characteristics suitable for the use of shallow foundations. It is anticipated that the foundations of the major hospital building components would be established within the underlying weathered bedrock of the Puente Formation, on competent alluvium, or both. Along the southwest corner of the proposed Outpatient Clinic where the site is underlain by fill soils and medium dense alluvium, special

provisions such as drilled piers established directly in bedrock would be required to support this portion of the building on spread footings.

Geology

There are no known geologic conditions which would prevent development of the site. No known active faults pass through the site or immediately adjacent to the site and the site is not located within an Alquist-Priolo Special Studies Zone.

Seismicity

Most of southern California is susceptible to seismic events; there are numerous faults in the vicinity of the site that may produce significant ground shaking during an earthquake. Seismic activity of any of the faults in the vicinity of the project site could affect construction of the proposed project. Upon completion, the project would be subject to moderate to strong ground motion during an earthquake. If the proposed structure is designed and constructed in conformance with applicable current building codes, major structural damage would not be expected.

Seismic Events

Alternative 2- the 600-Bed Alternative (Proposed Alternative) would decrease on-site population; thus, exposing fewer people to seismic risks on-site. The hospital would be designed to withstand a maximum credible earthquake and would be capable of providing emergency care after the event.

Disruption of water and electric service and damage to transportation infrastructure could hinder emergency service providers as they assist occupants of the project following a seismic event. Agencies providing emergency services can be expected to be in heavy demand following a major earthquake. The proposed hospital would have several back-up systems in order to operate after a major earthquake. These emergency systems will include generators, water and food storage etc.

The Diagnostic and Treatment Center of the replacement hospital would be built using base isolation technology. The design of the Diagnostic and Treatment Center would allow the facility to remain fully operational in the event of a major earthquake such that emergency care will be provided for patients. In order to remain in full operation, the mechanical and electrical services serving the base isolated facility must also remain functional. Services include electrical power, communication systems, domestic and fire protection water, sewage holding, medical gases, chilled water, hot water and steam.

ALTERNATIVE 3 – 950-BED REPLACEMENT FACILITY

Geologic and soils impacts and the standard design and construction methods described for Alternative 2- the 600-Bed Replacement Facility Alternative would also apply to Alternative 3. Alternative 3 would increase on-site population compared to Alternative 2, and would reduce on-site population from existing conditions. Similar to Alternative 2, this alternative would improve facilities, especially their functionality post-disaster. Therefore, implementation of Alternative 3 would have no significant impacts.

GEOTECHNICAL
MITIGATION MEASURES

The geotechnical investigation for the *Replacement Project* is prepared in two separate phases. The Geotechnical Investigation Phase 1 report is intended to provide detailed recommendations related to geotechnical aspects of design and construction of the *Replacement Project*, suitable for submittal to various agencies such as OSHPD and the Los Angeles County Building and Safety Division for review. Upon demolition of the existing structures at the site, a Geotechnical Investigation Phase 2 will be performed in order to meet the following objectives: obtain current subsurface information within the existing building footprints; if necessary, refine and quantify any recommendations contained in the Phase 1 report; and address any constructibility issues that could arise during design of the *Replacement Project*. The project geotechnical investigation has and will continue to undertake extensive geophysical surveys; 1) to further interpret the subsurface characteristics of the project site; and 2) to provide appropriate design recommendations that would be incorporated by the proposed replacement project.

Mitigation measures for Alternative 2 and 3 are as follows:

- Comply with the seismic provisions of the Office of Statewide Health Planning and Development and the appropriate California Building Code.

- The proposed project will meet the requirements of the Health and Safety Code, Section 15000 of the 1972, Hospital Seismic Safety Act, so that the critical services provided with the new Medical Center may remain operational after a seismic event. The proposed project will include emergency generators, and other back-up systems. The diagnostic center portion of the new hospital would be built using base isolation technology to lessen the shaking and vibration experienced during an earthquake.

- As an emergency care facility, an emergency plan shall be completed per California Division of Mines and Geology regulations. This plan will include a review of operational capability from at least three of the following viewpoints: loss of life; physical building damage; loss of medical supplies; and loss of hospital functions due to disruption to utilities. Development of an emergency response and evacuation plan for project structures and dissemination of that information to occupants would reduce the potential for human injury. To assist in response to a seismic event, the emergency response and building-specific evacuation plan should be posted on each occupied floor of buildings at the site.

- Following site stripping and any required overexcavation, all areas are to receive fill or to be used for the future support of structural loads, be proofrolled with a rubber-tire loader or other heavy equipment to locate any soft or loose zones. All loose/soft or otherwise unsuitable areas should be removed or compacted in-place. If in-place compaction is not practical, fills and backfills may be placed in accordance with the recommendations presented in the following sections.

- Fills and backfills should be placed in loose lifts not exceeding 8 inches in thickness and moisture conditioned as required to achieve near-optimum moisture content. Structural fills and backfills should be compacted to at least 95 percent of the maximum dry density per ASTM D-1557.

- If granular soils are encountered in the excavations, these materials should be stockpiled for possible reuse as backfill behind basement walls and over and around foundations.

- All imported fill and backfill soils should be predominantly granular, less than 3 inches in any dimension and be free of organic and inorganic debris. All fill and backfill materials should be observed and tested by the geotechnical engineer prior to their use in order to evaluate their suitability.

- All fill slopes should be constructed at 2(h): 1(v) or flatter. Benching should be performed during construction of all fill slopes with existing ground surface 5(h): 1(v) or steeper. All fill slopes should be compacted to 95 percent of the maximum dry density and in accordance with applicable County building codes.

- All excavations must comply with the current CAL/OSHA requirements. All cuts greater than 5 feet in depth should be sloped and/or shored. Heavy construction equipment, building materials and excavated soil should not be allowed near the top of any excavations.

- Excavation in bedrock may be cut vertically to a depth of up to 5 feet. Temporary excavations deeper than 5 feet in the bedrock may be sloped at ¾(h): 1(v) or flatter to a maximum height of 10 feet. Flatter slopes will be required if clean and/or loose sandy soils or zones of adverse bedding are encountered along the slope face.

- Temporary excavations deeper than 5 feet in alluvium should be sloped at 1½(h): 1(v) or flatter up to a maximum depth of 10 feet. Flatter slopes will be required if clean and/or loose sandy soils are encountered along the slope face. In alluvium, steeper cuts may be utilized for excavations less than 5 feet deep, depending on the strength and homogeneity of the soils as observed in the field.

- If the available space will not permit sloping or benching of the excavations, a temporary shoring system will be required. It is assumed that the temporary shoring will be in place for a few weeks only. If it is planned to keep excavations open for longer periods, up to several months, then it might be more appropriate to assume the earth pressure recommendations for permanent shoring. Shoring systems typically consist of a soldier pile and lagging retention system; either tied-back, internally braced, or cantilevered. The shoring system is expected

to require several tiers of tiebacks or braces. Augered earth anchors installed by continuous-flight, hollow-stem augers, with a high-strength steel bar or cable (tendon) inserted into the drilled hole, and then tremied with grout, would be appropriate for the project.

- The temporary shoring system should be designed to resist lateral earth pressures plus additional horizontal pressures imposed by foundations of adjacent structures.

- Soldier piles must extend below the excavation bottom to provide lateral resistance by passive soil pressure and incorporate a factor of safety of at least 1.5.

- Based on the loading data provided for the Replacement Project an allowable bearing pressure of 6,000 psf may be used for spread footings established in the native, moderately weathered bedrock or competent alluvium materials. Footings should be a minimum of 2 feet wide and established at a depth of at least 2 feet below the lowest adjacent final grade.

- Mats should be established at a minimum depth of 2 feet below the lowest adjacent finished grade or be provided with a minimum 24-inch deep by 18-inch wide thickened edges for additional confinement and to prevent water infiltration under the mat.

- Drilled, cast-in-place piers may be required in areas where access precludes proper site preparation, for support of pedestrian bridges and for other purposes.

- Presence of predominately granular materials in the alluvium and bedrock units should be anticipated. Due to presence of these soils, pier construction may require special provisions to prevent or control caving of the drilled shafts. Such provisions may involve the use of casing, or wet methods using bentonitic or polymer slurries.

- Use grade beams/tie beams between pile caps to provide additional lateral resistance and to maintain foundation alignment and integrity.

- All drilled pier construction should be performed in accordance with ACI 336.1-91, "Standard Specifications for Construction of Drilled Piers."

- All floor slabs should be supported on improved subgrade consisting of a minimum of 6 inches free-draining material.

- A moisture barrier is recommended under all floor slabs in areas to be covered with moisture-sensitive floor coverings. A 10-mil plastic or vinyl membrane may be used for this purpose and should be placed between two layers of moist sand, each at least 2 inches thick, to protect the membrane during construction.

- Subgrade soils shall be compacted to 95 percent of the maximum dry density per ASTM D-1557, for a minimum of 12 inches.

- The ground surface of the site should be adequately sloped to direct water away from the building and foundations. Areas where water could pond adjacent to the building in planters, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Area drains should not be placed next to or in contact with the building. The ground surface should be adequately sloped away from structures toward the area drains. Roof drainage should be controlled and directed to proper drainage devices in an acceptable manner.

- Standard construction practices and concrete mixes may be used for concrete in contact with the site soils using Type II cement. Underground piping may require cathodic protection, epoxy coating and/or wrapping.

- Geotechnical aspects of the project will be reviewed by a geotechnical firm during the design process to include assistance to the design team in providing specific recommendations for special cases and reviewing the foundation design.

- As required under the California Building Code, and due to the complex foundation requirements, all earthwork and foundation construction should be monitored by a qualified engineer/technician. As such, the validity of the recommendations contained in this report is contingent upon monitoring of the following:

  - Site preparation -- site stripping, overexcavation, and recompaction;
  - All shoring installations;

- All drilled cast-in-place pier installations;
- All foundation excavations;
- Placement of all compacted fills and backfills; and
- Construction of slab and pavement subgrades.

ADVERSE IMPACTS AFTER MITIGATION

Based on the findings of the geotechnical investigation and provided that all recommendations are incorporated into the design and construction documents, the LAC+USC Medical Center (either build alternative) would not be subject to the hazards of landslide, settlement or slippage. The proposed site development and construction under both build alternatives would not adversely affect the geologic stability of property adjacent to the LAC+USC Medical Center site. Implementation of the mitigation measures recommended in this section would reduce any potential geology/seismicity impacts to levels of insignificance.

4.2 LAND USE

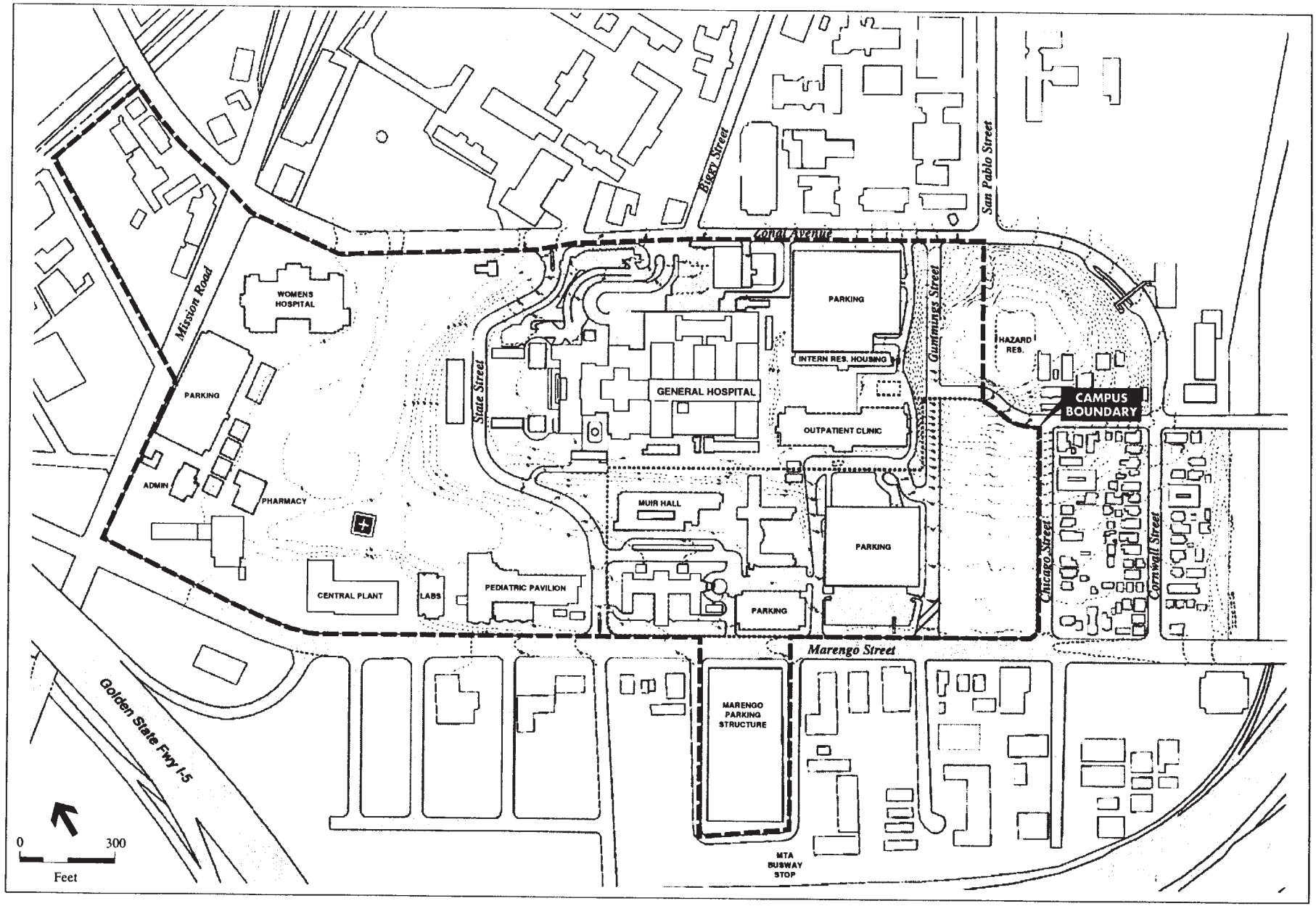
AFFECTED ENVIRONMENT

EXISTNG LAND USE

The present LAC+USC Medical Center is the largest non-federal teaching hospital in the country. The LAC+USC Medical Center campus comprises 80 acres of land in the City of Los Angeles, east of downtown. The County recently acquired 8 acres of residential land located east of the existing campus. The project area is bordered by Zonal Avenue to the north, Chicago Street to the east, and Marengo Street to the south, and Mission Road to the west.

Prior to the 1994 earthquake the LAC+USC campus contained 130 buildings currently including four hospitals, an outpatient clinic, 92 outlying buildings, 28 trailers, three child care facilities, and a Magnetic Resonance Imagining (MRI) Center (see Exhibit 16). Since then, 15 buildings have been demolished for a current total of 115 buildings on-site, three of which are closed (Psychiatric, Pediatric and Parking Structure # 12). The age of these buildings ranges to 89 years old; the oldest facility, the old Administration Building, was built in 1910 and the General Hospital in 1933. Other structures, which include the Psychiatric Hospital, Pediatric Hospital, Women's Hospital and the Outpatient Clinic were built in the 1950s and early 1960s. Also on site is Grad Hall, Intern and Residents Hall, School of Nursing, Muir Hall (resident's hall), and other hospital related facilities. The majority of the buildings on-site are experiencing normal aging as well as earthquake damage and heavy use. Many are functionally obsolete for patient care activities.

The County DPW is restoring the old Administration with FEMA funding separate from the Replacement Project. A Negative Declaration has been prepared. The north campus (located at southwest corner of Zonal/Griffin and Mission) consisting of 3 buildings (Tower Hall, Building 10/20 & Building 110) is also being repaired by DPW with FEMA funds separate from the Replacement Project. All of these buildings suffered major 1994 earthquake damage and are red-tagged. The north campus buildings will be further improved by the Replacement Project for occupancy after the earthquake work is completed.



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu, 1998.

Exhibit 16
Existing Uses Map

The Medical Center on site consists of five primary health care facilities: General Hospital, Women's Hospital, Psychiatric Hospital (currently closed) (see Exhibit 17), Pediatric Pavilion (currently closed) (see Exhibit 18) and the Outpatient Clinic. The four hospitals were originally licensed for 2,045 beds, after the earthquake this number was reduced to 1,706; prior to the earthquake and currently it is estimated that 1,450 functional beds could be made available on site, although only 770 beds are currently budgeted.

SURROUNDING LAND USES

The area surrounding the proposed project site includes a mixture of County/public facilities, single family and multi-family residential units, commercial and educational uses (see Exhibits 19 and 20). East of the proposed LAC+USC campus, along Chicago Street, are single family and multi-family residential units, to the south are commercial and fast food establishments, to the north is the Hazard Reservoir at Charlotte and Cummings Street. In addition, Los Angeles Unified School District facility, the East Los Angeles Occupational Center is located on Marengo Street at Cornwell Street. There is also a number of county operated services along Marengo Street as well as Planned Parenthood located at Kingston Avenue west of the East Los Angeles Occupational Center.

Approximately one block north of the LAC+USC campus, at Biggy Street and Eastlake Avenue, is the Los Angeles County operated Juvenile Hall. USC School of Medicine campus is located immediately north of the LAC+USC campus along Zonal Avenue, between San Pablo and Biggy Streets. North of the LAC+USC medical campus along Zonal Avenue, west of Biggy Street, are neighborhood retail establishments, St. Camillus Center for Pastoral Care and Catholic Chapel and a surface parking lot.

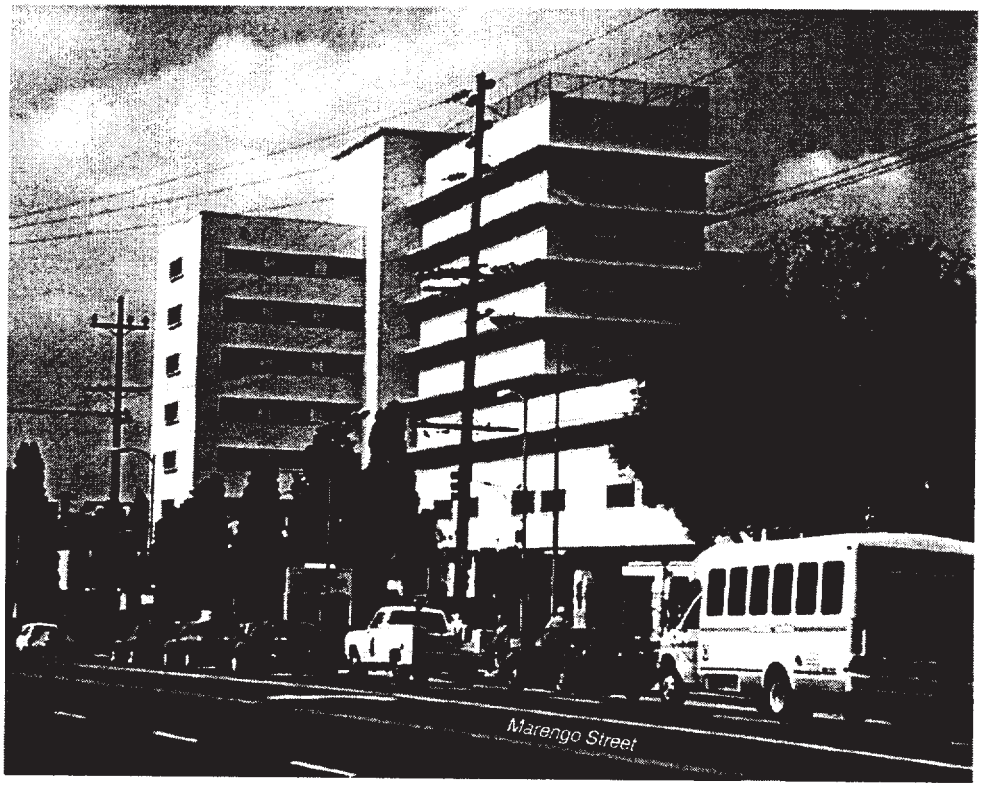
The area east of the LAC+USC campus includes a mixture of single family and multi-family residential units. East of the LAC+USC campus, along Marengo Avenue, is the relocated Burger King.

Approximately one block northeast of the campus along Norfolk Street near San Pablo Street is the USC University Hospital. Along San Pablo Street, half a block south of the University Hospital, is the U.S. Army Reserve Base. Located immediately next to the U.S. Army Reserve Base is Hazard Park that surrounds the base on the east and south. Hazard Park also surrounds

SOURCE: Environmental Science Associates

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 17
Psychiatric Hospital (8 Levels)



SOURCE: Environmental Science Associates

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 18
Pediatric Pavilion (8 Levels)

SOURCE: Environmental Science Associates

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 19
Commercial Uses Adjacent to Project Site on Brittania Street

SOURCE: Environmental Science Associates

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 20
View of Residential Uses Along Chicago Street (Looking South)

Francisco Bravo, M.D. Medical Magnet Senior High School on the west and north. The High School is located along the Zonal Avenue, half a block east of San Pablo Street.

To the west of the project site, a mixture of residential and commercial land uses are found. Along Mission Road there is a gas station, auto-repair shop, neighborhood retail establishments and residential units. Between Mission Road and the Southern Pacific Railroad right-of-way are single family and multi-family residential units with commercial manufacturing establishments mixed in between the residential units.

South of the project site along Marengo Avenue are the following land uses: the Health Research Association (HRA) office building located at the on-ramp to the Golden State Freeway (I-5); east of HRA to Cornwell Street along Marengo are a variety of commercial, retail, and fast-food establishments as well as a small hotel.

In 1995, the County of Los Angeles purchased 8 acres east of the then-existing campus between Cummings and Chicago Streets. The 1994 EIR analyzed the impact of purchasing a total of 15.5 acres and demolishing approximately 160 dwelling units (Phase I (8 acres) + Phase II (7.5 acres) of the previously approved project) in anticipation of that project. Originally, the County planned to remove the housing from all 15.5 acres that would have been used for Phase II of the original project (the reuse of General Hospital). Since the reuse of General Hospital is not reasonably foreseeable at this time, Phase II is not required in this document. The acquisition of 8 acres in Phase I was determined necessary for a new replacement facility to proceed; this land was acquired and 58 dwelling units (containing 110 bedrooms) and eight commercial units were demolished.

REGULATORY CONTEXT

Regional Plans

CEQA requires that an EIR consider the regional setting and discuss any inconsistencies between the proposed project and applicable local and regional plans.[3] Such plans include the Southern California Association of Governments' (SCAG) *Regional Comprehensive Plan and Guide*

[3] Office of Planning and Research, *California Environmental Quality Act Guidelines,* Section 15125(b).

(RCPG) and *Regional Transportation Plan* (RTP), the South Coast Air Quality Management District's (SCAQMD) *Air Quality Management Plan* (AQMP) and the County of Los Angeles' *Congestion Management Plan* (CMP). Applicable policies from these plans include those related to: population, housing and jobs forecasts which are adopted by SCAG; meeting emission budget requirements established by the SCAQMD; and, managing congestion by maintaining the level of service on surface streets. Consistency with SCAQMD's AQMP is discussed in Section 4.6, Air Quality, and SCAG's RTP and Los Angeles County's CMP are discussed in Section 4.3, Transportation, of this EIR.

SCAG has prepared the RCPG in conjunction with its constituent member and other regional planning agencies. Within the five-county SCAG region, the RCPG is intended to serve as a framework to guide decision making with respect to the growth and changes that can be anticipated by the year 2015 and beyond. The plan consists of three sections that contain goals, policies and technical data. The RCPG provides a general view of the various regional plans.

The County of Los Angeles General Plan

The County of Los Angeles General Plan provides general policy direction for the future of the County. As stated in the General Plan, the Plan is used by the County government for guidance in making day to day decisions to ensure the effective use of public resources and to further the public interest. The Plan is the tool to guide decision-making related to overall land use direction and development in the county. The General Plan serves as an advisory document to provide decision-makers with a policy framework to guide specific incremental decisions to move toward achievement of the Plan's stated goals and policies.

The existing LAC+USC campus is designated by the County as Public and Semi-Public Facility. This designation includes hospitals, public buildings, major transportation facilities, solid waste disposal sites, utilities, public and private educational institutions, religious institutions, detention facilities and fairgrounds. This classification provides for the continued operation, expansion and construction of new facilities, as necessary, to serve current and future County residents. The 8 acres recently purchased east of the LAC+USC campus is within the City of Los Angeles and is not currently under the jurisdiction of the County of Los Angeles General Plan. Once LAC+USC Medical Center submits a plot plan to Regional Planning for approval, it is anticipated that these 8 acres of now vacant land would be designated as Public and Semi-

Public Facility. The County's General Plan does not have to be amended for the replacement project to be built.

The City of Los Angeles General Plan

The County's use of the land is not subject to regulation by the City of Los Angeles General Plan. As a result, the County's use is not required to be consistent with the City's General Plan land use designation or zoning code.

The City of Los Angeles General Plan contains objectives, policies and programs to guide development in Los Angeles for the next twenty years. The City's General Plan contains citywide elements for Air Quality, Economic Development, Housing, Transportation, Open Space, Safety, Noise, Infrastructure, Urban Form and Historic Preservation. Community Plans establish land use policy and standards for each of the City's 35 community geographic areas. Recently the City of Los Angeles completed the General Plan Framework which provides land use standards for each land use category. The project site is located within a commercial area and designated as a Community Center (commercial). For this category the General Plan encourages development to maintain existing uses. The project site is in a designated Community Center. The General Plan states that, "Development of a consistent pattern of use in...Community Centers... is considered beneficial"[4]. However, the community plan continues to define entitlements, zoning and land use.

Northeast Los Angeles Community Plan

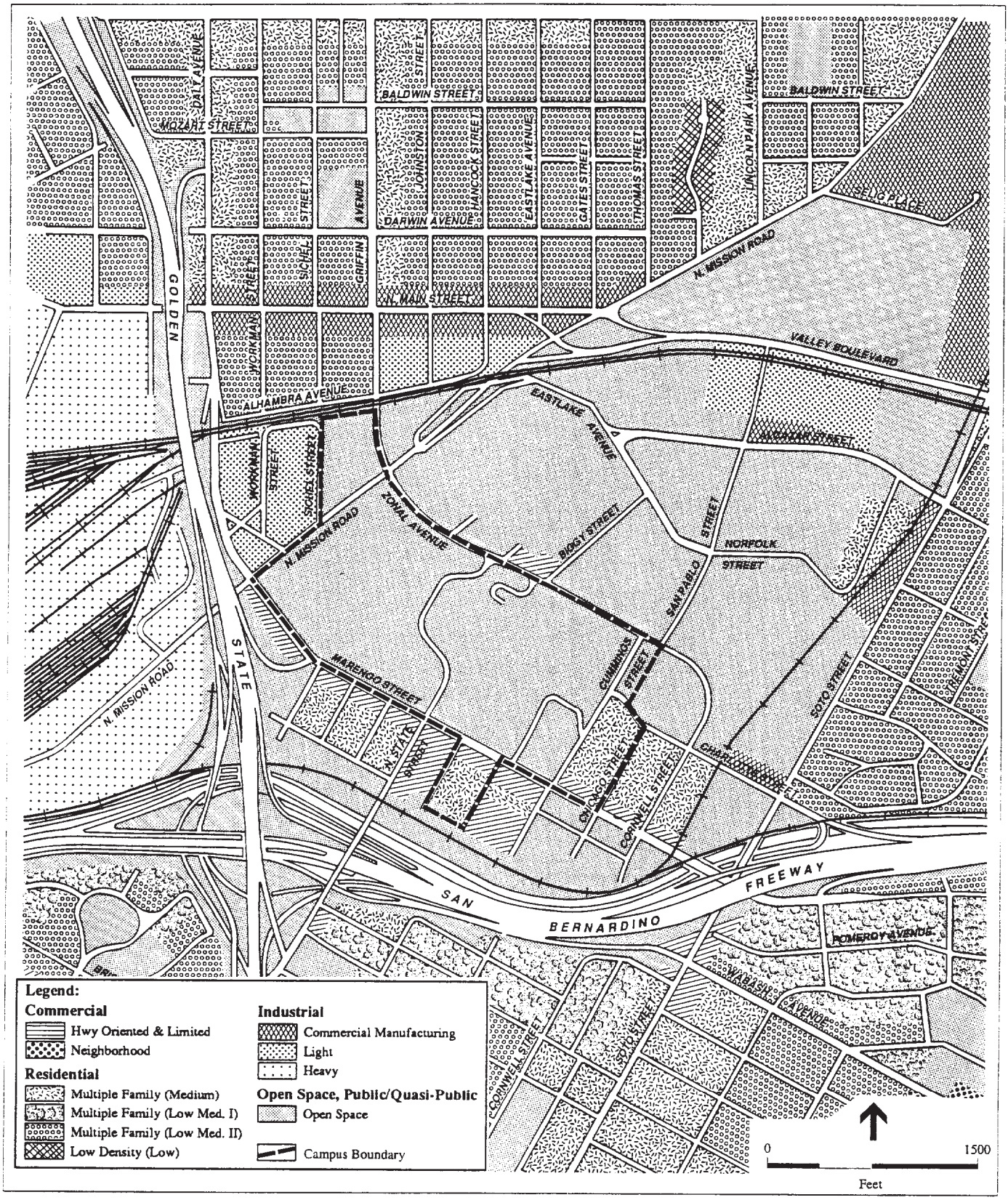
The project site is located within the Northeast Los Angeles Community Plan Area (CPA). The Northeast Los Angeles CPA contains 15,651 acres which is approximately 5 percent of the land in the City of Los Angeles. Northeast Los Angeles is located roughly east of the Golden State Freeway (Interstate 5), north of the San Bernardino Freeway (Interstate 10) and south of the Foothill Freeway (Interstate 210). The communities of Hollywood, Silverlake-Echo Park, Central City North, Boyle Heights and the Cities of Glendale, Pasadena, South Pasadena and Alhambra surround the CPA.

[4] *Los Angeles Citywide General Plan Framework EIR*, page 2.1-65.

The Northeast Los Angeles CPA identified the entire site, excluding the area east of Cummings Street, and designated it as Open Space. According to the Northeast CPA, when Open Space (if it is used for recreation or environmental protection) is proposed to be discontinued, then the proposed use is subject to approval by the decision-makers with findings consistent to the elements and objectives of the General Plan. However, the project site is a Health Care Facility and the land is not used for recreation or environmental protection.

Marengo Street is the boundary between the City's Northeast CPA and Boyle Heights CPA. Properties surrounding the project site to the south, are located in the Boyle Heights CPA, and are designated Highway Oriented and Limited Commercial allowing for a variety of commercial and retail uses; Low Medium II Residential that allows multi-family residential; Quasi-Public that permits private schools, hospitals and cemeteries; and Publicly Owned land that permits recreational facilities, schools, libraries, etc. (see Exhibit 21). Properties to the north, east and west are located within the Northeast CPA. Properties to the east of the project are designated Medium Density Residential that permits multi-family residential; Highway Oriented and Limited Commercial that allows for a variety of commercial and retail uses; and Publicly Owned land use designation that permits recreational facilities, schools, libraries, etc. Properties to the north are designated Quasi-Public, and Public. Properties to the west are designated Limited and Light Manufacturing that permits commercial manufacturing; and Low Medium II Residential that allows multi-family residential (see Exhibit 22).

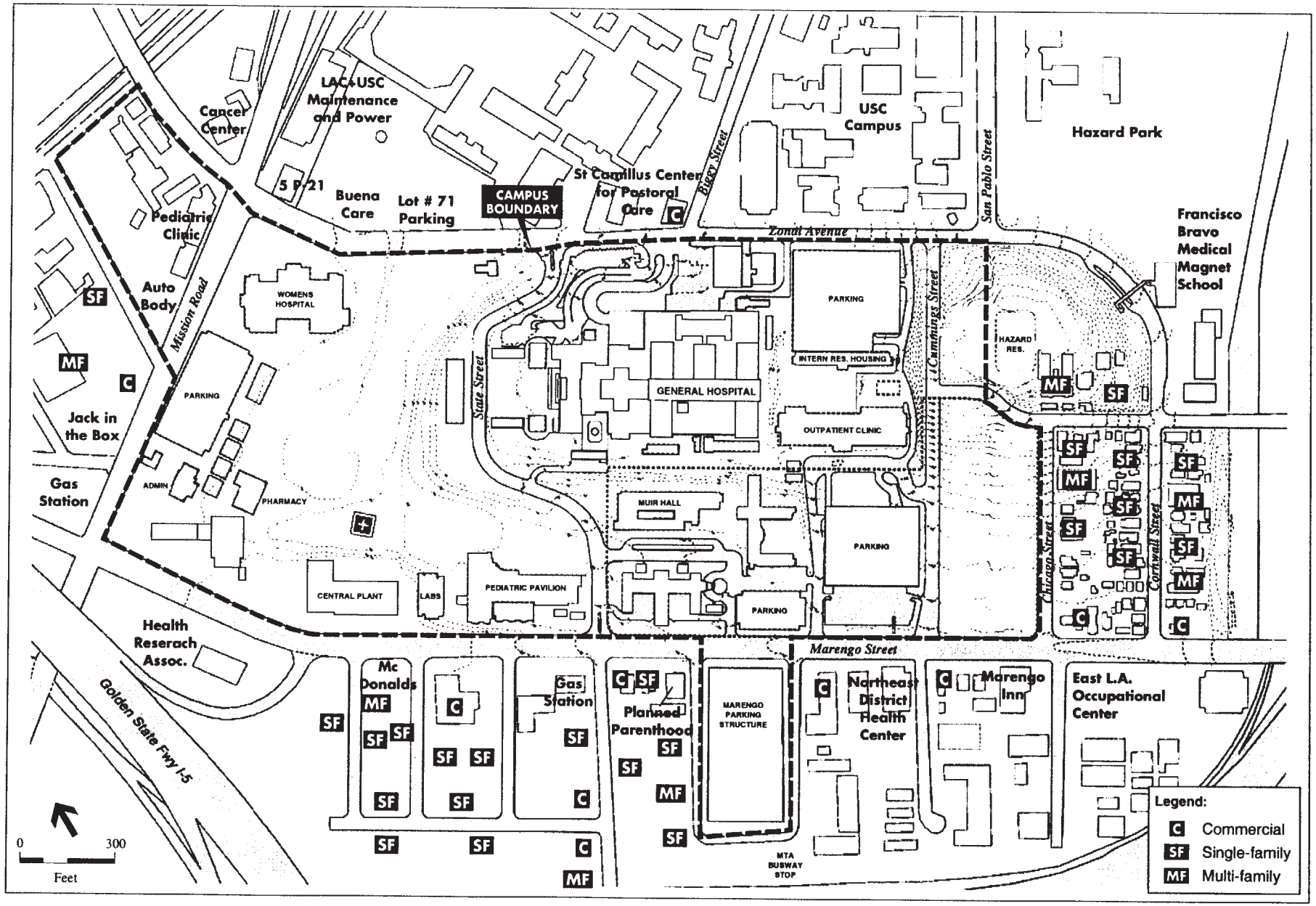
The 8 acres of land east of the Medical Center has two land use designations: south of Charlotte between Cummings Street and Chicago Street is Multi-Family Medium residential; and the land fronting Marengo Street between Cummings Street and the Chicago Street is designated Community Commercial (see Exhibit 23). The Medium Residential designation allows dwelling units of 24 to 40 units per gross acre that includes multi-family uses, home occupations or principal offices of physicians or dentists, private parking garages, child care facilities, etc. Community and Limited Commercial land use designation permits a variety of commercial office, public parking areas, retail, schools, churches, child care facilities. The Medium Residential land use designation corresponds to the R3 zone and the Community and Limited Commercial land use designation corresponding to C1, CR, C1.5, C2, C4, and P zones, and Height District No.1. The Proposed 600-Bed Alternative would close Cummings Street from Marengo Street to Charlotte Avenue. (see Exhibit 24) The 950-Bed Alternative would partially



LAC+USC Medical Center Replacement Project / 910161 ■

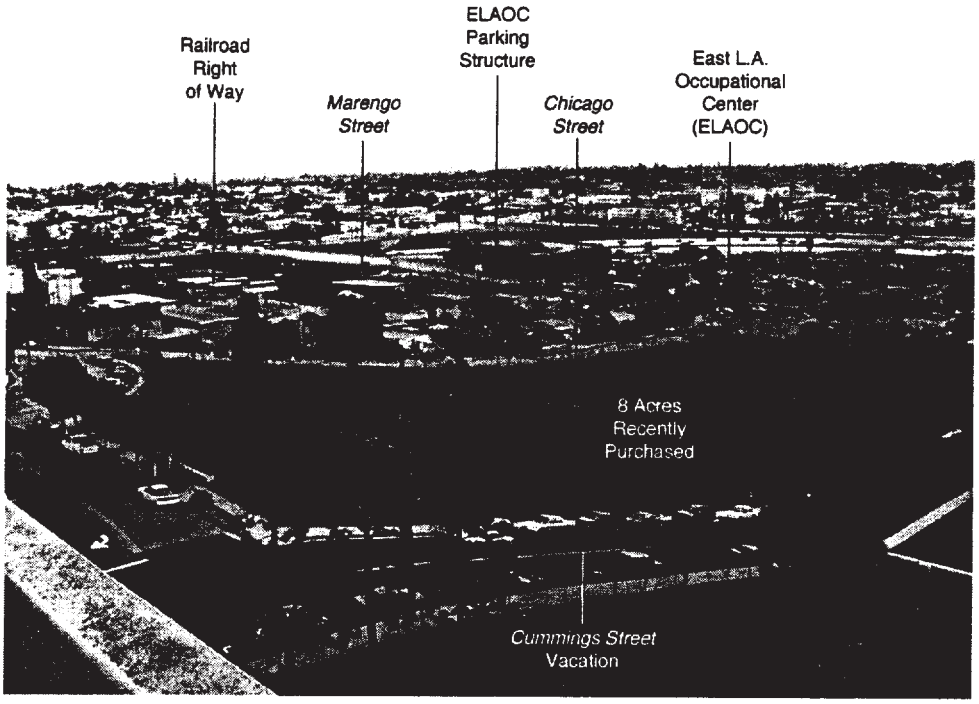
SOURCE: Plan Land Use - Northeast Los Angeles & Boyle Heights.

Exhibit 21
City of Los Angeles General Plan Land Use Designations



SOURCE: Environmental Science Associates.

Exhibit 22
Surrounding Uses in the Immediate Vicinity of the Project Site

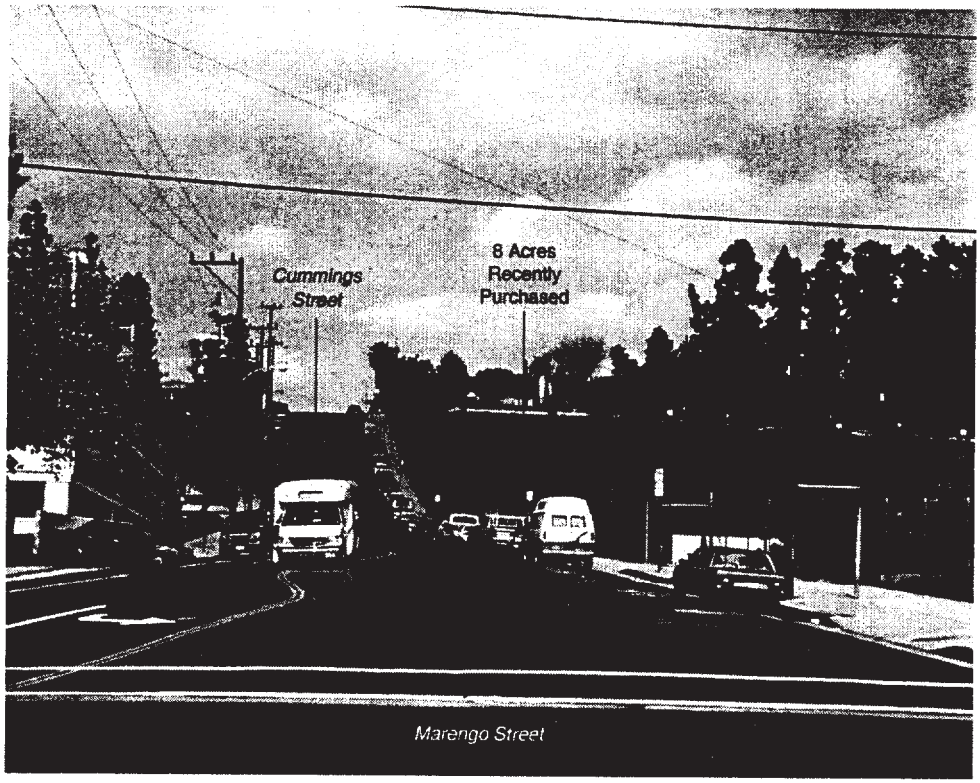


SOURCE: Environmental Science Associates

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 23

View of Project Site from General Hospital (Looking East)



SOURCE: Environmental Science Associates

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 24

View of Cummings Street Vacation - 22% Grade

close it and realign it with Chicago Street. The Northeast CPA also identifies Cummings Street as a collector street. Cummings Street does not have sufficient traffic since it lost its primary demand when residences along Cummings Street were removed. The topography and width of Cummings Street (grade of approximately 22% and width of approximately 44 feet) also does not conform to collector street standards (maximum of 6% grade and minimum width of 64 feet).

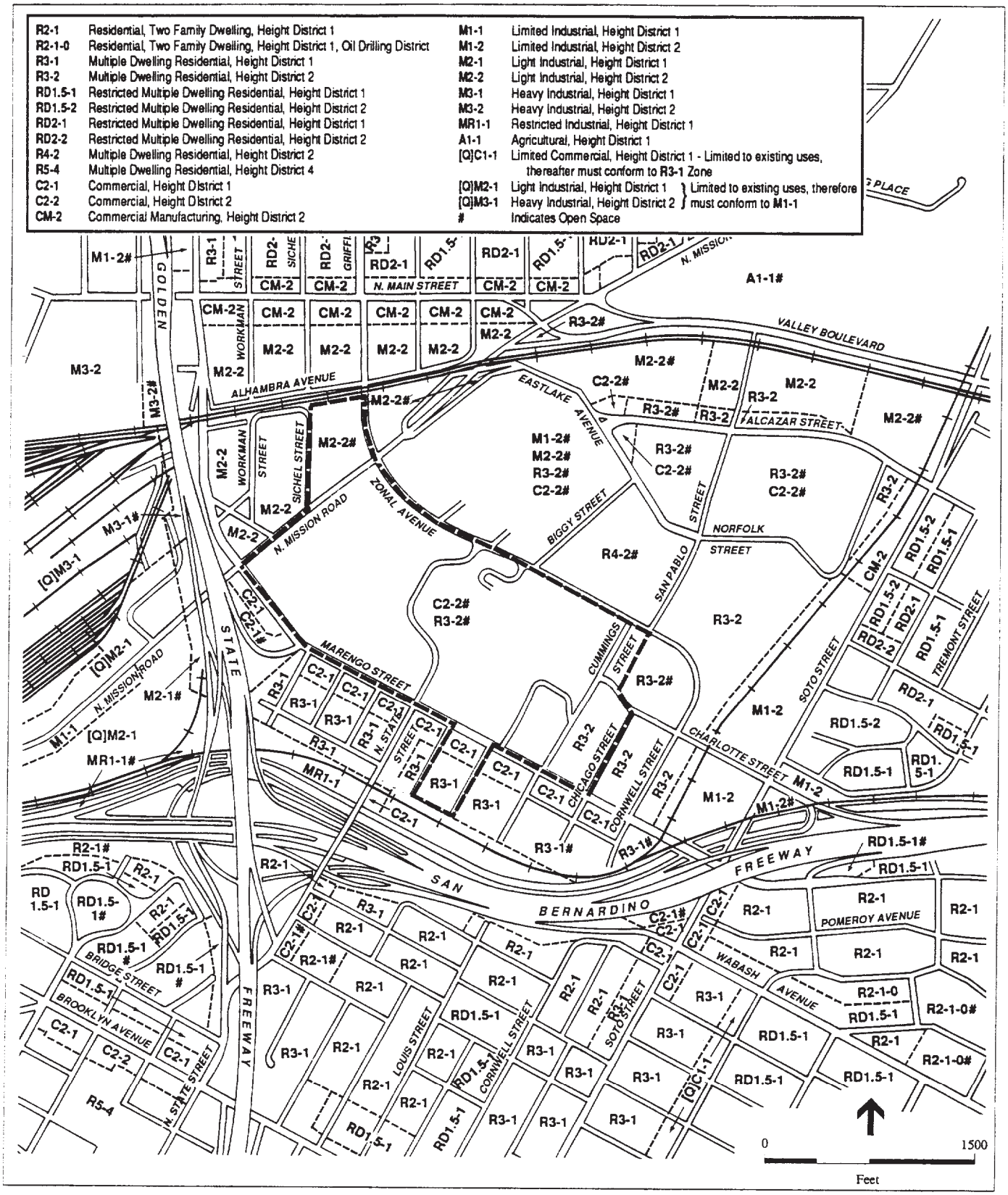
City of Los Angeles Zoning

Los Angeles zoning for the project site and the surrounding area is shown in Exhibit 25. The project site is zoned C2-2#, R3-2#, M2-2#, and R3-2. The C2-2 zone allows a variety of commercial activities including auto services, retail, churches and schools. R3-3 is a restricted density multiple dwelling zone that allows two-family apartment houses and other multiple dwellings. M2-2 is a light industrial zone designation that allows limited industrial manufacturing, mortuaries and agriculture. Height District No. 2 allows for a floor area of the main building not to exceed six times the buildable area of the lot. Height District No. 3 allows the floor area of the main building not to exceed 10 times the buildable area of the lot. Like the General Plan, the County's use of the land is not subject to regulation by the City's Zoning for the site and as such does not require a change in Zoning for approval. However, the County is required to notify the city of its project and the City responds with regard to whether the project is in conformance with its zoning classifications.

FLOODPLAIN ENCROACHMENT

Executive Order (EO) 11988 requires Federal agencies to take action to minimize occupancy and modification of the floodplain. Specifically, EO 11988 prohibits Federal agencies from funding construction in the 100-year floodplain unless there are not practicable alternatives. FEMA's regulations for complying with EO 11988 are promulgated in 44 CFR Part 9. The project site is in Zone X[5] and is located outside of any FEMA designated floodplain and is not adjacent to any watercourses.

[5] City of Los Angeles, Firm # 060137-075D, MAP 7698



SOURCE: Los Angeles City Planning and Zoning Map.

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 25

City of Los Angeles Existing Zoning Designations

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1 – NO PROJECT

The No Project Alternative assumes that LAC+USC Medical Center would remain unchanged and the facilities would not be repaired and the replacement hospital would not be constructed. The existing primary health care facilities would not be consolidated into one new hospital. The General Hospital structure would not be rehabilitated in the foreseeable future; consequently, it would not be brought up to current seismic and fire safety standards. Pediatric and Psychiatric Hospitals would be demolished. Other buildings (i.e. School of Nursing and Grad Hall), parking structures (i.e. Parking Structures # 6 and 11) and lots to clear the site would not be demolished.

In addition, the 8 acres of now-vacant land immediately to the east of the existing medical facility would not be developed. The No Project Alternative would not alter the physical arrangement of the existing structures or land uses currently in use (the closed Pediatric and Psychiatric Hospitals would be demolished and would not be replaced). The General Hospital and Women's Hospital would remain in their current states through the year 2008, when the hospitals would be required to close. As a result, the County's health care system would become extremely overloaded as there are insufficient facilities for health care. The LAC+USC Medical Center would have a significantly reduced capability to provide health care service to the residents of the City of Los Angeles and the Northeast Los Angeles community due to the required removal of General Hospital. Similar to the closures of the Pediatric and Psychiatric Hospitals, patients would have to be transferred and healthcare would have to be provided elsewhere in already overcrowded existing facilities. This alternative would not fulfill the County's objectives for hospital replacement as hospital facilities under this alternative would be closed/demolished.

As there would be no discretionary action, there would also be no enforceable mechanism to ensure maintenance of General Hospital. As a result General Hospital could fall into severe disrepair and vacancy could possibly attract crime. Existing structures, most notably General Hospital, Women's Hospital and the Outpatient Clinic, would remain, and would likely eventually be repaired and reused though their eventual function is not known at this time. General Hospital and Women's Hospital are required to close for hospital use. As a landmark

structure, it is likely that General Hospital would be renovated for new uses. However, reuse is not reasonably foreseeable at this time.

ALTERNATIVE 2 – 600-BED REPLACEMENT FACILITY (PROPOSED ALTERNATIVE)

The 600 Bed Replacement Facility would be consistent with the current land uses within the existing LAC+USC medical campus. The 1.5 million square foot 600-Bed Replacement Facility would replace General Hospital, Psychiatric Hospital, Pediatric Pavilion, Women's and Outpatient into new structures that would range in height from five to 8-stories. The number of licensed beds at the site would be reduced to 600.

There were 2,045 licensed beds on-site prior to 1994; there are currently 1,779. An assumed capacity/"functional beds" of 1,450 was analyzed as existing in the 1994 EIR and continues to be used as a basis of analysis in this document, although at the present time only 770 beds are budgeted (as a result of declining patient demand, and building obsolescence). The project would reduce the number of beds on site. Some beds would be redistributed to other County operated facilities and/or by contracting for services with other existing private or public health care providers. By redistributing beds to other medical facilities, the Countywide service would be maintained at the current level.

As shown in Exhibit 17, the existing General Hospital, Women's Hospital, Outpatient Clinic and other buildings totaling approximately 1,852,700 square feet would remain but would be closed until new uses are identified. The County could reoccupy these buildings with non-hospital uses without discretionary permits. If this were to occur, impacts in the areas of traffic and parking, air quality, noise and other issue areas would occur. No reuse options for these buildings have been identified and it is not reasonable to speculate at this time. Reuse of these buildings will be subjected to environmental review before proceeding.

In order to build the Proposed Alternative the following buildings would have to be demolished: the Pediatric and Psychiatric Hospitals, Muir Hall, Grad Hall, Parking Structures #6 and #11, and other miscellaneous buildings such as trailers totaling approximately 880,800 square feet.

The new Outpatient Clinic would house the main clinical laboratory (for blood, urine, and tissue testing), pharmacy, and medical information system to support primarily the LAC+USC Medical

Center, but also regionalized managed-care programs countywide. There would also be an emergency lab in the Diagnostic and Treatment building.

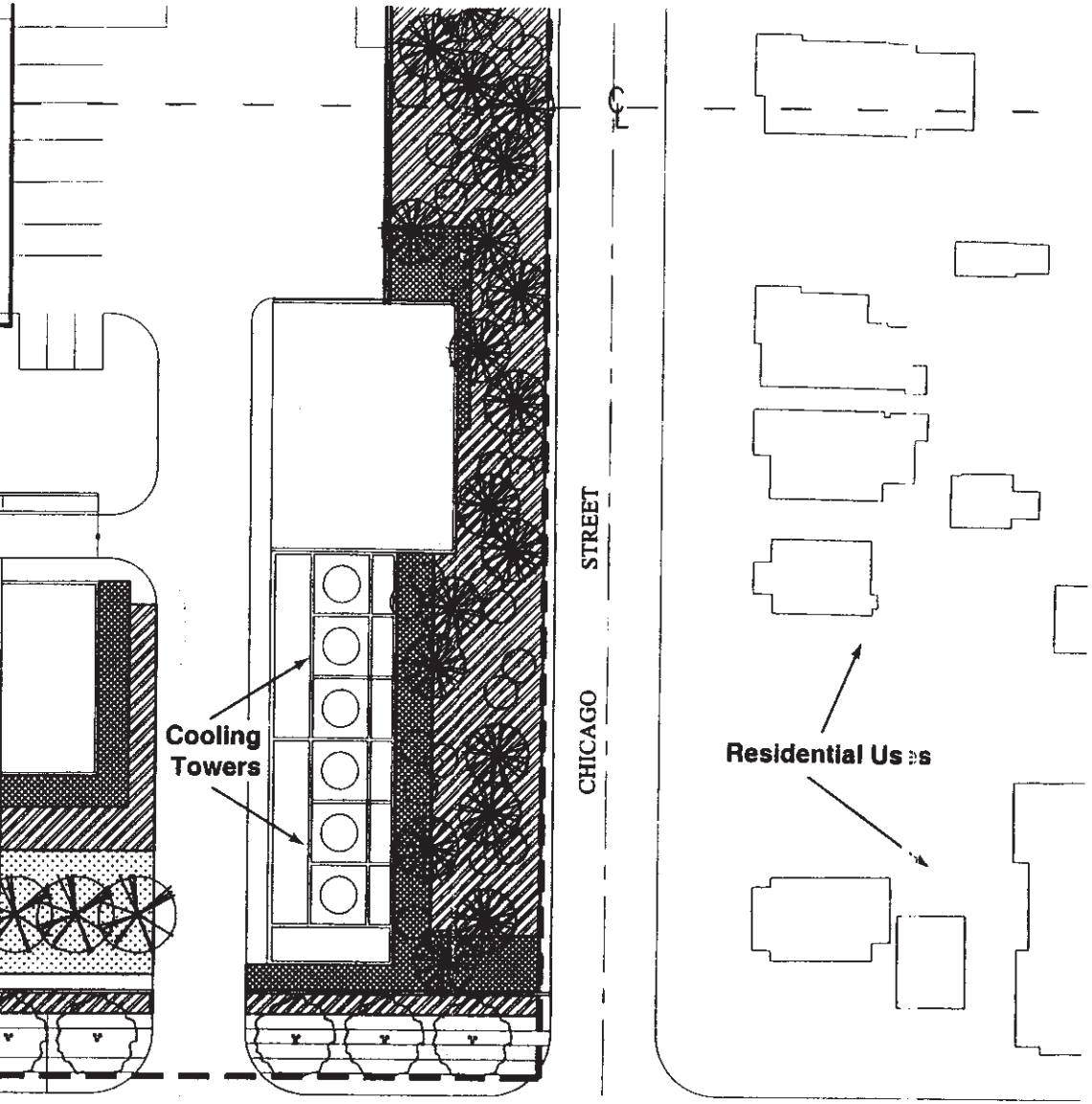
As part of the proposed project, Cummings Street would be vacated from Charlotte to Marengo Street. Cummings Street is currently designated as a "collector street". Traffic from Zonal to Marengo would be re-routed along Zonal to the east and continue south onto Cornwell to Marengo. Traffic volumes (small) would be similar to existing conditions on most adjacent streets. However, traffic on Charlotte and Chicago would likely be less than current conditions. On March 9, 1999, the County submitted its application for "Vacation of Public Right of Way" for portions of Cummings Street, and alleys between Zonal Avenue and Marengo Street (see Exhibit 7, for Cummings vacation in "hatched" area). Currently, the site plan indicates all vehicular access from Marengo and State Streets; there would be no need to utilize Chicago Street for hospital-related traffic.

A landscaped buffer zone is planned between the Medical Center and Chicago, with the Inpatient Tower set back sufficiently from adjacent residential properties. To the extent possible, the cooling tower area will also be visually screened from the residential area to the east. (see Exhibit 26)

PLANNING

SCAG's Regional Comprehensive Plan and Guide

The proposed project is a replacement project that falls within SCAG's growth projections developed for the City of Los Angeles Subregion. Further, the replacement project's alternatives are considerably smaller than the existing facility, thus the project is consistent with the RCPG. At buildout of the project in 2006, the Medical Center would contain approximately 1.47 million gsf of new hospital and ancillary service space (1,852,700 sf of existing space would remain unoccupied); thus significantly decreasing the total hospital square footage by approximately 1.6 million from the current 3.1 million gsf. As discussed, General Hospital, Women's Hospital and the Outpatient Clinic would remain, but would be closed until reuse plans are developed. At which time, appropriate environmental documentation would be prepared for the reuse plan.



PLANT LEGEND

72" BOX TREES

CHORISIA SPECIOSA
Silk Floss Tree

PLATANUS RACEMOSA
California Sycamore

QUERCUS AGRIFOLIA
Coast Live Oak

48" BOX TREES

ARBUTUS MENZIESII
Madrone

BRACHYCHITON ACERIFOLIA
Flame Tree

CINNAMOMUM CAMPHORA
Camphor

LAGERSTROEMIA 'NATCHEZ'
Crape Myrtle

METROSIDEROS EXCELSUS
New Zealand Christmas Tree

OLEA EUROPAEA
Olive

PINUS CANARIENSIS
Canary Island Pine

PRUNUS CERASIFERA 'ATROPURPUREA'
Purple-leaf Plum

36" BOX TREES

ACACIA BAILEYANA 'PURPUREA'
Bailey Acacia

CHITALPA TASHKENTENSIS
Chitalpa

DRACAENA DRAGO
Dragon Tree

EUCALYPTUS DEGLUPTA
Mindanao Gum

PALMS (30' B.T.F.)

WASHINGTONIA ROBUSTA
Mexican Fan Palm

EXISTING TREES
Species vary

SMALL SHRUBS
1 Gallon size planted 12" on center

BACCHARIS PILULARIS
Coyote Bush

COTONEASTER
Cotoneaster

KNIPHOFIA UVARIA
Red-Hot Poker

PLECOSTACHYS SERPYLLIFOLIA
'HELICHRISUM'

SENECIO MANDRALISCAE
No Common Name

TRACHELOSPERMUM JASMINOIDES
Star Jasmine

MEDIUM SHRUBS
5 Gallon size planted at 24" on center

AGAVE ATTENUATA
Foxtail Agave

DIETES BICOLOR OR VEGATA
Fortnight Lily

EUPHORBIA MILII
Crown of Thorns

PHORMIUM
New Zealand Flax

ROSA BANKSIAE
Lady Banks' Rose

ROSMARINUS OFFICINALIS
Rosemary

PITTOSPORUM TOBIRA 'VARIEGATA'
Tobira

LARGE SHRUBS
15 Gallon size planted at 36" O.C.

ECHIUM FASTUOSUM
Pride of Madiera

HETEROMELES ARBUTIFOLIA
Toyon

LAURUS NOBILIS
Sweet Bay

The Los Angeles County General Plan

The County General Plan land use designation for the existing LAC+USC campus is a Public and Semi-Public classification that allows for hospital and parking uses. The recently-acquired eight acres of residential land on the east side of the site is within the City of Los Angeles and not under the jurisdiction of the County's General Plan. Alternative 2- the 600-Bed Alternative (Proposed Alternative) incorporates this eight acres into the LAC+USC campus. The County must submit a Plot Plan to Regional Planning for their review and approval and subsequently to DPW Building & Safety prior to obtaining the permit for the OPD. It is anticipated that the land use designation for these eight acres would be designated Public Use and Semi-Public Facility in the County General Plan. Therefore, the Alternative would be consistent with the General Plan.

The City of Los Angeles General Plan

The proposed replacement facility on-site within the current boundaries of the LAC+USC campus is consistent with the goals and policies of the Northeast Los Angeles CPA. The quasi-public land use designation permits hospitals. The 8 acres of land east of the site proposed to be integrated into the LAC+USC Medical Center are currently designated Medium density residential and Highway Oriented and Limited commercial land uses. The proposed land use for this area would be inconsistent with the City of Los Angeles land use designation. The project would vacate a portion of Cummings Street and Zonal would carry most of the traffic to Cornwell and then to Marengo. Cummings Street is currently designated as a collector street, although Cummings Street has never met the standards for a collector street (grade significantly greater than 6%). However, the County's use of the land is not subject to regulation by the City's General Plan. The County is required to notify the city of its project.

In accordance with Section 65402 of the California Government Code, the County shall, prior to authorizing construction of the proposed project, submit the purpose and extent of the project to the City of Los Angeles Department of Planning and request a report from the City as to the conformity of the project with the City's adopted General Plan. This EA/EIR constitutes the County's request from the City for project review. In accordance with Section 25351 of the California Government Code, the County shall notify the City Clerk of the City of Los Angeles, in writing, at least 60 days prior to bidding the construction contract of the proposed project.

On March 9, 1999, the County submitted its application to the City of Los Angeles to vacate Cummings Street. The City of Los Angeles would be a "responsible agency" under CEQA, for purposes of allowing the street vacation, and would review this EA/EIR for the LAC+USC Medical Center Replacement Project.

ZONING

City of Los Angeles Zoning

Development of the proposed project within the existing LAC+USC campus would be consistent with the C2-2 zone designation for the site. The 8 acres to the east are currently zoned R3-2, a multiple residential dwelling zone. Uses permitted in this zone include apartment houses, group dwellings, and single family homes, as well as principal offices of physicians and dentists on lots having a side lot adjoining a lot in a commercial or industrial zone. The proposed land use for the 8 acres of land would be inconsistent with the City's zoning of the area. Like the General Plan, the County's use of the site supersedes the City' zoning ordinance, and, as such, does not require a change in the zoning designation for project approval. However, the County is required to notify the City of its project.

Physical Compatibility

The project's physical compatibility with its surrounding environment is based on an analysis of proposed uses and their on-and-off-site effects relative to ambient noise levels, lighting, transportation and parking and aesthetics. Levels of significance, based on individual analyses conducted for noise, aesthetics and lighting, transportation and parking can be used to define physical incompatibility between the project site and adjacent residential and commercial areas. The analyses of the impacts of these issues can be found in their respective sections.

Northeast Los Angeles CPA

The proposed project would replace an existing earthquake-damaged hospital facility with a new facility of smaller size and capacity at the same location. Although a strip of residential and commercial land uses exist within the immediate project area, the proposed project would be consistent with the existing character of the neighborhood, which has converted to medical and

institutional uses over time. Consequently, the project's impact on adjacent uses would not be significantly different than what has existed in the area for many years and is consistent with the General Plan and the Northeast CPA.

The County owns all the land in the 8-acre block bounded by Cummings Street, Chicago Street, Charlotte Street and Marengo Street. An adequate buffer along Chicago Street adjacent to the existing homes and apartment buildings would be established to acknowledge the sensitivity of a residential neighborhood which is in close proximity to the campus.

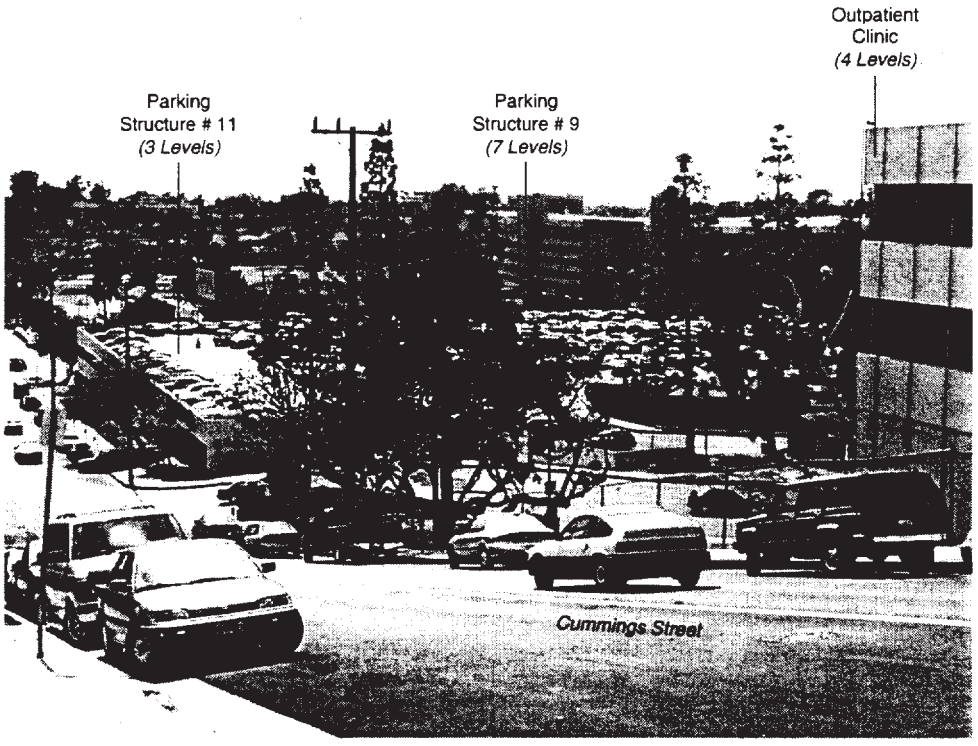
Alternative 2 would increase the density of development on the southwest of the campus and on the now-vacant 8 acres formerly occupied by residential uses between Cummings and Chicago Streets. (see Exhibit 27) Development of hospital uses along Chicago Street, the service access driveway and Central Plant cooling towers (although not physically visible, the steam and condensation would be) may impact residential uses along Chicago Street. Views would be changed (see Exhibit 28); the hospital would incorporate a 15-foot wide landscape buffer along the westside of Chicago Street which would be most visible from residence windows along Chicago Street. However, the hospital massing would be visible in the rear. Although the cooling towers would rise approximately 12 to 15 feet above grade, the proposed 12-foot wall along Chicago Street, in addition to the trees included in the landscaping, would hide the cooling towers from the residences along Chicago Street. The site topography slopes from the north to the south along Chicago Street (see Exhibit 20). The total change in grade across the site is approximately 75 feet. However, steam would rise approximately 40 feet high and would be visible from Chicago Street as well as other residences located south and east of the project site. To the extent possible, the cooling tower area would be visually screened from the residential area along Chicago Street.

Under Alternative, the replacement hospital would be located just south of the existing medical uses. Medical uses are already present to the north and west of the replacement hospital location. (see Exhibits 29 and 30) Since the construction of Alternative would not change the character of the area from the level of hospital activity, Alternative 2 would not be considered incompatible with adjacent residential uses along Chicago Street. Further, construction and operation of the Alternative 2 would not divide or disrupt (any further than has already occurred) the physical arrangement of adjacent residential land uses surrounding the LAC+USC Medical Center. Design measures have been incorporated into the design of the Alternative 2 to

LAC+USC Medical Center Replacement Project / 910161 ■

SOURCE: Environmental Science Associates

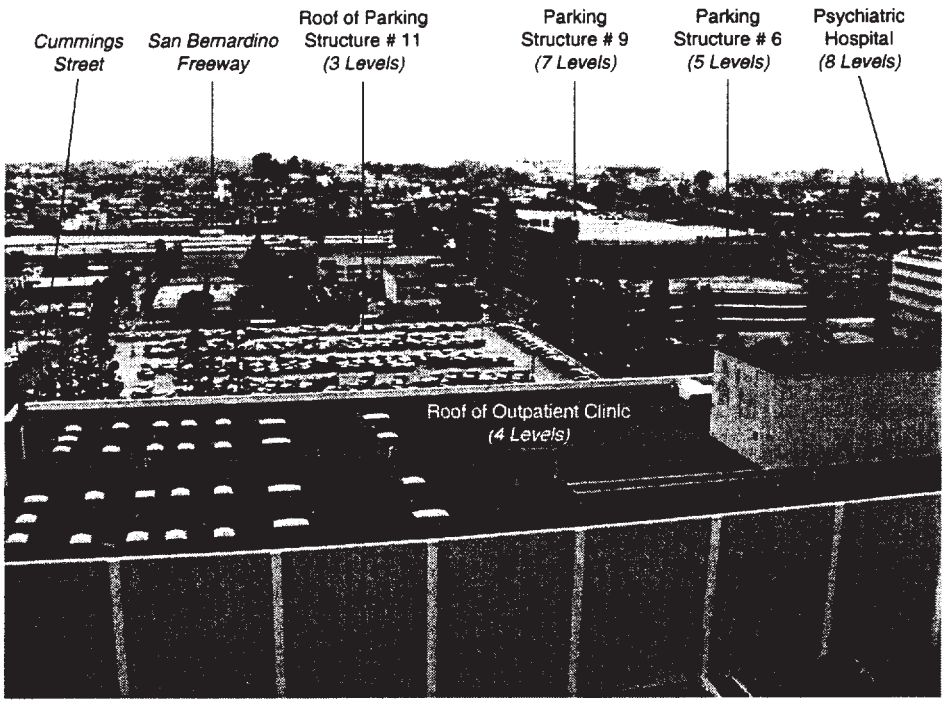
Exhibit 27
View of General Hospital from Marengo Street



LAC+USC Medical Center Replacement Project / 910161 ■

SOURCE: Environmental Science Associates

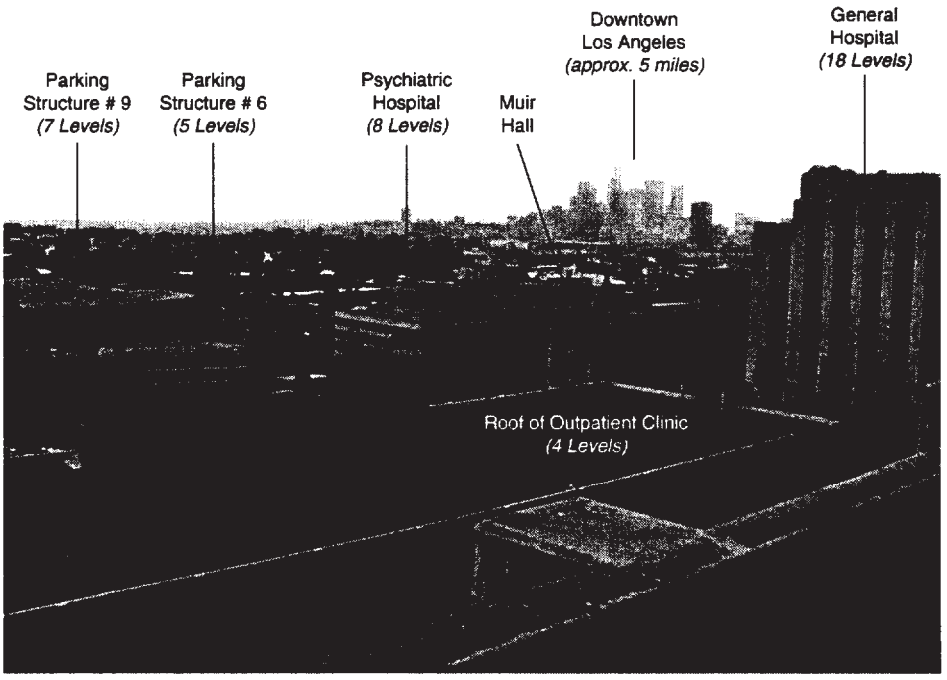
Exhibit 28
View of Project Site from Cummings Street
(Looking Southwest)



LAC+USC Medical Center Replacement Project / 910161 ■

SOURCE: Environmental Science Associates

Exhibit 29
View of Project Site from Interns & Residents Building (Looking South)



LAC+USC Medical Center Replacement Project / 910161 ■

SOURCE: Environmental Science Associates

Exhibit 30
View of Project Site from Interns and Residents Building (Looking West)

minimize the effects of the height and mass of the replacement hospital, including adequate setbacks and buffers. Currently, the site plan indicates all vehicular access from Marengo and State Streets; there would be no need to utilize Chicago Street for hospital-related traffic.

Public views of the project site would be altered as well as the views of public areas from the site. Beneficial aesthetic impacts may be related to elimination of aesthetically offensive views including the replacement of aged and closed buildings, creation of large landscaped areas and elimination of the parking structures.

As discussed, under this alternative General Hospital would close. The County would maintain this historical building as discussed in Section 4.12, Cultural Resources. Any land use impacts created by vacating General Hospital would be lessened by the mitigation provided in that section of this document.

ALTERNATIVE 3 – 950-BED REPLACEMENT FACILITY

The replacement hospital facility would be consistent with the current land uses within the existing LAC+USC medical campus. The 1.97 million square foot replacement hospital would consolidate five primary health care facilities (General Hospital, Women's Hospital, Psychiatric Hospital, Pediatric Pavilion and Outpatient Clinics) into a new structure that would range in height from six to 15-stories. The number of beds at the site would be reduced to approximately 950. The project would reduce the number of beds on site and alleviate the current strain on site by redistributing beds to other County operated facilities and/or by contracting for services with other existing private or public health care providers. By redistributing beds to other medical facilities, the Countywide service would be maintained at the current level.

Under this alternative, the proposed project would consolidate the five primary health care facilities and medical related departments currently dispersed through out the campus into one new hospital. New construction on-site would total approximately 1.97 million gsf. The Outpatient Clinic, Interns and Residents Hall, Grad Hall, and miscellaneous buildings such as trailers would be demolished. Remaining on campus would be the School of Nursing, General Hospital and about 300,000 gsf of miscellaneous buildings (a total of 1,852,700 gsf).

The Central Support Facility of this alternative would house a clinical laboratory (for blood, urine, and tissue testing), pharmacy, and medical information system to support primarily the LAC+USC Medical Center, but also regionalized managed-care programs countywide. These uses are currently scattered in different health care facilities that would be removed. The intent of the central support facility is to replace the displaced laboratories in a new facility. The estimated 95,000 gsf building would be three-to-four-stories in height and located along Zonal Avenue east of the existing MRI building in an area that is currently occupied by an old research building (since removed).

As part of the proposed project, the northern terminus of Cummings Street would be relocated approximately 30 feet east of the existing alignment. The street would curve to the east and then continue south along the current Chicago Street alignment. In addition Charlotte Street would be discontinued between Chicago and Cummings Streets. This area also includes Hazard Reservoir, a concrete covered reservoir operated by the City of Los Angeles Department of Water and Power (DWP). The reservoir would be removed during construction of the hospital. The reservoir would not be replaced. DWP's existing pipeline and augmented distribution system would provide the reservoir's function of dispensing water to the surrounding area.

Public views of the project site would be altered as well as the views of public areas from the site. Beneficial aesthetic impacts may be related to elimination of aesthetically offensive views including the replacement of aged and closed buildings, creation of large landscaped areas and elimination of the parking structures.

PLANNING

SCAG's Regional Comprehensive Plan and Guide

The proposed project is a replacement project that falls within SCAG's growth projections developed for the City of Los Angeles Subregion. Further, the replacement project's alternatives are considerably smaller than the existing facility, thus the project is consistent with the RCPG. At buildout of the project in 2006, the Medical Center would contain approximately 1.97 million gsf of hospital and ancillary service space; thus significantly decreasing the total hospital square footage by approximately 1.1 million from the current 3.1 million gsf. As discussed under this

alternative (see Table 1), numerous buildings would be demolished totaling approximately 2,467,500 square feet.

The Los Angeles County General Plan

The County General Plan land use designation for the existing LAC+USC campus is a Public and Semi-Public classification that allows for hospital and parking uses. The recently-acquired eight acres of residential land on the east side of the site is within the City of Los Angeles and not under the jurisdiction of the County's General Plan. The Proposed Alternative incorporates these eight acres into the LAC+USC campus. The County would submit a Plot Plan to Regional Planning for their review and approval and it is anticipated that the land use designation for these eight acres would be redesignated to Public Use and Semi-Public Facility. Therefore the Proposed Alternative would be consistent with the General Plan.

The City of Los Angeles General Plan

The proposed replacement facility on-site within the current boundaries of the LAC+USC campus is consistent with the goals and policies of the Northeast Los Angeles CPA. The quasi-public land use designation permits hospitals. The 8 acres of land east of the site proposed to be integrated into the Medical Center are currently designated Medium density residential and Highway Oriented and Limited commercial land uses. The proposed land use for this area would be inconsistent with the City of Los Angeles land use designation. The project would vacate a portion of Cummings Street and realign to Chicago Street. Cummings Street is currently designated as a collector street, although Cummings Street has never met the standards for a collector street (grade significantly greater than 6%). However, the County's use of the land is not subject to regulation by the City's General Plan. The County is required to notify the city of its project.

In accordance with Section 65402 of the California Government Code, the County shall, prior to authorizing construction of the proposed project, submit the purpose and extent of the project to the City of Los Angeles Department of Planning and request a report from the City as to the conformity of the project with the City's adopted General Plan. As provided in Section 65402, failure of the City planning agency to report within 40 days after the matter has been submitted to it shall be conclusively deemed a finding that the proposed project is in conformity with the

General Plan. In accordance with Section 25351 of the California Government Code, the County shall notify the City Clerk of the City of Los Angeles, in writing, at least 60 days prior to bidding the construction contract of the proposed project.

On March 9, 1999, the County formally submitted its application to the City of Los Angeles to vacate Cummings Street. The City of Los Angeles would be a "responsible agency" under CEQA, for purposes of allowing the street vacation, and would review this EA/EIR for the LAC+USC Medical Center Replacement Project.

Northeast Los Angeles CPA

The proposed project would replace an existing earthquake-damaged hospital facility with a new facility of smaller size and capacity at the same location. Although a strip of residential and commercial land uses exist within the immediate project area, the proposed project would be consistent with the existing character of the neighborhood, which has converted to medical and institutional uses over time. Consequently, the project's impact on adjacent uses would not be significantly different than what has existed in the area for many years and is consistent with the General Plan and the Northeast CPA.

ZONING

City of Los Angeles Zoning

Development of the proposed project within the existing LAC+USC campus would be consistent with the C2-2 zone designation for the site. The 8 acres to the east are currently zoned R3-2, a multiple residential dwelling zone. Uses permitted in this zone include apartment houses, group dwellings, and single family homes, as well as principal offices of physicians and dentists on lots having a side lot adjoining a lot in a commercial or industrial zone. The proposed land use for the 8 acres of land would be inconsistent with the City's zoning of the area. Like the General Plan, the County's use of the site supersedes the City' zoning ordinance, and, as such, does not require a change in the zoning designation for project approval. However, the County is required to notify the City of its project and the City will respond with regard to whether the project is in conformance with its zoning classifications.

Physical Compatibility

The project's physical compatibility with its surrounding environment is based on an analysis of proposed uses and their on-and-off-site effects relative to ambient noise levels, lighting, transportation and parking and aesthetics. Levels of significance, based on individual analyses conducted for noise, aesthetics and lighting, transportation and parking can be used to define physical incompatibility between the project site and adjacent residential and commercial areas. The analyses of the impacts of these issues can be found in their respective sections.

Implementation of Alternative 3- the 950-Bed Alternative would result in the closure of General Hospital, Women's Hospital and the Outpatient Clinic and would result in changes in land uses to the east and south of the campus as well as street vacation and demolition. The 950-Bed Alternative would increase the density of development on the southwest of the campus and on the now-vacant 8 acres formerly occupied by residential uses between Cummings and Chicago Streets. Development of hospital uses along Chicago Street may impact residential uses along Chicago Street. Views would be changed; the hospital would be most visible from residence windows along Chicago Street. However, the hospital massing would be visible in the rear. The site topography slopes from the north to the south along Chicago Street. The total change in grade across the site is approximately 75 feet. However, the hospital would rise approximately 120 feet high and would be visible from Chicago Street as well as other residences located south and east of the project site. Residences may also experience changes in traffic along Chicago Street as well as noise increases from service vehicles.

Under Alternative 3- the 950-Bed Alternative, the replacement hospital would be located just south and east of the existing medical uses. Medical uses are already present to the north and west of the replacement hospital location. Since the construction of Alternative 3- the 950-Bed Alternative would not change the character of the area from the level of hospital activity, the alternative would not be considered incompatible with adjacent residential uses along Chicago Street. Further, construction and operation of the Alternative 3- 950-Bed Alternative would not divide or disrupt (any further than has already occurred) the physical arrangement of adjacent residential land uses surrounding the LAC+USC Medical Center. Design measures have been incorporated into the design of Alternative 3 to minimize the effects of the height and mass of the replacement hospital, including adequate setbacks and buffers.

Public views of the project site would be altered as well as the views of public areas from the site. Beneficial aesthetic impacts may be related to elimination of aesthetically offensive views including the replacement of aged and closed buildings, creation of large landscaped areas and elimination of the parking structures.

As discussed, under this alternative General Hospital would close. The County would maintain this historical building as discussed in Section 4.12, Cultural Resources. Any land use impacts created by vacating General Hospital would be lessened by the mitigation provided in that section of this document.

MITIGATION MEASURES (ALTERNATIVES 2 & 3)

- The County shall properly maintain and secure General Hospital to avoid disrepair and criminal activity as identified in mitigation measures in Section 4.12, Cultural Resources.

- The County shall prepare a reuse plan for any building made vacant as a result of the replacement project, including environmental review, prior to reoccupancy.

- A landscape buffer of a minimum of 15 feet shall be maintained at the periphery of the LAC+USC Medical Center along Chicago Street.

- The cooling towers on the campus periphery along Chicago Street shall be designed to ensure that they are not visible to residences along Chicago Street.

- Development shall be designed to ensure that vehicular and pedestrian access points are oriented toward the LAC+USC Medical Center, away from the community.

- Development shall be designed to minimize impacts of light and glare on adjacent residential uses to the east.

ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 & 3)

Implementation of the mitigation measures recommended in this section would reduce any potential land use impacts to levels of insignificance.

4.3 TRAFFIC/CIRCULATION/PARKING

AFFECTED ENVIRONMENT

Background and Assumptions

In 1993, a traffic study was prepared by Kaku Associates for the originally proposed 950-Bed Replacement Project and reuse of General Hospital. This 1993 traffic study was approved and was the basis for the entitlement allowing for the implementation of several elements of the previous replacement project plan. The 1993 traffic study addressed the 950-bed facility and analyzed 16 intersections. A total of three intersection were found to be impacted by the original replacement project with 950 beds. These intersections were I-10 WB off-ramp/State Street, 10 WB on-ramp/State Street and Marengo Street/Kingston Avenue.

The build alternatives analyzed in this document are the same size or smaller compared to the 950-bed facility analyzed in the 1993 traffic study. General Hospital would not be reused under the build alternatives. Therefore, it is assumed that the build alternatives would not impact any additional intersections over and above those that were expected to be impacted by the original project (which was much larger because of the inclusion of reuse of General Hospital). Therefore, the three intersections that were significantly impacted by the original replacement project were included and analyzed in this section. The study area was expanded to include the intersections of Pomeroy Avenue/State Street, Marengo Street/State Street and Marengo Street/Brittania Street. These locations were added because of the completion of the 3000-space parking structure on Marengo Street between Kingston Avenue and Brittania Street and the creation of the new intersection of Pomeroy/State to facilitate access to this parking facility.

The following traffic analysis, which was taken from the March 1999 Traffic Study and the December 1993 Circulation Study both prepared by Kaku Associates, was developed in conjunction with City of Los Angeles, Department of Transportation staff, and the County of Los Angeles, Department of Public Works, Traffic and Lighting Division staff. Both traffic studies are on file and available for review at the LAC+USC Medical Center Replacement Project's Management Team's Office at the Interns/Resident Building.

The following traffic scenarios are analyzed in this section:

Existing Conditions - The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes an assessment of land use, streets and highways, traffic volumes, and operating conditions.

Cumulative Base Year 2007 Conditions - Future conditions will be projected for the year 2007. The objective of this phase of analysis is to project future traffic growth and operating conditions that could be expected to result from regional growth and related projections in the vicinity of the project site that are either under construction, approved for development, or under review and expected to be constructed by the year 2007 without the proposed project.

Cumulative Plus Project (Year 2007) - This is an analysis of future traffic conditions with completion of the proposed project.

The list of study intersections, shown below, were identified for analysis of the scenarios identified above and indicate the type of traffic control currently in use.

- Brittania Street and Marengo Street - T-Intersection, Signalized;
- Kingston Avenue and Marengo Street - T-Intersection, Unsignalized;
- State Street and Marengo Street - Signalized;
- State Street and Pomeroy Avenue Extension - T-Intersection, Signalized
- State Street and 10 Westbound On-ramp - T-Intersection, Unsignalized; and
- State Street and I-10 Westbound Off-ramp - T-Intersection, Signalized.

Existing Street System

Primary regional access to the LAC+USC Medical Center is provided by the San Bernardino Freeway (I-10), which runs in an east-west direction south of the project site, and the Golden State Freeway (I-5), which runs north-south west of the project site. Additional regional access is also provided by the Santa Ana Freeway, which runs in a northwest-southeast direction.

The LAC+USC Medical Center is bounded by Zonal Avenue to the north, Marengo Street to the south, Mission Road to the west, and Chicago Street to the east. The project site would occupy the southeastern portion of the campus. The existing roadways serving the project area are described below.

Zonal Avenue

Zonal Avenue is an east-west street located north of the Medical Center. Between Mission Road and State Street, Zonal Avenue provides four travel lanes divided by a continuous left-turn lane. From State Street to San Pablo Street, two travel lanes divided by a striped double yellow median are present. Metered parking is available along Zonal Avenue, and a traffic signal is present at Mission Road. East of San Pablo Street, Zonal Avenue bends southward and becomes Cornwell Street.

Marengo Street

Marengo Street is an east-west street running south of the project site. There are four travel lanes available divided by a continuous left-turn lane. Metered parking is available along portions of Marengo Street. The intersections with Mission Road, State Street, Brittania Street, and Cummings Street are signalized.

San Pablo Street

San Pablo Street is a two lane, north-south street. A striped double yellow median divides the lanes and parking is available along both sides of the street. Currently, the southern terminus of San Pablo Street occurs at Zonal Avenue.

Cummings Street

Cummings Street is a two lane street traveling in a north-south direction. A striped double yellow median is present, and parking is available on both sides of the street. Currently, the northern terminus of Cummings Street occurs at Zonal Avenue. Under future conditions with the project, Cummings Street is proposed to be down graded to a local street and vacated between Charlotte and Marengo.

Cornwell Street

Cornwell Street is a north-south street that bends westward north of Charlotte Street and becomes Zonal Avenue. Cornwell Street provides two lanes divided by a striped median. Parking is provided on the west side of the street.

Chicago Street

Chicago Street is a north-south local street providing two travel lanes. Chicago Street primarily serves the residential area north of Marengo Street and terminates at Charlotte Street. Parking is partially available on both sides of the street.

Charlotte Street

Charlotte Street is an east-west street providing two travel lanes. The western terminus of Charlotte Street occurs at Cummings Street while eastern terminus occurs at the I-10 WB ramps. Parking is permitted on both sides of the street throughout the study area. The adjacent land use consists of residential uses and the Newman Nutrition Center and bus yard just east of Cornwell Street.

Kingston Avenue

Kingston Avenue is a north-south local street providing two travel lanes. Traffic flow on Kingston Avenue is one-way in the southbound direction. Parking is permitted on the both sides of the street.

Brittania Street

Brittania Street is a north-south street providing two travel lanes. Traffic flow is one-way in the northbound direction. Parking is allowed on the east side of the street.

State Street

State Street is a private County owned north-south street west of the project site. This roadway provides two travel lanes between Zonal Avenue and Marengo Street, and widens to four travel lanes south of Marengo Street. The intersections with Marengo Street, Pomeroy Avenue, and I-10 westbound off-ramp are signalized. Parking is allowed on some portions of State Street north of Marengo Street.

Soto Street

Soto Street is a north-south street providing four travel lanes north of Marengo Street. South of Marengo Street, the roadway provides three northbound lanes and two southbound lanes. Soto Street provides a continuous left-turn lane. Parking is allowed on the east side of the street, just south of Marengo Street, but is prohibited during the afternoon peak hour. The intersections with Charlotte Street and Marengo Street are signalized.

Pomeroy Avenue

Pomeroy Avenue is a narrow east-west local street serving two-way traffic between Kingston Avenue and State Street and one-way (eastbound) between Kingston and Brittania Street. No parking is allowed on both sides of Pomeroy Avenue.

Existing Levels of Service and Traffic Volumes

The term "Level of Service" (LOS) describes the quality of flow, which ranges from A to F (A being free-flow and F being congested, forced flow). LOS A to C are usually considered to operate quite well. LOS C is normally used as a design standard for suburban areas, while LOS D is used as a standard for more densely developed urban areas. LOS E represents a volume that is at or near the capacity of the intersection or roadway and potentially will result in intermittent stoppages. LOS F occurs when the capacity is exceeded and is characterized by stop-and-go traffic with stoppages of a substantial duration. LOS D is the typically recognized minimum acceptable level of service in both the City and County of Los Angeles.

There are two methodologies used in this traffic study to conduct intersection capacity analyses. The first methodology is based on Critical Movement Analysis (CMA) procedures outlined in Circular Number 212 of the Transportation Research Board, as shown in Table 3 of the Traffic Study in the Appendix. This method was used to determine the intersection volume to capacity (V/C) ratio and corresponding level of service for the turning movements and intersection characteristics at this signalized intersection (Cummings Street and Marengo Street) in the study area.

The second methodology is based on the "Two-Way Stop Control" method (Transportation Research Board, 1985), which was used to conduct intersection capacity analyses for the two-way stop-controlled intersections, as shown in Table 4 of the Traffic Study in the Appendix. This methodology provides an estimate of the available reserve capacity and a corresponding level of service for each of the stops controlled or constrained movements at the intersection. The level of service for the most constrained movement is then reported. The level of service is related to the available reserve capacity as indicated on Table 4 of the Traffic Study.

Morning and afternoon peak hour traffic volume counts were conducted by Kaku Associates in September 1993. These volumes were adjusted to reflect the various changes that have occurred since the counts were conducted, including more than five years that have passed since the counts were taken and the completion of the parking garage on Marengo Street. The 1993 traffic volumes were adjusted to Year 1999 traffic levels by using a growth factor of one percent per year for a total of 6 percent. Additional traffic adjustments were made to reflect the effect of the closure of the Parking Structure #12 and the completion of the 3,000-space Marengo parking structure. Table 8 summarizes the existing weekday morning and evening peak hour V/C ratio or average delay and corresponding level of service at each of the six intersections. As shown in the table, all of the six analyzed intersections are currently operating at LOS C or better during the morning and afternoon peak hours, except for the State Street and I-10 westbound off-ramp intersection, which operates at LOS D during the morning peak hour.

Existing Transit Service

Currently there is substantial transit service to the project area. Several Metropolitan Transit Authority (MTA), known formerly as the Southern California Rapid Transit District, bus lines serve the LAC+USC Medical Center and surrounding area. The El Monte Busway also serves

TABLE 8: EXISTING INTERSECTION PEAK HOUR LEVELS OF SERVICE

Intersection	AM Peak Hour V/C or Delay	AM Peak Hour LOS	PM Peak Hour V/C or Delay	PM Peak Hour LOS
1. State Street and Marengo Street	0.774	C	0.698	B
2. Kingston Avenue & Marengo Street[a]	10.1	C	5.1	B
3. Brittania Street & Marengo Street	0.391	A	0.461	A
4. State Street and Pomeroy Avenue	0.499	A	0.559	A
5. State Street & I-10 WB On-Ramp[a]	7.5	B	10.1	C
6. State Street & I-10 WB off-ramp	0.817	D	0.390	A

a. This intersection is unsignalized; value shown represents vehicle delay (seconds) for the most constrained approach movement at the intersection.

Source: Kaku Associates, *Traffic Study for the LAC+USC Medical Center Replacement Project*, February 1999.

the Medical Center. Additionally, the MTA's Commuter Rail Line, Metrolink, currently runs along existing rail lines just south of the project area. Each of these transit operations is described further:

- Line 70 - is the L.A.-El Monte via Garvey Avenue local line serving downtown Los Angeles. This line originates in El Monte and travels primarily along Garvey Avenue towards downtown Los Angeles. Near the project site, bus stops are located on Marengo Street.

  Line 71 - is the L.A. City Terrace - Sybil Brand Institute local line serving downtown Los Angeles. Line 71 originates in the City Terrace area of Los Angeles and travels along Marengo Street within the project area. This line also enters the Medical Center campus, with a bus stop at the Outpatient Clinic. It should be mentioned that currently this line is planned to become one of the "Electric Trolley Bus" lines (the bus would be powered by overhead electrical lines).

- Line 250 - is the Boyle Avenue - State Street local north/south line. This line originates south of the project area and serves bus stops at both the El Monte/General Hospital Busway Station and the Outpatient Clinic.

- Line 251 - is the Lincoln Heights - Watts local north/south line. This line serves the project area off of Marengo and State Streets.

- Line 253 - is the Euclid Avenue - Evergreen Avenue local north/south line. Line 253 originates southeast of the project area and serves bus stops at both the El Monte/General Hospital Busway Station and the Outpatient Clinic.

- Line 254 - is the 120th Street - Huntington Park local north/south line. Line 254 originates near the Watts area and serves bus stops at both the El Monte/General Hospital Busway Station and the Outpatient Clinic.

- Line 255 - is the Griffin Avenue - County Hospital - Rowan Avenue local north/south line. Line 255 serves the local area to the north and south of the study area. This line travels along Marengo and State Streets and stops at the Outpatient Clinic.

- The El Monte Busway - is a high occupancy vehicle facility (buses and carpools only) which operates between El Monte and downtown Los Angeles within the San Bernardino Freeway. A busway station is provided one block south of the Medical Center. As mentioned above this busway station is served by Lines 250, 253, and 254.

- MTA's Commuter Rail Line - is a heavy rail transit line which operates along existing railroad right-of-way along the San Bernardino Freeway. Currently the Commuter Rail Line, near the project study area, operates from the eastern Los Angeles County Line to downtown Los Angeles. The nearest stations are located at California State University, Los Angeles, and Union Station. In the future, this line will run from San Bernardino County to downtown Los Angeles.

POTENTIAL IMPACTS OF ALTERNATIVES

In order to properly evaluate the potential impact of the alternatives on the local street system, it was necessary to develop estimates of future traffic conditions both with and without each alternative. Traffic projections for the Cumulative Base scenarios (representing future conditions without a replacement hospital) were developed along with forecasts for the Cumulative Plus Project scenarios (representing future conditions with the project). A list of cumulative projects was prepared based on information provided by the City of Los Angeles. (Many of these developments are located in the downtown Los Angeles area and are speculative, and are relatively remote for them to have overlapping impacts.)

The cumulative projects include 459,000 square feet of office space, 637,000 sq. ft. of retail, 179,600 sq. ft. of restaurant space, 944 hotel and motel rooms, 253 parking spaces, 464 housing units, a 9,000 sq. ft. bank, a 1.065 million sq. ft. detention facility, 102,000 sq. ft. of hospital

space, a 250-student school, and a 2,000 sq. ft. day care facility. (A map showing the locations of the projects is included in the Appendix.)

The Cumulative Base traffic projections include two elements: growth in the existing traffic volumes to reflect the effects of overall regional growth in traffic within the study area; and traffic generated by specific projects located within, or in the vicinity of, the study area. These two factors are described below.

Areawide Traffic Growth

The City of Los Angeles has estimated that the traffic in the study area has historically increased at a rate of about one percent per year. Future increases in the background traffic volumes due to regional growth and development are expected to continue at this one percent per year growth rate. The expected completion of the proposed project under either one of the two build alternatives is anticipated for 2007. Based on this completion date, the existing traffic volumes were adjusted upward by eight percent to reflect areawide regional growth.

Traffic Generation of Cumulative Projects

Future traffic volumes of the Cumulative Base were developed by adding the traffic expected to be generated by cumulative developments in the area to the existing traffic volumes with adjustment for areawide regional growth. Trip generation rates for the cumulative projects are from the Fifth Edition of the Trip Generation manual by the Institute of Transportation Engineers (ITE) or are a variation of the ITE rates (in accordance with the City of Los Angeles Department of Transportation (LADOT) procedures with some of the projects near downtown are estimated to generate trips based on 90% of the ITE rate). Trip generation for the 23 cumulative projects, on a typical weekday, are expected to total overall approximately 91,170 daily trips, of which 5,270 would occur during the AM peak hour and 8,285 during the PM peak hour. The resulting traffic volumes at the analyzed intersections for 2007 represent Cumulative Base 2007 conditions without the project under either one of the build alternatives.

Traffic Distribution

The geographic distribution of the traffic generated by the cumulative developments is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of the population from which the employees and potential patrons of the proposed developments are drawn and the location of the projects in relation to the surrounding street system. The majority of the cumulative projects are located in downtown Los Angeles. Thus the distribution pattern is primarily driven by these projects. Traffic distribution for cumulative projects is shown in the 1999 Traffic Study.

The Cumulative Base Year 2007 peak hour traffic volumes were analyzed to determine the V/C ratio and average delay for each of the analyzed intersections. As shown in Table 11, four out of the six analyzed intersections during the morning peak hour and all six analyzed intersections during the afternoon peak hour are projected to operate at LOS D or better. The intersections of State Street/Marengo Street and State Street/I-10 westbound off-ramp are projected to operate at LOS E during the morning peak hour.

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Construction Traffic

Under Alternative 1- No Project Alternative, the project as proposed would not be constructed. As a result, no change in traffic generation, distribution and circulation is anticipated to occur. However, this alternative would still include the demolition of the Pediatric and Psychiatric hospitals, which may temporarily disrupt traffic circulation in the area during site clearance and hauling of debris.

Project Traffic

Under the No Project Alternative, existing hospital facilities would continue to generate traffic until the year 2008, when these facilities are anticipated to be closed down by the County. While closure would result in the reduction in traffic generation and travel around the project site, vehicle trips would be redistributed to other County facilities in Los Angeles. There may be increased traffic volumes at other intersections in the region as a result of this redistribution

which may result in increased congestion. However, traffic impacts to local traffic would be less than significant under this alternative.

ALTERNATIVE 2 - 600-BED REPLACEMENT FACILITY (PROPOSED ALTERNATIVE)

Construction

- Construction activity for the proposed replacement project under this alternative would occur over a seven year period, during which peak activity would be for approximately 30 months. Based on data from Los Angeles County staff, it is estimated that the following construction trip generation represents the peak activity and would occur over a two and one half year period. As summarized in Table 9, trip generation estimates during construction include four types of construction truck activity and construction employee work trips. Each is described below.

- Dump Truck Activity - Peak activity by dump trucks is expected to occur between January 2001 to mid 2003. During this period, the maximum level activity would involve 80 dump truck loads on a daily basis at the site. The 80 dump truck loads would result in 160 daily truck trips, one trip into the site and one out of the site per dump load. It is estimated that this level of dump truck daily activity, i.e., 160 truck trips per day, would occur for approximately 125 non-consecutive days, with 20 trips projected to occur during the morning peak hour. The dump truck activity would start at approximately 6:00 a.m. and end by 2:30 p.m., resulting in no dump truck activity during the evening peak hour.

- Concrete Truck Activity - Concrete truck activity is estimated to average approximately 15 deliveries per day for a total of 30 truck trips per day. Concrete truck activity would start at approximately 6:00 a.m. and end by 2:30 p.m. with no p.m. peak hour activity. On days when large amounts of concrete are placed, there could be as many as 75 concrete trucks resulting 150 truck trips per day with 10 deliveries arriving during the morning peak hour. The peak times for concrete truck activity are included in Table 10.

- Steel Delivery Truck Activity - Three steel delivery trucks are projected to service the project during the peak periods of truck activity including activity for dump and concrete trucks. The steel delivery trucks arrive at the site between 9:00 a.m. and 11:00 a.m. in which they unload

TABLE 9: ALTERNATIVE 2 CONSTRUCTION TRAFFIC DURING PEAK ACTIVITY

USE	DAILY	AM			PM		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Dump Trucks	160	10	10	20	-	-	-
Steel Trucks	6	-	-	-	-	-	-
Concrete Trucks	15	10	10	20	-	-	-
Other Misc. Trucks	50	4	4	8	-	-	-
SUBTOTAL: Construction Trucks	231	24	24	48	-	-	-
Passenger Car Equivalents[a]	462	48	48	96	-	-	-
Employee Trips	600	-	-	-	-	-	-
TOTAL: Construction Traffic	1,062	48	48	96	-	-	-

SOURCE: LA County Department of Public Work

a Passenger Car Equivalents (PCE) is a conversion from trucks to their equivalent number of passenger cars, which is 2.0 per truck.

SOURCE: Kaku Associates, *Circulation Study for the LAC+USC Medical Center Replacement Project*, March 1999.

and leave during this time period. There would be six daily trips by the steel delivery trucks, but there would be no trips during the morning or evening peak hour.

- Miscellaneous Truck Activity - There would also be miscellaneous truck activity that would occur at the project site. It is estimated that approximately 50 daily miscellaneous trucks trips would occur during Phase I with 10 trips occurring during the morning peak hour. There would be no truck activity during the evening peak hour since truck activity generally ends by 3:30 p.m..

- Employee Work Trips - It is estimated that 600 daily employee trips would be generated during the peak construction period. Because of the work schedule use for construction activity, none of these employee work trips would occur during the morning or evening peak hours.

Parking would be available for construction workers on vacant parcels of land located west of the construction site. The highest number of daily construction workers is projected to occur in 2003 when there would 500 daily employees.

Project Traffic

Because this alternative would reduce the number of hospital beds from 1,450 to 600, this alternative is not expected to generate any additional trips at project buildout, as shown in Table 10. In contrast, the project under this alternative would result in fewer trips in the area at project buildout. Although the project would not create any new trips, it does include realigning and vacating streets, and relocation of parking, which would affect local traffic circulation patterns. Therefore, projections for the Cumulative Plus Project scenario were developed using the following steps and assumptions:

- The realignment of Cummings Street to the east with Chicago Street via Charlotte Street.
- The closure of Parking Structures #6 and 11 for a total loss of approximately 1,200 spaces to accommodate the replacement project.
- Relocation of the medical center drop-off areas; the outpatient drop-off would be located off of State Street and the inpatient/emergency drop-off and the main hospital drop-off would be located off of Marengo Street.

The resulting Cumulative Plus Project peak hour traffic volumes were analyzed to determine the projected future operating conditions with the proposed LAC+USC Medical Center project under this alternative.

Table 11 presents the results of the Cumulative Plus Project analysis. As shown in the table, four of the six intersections are projected to operate at LOS D or better during the morning peak hour and all of the analyzed intersections would operate at LOS D or better during the afternoon peak hour. The intersection of State Street and Marengo Street would still operate at LOS E during the morning peak hour. The Kingston Avenue and Marengo Street intersection is projected to operate at LOS F during the morning peak hour.

TABLE 10: ALTERNATIVE 2 NET NEW TRAFFIC GENERATION

Land Use	Size	Daily Trips	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Existing Hospital	1,450 beds	17,070	1,117	435	1,552	601	1,168	1,769
Proposed Medical Center	600 beds	7,060	462	180	642	249	483	732
Net change due to Replacement Project	-850 beds	-10,000	-655	-255	-910	-353	-684	-1,037
Total Credit for Displaced Units[a]	n/a	-3,165	-91	-105	-196	-142	-123	-265
TOTAL PROJECT TRIPS		**-13,165**	**-746**	**-360**	**-1,106**	**-495**	**-807**	**-1,302**

a. Taken from the Circulation Study for the LAC+USC Medical Center prepared by Kaku Associates in December 1993.

SOURCE: Kaku Associates, *Traffic Study for the LAC+USC Medical Center Replacement Project*, February 1999.

Under Cumulative Base conditions, the Kingston Avenue and Marengo Street intersection is projected to operate at LOS C during the morning peak hour. With the addition of project traffic under this alternative, the operating conditions at the Kingston Avenue and Marengo Street intersection deteriorates to LOS F. Based on this analysis, it is determined that traffic under this alternative would have a significant impact at the intersection of Kingston Avenue and Marengo Street.

Congestion Management Program Analysis

The County of Los Angeles has adopted a Congestion Management Program (CMP) to monitor and identify potential impacts of new development on the CMP roadway system. This roadway system is primarily comprised of the existing highway system in addition to regional arterials. The 1997 CMP sets forth guidelines for determining if a project has potential impacts upon the CMP system.

Within the study area, the adjacent highway system is within the CMP roadway system. This includes the San Bernardino Freeway (I-10), which runs in an east-west direction south of the project site and the Golden State Freeway (I-5), which runs north-south west of the project.

TABLE 11: INTERSECTION LEVELS OF SERVICE ANALYSIS - CUMULATIVE BASE, CUMULATIVE PLUS PROJECT CONDITIONS (WITH AND WITHOUT MITIGATION) – ALTERNATIVE 2- 600-BED ALTERNATIVE (PROPOSED ALTERNATIVE)

Intersection	Peak Hour	Cumulative Base		Cumulative Plus Project (Alternative 2)				Cumulative Plus Project (Alternative 2) with Mitigations			
		V/C or Delay	LOS	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact
1. State Street and Marengo Street	AM	0.925	E	0.927	E	0.002	No	--	--	--	--
	PM	0.867	D	0.714	C	-0.153	No	--	--	--	--
2. Kingston Avenue and Marengo Street[a]	AM	12	C	260	F	n/a	Yes	0.441	A	n/a	No
	PM	6	B	23	D	n/a	Yes	0.295	A	n/a	No
3. Brittania Street and Marengo Street	AM	0.419	A	0.382	A	-0.037	No	--	--	--	--
	PM	0.493	A	0.393	A	-0.225	No	--	--	--	--
4. State Street and Pomeroy Avenue	AM	0.603	B	0.383	A	-0.220	No	--	--	--	--
	PM	0.582	A	0.357	A	-0.225	No	--	--	--	--
5. State Street and I-10 WB On-Rampa	AM	9	B	7	B	n/a	No	--	--	--	--
	PM	14	C	8	B	n/a	No	--	--	--	--
6. State Street and I-10 WB Off-Ramp	AM	0.977	E	0.805	D	-0.172	No	--	--	--	--
	PM	0.430	A	0.321	A	-0.109	No	--	--	--	--

a. This intersection is unsignalized; value shown represents vehicle delay (seconds) for the most constrained approach movement at the intersection. Vehicle delay for this intersection would be lower.

SOURCE: Kaku Associates, *Circulation Study for the LAC+USC Medical Center Replacement Project*, March 1999.

Additional regional access is also provided by the Santa Ana Freeway, which runs in a northwest-southeast direction. No arterials within or near the study area are on the CMP roadway system.

As previously discussed, no new traffic would be generated by the project under this alternative; therefore, no traffic impact analysis of the CMP system would be required.

Circulation and Access

The outpatient drop-off/pick-up area is located on the east side of State Street north of Marengo. Short-term parking facilities are located to the north of the drop-off driveway and additional parking is located directly across from the drop-off driveway. There are approximately 274 parking spaces adjacent to the outpatient building. The drop-off area allows patients to be dropped off in front of the outpatient building with the ability to park nearby. Approximately 160 daily outpatients trips are projected with about 240 trips projected to occur during the a.m. peak hour and 160 trips projected to occur during the p.m. peak hour.

The inpatient drop-off area and short-term parking is located on the north side on Marengo Street along the inpatient and diagnostic/treatment buildings. The drop-off area is a loop system that allows drop-offs to occur with the ability to return to the parking area. The parking area contains approximately 61 parking spaces which would be for short-term parking. It is estimated that inpatient admission activity would be approximately 50 trips per day with most walk-in admissions through the emergency access area. Discharged patient activity, with approximately 170 trips per day, would occur outside of the AM and PM peak hours. Inpatient visitors are projected to generate approximately 430 daily trips, however, the visitor hours are not within the a.m. and p.m. peak hours.

Emergency access would be located on Marengo Street, south of the outpatient building. The emergency driveway is directly across Kingston Avenue Street which is the entry roadway for the 3,000 space Marengo parking structure. The emergency access is a circular loop that provides space for drop-offs and parking. Approximately 720 daily trips are projected to access the emergency driveway with approximately 108 trips occurring during the a.m. peak hour and 72 trips

occurring during the p.m. peak hour. The emergency drop-off area provides 9 short-term parking spaces.

Service vehicle access is available from a proposed driveway on Marengo Street just west of Chicago Street. The service access driveway runs along the east side of the inpatient building and would be the primary delivery point for the replacement project.

ALTERNATIVE 3 - 950-BED REPLACEMENT FACILITY ALTERNATIVE

Construction

- The trip generation estimates during construction of the replacement project under this alternative are shown in Table 12. This table represents peak construction activity which is defined as the time period when the highest amount of truck activity occurs. Project construction will occur during a seven year period, of which this peak activity represents approximately two and a half years. Each of the components of the construction traffic estimates are described below.

- Dump Trucks - Peak dump truck activity will occur between the start of construction, planned for January 2001 to mid 2003. During this time period, up to 170 dump truck loads will occur daily at the site (this represents 340 daily trips, one trip into the site and one trip out of the site). As shown in Table 2A, the daily trips are estimated to be 340, with 60 of these trips occurring during the AM peak hour. The dump trucks would start arriving at the site at approximately 7:00 AM and finish by 3:30 PM. Therefore there would be no PM peak hour trips.

- Steel Delivery Trucks - Approximately 5 steel delivery trucks will service the project. These trucks arrive at the site between 9:00 AM and 11:00 AM, unload and leave, therefore there are no AM or PM peak hour trips associated with the steel trucks. The 5 steel delivery trucks would result in 10 daily trips.

- Concrete Trucks - The concrete trucks arrive throughout the day from approximately 7:00 AM to 3:30 PM. It is estimated that: on a daily basis approximately 115 concrete truck trips

TABLE 12: ALTERNATIVE 3 CONSTRUCTION TRAFFIC DURING PEAK ACTIVITY

USE	DAILY	AM			PM		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Dump Trucks	340	30	30	60	-	-	-
Steel Trucks	10	-	-	-	-	-	-
Concrete Trucks	115	7	7	14	-	-	-
Other Misc. Trucks	80	5	5	10	-	-	-
SUBTOTAL: Construction Trucks	545	42	42	84	0	0	0
Passenger Car Equivalents[a]	1,200	90	90	180	0	0	0
Employee Trips	900	-	-	-	-	-	-
TOTAL: Construction Traffic	2,100	90	90	180	0	0	0

SOURCE: LA County Department of Public Work

Note:

a. Passenger Car Equivalents = a conversion from trucks to their equivalent number of passenger cars, as set forth in the Transportation Research Board's "Highway Capacity Manual, Special Report 209", 1985.

would occur, of which approximately 7 would occur during the AM peak hour. Due to the 3:30 end time, no PM peak hour trips are expected to occur.

- Other/Miscellaneous Trucks - It is estimated that all other truck trips to and from the site on a daily basis would total 80 truck trips, 10 AM peak hour trips, and due to the early end of construction day, no PM peak hour trips.

Similar to Alternative 2- the 600-Bed Alternative, it is anticipated that the construction workers would park their vehicles in the 3,000-space parking structure located on the south side of Marengo Street between Kingston Avenue and Brittania Street during construction of the proposed project. Parking would also be available for construction workers on vacant parcels of land located west of the construction site.

Project Traffic

Because this alternative would reduce the number of hospital beds from 1,450 to 950, this alternative is not expected to generate any additional trips at project buildout, as shown in Table 13. Similar to Alternative 2, Alternative 3 would result in fewer trips in the area at project buildout. Although the project would not create any new trips, it does include realigning and vacating streets, and relocation of parking, which would affect local traffic circulation patterns. Therefore, projections for the Cumulative Plus Project scenario were developed using the following steps and assumptions:

- The realignment of Cummings Street to the east.
- The relocation/reassignment of the current hospital parking spaces to the following areas: the proposed 3,000 space parking structure east of the new hospital, the proposed 200 space surface parking lot east of Cummings Street, 302 spaces north and west of General Hospital, and the proposed 800 space parking areas west of State Street.
- The proposed 3,000 space parking structure east of Cummings Street would have access off of Chicago Street (a parking structure entrance) and Cornwell Street. Additional access would be provided off of Charlotte Street. The proposed 200 space parking lot would have access off of Marengo Street via Cummings Street. The proposed 800 space surface parking lot would have access off of the following roadways: Mission Road, Zonal Avenue, State Street and Marengo Street. It should be noted that currently approximately 1,450 parking spaces exist where the 800 space surface lot is proposed.
- Relocation of the Medical Center drop off areas. The outpatient drop-off would be located off of Marengo Street and the inpatient/emergency drop-off and main hospital drop-off would be located off of Cummings Street. It should be noted that there is a separate drive off Marengo for ambulances and other emergency vehicles.

The resulting Cumulative Plus Project peak hour traffic volumes were analyzed to determine the projected future operating conditions with the proposed LAC+USC Medical Center project under this alternative.

Table 14 presents the results of the Cumulative Plus Project analysis. As shown in the table, all of the analyzed intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours.

TABLE 13: ALTERNATIVE 3 NET NEW TRAFFIC GENERATION

Land Use	Size	Daily Trips	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Existing Hospital	1,450 beds	17,070	1,117	435	1,552	601	1,168	1,769
Proposed Medical Center	950 beds	11,180	732	285	1,017	394	765	1,159
Net change due to Replacement Project	-500 beds	-5,890	-385	-150	-535	-207	-403	-610
Total Credit for Displaced Units[a]	n/a	-3,165	-91	-105	-196	-142	-123	-265
TOTAL PROJECT TRIPS		**-9,055**	**-476**	**-255**	**-731**	**-349**	**-526**	**-875**

a. Taken from the Circulation Study for the LAC+USC Medical Center prepared by Kaku Associates in December 1993.

SOURCE: Environmental Science Associates, 1999.

Based on the traffic analysis for this alternative, it is determined that traffic under Alternative 3- the 950-Bed Replacement Facility Alternative replacement project would not have any significant impact to any of the analyzed intersections.

Congestion Management Program Analysis

As previously discussed, no new traffic would be generated by the project under this alternative; therefore, no traffic impact analysis of the CMP system would be required.

MITIGATION MEASURES (ALTERNATIVE 2)

The following improvement is recommended as the appropriate measure required to mitigate the potential impact at the intersection of Kingston Avenue and Marengo Street:

- Signalization of this intersection would accomplish several objectives which would improve traffic conditions in the area. The driveway for emergency walk-in patients is located across Marengo Street at Kingston Avenue. Signalization of the intersection would improve the

TABLE 14: INTERSECTION LEVELS OF SERVICE ANALYSIS - CUMULATIVE BASE, CUMULATIVE PLUS PROJECT CONDITIONS - ALTERNATIVE 3
950-BED REPLACEMENT FACILITY ALTERNATIVE

Intersection	Peak Hour	Cumulative Base		Cumulative Plus Project (Alternative 3)				Cumulative Plus Project (Alternative 3) with Mitigations			
		V/C or Delay	LOS	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact
1. State Street and Marengo Street	AM	0.925	E	0.771	C	-0.154	No	--	--	--	--
	PM	0.867	D	0.690	B	-0.177	No	--	--	--	--
2. Kingston Avenue and Marengo Street[a]	AM	12	C	10	B	n/a	No	--	--	--	--
	PM	6	B	5	A	n/a	No	--	--	--	--
3. Brittania Street and Marengo Street	AM	0.419	A	0.482	A	0.063	No	--	--	--	--
	PM	0.493	A	0.513	A	0.020	No	--	--	--	--
4. State Street and Pomeroy Avenue	AM	0.603	B	0.349	A	-0.254	No	--	--	--	--
	PM	0.582	A	0.315	A	-0.267	No	--	--	--	--
5. State Street and I-10 WB On-Ramp[a]	AM	9	B	8	B	n/a	No	--	--	--	--
	PM	14	C	12	C	n/a	No	--	--	--	--
6. State Street and I-10 WB Off-Ramp	AM	0.977	E	0.863	D	-0.114	No	--	--	--	--
	PM	0.430	A	0.411	A	-0.019	No	--	--	--	--

a. This intersection is unsignalized; value shown represents vehicle delay (seconds) for the most constrained approach movement at the intersection. Vehicle delay for this intersection would be lower.

SOURCE: Kaku Associates, *Circulation Study for the LAC+USC Medical Center Replacement Project*, March 1999.

safety for all pedestrians accessing the parking structure from the north side of Marengo including those using the emergency room. A signal warrant analysis, which is fully documented in Appendix B of the Traffic Study, was conducted at this location indicating that several warrants would be satisfied justifying the implementation of this proposed improvement.

- To allow for safe access to and from the ELAOC site, the sponsor shall provide a flag person or traffic control personnel at the intersection of realigned Chicago Street and Marengo Street if required during construction. Implementation is subject to LADOT approval.

- The construction specifications shall include San Pablo, Zonal and Charlotte Avenues as off limits during Construction so a crossing guard or flag
- person shall not be required.

- The staging or queuing of construction vehicles shall be prohibited on Marengo Street in the vicinity of ELAOC; however, construction-through traffic shall be allowed.

- The project sponsor shall require the construction contractor to remove any fugitive dust from the LAUSD facilities as a result of project construction and project-related traffic.

- The intersection of Cummings/Chicago and Marengo will be signalized.

ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVE 2)

Implementation of the mitigation measure recommended in this section would mitigate project impact on operating conditions at the intersection of Kingston Avenue and Marengo Street to a level of insignificance. No other improvements are necessary as a result to the addition of project traffic.

4.4 PUBLIC HEALTH AND SAFETY/HAZARDOUS MATERIALS

AFFECTED ENVIRONMENT

Environmental contamination is generally the result of industrial and/or commercial related activities such as spilling, leaking, or dumping of hazardous materials. To determine the potential for environmental contamination on the project site, a Phase I Environmental Site Assessment was completed in January 1999; this assessment, which was conducted by Dames & Moore, included a review of available records, maps and photographs from public and private sources, a site visit, and a review of agency records. A copy of this report is included in the Appendix of this report and is summarized below.

On-Site Uses

The project site at the time of the site visit included the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, Parking Structures #6 , #11, and #12, the former Burger King Restaurant, the former strip mall, and ten trailers used for office space (in addition to General Hospital, Women's Hospital and Intern's & Residents Building).

The former Pediatric Pavilion, is an approximately 177,000 square foot eight-story building with associated asphalt parking. The building, formerly known as the Communicable Disease Building, was constructed in 1955, and was converted into a pediatric care facility in the 1970s. The building contained patient rooms, laboratories, offices, and mechanical rooms. This building has been closed since the 1994 Northridge Earthquake and appeared to be in a state of disarray, with furniture, equipment, and papers scattered throughout the facility.

The x-ray, ethylene oxide sterilizer, and virology lab equipment remain in the building. Two diesel fuel emergency generators with internal 500-gallon storage tanks were identified in the basement. Equipment and materials used for the former chemotherapy operations (on the third floor) were not observed. There are four electric elevators that service the building. Hazardous materials were also observed throughout the mechanical, x-ray, and laboratory rooms; in an x-ray room on the first floor, there were approximately 20 gallons of fixer and developer chemicals, as well as a silver recovery unit filled at half capacity (approximately 10 gallons).

Additionally, several five-gallon cans of mineral spirits, lubrication oil, paint, and gasoline were observed in the basement mechanical and storage rooms. However, evidence of spills, leaks, or other environmental concern was not noted. Significant water damage was observed in the warehouse and cafeteria kitchen areas.

There are also three administrative trailers associated with the former Pediatric Pavilion, including the Violence Intervention & Prevention (VIP) Community Center. The trailers are used for office, meeting, and storage spaces, and appeared to be occupied and operational. No hazardous materials were observed in the on-site trailers.

Muir Hall, an approximately 132,000 square foot eight-story building constructed in 1962, is currently partially used for class rooms and offices for the School of Nursing on the first, second, third, and fifth floors. The fourth, sixth, seventh, and eighth floors are currently closed due to structural damage. The basement has three mechanical rooms, a repair and maintenance workshop, and more administrative offices. Three electric elevators service the building. Hazardous materials were observed in the mechanical rooms and workshops; a canister of propane, a 10-gallon container of air conditioner oil, and six compressed oxygen cylinders were all observed. Additionally, there were several lead-acid batteries that were kept on a storage rack. Two air compressors, one active and one stand-by, were observed with compressor oil. No evidence of spills, leaks, or other environmental concerns were observed in Muir Hall during the site reconnaissance.

The former Psychiatric Hospital, is an approximately 145,300 square foot eight-story building. Similar to the Pediatric Pavilion the building has been closed since the 1994 Northridge Earthquake and appeared to be in a state of disarray, with furniture, equipment, and papers scattered throughout the building. The building was mostly used for patient rooms and administration offices, except for the seventh floor and the sub-level basement. The seventh floor was formerly used as a laboratory with a chemical and poisonous substances storage space; this floor has not been used since the early 1980s. The basement level has the former mechanical and electrical rooms for the building. Hazardous materials and empty biohazardous containers, as well as a diesel emergency generator with an internal 500-gallon tank, were observed in the mechanical room; there were several 5-gallon to 10-gallon containers of motor oil, gasoline, paint, and degreasers. Additionally, a 5-gallon metal can of 1,1,1-trichloroethane and a 30-pound container of Freon were also observed. There are three electric elevators that

service this building. No evidence of spills, leaks, or other environmental concern related to onsite equipment or materials was observed during the site reconnaissance.

There are also four administrative trailers associated with the former Psychiatric Hospital building, including a security trailer for the on-site hospital contract security. The trailers are used for office, meeting, and storage spaces, and appeared to be occupied and operational. No hazardous materials were observed in the onsite trailers.

The Grad Hall, is an approximately 53,000 square foot three-story building. Currently the building is used for outpatient psychiatric services and the administrative offices for the psychiatric services. The basement level of the building has a mechanical room, where hazardous materials are stored; several one-gallon cans of paint, approximately 20 gallons of coolant of unspecified contents, and two air compressor units with oil were observed.

To the north of the Grad Hall are two administrative trailers identified as the M.S.W. Administration Building and Home Care; these trailers are only used for administrative office space.

Parking Structure #6 is an approximately 158,500 square foot, six-level parking garage (including sublevel) located on the northern side of Marengo Street, adjacent to the east of the former Psychiatric Hospital. Parking Structure #11 is an approximately 215,000 square foot three-level parking garage and adjacent asphalt parking lot to the east of the Parking Structure #6. Parking Structure #12 is also several hundred thousand square feet and five levels, but is not currently being used due to Northridge Earthquake damage.

The parking structures (#6 and #11) are used only for parking staff and patient automobiles. No hazardous materials are used or stored in the parking areas. Typical automotive staining was observed in the parking areas. The parking structures appeared to be generally clean and well maintained.

Several buildings in the northern and eastern portions of the project site have been removed. Adjacent to the north of Parking Structure #11 was the former AIDS Clinic. This former four-story, approximately 30,000-square foot modular building was removed from its former project site in 1994 and relocated at the northeast corner of Mission and Zonal.

An estimated 30 residences east of Parking Structure #11, between Cummings and Chicago Streets, were also demolished. The parcels are vacant with exposed dirt. No visible indications of environmental concern were noted.

South of the former residences are two vacant buildings. On the northeastern corner of Marengo and Cummings Streets is a former Burger King Restaurant. On the northwestern corner of Marengo and Chicago Streets is a single-story, former multi-tenant strip mall. Former tenants included a Chinese food restaurant, a hair salon, a Pita Express restaurant, and several office spaces. Indications of the former activities were not observed during the site reconnaissance, but based on the operations known at this portion of the property, it is unlikely that hazardous materials were used, stored, or disposed. No evidence of stains, spills, or other indication of environmental concern was observed.

Recognized adverse environmental conditions were not observed at the time of the site reconnaissance. However, one underground storage tank was observed adjacent to the presently vacated Pediatrics Pavilion. The tank, which was removed in October 1998, was used to store diesel fuel for the emergency generator in the Pediatrics Pavilion. Additionally, pad-mounted transformers and light ballasts were observed throughout the project site. There is the possibility that on-site transformers, light ballasts and other electrical equipment utilize PCB-containing dielectric fluids.

Historical information about the project site indicated that the first building for the hospital was constructed in 1878. Historical information indicates that the project site has been used primarily for medical and residential buildings.

The earliest development for the County of Los Angeles Medical Center was reported to have been in the late 1870s. The Central Administrative Building was constructed in 1910 and the General Hospital (Acute Care Unit) completed in 1933. Prior to construction of the existing structures, the project site appears to have been occupied by dormitories and residences. In the current location of the former Pediatric Pavilion were a nursing school and twelve nursing dormitories. The remainder of the project site and adjacent parcels was occupied by residences or vacant land. To the northeast of the project site is the Hazard Park Reservoir.

Historical Sanborn fire insurance maps from 1951 show that most of the project site was occupied by residences. The "Los Angeles County Hospital Psychiatric Unit," constructed in 1934, was in its present configuration on the project site. To the north, the "Los Angeles County General Hospital Acute Unit" had more than doubled in size since the initial construction in 1928, and six more nurses quarters were constructed in the location of the Muir Building. The remainder of the vicinity was mostly occupied by residences. Aerial photographs and a topographic map from 1953 confirm the presence of the Psychiatric Hospital, nurses quarters, and the newly constructed Grad Hall on the project site, as well as the General Hospital off-site to the north. Also, off-site and downgradient to the southwest, near the corner of Marengo and State Streets, was a gasoline service station.

According to documentation reviewed on-site, the Communicable Diseases Unit (Pediatrics Pavilion) was constructed in 1955. Files from the City of Los Angeles, Department of Building and Safety, indicate that the Standard Oil Company constructed a new gasoline service station on the southwestern corner of Marengo and State Streets, southwest of the project site.

In 1960 and in 1964, the Richfield Oil Company received demolition and grading permits from the City of Los Angeles for the dwellings on the north side of Marengo Street, between Cummings and Chicago Streets (in the locations of the former Burger King and strip mall). A topographic map from 1966, an aerial photograph from 1968, and fire insurance map from 1970 all confirm that the Pediatric Pavilion, Psychiatric Hospital, and Grad Hall were all present on-site. The 1968 aerial photograph also indicates that the Outpatient Clinic and Interns Residence to the north, as well as the Laboratory and Central Steam Plant Buildings to the west, had been constructed. Asphalt parking was in the locations of Parking Structures #6 and #11. The remainder of the vicinity was occupied by other hospital related buildings and homes. A residential area to the north and northwest of the project site was cleared and graded for construction.

According to the 1970 Sanborn fire insurance map, the properties on the north side of Marengo Street, between Cummings and Chicago Streets, were occupied by "oil and gas" structures. These structures included a gasoline service station and an automobile repair facility (Auto Service and Jasper Wrecking & Trucking). The service station reportedly went out of business in the mid-1970s. The automotive activities were removed from the property by the end of the 1970s.

In aerial photographs from 1976, 1989, and 1994, the project site and vicinity appear mostly as they exist today. The on-site structures included the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, the AIDS Clinic, and Parking Structures #6 and #11. The former Burger King Restaurant, strip mall, and homes to the east were all visible.

Since the 1994 aerial photograph, the AIDS Clinic has been relocated and homes formerly on the eastern portion of the project site have been demolished.

Based on this review of available historical information, potential environmental concerns include the former gasoline service station and automobile repair facilities in the southeastern portion of the project site (Marengo Street between Cummings and Chicago).

Additionally, available agency database lists were reviewed for environmental concerns at on-site properties. None of the hospital buildings on the construction site were reported in available agency databases. However, several addresses affiliated with the hospital facility were listed. The gasoline service station and the automobile repair facility were included in databases indicating the presence of underground storage tanks. According to the databases, five USTs ranging in size from 200-gallons to 6,000-gallons were installed on the property in 1957 for the storage of gasoline and waste oil. No violations were reported. However, the potential exists for either of these sites to have impacted the project site.

Several subsurface investigations have been conducted at the LAC-USC Medical Center to assess whether contaminants would be encountered during construction of the new facilities for the replacement projects. Activities from these investigations have included soil, soil vapor, and groundwater investigations. These subsurface investigations have indicated the following conclusions:

- The collection of soil vapor samples is used as an indicator of potential subsurface contamination, as well as a screen for potential soil vapor-related hazards (i.e., construction worker inhalation, exposure, and explosion hazards). Of the soil vapor samples analyzed, trace amounts of volatile aromatic hydrocarbons and total petroleum hydrocarbons, including methane, were detected in the eastern and western ends of the project site. The trace levels of volatile aromatic hydrocarbons were not considered an environmental

concern. Although the petroleum hydrocarbon and methane levels are not alarming, they do present the possibility of subsurface contamination.

- Naturally occurring hydrocarbon contaminants (crude oil) were observed in the Puente Formation bedrock in all borings drilled on the project site. Analyses of these soil samples indicate that elevated hydrocarbon concentrations are due to the naturally occurring crude oil.

- The results of the groundwater investigation provided evidence of volatile organic compounds (VOC), concentrations of chloroform and methyl tertiary butyl ether (MTBE). The detections of chloroform were below the state and federal drinking water standards, or five micrograms per liter (µg/l), which is the maximum contaminant level (MCL) for chloroform. An MCL has not yet been established for MTBE, but the detected concentrations were below proposed MCLs for this compound.

Adjacent Land Uses

Surrounding existing land uses include single family residential to the east, a magnet medical senior high school (Francisco Bravo, M.D. Medical Magnet Senior High School), a park (Hazard Park), and U.S. Army Reserve base to the northeast, USC medical school, retail, and a surface parking lot, to the north, commercial/ retail, industrial and single-family and multi-family residential to the west, and commercial/retail, East Los Angeles Occupational Center, Planned Parenthood, and other county operated services to the south.

Based on the review of available agency database list for environmental concerns, facilities located adjacent to or hydraulically upgradient from the construction site with respect to the inferred groundwater flow direction are identified below. No current or former Federal National Priority List sites were reported within a 1 mile search radius of the construction site. One United States hazardous waste site (CERCLIS), one State hazardous waste site (Cal-Site), ten impacted groundwater (CORTESE) sites, and sixteen leaking underground storage tank (LUST) sites were also reported within a one-mile search radius. Seven underground storage tank (UST) sites, twenty UST Facility Inventory Database (CA-FID) sites, and ten small and large quantity generator sites were reported within a 1/2-mile search radius. Two Hazardous Waste Inventory System (HAZNET) sites were reported within a 1/8-mile search radius.

IT Corp is located at 1129 North State Street, across the street from the General Hospital. This facility is included in the CA-FID database as an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's crossgradient location, the potential for this site to have impacted the project site is low.

A business owned by Esther M. Hildago is located at 2006 Marengo Street, across Marengo Street from the project site. This facility is included in the CA-FID database as an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's downgradient location, the potential for this site to have impacted the project site is low.

The LAC+USC Medical Center is located to the north, northwest, and north east of the construction site: 1200 North State Street, 1333 San Pablo Street, 1744 Zonal Avenue, 1910 through 2025 Zonal Avenue, 1240 North Mission Road, and 1540 Alcazar Street. These addresses are included in the large quantity generator, UST, LUST, CORTESE, and CA-FID databases. The LAC+USC Medical Center has up to twelve registered USTs on-site, ranging in size from 500 gallons to 40,000 gallons, for the storage of gasoline, diesel, and waste oil.

On November 7, 1988, a release of gasoline from an UST registered to the General Hospital was reported to have impacted local groundwater. A pollution characterization study was conducted, but no remediation actions and no current status were reported in the database. Based on the upgradient location of this site from the project site, the release from the General Hospital has the potential to have impacted the project site.

On May 29, 1992, a release of gasoline from a tank registered to the LAC+USC Medical Center Molecular Medicine Unit at 1540 Alcazar Street was reported to have impacted local ground water. A pollution characterization study was conducted, and the case received closure on July 29, 1996. Based on the regulatory status of this site, the potential for this site to have impacted the project site is low.

The LAC+USC Medical Center Power Plant is located at 1635 Marengo Street, to the west of the construction site. This facility is included in CA-FID and State UST databases. The database states that there are four USTs, ranging in size from 1,000-gallons to 55,000-gallons, for the storage of diesel fuel. No violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's crossgradient location, the potential for this site to have impacted the project site is low.

The Newman Nutrition Center is located at 2310 Charlotte Street, northeast of the project site. This facility is included in the CA-FID, State UST, and small quantity generator databases. This facility is reported to have one 8,000-gallon waste oil tank. No violations are reported. Based on the absence of this facility from agency databases that would indicate a release or other environmental concern, the potential for this facility to have impacted the project site is low.

Kwik Gas and Al-Sal Oil is located at 1848 Marengo Street, within 1/8 mile southwest of the project site. This facility is included in the HAZNET, State UST, State LUST, and CA-FID databases. Between 1971 and 1978, six USTs ranging in size from 10,000 gallons to 20,000 gallons were installed at the site for the storage of gasoline. On December 1, 1993, a release of mixed waste oil was reported to have impacted local soil. Based on the media affected and the downgradient location, the potential for this site to have impacted the project site is low.

East Los Angeles Occupational Center is located at 2100 Marengo Street, across Marengo Street south of the project site. This facility is included in the CA-FID, HAZNET, and large quantity generator databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's downgradient location, the potential for this site to have impacted the project site is low.

The Bravo Magnet High School is located at 1200 Cornwell Street, approximately ¼ to ½ mile east of the project site. This facility is included in the CA-FID and the State LUST databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. On April 8, 1988, a release of an unspecified substance was reported to have impacted local groundwater. No further

information is provided. Based on the distance and crossgradient location of this site from the project site, the potential for this site to have impacted the project site is low.

The Estelle Doheny Eye Hospital is located at 1537 Norfolk Street, approximately ¼ to ½ mile northeast of the project site. This facility is included in the CA-FID and State LUST databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. On May 6, 1992, a release of an unspecified substance was reported to have impacted the local groundwater. No current status was reported. Based on the distance of this site from the project site, the potential for this site to have impacted the project site is low.

Celotex Corp is located at 1632 San Pablo Street, approximately ½ to one mile northeast of the project site. This facility is included in the Cal-Sites and LUST databases. On April 23, 1996, a release of diesel fuel was reported to have impacted local soil. Remediation activities were conducted, and the case was closed on May 13, 1997. Based on the regulatory status for the leaking tank case and the distance of this site from the project site, the potential for this site to have impacted the project site is low.

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Under the No Project Alternative, the project as proposed would not be constructed. The General Hospital and Women's Hospital would remain in their current state through the year 2008, at which time the hospitals would be required to close. Existing hospital operations would continue to use the same types of hazardous materials that are presently used and would generate the same types of hazardous waste until its closure in 2008. The Pediatric Pavilion and Psychiatric Hospital would be demolished and would not be replaced. The removal of these buildings would require the identification and removal of asbestos-containing materials (AQMD Rule 1403) and PCB-containing electrical equipment prior to demolition in accordance with local, regional, state and federal rules, regulations and laws. Additionally, since hazardous materials in numerous containers have remained in these buildings, these materials would need to be collected and properly disposed or recycled in accordance with all applicable rules and

regulations. Minimal excavation is anticipated to occur in conjunction with the demolition of these buildings.

ALTERNATIVE 2 - 600-BED REPLACEMENT FACILITY (PROPOSED ALTERNATIVE)

Similar to the No Project Alternative, the proposed demolition of the Pediatrics Pavilion and the Psychiatric Building would require the removal of asbestos-containing materials and PCB-containing electrical equipment in accordance with local, regional, state and federal rules, regulations and laws prior to demolition.

Construction of the replacement facilities under this alternative would be required to address on-site soil and groundwater contamination. Soil and groundwater monitoring at the site indicate that the site has been exposed to contamination from on-site underground storage tank leaks and naturally occurring crude oil in the bedrock (Puente Formation). Additionally, chloroform concentrations were detected on-site. Excavation during development of the site may encounter contaminated soil and groundwater. The potential for methane to reach explosive levels during construction is considered to be low. The potential to encounter significant concentrations of volatile halogenated hydrocarbons, volatile aromatic hydrocarbons, or total petroleum hydrocarbons in the soil during the excavation phase of project construction is low.

Hospital operations under this alternative would be similar to those that are presently conducted in existing medical facilities on-site. Medical services on campus would generally utilize the same types of hazardous materials that are presently used, thus generating the same types of hazardous waste.

The operation of the new replacement facility under Alternative 2 would continue to contribute hazardous materials to existing hazardous waste management (HWM) facilities in Los Angeles County. Hazardous waste generated by the project site may include contaminated soils that may be encountered during construction activities, asbestos in the existing buildings that would need to be removed prior to demolition, and medical wastes, which could adversely impact existing HWM facilities. These HWM facilities are inadequate to handle the hazardous waste currently being generated. There are numerous major existing off-site hazardous waste management facilities in the County, which accept aqueous wastes, wastes from incineration, wastes for solvent recovery, and wastes for oil recovery; specific HWM facilities that would serve the

proposed project cannot be determined at this time. It is the intention to employ these off-site facilities if necessary. However, the actual medical facilities that would generate any hazardous materials are being scaled down, and would potentially reduce the amount of hazardous materials generated.

ALTERNATIVE 3 – 950-BED REPLACEMENT FACILITY ALTERNATIVE

Similar to the Alternatives 1 and 2, the proposed demolition of the Pediatrics Pavilion and the Psychiatric Building would require the removal of asbestos-containing materials and PCB-containing electrical equipment in accordance with local, regional, state and federal rules, regulations and laws prior to demolition.

Similar to Alternative 2, construction of the replacement facilities under this alternative would be required to address on-site soil and groundwater contamination. Soil and groundwater monitoring at the site indicate that the site has been exposed to contamination from on-site underground storage tank leaks and naturally occurring crude oil in the bedrock (Puente Formation). Additionally, chloroform concentrations were detected on-site. Excavation during development of the site may encounter contaminated soil and groundwater. The potential for methane to reach explosive levels during construction is considered to be low. Additionally, the potential to encounter significant concentrations of volatile halogenated hydrocarbons, volatile aromatic hydrocarbons, or total petroleum hydrocarbons in the soil during the excavation phase of project construction is low.

The hazardous materials impacts described for Alternative 2 would also apply to Alternative 3-the 950-bed Alternative. Alternative 3 would increase on-site population compared to Alternatives 1 and 2, possibly increasing the use of hazardous materials; however, this alternative would still result in a net reduction in hazardous waste generation when compared to existing conditions.

Hospital operations under this alternative would be similar to those that are presently conducted in existing medical facilities on-site. Medical services on campus would generally utilize the same types of hazardous materials that are presently used, thus generating the same types of hazardous waste.

The operation of the new replacement facility under this alternative would continue to contribute hazardous materials to existing hazardous waste management (HWM) facilities in Los Angeles County. Hazardous waste generated by the project site may include contaminated soils that may be encountered during construction activities, asbestos in the buildings that would need to be removed prior to demolition, and medical wastes, which could adversely impact existing HWM facilities. These HWM facilities are inadequate to handle the hazardous waste currently being generated. There are numerous major existing off-site hazardous waste management facilities in the County, which accept aqueous wastes, wastes from incineration, wastes for solvent recovery, and wastes for oil recovery; specific HWM facilities that would serve the proposed project cannot be determined at this time. It is the intention to employ these off-site facilities if necessary. However, the actual medical facilities that would generate any hazardous materials are being scaled down, and would potentially reduce the amount of hazardous materials generated.

MITIGATION MEASURES (ALTERNATIVES 2& 3)

- When encountered during excavation, removal of all refined and crude oil-containing soil shall be performed in accordance with applicable regulations concerning the handling and disposal of such materials. Prior to contaminated soil removal, available off-site disposal options, which may include recycling/treatment or disposal in a landfill, shall be evaluated. The excavated materials should be temporarily stockpiled and covered with plastic sheeting at a pre-designated location on the site. If necessary, additional sampling and testing of stockpiled materials may be required for final classification and disposal.

- In areas where crude oil-containing materials were discovered, all on-site excavations shall be monitored for the potential presence of methane gas and soil contamination. The monitoring shall be performed as part of an excavation plan which should be prepared to allow excavations to proceed in an environmentally and technically safe manner with minimal interruptions and delays. The plan should describe the safe handling and/or removal of contaminated and potentially contaminated materials during excavation.

ADVERSE IMPACTS AFTER MITIGATIONS (ALTERNATIVES 2 & 3)

Implementation of the mitigation measures recommended in this section would minimize public exposure to hazardous materials to levels of insignificance.

4.5 SOCIOECONOMIC ISSUES/ENVIRONMENTAL JUSTICE

This section provides an environmental justice analysis of the LAC+USC Medical Center in accordance with Executive Order 12898. The order, signed by President Clinton on February 11, 1994, requires that:

- To the greatest extent practicable and permitted by law ... each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. [Section 1-101]

- Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, polices, and activities, because of their race, color, or national origin. [Section 2-2]

- Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public. [Section 5-5(c)]

In addition, the Presidential Memorandum accompanying the Executive Order states that "[e]ach Federal Agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by the National Environmental Policy Act of 1969 (NEPA)."

Under CEQA, a social or economic change is not considered a significant effect on the environment, except to the extent that social or economic changes lead to physical changes in the environment. Under NEPA, there must be a significant impact on the physical or natural environment for an EIS to be required. Environmental Justice issues by themselves do not change the prevailing legal thresholds for that determination.

AFFECTED ENVIRONMENT

This section provides demographic information from the Southern California Association of Governments (SCAG) on surrounding tracts that may be affected by implementation of the LAC+USC Medical Center Replacement Project. These areas include portions of unincorporated Los Angeles County and portions of the City of Los Angeles surrounding the LAC+USC Medical Center, defined by census tracts surrounding the LAC+USC Medical Center. The project site is located in Census Tract 2033. SCAG estimates indicated a total population of 2,341 persons resided in this census tract in 1994 and projects a population of 2,555 in 2000. Approximately 82% are minority and 8% are over 50 years of age.

According to the 1990 Census, approximately 74% of the units are rented, which is above the County (51.8% of occupied housing units) and City (60.6% of occupied housing units) ratios. Additionally, incomes of the residents in the project are substantially lower than county-wide averages; the 1992 median income for affected residents is estimated at $30,000 per year for a family of four, while the 1992 Los Angeles County median income for a family of four is estimated at $42,000 per year. Further, although the median income for affected residents is $30,000 per year, the mean income is only $17,280 per year.[6]

COUNTY OF LOS ANGELES

The LAC+USC Medical Center is located in the City of Los Angeles in incorporated Los Angeles County, about five miles east of downtown Los Angeles. According to the 1990 Census, the Los Angeles County population was 8,863,164 and the median income was $34,965 with approximately 15% of all families below poverty level. Approximately 59 percent of Los Angeles County residents are minorities and 41 percent are non-Hispanic whites (see Table 15). As a percentage of total population, Los Angeles County has higher minority residents than the State of California (43 percent) as a whole.

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[6] Los Angeles County, Internal Services Department, Relocation Plan for LAC+USC Medical Center Replacement Hospital Project, June 1992.

TABLE 15: LAC+USC MEDICAL CENTER ENVIRONMENTAL JUSTICE DEMOGRAPHIC SUMMARY

Jurisdiction	1994 Population	Black	Asian	Other[a]	Hispanic	Percent Minority[b]	Percent Non-Hispanic White	Percent Persons below Poverty Level[c]
Adjacent Census Tracts								
1999	3,008	0	505	33	2,258	93	7	19
2031	5,972	23	44	0	5,563	94	6	19
2033	2,341	276	245	0	1,390	82	18	19
Northeast Los Angeles CPA	238,300	4,766	38,128	2,383	152,512	82	18	19
Los Angeles County (1990)	8,863,164	946,862	924,291	51,173	3,306,116	59	41	8

[a] "Percent other" aggregates the census classification for persons of American Indian/Eskimo/Aleut and other races.

[b] "Percent minority" includes persons of non-white racial groups (black, Asian/Pacific Islander, American Indian/Eskimo/Aleut, and other) and of Hispanic ethnic origins.

[c] Poverty level is defined by the U.S. Bureau of Census as a function of household income, household size, and persons in household under 18 years of age.

SOURCE: Southern California Association of Governments

General Hospital

Los Angeles County has experienced tremendous growth over the last decade and this growth rate is expected to continue. During this same time period, the minority and elderly populations also experienced tremendous growth. However, the elderly are not a significant user of LAC+USC Medical Center.[7] This lower use rate of the elderly group reflects increased access to health care providers afforded by Medicare. LAC+USC Medical Center's service population is young, minority and poor. Table 15 shows the patient count by ethnicity at LAC+USC Medical Center for 1996-1997 (the last count available). As shown in Table 16, LAC+USC Medical Center's patient count is 90% minority, significantly higher than the County average.

Northeast Los Angeles Community Plan

The 1990 population of the Northeast CPA is 82 percent minority and 18 percent non-Hispanic whites. The minority population in the LAC+USC Medical Center vicinity is higher than that of Los Angeles County as a whole (59 percent), and significantly higher than for California as a whole (43 percent). The Northeast Los Angeles CPA had a 1990 poverty population of 45,454 persons.

POTENTIAL IMPACTS OF ALTERNATIVES

Since the LAC+USC Medical Center Facility is located in an area with a high minority population and a significant proportion of the population is below the poverty level, any change in the facility operation has the potential to affect these communities. The Northeast and Boyle Heights Community Planning Area (CPA) neighborhoods surrounding the LAC+USC Medical Center are currently affected by ongoing operations at the LAC+USC Medical Center which currently generates air emissions, noise, visual impacts, land use, and traffic. The impact on these issue areas of the three alternatives is treated elsewhere in this analysis and has been shown to be minimal. Thus, impacts on minority and low-income populations of the area would not change substantially.

[7] Medical Planning Associates, 1990.

TABLE 16: LAC+USC MEDICAL CENTER PATIENT COUNT BY ETHNICITY

Race	Patient Count	% of total
Asian	10,177	4.2
Black	27,124	11.2
Filipino	240	.1
Hispanic	173,084	71.8
Native American	441	.2
Other	5,522	2.3
Unknown	1,705	.7
White	22,890	9.5
	241,183	100

Percent Minority 90.4

Percent Non Hispanic White 9.6

SOURCE: LAC+USC Medical Center, 1999.

The temporary impacts due to construction activities, according to NEPA Law and Litigation § 8:49, "are not significant effects that require an environmental impact statement." These impacts have also been addressed elsewhere and have been found not to be significant. Beyond the impacts mentioned to this point, the two areas with the greatest potential for impact to these communities relate to the change in available medical service and the loss of available jobs. These two areas are addressed in the discussion of each alternative.

Alternative 1 – No Project Alternative

Under this alternative, the LAC+USC Medical Center would remain in disrepair and would close in 2008 at the latest. The LAC+USC Medical Center is a county-owned facility and as such is the primary provider of health care services to the poor and minority populations of the

surrounding community. If the LAC+USC Medical Center is closed, the emergency services, for which the LAC+USC Medical Center is a major county-wide provider, would be significantly reduced not only throughout the community, but the county as well. If the LAC+USC Medical Center is closed, patients could have to travel to another facility. The nearest County facility, King/Drew Medical Center, is approximately 15 miles away. The primary users of LAC+USC Medical Center are the poor (19%) and minority populations (90%). In addition, the neighborhood employment that this facility provides would also be lost or displaced to areas beyond this local community. While there would be no significant construction impacts from the No Project Alternative, the health service and employment loss from closing the facility would likely have significant impacts on low-income and minority populations.

Alternative 2 – 600-Bed Replacement Facility Alternative (Proposed Alternative)

Operation under Alternative 2 would result in generally less air, noise, and traffic impacts compared to existing conditions. Construction of the new facility would result in short-term impacts to air quality, noise, and traffic. The Proposed Alternative would not further (beyond what has already occurred) displace existing housing or businesses. No long-term significant physical impacts would occur, and residents along Chicago Street and in the LAC+USC Medical Center vicinity would not be affected by the physical improvements outlined by this alternative. There is the potential for the diminution of available medical services under this alternative. The lower number of beds would be balanced by changing healthcare industry trends, improved medical treatment technology, shorter length stays and continued shifts to outpatient care. The county plan shows available beds in other county facilities and private hospitals that could absorb the projected additional need for beds. Therefore, while fewer beds might have some effect, the means has been identified to reduce that impact below significance. Approximately 25% of the patient population of the Medical Center comes from beyond the immediate service area of the Medical Center. In considering the transfer of excess patients it has been demonstrated (in the April 1998 Plan to Consolidate, Integrate and Expand DHS Health Delivery System, by Zaretsky) that many of these patients could be located in a facility closer to their home, thus mitigating the impact of relocating these patients. The other area of potential adverse impact relates to jobs lost by downsizing the facility. There is a projected loss of about 1,870 jobs for this alternative (from over 7,000 to 5,130 employees), considerably less than with the No Action Alternative. Since this proposal has a horizon of 6 to 8 years, there is ample time for

the reduction in jobs to be handled by normal attrition, and transfers to other County facilities, thereby not adversely impacting the Center's employees.

Alternative 3 – 950-Bed Replacement Facility Alternative

Although this project is bigger than the Proposed Alternative, it is smaller than the existing facility. The potential effects on the minority and low-income communities would be of the same nature as those described in Alternative 2, but in differing degrees. The short term impacts would be greater because of the increased size. The long-term impacts could potentially be somewhat less than the Proposed Alternative because of the larger capacity except that County funds are not available to operate a facility of this size.

Mitigation

To assure that the impacts to on minority and low-income populations are held below a significant level, the following mitigation measures, if necessary, will be taken:

- LAC+USC Medical Center will devise a procedure whereby transferred patients are given a priority to a facility closer to their home if capacity is the issue. Also, contracts will be put in place with area private hospitals to provide beds for those patients that cannot be served in the existing county facilities.

This mitigation measure does not replace or nullify any mitigation measures that were required to address environmental justice impacts (for example the required housing mitigation) resulting from actions by LAC+USC Medical Center prior to the earthquake of 1994.

4.6 AIR QUALITY

Climate and Meteorology

Air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions which influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The project site is located within the South Coast Air Basin, which incorporates approximately 12,000 square miles, consisting of four counties -- San Bernardino, Riverside, Los Angeles, and Orange -- including some portions of what used to be the Southeast Desert Air Basin. In May 1996, the boundaries of the South Coast Air Basin were changed by the California Air Resources Board (ARB) to include the Beaumont-Banning area. In addition, the Southeast Desert Air Basin was separated into two areas and renamed as the Mojave Desert Air Basin and the Salton Sea Air Basin. The distinctive climate of the South Coast Air Basin is determined by its terrain and geographic location. The basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

The vertical dispersion of air pollutants in the South Coast Air Basin is hampered by the presence of persistent temperature inversions. High-pressure systems, such as the semi-permanent high-pressure zone in which the basin is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and resulting in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog. The basin-wide occurrence of inversions at 3500 feet above sea level or less averages 191 days per year.[8]

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8 South Coast Air Quality Management District, *CEQA Air Quality Handbook*, April 13, 1993.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and low inversions produces the greatest concentration of air pollutants. On days without inversions, or on days of winds averaging over 15 mph, smog potential is greatly reduced.

Air Quality Regulations, Plans and Policies

State and federal agencies have set ambient air quality standards for certain air pollutants. National Ambient Air Quality Standards (NAAQS) have been established for carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), and lead (Pb). The state has established ambient air quality standards for these and other pollutants; the state standards are more stringent than the corresponding federal standards.

Areas are classified under the Clean Air Act as either "attainment" or "non-attainment" areas for each criteria pollutant, based on whether or not the NAAQS have been achieved. The South Coast Air Basin is designated a non-attainment area for O_3, CO and PM_{10}; the air basin is classified as an attainment area for NO_2, SO_2, and Pb.

In California, the Air Resources Board (ARB) regulates mobile emission sources and oversees the activities of County Air Pollution Control Districts (APCDs) and Regional Air Quality Management Districts (AQMDs). The South Coast Air Quality Management District is the regional agency empowered to regulate stationary sources in the South Coast Air Basin. The SCAQMD develops and enforces air quality regulations for stationary sources, issues permits for new and modified facilities, participates in air quality planning and operates a regional air quality monitoring network.

The Basin's first Air Quality Management Plan (AQMP), adopted in 1979, established air pollution control strategies intended to attain federal air quality standards by the December 31, 1987 deadline specified by the Clean Air Act Amendments of 1977. Using better data and modeling tools, the 1982 Revision of the AQMP concluded that the Basin could not demonstrate attainment by the 1987 deadline required by the federal Clean Air Act. Therefore, the 1982 Revision of the AQMP proposed a long range strategy that could result in attainment in 20 years. In 1987, a federal court ordered the U.S. Environmental Protection Agency to

disapprove the 1982 AQMP Revision because it did not demonstrate attainment of the federal standards by the 1987 deadline.[9]

The 1989 Air Quality Management Plan was adopted locally by the SCAQMD in March 1989, and was approved by the ARB in August 1989. Since March 1989, the 1989 AQMP has become the framework for all future air pollution control efforts in the South Coast Air Basin. The portions of the Plan that are necessary to meet the Clean Air Act requirements will become part of the State Implementation Plan (SIP) revisions. This will include rules and regulations which have already been adopted, along with commitments to study, adopt and implement many other measures.[10]

The attainment strategy for the Final 1989 AQMP involves the implementation of control methods, which are categorized into three tiers, depending upon their readiness for implementation. Tier I control measures are defined as those that can be adopted in the next five years with currently available technological applications and management practices.

Implementation (and construction) of these measures will occur over the next twenty years. Many of these measures were included in the 1979 and 1982 AQMPs. It is anticipated that Tier I control measures would result in meeting the federal NO_2 and CO standards. Tier II, expected to be implemented in the next ten to fifteen years, requires further advancement or improvement of existing ozone and PM_{10} control technologies. New technological applications not presently on the market are required, but these could be expected to develop through continuous improvements and refinements to products currently available. It is anticipated that Tier II control measures would result in meeting the federal PM_{10} standards. Neither Tier I nor Tier II are expected to result in attainment of the ozone standards, although significant improvements are anticipated. Tier III programs are designed to bring about technological breakthroughs to reduce reactive organic gas emissions in order to fully achieve the ozone standard. These programs are directed at the sectors where significant emissions still exist after implementation of Tiers I and II.[11]

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9 South Coast Air Quality Management District and Southern California Association of Governments, *Final 1989 Air Quality Management Plan*, March 1989.

10 *Ibid.*

11 *Ibid.*

In July 1991, the SCAQMD and SCAG adopted an AQMP for the Basin which revised the 1989 AQMP. The 1991 AQMP continued an aggressive emission control program using the three-tiered format that was established by the 1989 AQMP. Tier I are measures with known, available control technologies. Tier II measures are based on control technologies foreseen to occur around the year 2000. Tier III measures require the advancement of technologies after 2000. The 1991 AQMP proposed a comprehensive set of control measures that included the use of advanced technologies for stationary and mobile sources. The tiered strategy planned for adoption of most control measures within several years after the Plan approval, while others required more time due to the need for advances or breakthroughs in technology.[12]

In 1994, the SCAQMD and SCAG updated the 1991 AQMP. Each revision of the AQMP represents a snapshot in time, based on best available information. The 1994 AQMP generally follows the structure of the 1991 AQMP with many enhancements. Key new elements included improved emissions inventories, emphasis on alternative approaches to emissions control, enhanced photochemical modeling, etc.[13]

Acting under orders from federal courts, which required the EPA to promulgate a plan to demonstrate compliance with the Clear Air Act's ozone and carbon monoxide standards, the EPA issued the proposed Federal Implementation Plan (FIP) for Sacramento, Ventura, and the South Coast Air Basin on February 15, 1994. This FIP, which was finalized by the U.S. EPA on February 14, 1995, was intended in part to stimulate state and local efforts to achieve clean, healthy air for the citizens of California. However, this federal plan was rescinded by the U.S. Congress in April 1995.

In 1997, the SCAQMD and SCAG prepared another update to the AQMP to satisfy the planning requirements of both the Federal Clean Air Act and the California Clean Air Act. The 1997 revision to the AQMP incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, and new models. This Plan is consistent

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12 South Coast Air Quality Management District and Southern California Association of Governments, *Final 1991 Air Quality Management Plan*, March 1991.

13 South Coast Air Quality Management District and Southern California Association of Governments, *Final 1994 Air Quality Management Plan: Meeting the Clean Air Challenge*, April 1994.

with the approaches taken in the 1994 AQMP for the attainment of the federal ozone air quality standard and shows that with refinements to the 1994 AQMP control strategy, sufficient emission reductions are achieved to meet all federal criteria pollutant standards within the time frames allowed under the Federal Clean Air Act.[14]

Existing Air Quality

The SCAQMD maintains an air quality monitoring station in downtown Los Angeles at 1630 North Main Street, about one mile northwest of the project site. A five-year summary (1993-1997) of data collected at this station is shown in Table 17 and compared with the corresponding state ambient air quality standards.

Ozone (O_3). The most pervasive air quality problem in the South Coast Air Basin is high O_3 concentrations. Ozone is not emitted directly, but is a secondary pollutant produced in the atmosphere through a complex series of photochemical reactions involving hydrocarbons (HC) and nitrogen oxides (NO_x). Significant O_3 production generally requires about three hours in a stable atmosphere with strong sunlight. Ozone is a regional air pollutant because it is transported and diffused by wind concurrent with the photochemical reaction process. Motor vehicles are the major source of ozone precursors in the basin. During late spring, summer, and early fall, light winds, low mixing heights, and abundant sunshine combine to produce conditions favorable for maximum production of O_3. Ozone causes eye and respiratory irritation, reduces resistance to lung infection, and may aggravate pulmonary conditions in persons with lung disease. Ozone is also damaging to vegetation and untreated rubber. The state one-hour ozone standard was exceeded on an average of 30 days per year in downtown Los Angeles from 1993 through 1997.

Carbon Monoxide (CO). Carbon monoxide is a non-reactive pollutant emitted primarily by motor vehicles. Ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic and are also influenced by meteorological factors such as wind speed and atmospheric mixing. When strong surface inversions formed on winter nights are coupled with near-calm winds, CO from automobile exhaust becomes concentrated. The highest CO levels within the South Coast Air Basin are almost always measured during the winter. Carbon monoxide interferes with the transfer of oxygen to the blood. It may cause dizziness and

14 South Coast Air Quality Management District, *1997 Air Quality Management Plan*, November 1996.

TABLE 17: PROJECT AREA AIR POLLUTANT SUMMARY, 1993-1997[a]

Pollutant	Standard	1993	1994	1995	1996	1997
Ozone (O_3)						
Highest 1-hr average, ppm/b/	0.09/c/	0.16	0.19	0.17	0.14	0.12
Number of standard excesses/d/		34	49	38	24	6
Carbon Monoxide (CO)						
Highest 1-hr average, ppm/b/	20.0/c/	9.0	11.0	10.0	10.0	9.0
Number of standard excesses/d/		0	0	0	0	0
Highest 8-hr average, ppm/b/	9.1/c/	6.8	8.6	8.4	8.5	7.9
		0	0	0	0	0
Nitrogen Dioxide (NO_2)						
Highest 1-hr average, ppm/b/	0.25/c/	0.21	0.22	0.24	0.24	0.20
Number of standard excesses/d/		0	0	0	0	0
Particulate Matter-10 Micron (PM_{10})/e/	50/c/	104	122	141	138	102
Highest 24-hr average, $\mu g/m^3$/b/		26	20	14	11	15
Number of standard excesses/d/						
Annual Geometric Mean, $\mu g/m^3$/b/	30/c/	42.8	41.1	36.4	36.6	39.2
		Yes	Yes	Yes	Yes	Yes

NOTE: Underlined values indicate an excess of applicable standard.

/a/ Data are from the SCAQMD monitoring station located at 1630 North Main Street in downtown Los Angeles.
/b/ ppm - parts per million; ug/m^3 - micrograms per cubic meter.
/c/ State standard, not to be exceeded.
/d/ Refers to the number of days in a year during which at least one excess was recorded.
/e/ Measured every six days.
/f/ State standard, not to be equaled or exceeded.

SOURCE: California Air Resources Board, *Air Quality Data Summaries*, 1993-1997.

fatigue and can impair central nervous system functions. The one-hour and eight-hour average CO standards have not been exceeded at the downtown Los Angeles Monitoring Station in the last five years.

Nitrogen Dioxide (NO_2). There are two oxides of nitrogen which are important in air pollution: Nitric Oxide (NO) and Nitrogen Dioxide (NO_2). Nitric oxide, along with some NO_2, is emitted from motor vehicle engines, power plants, refineries, industrial boilers, ships, aircraft, and railroads. Nitrogen dioxide is primarily formed when NO reacts with atmospheric oxygen in the presence of hydrocarbons and sunlight; the other product of this reaction is ozone. Nitrogen dioxide is the "whiskey brown" colored gas readily observed during periods of heavy air pollution. Concentrations of NO_2 are highest during the late fall and winter. Nitrogen dioxide increases damage from respiratory disease and irritation, and may reduce resistance to certain infections. The state standard for NO_2 is regularly exceeded in the South Coast Air Basin but has not been exceeded in downtown Los Angeles in the last five years.

Inhalable Particulate Matter (PM_{10}). PM_{10} refers to particulates less than 10 microns in diameter -- those which can be inhaled and cause health effects. Particulates in the atmosphere result from many kinds of dust- and fume-producing industrial and agricultural operations, combustion, and atmospheric photochemical reactions. Demolition, construction, and vehicular traffic are major sources of particulates in urban areas. Natural sources of particulates include wind-blown dust, and ocean spray. Very small particulates of certain substances can cause direct lung damage, or can contain absorbed gasses that may be injurious. Particulates can also damage materials and reduce visibility. PM_{10} standards have been exceeded 86 times in downtown Los Angeles between 1993 and 1997 (see Table 17).

Hydrocarbons and Reactive Organic Compounds (HC and ROC). Hydrocarbons are those compounds which consist primarily of carbon and hydrogen; fossil fuels are hydrocarbons. Many of these compounds are major air pollutants, their primary source being motor vehicles. While hydrocarbons can directly damage plants, some of these compounds are photochemically active and serve as a catalyst in the formation of smog.

Existing Air Pollution Sources

Air quality in East Los Angeles is affected by emissions from a variety of sources. Those sources include industries and manufacturing plants located upwind from the project site, regional motor vehicle emissions, and local motor vehicle traffic on nearby freeways, which include the San Bernardino Freeway (I-10) to the south of the site and the Golden State Freeway

(I-5) to the west of the site, Long Beach Freeway (I-710), and major arterial streets, such as Valley Boulevard, Mission Road, Soto Street, and Marengo Street.

On-site, existing hospital facilities are considered air pollution sources as they generate vehicular trips and consume energy, which result in air pollutant emissions.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases.

Land uses such as schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals, and clinics are considered to be relatively sensitive to poor air quality. The young, the old, and the infirmed are associated with those types of land uses, and are generally more susceptible to respiratory infections and other air quality-related health problems than are other members of the general population.

Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, and the working population is, in general, the healthiest segment of the public.

The existing medical center facility is considered to be a sensitive receptor. Other sensitive receptors in the project area include single-family residences and Francisco Bravo, M.D., Medical Magnet Senior High School east of the project site, USC School of Medicine and Hazard Park northeast of the project site, and single-family and multi-family residences west of the site.

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1- NO PROJECT ALTERNATIVE

Project Construction

Under the No Project Alternative, the project as proposed would not be constructed. As a result, no construction-related emissions associated with the development of the replacement project would occur. However, this alternative would still include the demolition of the Pediatric and Psychiatric hospitals. Estimated emissions generated by construction equipment that would be used for demolition activities are presented in Table 18. As shown in the table, demolition activities would not result in the exceedance of the SCAQMD thresholds of significance, and therefore, would not result in a significant impact on air quality.

Project Operation

Under the No Project Alternative, existing hospital facilities would continue to generate air pollutant emissions associated with vehicular trips generated by these uses and energy consumption by these uses until the year 2008, when these facilities are anticipated to be closed down by the County. While closure would result in reductions in traffic generation and would reduce travel around the project site, vehicle trips would be redistributed to other County facilities in Los Angeles. There may be increases in vehicle miles traveled resulting in greater regional air quality impacts. Impacts to local air quality however, would be less under this alternative.

ALTERNATIVE 2- 600-BED REPLACEMENT FACILITY (PROPOSED ALTERNATIVE)

Project Construction

Construction under this alternative would generate short-term emissions of air pollutants. Construction-related emissions would primarily be dust generated from earthmoving, excavation and other construction activities; hydrocarbon emissions from paints and asphalt; exhaust emissions from powered construction equipment; and motor vehicle emissions associated with the construction activities. Emission factors for typical construction equipment that may be used

TABLE 18: CONSTRUCTION EQUIPMENT EMISSIONS – (ALTERNATIVE 1)

	POLLUTANT (lbs/day)				
	CO	ROC	NO_x	SO_x	PM_{10}
AQMD Thresholds	550	100	100	150	150
Demo Peds/Psychiatric					
Jun 99 - Dec 99					
Estimated emissions	39.74	9.16	96.28	9.51	7.50
Quantity in Exceedance of limits	-510.26	-90.84	-3.72	-140.49	-142.50

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, April 1993.

for general construction activities are shown in Table 19. On the basis of these emission factors, construction equipment emissions were estimated for the construction of this alternative, and are presented in Table 20 (a complete breakdown of emissions by construction equipment type is presented in Table C-1 of Appendix C2). As shown in Table 20, the SCAQMD threshold for NO_x would be exceeded continually throughout the construction period, commencing at the mass excavation and shoring phase of construction. This would result in a short-term significant impact. However, emissions resulting from the construction phase of the proposed project would not result in long-term significant impacts.

Dust emissions would vary according to the level and type of activity, silt content of the soil and prevailing weather. Construction-generated dust would temporarily contribute to the relatively high existing background PM_{10} levels. Excesses of the State ambient PM_{10} standard are typical in downtown Los Angeles and construction-related dust would contribute to these excesses in the project vicinity. Relatively large-sized particulates raised by construction would settle out of the atmosphere rapidly with increasing distance from the site. As a result, dustfall can be expected to occur on cars, streets, sidewalks, and other outside surfaces within a 200- to 800-foot radius of individual building sites. Construction would also generate very fine particulates which have been determined to be a health risk to the general population and especially school aged children and the infirmed, who are more susceptible to particulate pollution. Because the PM_{10} standards are commonly exceeded in Los Angeles, project-generated particulates would create an adverse impact on sensitive land uses in the vicinity of the project during demolition, grading, and

TABLE 19: CONSTRUCTION EQUIPMENT EMISSION FACTORS

	POLLUTANT EMISSIONS (lbs/hr)				
Type of Equipment	CO	ROC	NO_x	SO_x	PM_{10}
Tracked Tractor	0.35	0.12	1.26	0.14	0.112
Wheeled Tractor	3.58	0.18	1.27	0.09	0.14
Wheeled Dozer/a/	- -	- -	- -	0.35	0.165
Scraper	1.25	0.27	3.84	0.46	0.41
Motor Grader	0.151	0.039	0.713	0.086	0.061
Wheeled Loader	0.572	0.23	1.90	0.182	0.17
Tracked Loader	0.201	0.095	0.83	0.076	0.059
Off-Highway Truck	1.8	0.19	4.17	0.45	0.26
Roller	0.30	0.065	0.87	0.067	0.05
Miscellaneous	0.675	0.15	1.7	0.143	0.14

/a/ The Wheeled Dozer CO/ROC/NO_x emissions are included in the off-highway truck category.

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, Table A9-8-A.

excavation phases of the project. These land uses include the site itself along with the local residents, the Francisco Bravo Medical Magnet School, the East L.A. Occupational Center, and Hazard Park, which is also used for physical education instruction for students of the Magnet School. However, since PM_{10} emissions would not exceed the thresholds of significance of 150 pounds per day at any given time during the entire construction period, impacts associated with PM_{10} emissions would not be considered significant.

TABLE 20: CONSTRUCTION EQUIPMENT EMISSIONS – (ALTERNATIVE 2)

	POLLUTANT (lbs/day)				
	CO	ROC	NO_X	SO_X	PM10
AQMD Thresholds	550	75	100	150	150
Demo Peds/Psychiatric (6 months)					
Estimated emissions	130.82	31.01	105.71	9.51	27.08
Quantity in Exceedance of limits	-419.18	-43.99	**5.71**	-140.49	-122.92
Demo Muir/Grad (5 months)					
Estimated emissions	130.82	31.01	105.71	9.51	23.21
Quantity in Exceedance of limits	-419.18	-43.99	**5.71**	-140.49	-126.79
Demo Parking Structure #6/#11 (5 months)					
Estimated emissions	130.82	31.01	105.71	9.51	42.58
Quantity in Exceedance of limits	-419.18	-43.99	**5.71**	-140.49	-107.42
Site Utility Relocation (5 months)					
Estimated emissions	125.42	29.79	92.19	8.37	13.46
Quantity in Exceedance of limits	--424.58	-45.21	**-7.81**	-141.63	-136.54
Mass Excavation and Shoring (11 months)					
Estimated emissions	200.24	40.82	269.63	27.45	25.86
Quantity in Exceedance of limits	-349.76	-34.18	**169.63**	-122.55	-124.14
Outpatient Foundations (7 months)					
Estimated emissions	138.32	31.19	111.23	8.78	14.53
Quantity in Exceedance of limits	-411.68	-43.81	**11.23**	-141.22	-135.47
Outpatient Steel Erection; Diagnostic/Inpatient Foundation (3 months)					
Estimated emissions	212.31	44.38	280.24	21.76	25.31
Quantity in Exceedance of limits	-337.69	-30.62	**180.24**	-128.24	-124.69
Outpatient Exterior Finishing; Diagnostic/Inpatient Steel Erection (7 months)					
Estimated emissions	200.40	48.93	232.08	14.20	23.94
Quantity in Exceedance of limits	-349.60	-26.07	**132.08**	-135.80	-126.06
Outpatient Interior Finishing; Diagnostic/Inpatient Exterior Finishing (16 months)					
Estimated emissions	191.63	46.94	210.11	12.34	22.13
Quantity in Exceedance of limits	-358.37	-28.06	**110.11**	-137.66	-127.87
Diagnostic/Inpatient Interior Finishing (14 months)					
Estimated emissions	191.63	46.94	200.68	12.34	15.05
Quantity in Exceedance of limits	-449.45	-74.91	**100.68**	-137.66	-134.95

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, April 1993; URBEMIS 7G, California Air Resources Board.

Project Operation

Stationary-Source Emissions

Stationary-source on-site emissions are generated as a result of the combustion of natural gas to meet the demand generated by the project. Stationary emissions resulting from electrical energy demand projected for the project will occur off-site at electrical power generating plants located throughout the utility's generating network. Because the replacement project under this alternative would be smaller in size than the existing facilities (i.e., fewer beds and less square footage), natural gas combustion and generation of electricity for this alternative are estimated to be less than existing energy consumption. Additionally, the new facility would replace old structures with uses that would consume energy efficiently. As a result, stationary-source emissions generated by this alternative would decrease; the estimated net reduction in these emissions are presented in Table 21.

Mobile-Source Emissions

Motor vehicle emissions would be the largest sources of pollutants resulting from implementation of this alternative. However, because the replacement project under this alternative would be smaller in size than the existing facilities (i.e., fewer beds and less square footage), the number of daily trips generated by the project under this alternative would be less than the existing trip generation, and would be reduced by approximately 13,165 daily trips, as estimated in the traffic study prepared for this project. As a result, mobile-source emissions generated by this alternative would decrease; the estimated net reduction in these emissions are presented in Table 21.

Total Operational Emissions

Estimates of reduction in air pollutant emissions associated with this alternative are given in Table 21. As a result, the proposed replacement project under this alternative would have a beneficial impact on air quality as it would reduce the generation of air pollutants compared to existing conditions.

TABLE 21: ESTIMATED NET REDUCTION IN STATIONARY- AND MOBILE-SOURCE EMISSIONS, ALTERNATIVE 2

	Stationary-Source Emissions				Mobile-Source Emissions		
	Natural Gas[a]		Electricity[b]		Motor Vehicles[c]		Total Net
Pollutant	Emission Factor (lbs/10^6 cf)	Estimated Emissions (lbs/day)	Emission Factor (lbs/10^3 kWh)	Estimated Emissions (lbs/day)	Emission Factor (grams/mile)	Estimated Emissions (lbs/day)	Reduction in Emissions (lbs/day)
CO	20.0	5.29	0.20	19.93	3.56	697.89	723.11
ROC	5.3	1.40	0.01	1.00	0.34	66.65	69.05
NO_x	120.0	31.75	1.15	114.59	0.58	113.70	260.04
PM_{10}	0.2	0.05	0.04	3.99	0.03	5.88	9.92

a. Based on an estimated net reduction in natural gas consumption of 96,563,680 cubic feet per year.
b. Based on an estimated net reduction in electric consumption of 36,368,850 kWh per year.
c. Based on an estimated net reduction of 13,165 daily trips or approximately 89,000 vehicle miles per day (assumes a trip length of 6.76 miles per trip).

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, April 1993.

Ambient CO Concentrations

Significant air quality impacts are identified for projects that would cause an excess of any ambient air quality standard, would contribute substantially to an existing or projected air quality standard excess, or would expose sensitive receptors to substantial pollutant concentrations. Because the proposed replacement project under this alternative would reduce the number of trips that would be generated by facilities on the project site, the project is not anticipated to result in significant impact on curbside CO concentrations. Therefore, an additional analysis of CO, which includes the use of the CALINE-4 dispersion model, was not performed.

Conformance With Air Quality Management Plan

The replacement project under this alternative would result in a net reduction in air pollutant emissions because this project would be smaller in size (fewer beds and less square footage) than the existing facilities. Therefore, the replacement project would be in compliance with the goals of attaining air quality standards outlined in the regional AQMP as it would result in the reduction of air pollutant emissions in the region.

ALTERNATIVE 3- 950-BED REPLACEMENT FACILITY ALTERNATIVE

Project Construction

Similar to Alternative 2, construction under this alternative would generate short-term emissions of air pollutants. Construction-related emissions would primarily be dust generated from earthmoving, excavation and other construction activities; hydrocarbon emissions from paints and asphalt; exhaust emissions from powered construction equipment; and motor vehicle emissions associated with the construction activities. Emission factors for typical construction equipment that may be used for general construction activities are shown in Table 19. On the basis of these emission factors, construction equipment emissions were estimated for the construction of this alternative, and are presented in Table 22 (a complete breakdown of emissions by construction equipment type is presented in Table C-2 of Appendix C2). As shown in Table 22, the SCAQMD threshold for NO_x is continually exceeded continually throughout the construction period, commencing at site utility relocation up to project landscaping. Additionally, the SCAQMD threshold for ROC is exceeded for a few months, intermittently. This would result in a short-term significant impact. However, emissions resulting from the construction phase of the proposed project would not result in long-term significant impacts.

Similar to Alternative 2, dust emissions would vary according to the level and type of activity, silt content of the soil and prevailing weather. Construction-generated dust would temporarily contribute to the relatively high existing background PM_{10} levels. Excesses of the State ambient PM_{10} standard are typical in downtown Los Angeles and construction-related dust would contribute to these excesses in the project vicinity. Relatively large-sized particulates raised by

TABLE 22: CONSTRUCTION EQUIPMENT EMISSIONS – ALTERNATIVE 3

	POLLUTANT (lbs/day)				
	CO	ROC	NO_x	SO_x	PM10
AQMD Thresholds	550	75	100	150	150
Outpatient, D&T, Central Plant Site Utility Relocation (11 months)					
Estimated emissions	174.74	44.22	113.61	10.29	20.73
Quantity in Exceedance of limits	-375.26	-30.78	**13.61**	-139.71	-129.27
Outpatient, D&T, Central Plant Install Shoring Soldier Beams (3 months)					
Estimated emissions	171.88	42.16	104.44	8.56	19.00
Quantity in Exceedance of limits	-378.12	-32.84	**4.44**	-141.44	-131.00
Outpatient, D&T, Central Plant Mass Excavation and Foundation (2 months)					
Estimated emissions	197.39	49.03	169.61	16.78	25.59
Quantity in Exceedance of limits	-352.61	-25.97	**69.61**	-133.22	-124.41
Outpatient, D&T, Central Plant Steel Erection (6 months)					
Estimated emissions	225.51	56.53	223.48	23.82	34.50
Quantity in Exceedance of limits	-324.49	-18.47	**123.48**	-126.18	-115.50
Outpatient, D&T, Central Plant Exterior Finishing (6 months)					
Estimated emissions	223.80	56.60	217.53	24.09	34.84
Quantity in Exceedance of limits	-326.20	-18.40	**117.53**	-125.91	-115.16
Outpatient Interior; D&T Exterior; Central Plant Equipment Installation (2 months)					
Estimated emissions	199.96	48.92	166.13	15.90	26.45
Quantity in Exceedance of limits	-350.04	-26.08	**66.13**	-134.10	-123.55
Interior Finishing; Central Plant Equipment Installation (8 months)					
Estimated emissions	209.31	52.87	182.92	20.40	31.16
Quantity in Exceedance of limits	-340.69	-22.13	**82.92**	-129.60	-118.84
D&T Interior Finishing; Site Clearance and Demolition for the Inpatient Tower (6 months)					
Estimated emissions	225.64	59.47	241.77	24.53	34.85
Quantity in Exceedance of limits	-324.36	-15.53	**141.77**	-125.47	-115.15
D&T Interior Finishing; Inpatient Shoring and Excavation (4 months)					
Estimated emissions	365.76	108.52	529.70	78.10	90.09
Quantity in Exceedance of limits	-184.24	**33.52**	**429.70**	-71.90	-59.91

(Continued on the next page)

TABLE 22: CONSTRUCTION EQUIPMENT EMISSIONS – ALTERNATIVE 3 – (Continued)

	POLLUTANT (lbs/day)				
	CO	ROC	NO_x	SO_x	PM_{10}
AQMD Thresholds	550	75	100	150	150
Inpatient Shoring and Excavation (2 months)					
Estimated emissions	325.66	95.71	428.58	66.14	78.20
Quantity in Exceedance of limits	-224.34	**20.71**	**328.58**	-83.86	-71.80
Inpatient Tower Foundations (5 months)					
Estimated emissions	183.83	46.73	134.71	12.84	23.29
Quantity in Exceedance of limits	-366.17	-28.27	**34.71**	-137.16	-126.71
Inpatient Tower Steel Erection (9 months)					
Estimated emissions	309.77	74.01	440.33	39.40	49.45
Quantity in Exceedance of limits	-240.23	-0.99	**340.33**	-110.60	-100.55
Inpatient Tower Exterior Finishing (3 months)					
Estimated emissions	238.34	58.35	259.56	25.03	35.50
Quantity in Exceedance of limits	-311.66	-16.65	**159.56**	-124.97	-114.50
Inpatient Tower Exterior and Interior Finishing (6 months)					
Estimated emissions	346.57	84.22	525.67	49.78	59.91
Quantity in Exceedance of limits	-203.43	**9.22**	**425.67**	-100.22	-90.09
Inpatient Tower Interior Finishing (13 months)					
Estimated emissions	244.85	58.64	280.24	24.75	35.02
Quantity in Exceedance of limits	-305.15	-16.36	**180.24**	-125.25	-114.98
Inpatient Tower Landscaping (5 months)					
Estimated emissions	181.00	43.15	135.25	13.02	22.64
Quantity in Exceedance of limits	-369.00	-31.85	**35.25**	-136.98	-127.36

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, April 1993.

construction would settle out of the atmosphere rapidly with increasing distance from the site. As a result, dustfall can be expected to occur on cars, streets, sidewalks, and other outside surfaces within a 200- to 800-foot radius of individual building sites. Construction would also generate very fine particulates which have been determined to be a health risk to the general population and especially school aged children and the infirm, who are more susceptible to

particulate pollution. Because PM_{10} thresholds are commonly exceeded in downtown Los Angeles, project generated particulates would create a significant impact on sensitive land uses in the vicinity of the project (including the site itself, along with local residents, the Francisco Bravo Medical Magnet School, the East L.A. Occupational Center, and Hazard Park, during the demolition, grading, and excavation phases of the project.

Project Operation

Stationary-Source Emissions

Stationary-source on-site emissions are generated as a result of the combustion of natural gas to meet the demand generated by the project. Stationary emissions resulting from electrical energy demand projected for the project will occur off-site at electrical power generating plants located throughout the utility's generating network. Because the replacement project under this alternative would be smaller in size than the existing facilities (i.e., fewer beds and less square footage), natural gas combustion and generation of electricity for this alternative are estimated to be less than existing energy consumption. As a result, stationary-source emissions generated by this alternative would decrease; the estimated net reduction in these emissions are presented in Table 23.

Mobile-Source Emissions

Motor vehicle emissions would be the largest sources of pollutants resulting from implementation of this alternative. However, because the replacement project under this alternative would be smaller in size than the existing facilities (i.e., fewer beds and less square footage), the number of daily trips generated by the project under this alternative would be less than the existing trip generation, and would be reduced by approximately 9,055 daily trips, as estimated in the traffic study prepared for this project. As a result, mobile-source emissions generated by this alternative would decrease; the estimated net reduction in these emissions are presented in Table 23.

TABLE 23: ESTIMATED NET REDUCTION IN STATIONARY- AND MOBILE-SOURCE EMISSIONS, ALTERNATIVE 3

	Stationary-Source Emissions				Mobile-Source Emissions		
	Natural Gas[a]		Electricity[b]		Motor Vehicles[c]		Total Net
Pollutant	Emission Factor (lbs/10^6 cf)	Estimated Emissions (lbs/day)	Emission Factor (lbs/10^3 kWh)	Estimated Emissions (lbs/day)	Emission Factor (grams/mile)	Estimated Emissions (lbs/day)	Reduction in Emissions (lbs/day)
CO	20.0	2.45	0.20	9.25	3.56	479.97	491.67
ROC	5.3	0.65	0.01	0.46	0.34	45.84	46.95
NO_x	120.0	14.73	1.15	53.17	0.58	78.20	146.10
PM_{10}	0.2	0.03	0.04	1.85	0.03	4.04	5.92

a. Based on an estimated net reduction in natural gas consumption of 44,791,200 cubic feet per year.
b. Based on an estimated net reduction in electric consumption of 16,874,460 kWh per year.
c. Based on an estimated net reduction of 9,055 daily trips or approximately 61,210 vehicle miles per day (assumes a trip length of 6.76 miles per trip).

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, April 1993.

Total Operational Emissions

Estimates of reduction in air pollutant emissions associated with this alternative are given in Table 23. As a result, the proposed replacement project under this alternative would have a beneficial impact on air quality as it would reduce the generation of air pollutants compared to existing conditions.

Ambient CO Concentrations

Significant air quality impacts are identified for projects that would cause an excess of any ambient air quality standard, would contribute substantially to an existing or projected air quality standard excess, or would expose sensitive receptors to substantial pollutant concentrations. Similar to Alternative 2, the proposed replacement project under this alternative would reduce

the number of trips that would be generated by facilities on the project site. As a result, the project is not anticipated to result in significant impact on curbside CO concentrations, and therefore, an additional analysis of CO, which includes the use of the CALINE-4 dispersion model, was not performed.

Conformance With Air Quality Management Plan

The replacement project under this alternative would result in a net reduction in air pollutant emissions because this project would be smaller in size (fewer beds and less square footage) than the existing facilities. Therefore, the replacement project would be in compliance with the goals of attaining air quality standards outlined in the regional AQMP as it would result in the reduction of air pollutant emissions in the region.

MITIGATION MEASURES (ALTERNATIVES 2 & 3)

PROJECT CONSTRUCTION

- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. Construction activities shall be phased and scheduled to avoid emissions peaks to the extent practical.

- General contractors shall maintain regular maintenance and tune-ups on their construction equipment to maintain equipment emissions of NO_x, CO, ROC, and PM_{10} to the minimum.

- The following measures shall be implemented to reduce particulate and dust emissions:

  - During construction, the site shall be watered at least twice daily and all equipment cleaned to reduce particulate and dust emissions.

  - The contractor shall install a wheel wash station to remove all debris from earth trucks prior to entering public streets.

- Silt shall be controlled by providing hard surfaces on any construction roads (e.g., paving, applying soil stabilizers, etc.), sweeping streets, and washing trucks leaving the site.

- Construction traffic shall be prohibited along the portion of Zonal Avenue between San Pablo and Charlotte Streets. (This is the area in front of Francisco Bravo Medical Magnet High School). Also construction truck traffic shall be prohibited from using residential streets. The contractor shall install signs prohibiting construction traffic and advise all subcontractors and workers of the restrictions.

- Dirt runoff and spills on traveled roadways shall be washed or swept at the end of each construction day.

ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 & 3)

Construction of the replacement project under either of the build alternatives would generate short-term emissions of air pollutants that would exceed SCAQMD standards. Construction-generated dust would temporarily contribute to the relatively high existing background PM_{10} levels. Excesses of the State ambient PM_{10} standard are typical in downtown Los Angeles and construction-related dust would contribute to these excesses in the project vicinity. Additionally, the continued exceedance of the threshold of significance for NO_x during project construction would result in a significant short term adverse impact after mitigation. This impact could be reduced if construction phases were extended, but doing so could jeopardize the County's ability to provide uninterrupted healthcare at this location. Due to the decreased size of the build alternatives compared to current conditions, there would be a beneficial impact on long-term air quality.

4.7 NOISE

AFFECTED ENVIRONMENT

Noise Sources and Levels

Environmental noise is usually measured in A-weighted decibels (dBA). A decibel (dB) is a logarithmic unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level"), measured in decibels. A dBA is a decibel corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels. In general, people can perceive a three-dBA difference in noise levels; a difference of 10 dBA is perceived as a doubling of loudness. Some representative sounds and sound pressure levels are shown in Exhibit 31.

Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Useful noise descriptors measure time-averaged noise levels; these descriptors include L_{eq} and L_{dn}. The L_{eq} is the actual time-averaged, equivalent steady-state sound level which in a stated period, would contain the same acoustic energy as the time-varying sound level during the same period. The L_{dn} is a 24-hour day and night noise measurement which accounts for greater sensitivity of most people to nighttime noise. The L_{dn} is based on human reaction to cumulative noise exposure over a 24-hour period. Noise between 10:00 p.m. and 7:00 a.m. is weighted by adding 10 dBA to take into account the greater annoyance of nighttime noises. The L_{dn} noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. Studies in which various noise rating scales were compared for the same sample of noise data have indicated that for noise environments dominated mainly by traffic noise, the 24-hour L_{dn} level is approximately equivalent to the peak hour L_{eq}.[15]

Noise Standards, Plans, and Policies

The Noise Element of the Los Angeles County General Plan identifies the problems, issues, assets and opportunities to be considered in a transportation noise control program; establishes

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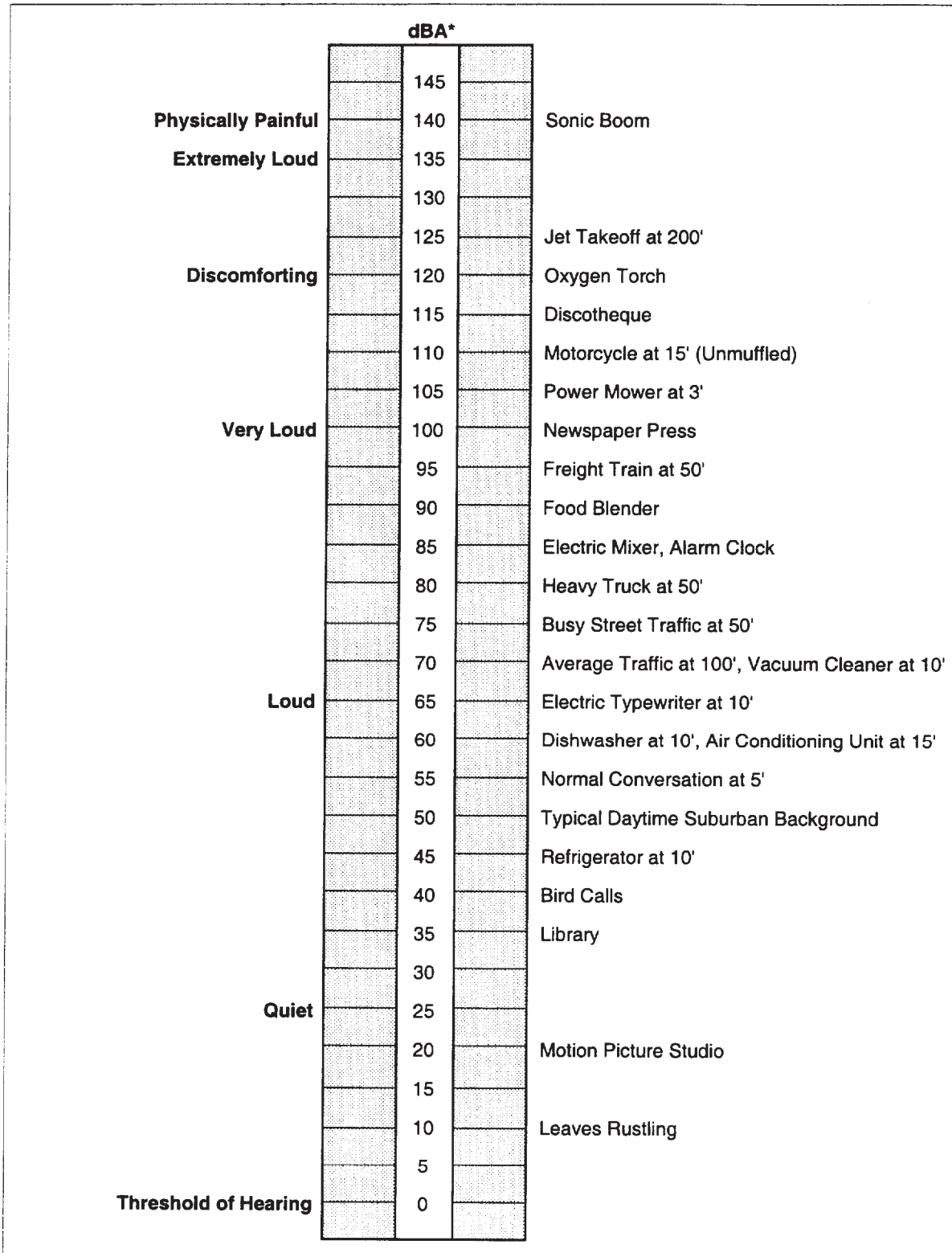
[15] California Office of Planning and Research, State of California General Plan Guidelines, June 1987.



* The unit of sound is the decibel (dB). The loudness of sound is typically measured using a sound meter, the A-Scale of which corresponds closely to the way the human ear perceives sound. Thus the sound level for noise evaluations is frequently expressed in dBA.

SOURCE: L.A. County Preliminary Noise Element, 1974.

Exhibit 31
Typical Noise Levels of
Familiar Sources (Acoustical Scale)

goals and policies; and recommends action programs which, if implemented, will lower the noise in this county to levels consistent with health and quality of life goals. The requirements of this element are set forth in the State of California Government Code, Chapter 3, Article 5, Section 65302 (f).

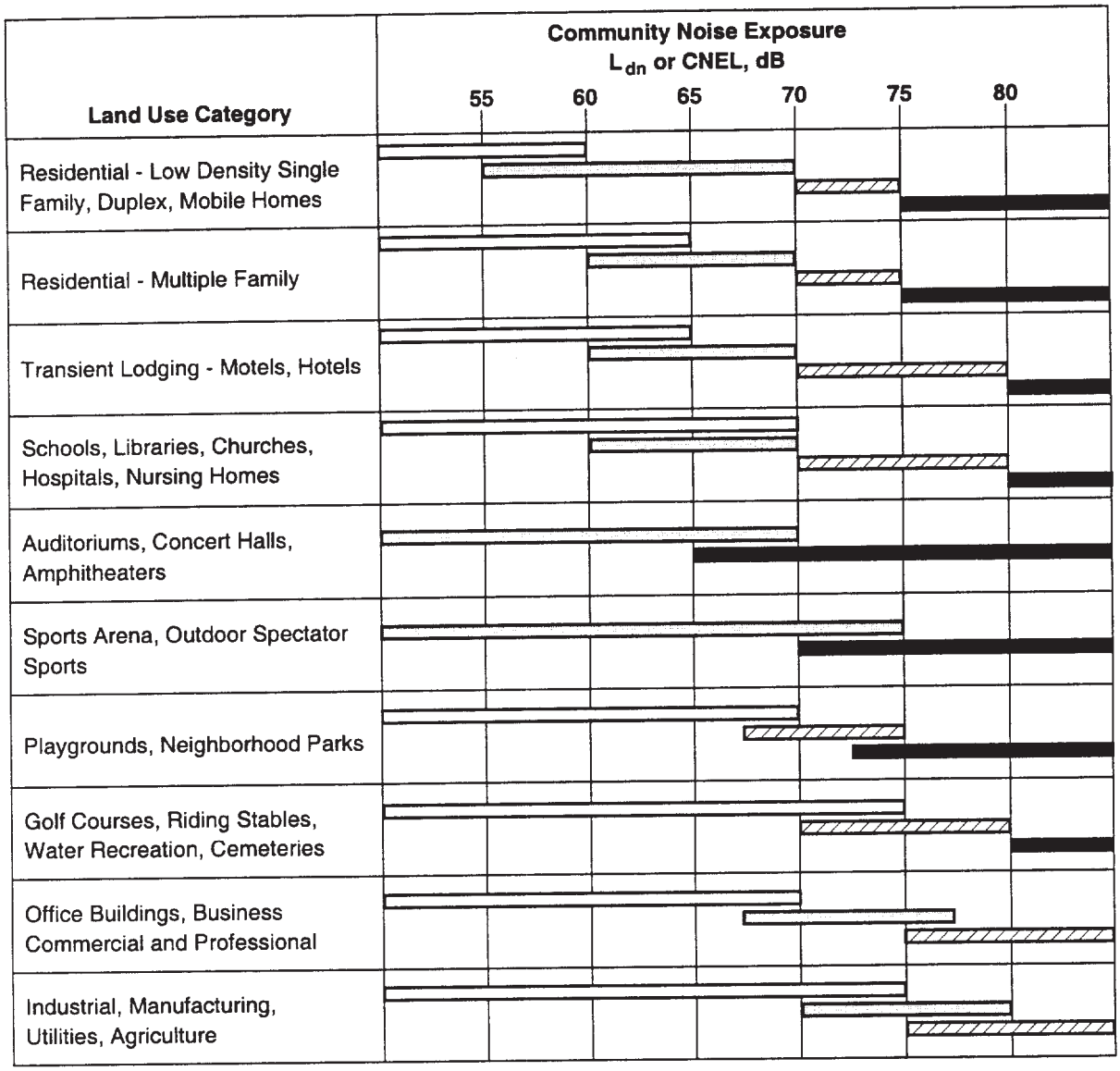
State of California General Plan Guidelines have been set by the Office of Planning and Research (OPR), and provide standards and procedures by which local governments shall develop their own General Plan Noise Elements. Noise Element Guidelines were set by the California Department of Health Services in coordination with the OPR. These guidelines include guidelines to evaluate the compatibility between land use and noise. These state land use compatibility guidelines are shown in Exhibit 32.

Existing Noise Levels

The project site is in an urbanized environment. The primary noise in the site vicinity is generated by vehicular traffic. Background noise levels in the site vicinity are produced by motor vehicle traffic on North Mission Road, Marengo Street, Zonal Avenue etc., and on nearby freeways, which include the San Bernardino Freeway (I-10) to the south and the Golden State Freeway (I-5) to the west of the project sites. Noise generated by the existing cooling towers will not be noticeable above background levels.

In the 1994 EIR prepared for the replacement project, seven short-term noise measurements were made during the afternoon peak traffic period (4:00 pm - 6:00 pm) at intersections near sensitive receptors around the project site to quantify the ambient noise environment in the project area. Ambient noise is the total noise associated with a given environment and usually comprises sounds from many sources both near and far. The noise measurement results are shown in Table 24. Measured noise levels during the peak period ranged from 70.1 dBA, L_{eq} to 77.1 dBA, L_{eq}. New noise measurements were not taken since existing conditions represent an interim atypical condition.

Traffic-generated noise at these intersections was the main contributor to the ambient noise level. Ambient noise is the total noise associated with a given environment and usually comprises sounds from many sources both near and far.



Legend:

Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any building involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the deisgn. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable
New construction or develeopment should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable
New construction or development should generally not be undertaken.

Considerations in Determination of Noise-Compatible Land Use

a. Suitable Interior Environments
One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn}. This requirement, coupled with the measured of calculated noise reduction performance of the type structure under construction, should govern the minimum acceptable distance to a noise source.

b. Acceptable Outdoor Environments
Another consideration, which in some communities is an overriding factor, is the desire for an accepatble outdoor noise environment. When this is the case, more restrictive standards for land use compatibility typically below the maximum considered "normal acceptable" for that land use category, may be appropriate.

SOURCE: California Department of Health, Guidelines for the Preparation and Content of Noise Element of the General Plan, February 1976.

Exhibit 32
Recommended Guidelines for Environmental Noise Criteria for Compatible Land Use

TABLE 24: EXISTING NOISE LEVELS AT SELECTED INTERSECTIONS NEAR THE PROJECT SITE/a/

Intersection (Sensitive Receptor)	Measurement Period	Noise Level L_{eq}	Noise Level L_{Max}
1. Marengo St. & Kingston Ave.	15 min.	72.4	89.7
2. Marengo St. & Mission Road	15 min.	77.1	90.0
3. Mission Road & Zonal Ave.	15 min.	74.3	87.4
4. Zonal Ave. & Biggy St.	15 min.	70.1	87.9
5. Cornwell St. (Magnet School)	15 min.	70.4	88.1
6. Cornwell St. & Charlotte St.	15 min.	70.3	89.3
7. Marengo St. & Cornwell St	15 min.	74.2	88.3

/a/ Noise levels were measured using a Metrosonics dB-306A Metrologger which was calibrated before and after each measurement. The noise meter was located approximately 50 feet from the center of the various intersections. These measurements were recorded during the afternoon peak hour.

SOURCE: Environmental Science Associates.

Assuming that the 24-hour L_{dn} is approximately equal to the peak hour Leq, the 24-hour noise levels in the project vicinity would, therefore, be expected to range between 70.1 and 77.1 dBA, L_{dn} depending on the distance from the bordering roadway. The existing exterior 24-hour noise environment in the project area is considered "normally unacceptable" to "clearly unacceptable"

for hospital, school, and residential uses, according to the recommended land use compatibility guidelines.

Sensitive Receptors

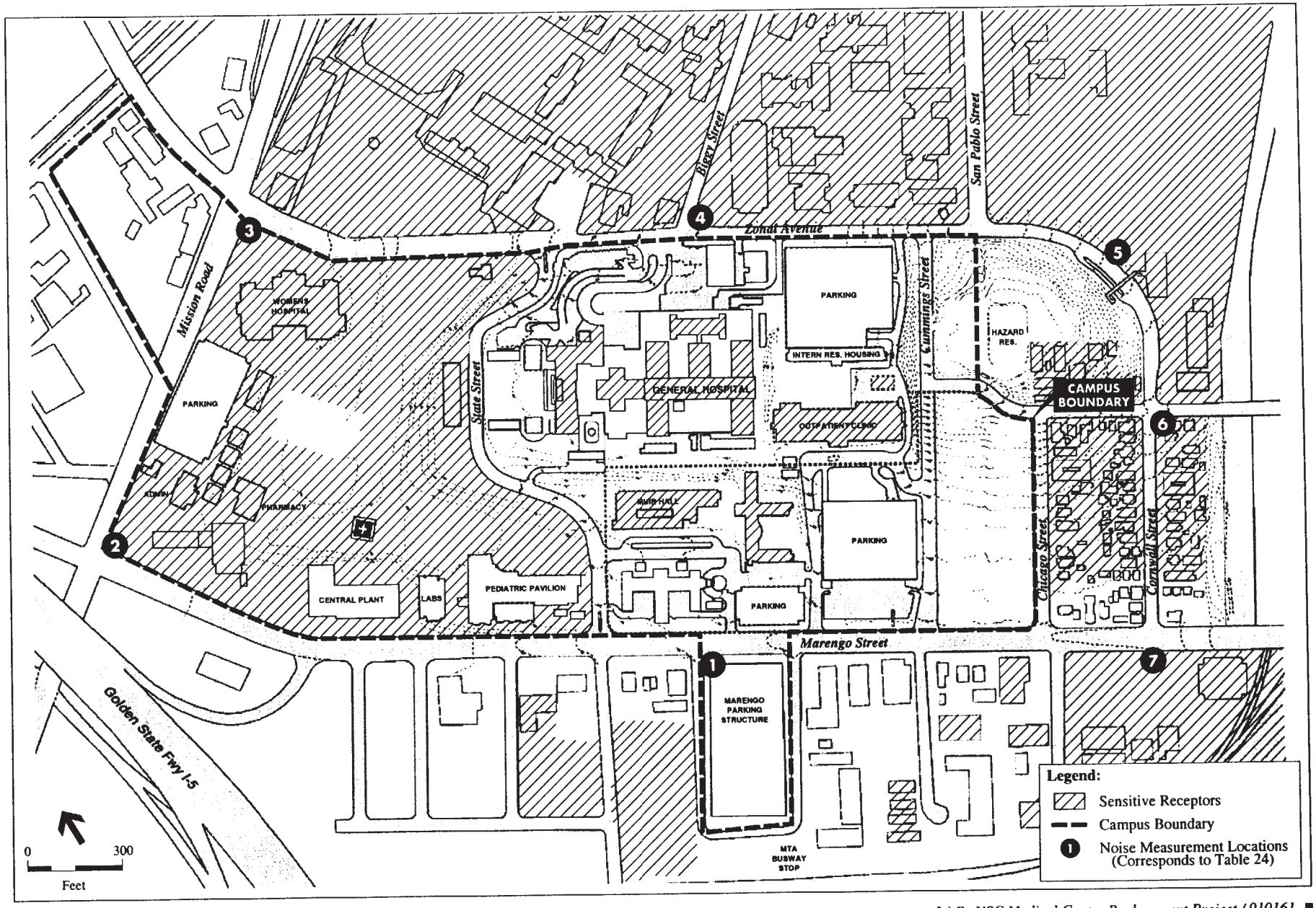
Some land uses are considered more sensitive to ambient noise levels than others due to the amount of noise exposure (in terms of both exposure time and "insulation" from noise) and the types of activities typically involved. Residences, hotels and motels, schools, libraries, churches, hospitals, nursing homes, auditoriums, parks and outdoor recreation areas are generally more sensitive to noise than are commercial and industrial land uses. Sensitive receptors in the project vicinity include private residences, a magnet high school, the USC campus, and an elementary/nursery school. The project site itself, which includes different medical treatment facilities, is considered a sensitive receptor. These receptors are identified in Exhibit 33.

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Project Construction

Under the No Project Alternative, the project as proposed would not be constructed. As a result, no construction-related noise associated with the development of the replacement project would occur. However, this alternative would still include the demolition of the Pediatric and Psychiatric hospitals. Tables 25 and 26 show typical outdoor noise levels associated with construction/demolition-related activities. Demolition activities would generate high noise levels on and adjacent to the demolition sites intermittently during the demolition period. Demolition noise would potentially disturb students from schools adjacent to the demolition sites, including Muir Hall and Graduate Hall located north of the Psychiatric Hospital, and Kingston School located south of the Psychiatric Hospital. Demolition noise would be of short-term duration, and would cease at the completion of such activities. Therefore, since the nature of this impact is temporary, it would be considered an adverse, but not a significant, impact.



SOURCE: Environmental Science Associates

Exhibit 33

Noise-Sensitive Receptors in the Immediate Vicinity of the Project Site

TABLE 25: TYPICAL COMMERCIAL CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level(dBA), L_{eq}[a]
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

a. Average noise levels at 50 feet from the noisiest piece of equipment and 200 feet from the other equipment associated with the given construction phase.

SOURCE: Bolt, Beranek, and Newman, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, U.S. Environmental Protection Agency, 1971.

TABLE 26: DEMOLITION AND CONSTRUCTION EQUIPMENT SOURCE NOISE LEVELS

Equipment Type	Typical Equipment at 50 ft. (in dBA)	Quieted Equipment at 50 ft. (in dBA)[a]
Air Compressor	81	71
Backhoe	85	80
Concrete Pump	82	80
Concrete Vibrator	76	70
Concrete Breaker	82	75
Truck Crane	88	80
Dozer	87	83
Generator	78	71
Loader	84	80
Paver	88	80
Pneumatic Tools	85	75
Water Pump	76	71
Power Hand Saw	78	70
Shovel	82	80
Trucks	88	83

a. Quieted equipment can be designed with enclosures, mufflers, or other noise-reducing features.

SOURCE: Bolt, Beranek, and Newman, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, U.S. Environmental Protection Agency, 1971.

Project Operation

Under the No Project Alternative, existing hospital facilities would continue to generate noise associated with on-site uses and vehicular trips generated by these uses until the year 2008, when these facilities are anticipated to be closed down by the County.

ALTERNATIVE 2- 600-BED REPLACEMENT FACILITY ALTERNATIVE (PROPOSED ALTERNATIVE)

Project Construction

Construction of the replacement project under this alternative would generate intermittent high noise levels on and adjacent to the development site during construction which may take up to seven years. Construction noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between noise source and receptor, and presence or absence of barriers between noise source and receptor.

Table 23 shows typical exterior noise levels associated with various phases of commercial construction. Table 24 shows noise levels associated with various types of construction related machinery. If pile drivers are used, the noise levels at 50 feet for typical equipment and muffled equipment would be 90 dBA and 80 dBA, respectively. Noise levels would decrease by about six dBA with each doubling of distance from the construction site (e.g., noise levels from excavation would be about 83 dBA at 100 feet from the site, and about 77 dBA at 200 feet from the site). Interior noise levels would be about 10 dBA (open windows) to 20 dBA (closed windows) less than exterior noise levels.[16]

Noise from construction activities assuming the loudest activity and the loudest equipment is presented in Tables 25 and 26, respectively, would affect sensitive receptors in the project vicinity, specifically the residences across from the project site to the east, northeast, and south (of Marengo Street), and Francisco Bravo Medical Magnet Senior High School to the northeast. However, this would be a short-term significant impact, which would cease upon completion of

16 C. Lawrence Cornett and Charles E. Hina, Methods for Predicting Noise and Vibration Impacts, U.S. Dept. of Transportation, Transportation Systems Center, 1979.

construction and demolition activities. Additionally, construction traffic will be directed to non-residential streets, i.e. Marengo, Mission, Soto and not Cornwell where Bravo is located.

Project Operation

Most of the noise generated by the implementation of the replacement project under this alternative would primarily be traffic-generated noise. As estimated in the traffic study prepared by Kaku Associates for this alternative, a decrease in local traffic volumes would result along local roadways, particularly along Marengo Street and State Street because of the corresponding reduction in the number of trips generated by the proposed replacement project. More specifically, traffic volumes during the afternoon peak-hour along Marengo Street between State Street and Brittania Street would decrease by more than 300 peak hour trips. Correspondingly, this constitutes a noise decrease of at least 1.0 dBA along this roadway segment, as shown in Table 27. Therefore, traffic generated by the replacement project under this alternative would have a beneficial impact on the ambient noise environment in the project vicinity.

Helipad

The existing medical center facility makes use of a helipad for emergency services. The new 600-bed hospital would have one helipad on top of the five story Diagnostic and Treatment Building for trauma cases. A widely accepted means for describing helicopter noise is in terms of the perceived noise levels (PNdB) 2.[17] The PNdB is a quantity calculated from physical measurements of the noise that correlates very well with the subjective evaluation of the noisiness or annoyance of various types of noises. For most helicopter operations (takeoff, landing, cruise, and hover) noise levels vary over a relatively narrow PNdB range.

The noise level produced by helicopters can be estimated from curves found in Helicopter Noise Characteristics for Helicopter Planning. The estimates apply for takeoff, landing, flyover, and hover operations. For a small or medium (helicopter of less than 10,000 lbs normal gross weight) turbine-powered helicopter flying directly overhead at an altitude of 100 feet, the maximum perceived noise level occurring during the flyover is about 103 PNdB. With an altitude of 500 feet, the maximum perceived noise level occurring during the flyover is about 88

17 Dwight E Bishop, Helicopter Noise Characteristics for Helicopter Planning, Federal Aviation Administration, 1966.

TABLE 27: ESTIMATED EXISTING AND PROJECTED FUTURE AFTERNOON PEAK-HOUR NOISE LEVELS ALONG ROAD SEGMENTS NEAR THE PROJECT SITE (ALTERNATIVE 2)

	Noise Levels (dBA, L_{eq})[a]			
Road Segment	Existing	Future No Project	Future With Project	Project Impact
Marengo Street (between State Street and Kingston Avenue)	70.0	70.2	69.2	-1.0
Marengo Street (between Kingston Avenue and Brittania Street)	69.2	69.5	68.2	-1.3
State Street (between Marengo Street and Pomeroy Avenue)	68.0	68.3	67.9	-0.4
State Street (between Pomeroy Avenue and I-10 WB On-Ramp)	70.2	70.4	69.0	-1.4

a. Noise levels estimates and projections were made using the U.S. Department of Transportation's FHWA Highway Traffic Noise Prediction Model, and traffic volume estimates presented in the traffic study prepared by Kaku Associates. All noise levels are in terms of dBA, L_{eq}, and are estimated at a distance of approximately 50 feet from the center of the roadway. Average speed assumed to be 35 mph; vehicle mix assumed to be 95% autos, 3% medium trucks and 2% heavy trucks.

SOURCE: Environmental Science Associates, 1999.

PNdB and at an altitude of 1,000 feet the maximum perceived noise level occurring during the flyover is about 81 PNdB.

As previously listed, the sensitive receptors in the vicinity of the project site, may be affected by helicopter noise. Noise impacts from helicopters will be intermittently significant (i.e. whenever takeoff or landing is necessary). The frequency of helicopter operation will be significantly lower than that of full-purpose helipads, since their use is limited to emergency cases, not routine transport of patients. Thus, the frequency will remain as at present since the current helipad is

also used only for trauma cases. Therefore, because no new impacts to noise would result from the operation of the proposed helipads, no significant impacts would occur.

ALTERNATIVE 3- 950-BED REPLACEMENT FACILITY ALTERNATIVE

Project Construction

Similar to Alternative 2, construction of the replacement project under Alternative 3 would generate intermittent high noise levels on and adjacent to the development site during construction which may take up to seven years. Construction noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between noise source and receptor, and presence or absence of barriers between noise source and receptor.

Noise from construction activities assuming the loudest activity and the loudest equipment is presented in Tables 25 and 26, respectively, would affect sensitive receptors in the project vicinity, specifically the residences across from the project site to the east, northeast, and south (of Marengo Street), and Francisco Bravo Medical Magnet Senior High School to the northeast. However, this would be a short-term significant impact, which would cease upon completion of construction and demolition activities.

Project Operation

Most of the noise generated by the implementation of the replacement project under this alternative would primarily be traffic-generated noise. As estimated in the traffic study prepared by Kaku Associates for this alternative, a decrease in local traffic volumes would result along local roadways, particularly along Marengo Street and State Street because of the corresponding reduction in the number of trips generated by the proposed replacement project. More specifically, traffic volumes during the afternoon peak-hour along Marengo Street between State Street and Brittania Street would decrease by more than 300 peak hour trips. Correspondingly, this constitutes a noise decrease between 0.6 dBA to 0.9 dBA along this roadway segment, as shown in Table 28. Therefore, traffic generated by the replacement project under this alternative would have a beneficial impact on the ambient noise environment in the project vicinity.

TABLE 28: ESTIMATED EXISTING AND PROJECTED FUTURE AFTERNOON PEAK-HOUR NOISE LEVELS ALONG ROAD SEGMENTS NEAR THE PROJECT SITE (ALTERNATIVE 3)

	Noise Levels (dBA, L_{eq})[a]			
Road Segment	Existing	Future No Project	Future With Project	Project Impact
Marengo Street (between State Street and Kingston Avenue)	70.0	70.2	69.3	-0.9
Marengo Street (between Kingston Avenue and Brittania Street)	69.2	69.5	68.9	-0.6
State Street (between Marengo Street and Pomeroy Avenue)	68.0	68.3	67.2	-1.1
State Street (between Pomeroy Avenue and I-10 WB On-Ramp)	70.2	70.4	69.8	-0.6

a. Noise levels estimates and projections were made using the U.S. Department of Transportation's FHWA Highway Traffic Noise Prediction Model and traffic volume estimates presented in the traffic study prepared by Kaku Associates. All noise levels are in terms of dBA, L_{eq}, and are estimated at a distance of approximately 50 feet from the center of the roadway. Average speed assumed to be 35 mph; vehicle mix assumed to be 95% autos, 3% medium trucks and 2% heavy trucks.

SOURCE: Environmental Science Associates, 1999.

Helipad

The new hospital under this alternative would have helipads on top of Inpatient Tower for evacuation and a second one on top of the six story Diagnostic Treatment section of the building for trauma cases. Sensitive receptors in the vicinity of the project site, may be affected by helicopter noise. Noise impacts from helicopters will be intermittently significant (i.e. whenever takeoff or landing is necessary). The frequency of helicopter operation would be significantly lower than that of full-purpose helipads, since their use is limited to emergency cases, not routine

transport of patients. Thus, the frequency will remain as at present since the current helipad is also used only for trauma cases. Therefore, because no new impacts to noise would result from the operation of the proposed helipads, no significant impacts would occur.

MITIGATION MEASURES (ALTERNATIVES 2 & 3)

PROJECT CONSTRUCTION

- Construction activities that generate high levels of noise shall be scheduled between 8 a.m. and 6 p.m., Monday through Friday and 9 a.m. to 5 p.m. on Saturdays.

- Noisy construction activities shall be scheduled in shifts, where practical, to avoid high noise levels caused by operating several pieces of equipment simultaneously.

- The project contractor will be required to use power construction equipment with state of the art noise shielding and muffling devices to reduce noise levels associated with construction equipment operation.

OPERATION

- Noise barrier of up to 10 feet in height at project site along Chicago Street.

- Loading and staging areas on-site shall be kept away from noise sensitive land uses.

ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 & 3)

Construction of the replacement project under either of the build alternative would generate high noise levels on and adjacent to the development sites intermittently during construction. Construction noise would be a temporary adverse effect of the project. Construction noise would adversely affect employees, patients, visitors, and residential uses in the project area. There would be a short-term (approximately seven years) intermittent significant impact on the nearby noise-sensitive receptors (on-campus hospital facilities, residential and school uses) due to construction. However, due to the decreased size of the build alternatives compared to existing conditions, there would be a beneficial impact on the long-term noise environment.

4.8 PUBLIC SERVICES AND UTILITIES

AFFECTED ENVIRONMENT

Fire Protection and Emergency Service

The City of Los Angeles Fire Department, Fire Stations Nos. 1, 2, 4, and 16, provide fire protection and emergency service to the project area. The equipment found at each station, and the distance of each station to the site are as follows:

Station	Equipment	Distance from Site	Staffing
No. 1 (2230 Pasadena Ave.) Task Force Station	Truck and Engine Company Paramedic Ambulance	1.6 miles	12
No. 2 (1962 East Brooklyn Ave) Battalion 7 Headquarters	Truck and Engine Company Paramedic Ambulance	0.78 miles	14
No. 4 (800 North Main Street Task Force Station	Truck and Engine Company Hazardous Materials Squad	2.1 miles	14
No. 16 (2011 North Eastern Ave)	Single Engine Company	2.4 Miles	4

The above distances were computed to the intersection of State and Marengo Streets. Actual mileage into all areas of the proposed project would not be much further. Based on a required fire-flow of 9,000 gallons per minute (gpm), the first-due Engine Company should be within 0.75 miles, the first-due Truck Company within 1.0 miles of the site. The City of Los Angeles Fire Department supplements its fire protection and services with mutual assistance pacts with the Los Angeles County Fire Department.

Public Safety

Currently, day to day security activities at LAC+USC Medical Center are provided by the County of Los Angeles Office of Public Safety, which provides sworn officers to serve all County of Los Angeles facilities. Jurisdiction is shared with the City of Los Angeles Police Department.

Public Safety officers provide 24-hour security presence. Scheduled patrols of the site occur throughout the shifts, focusing on both interior and exterior areas. In addition, Public Safety officers provide entry control to the LAC+USC Medical Center.

Public Safety cooperates with LAPD concerning jurisdiction such that primary responsibility for a majority of criminal investigations are handled by Public Safety.

Police

The proposed project is located in the Los Angeles Police Department's Hollenbeck Area, Reporting District (RD) 443. RD 443 has a crime rate higher than the Citywide average. The predominant crimes in the area are larceny and auto theft. The average response times for emergency calls in the Hollenbeck Area is currently 8.5 minutes which is higher than the Citywide average response time of 6.9 minutes. There are currently over 250 sworn officers assigned over three watches in the Hollenbeck Area.[18] The LAPD provides back up to the Public Safety officers for crimes committed on LAC+USC Medical Center property.

Schools

The project site falls within the jurisdiction of the Los Angeles Unified School District (LAUSD). Those schools servicing the project area are Griffen Avenue Elementary, Sheridan Street Elementary, El Sereno Middle School, Lincoln High School, and Francisco Bravo M.D. Medical Magnet Senior High School. Also in close proximity to the project are Evergreen Avenue Elementary and Murchison Street Elementary. In addition, LAUSD operates the East Los Angeles Occupational Center south of the campus along Marengo Street. The University of Southern California has a medical school that is located immediately north adjacent to the LAC+USC medical campus along Zonal Avenue.

The following chart indicates 1996-97 enrollment and capacities for each school:

School	Enrollment	Capacity
Griffen Ave. Elementary	660	696
Sheridan Street Elementary	840	874

[18] Los Angeles Department of City Planning, *1994-1996 Annual Report on Growth and Infrastructure.*

El Sereno Middle School	2,376	2,611
Lincoln High School	2,472	2,727
Bravo Medical Magnet	1,691	1,685
Evergreen Avenue Elementary	1,080	1,236
Murchison Street Elementary	845	964

There are currently no plans for construction of new or expanded school facilities in the area. There are some modernization projects occurring in this region, however.

Telephone

Telephone service to the site is provided by Pacific Bell Telephone Company. Telephone service is provided through the main terminal in the Exchange Building adjacent to General Hospital. This facility currently serves most of the medical center buildings and many other County facilities, and has unlimited capacity for adding new conduits to serve new buildings.

Water

The Los Angeles Aqueduct typically provides 75 percent of Los Angeles' water, 15 percent is from local groundwater sources, and 10 percent is purchased from the Metropolitan Water District (MWD).

Water service to the project site is provided by the Los Angeles Department of Water and Power via the following circulating mains:

Zonal Avenue	8-inch main
Marengo Street	24-inch main and 12-inch main
Soto Street	36-inch main and 12-inch main
Mission Road	8-inch main

Current water consumption at the existing medical facility is approximately 833,750 gallons of water per day or 304.3 million gallons annually.

Sewers

The project site currently generates an estimated 725,000 gallons of wastewater per day or 264.6 million gallons per year. Water usage is generally about 15 percent higher than wastewater generation due to water consumption. The City of Los Angeles Department of Public Works provides sewer service to the site via the following sewer lines:

Marengo Street	- 8 inch line - 8 inch and 12 inch line
Cummings Street	- Two 6 inch lines
Zonal Avenue	- 12 inch, 8 inch, and 6 inch line - 8 inch and 6 inch line
Biggy Street	- 8 inch line
Between Zonal and Marengo parallel to Mission Road (beneath site)	- 12 inch line

The project site is in the area served by the Hyperion Treatment Plant (HTP). This facility presently has restricted capacity. HTP is located in Playa Del Rey, directly south of the Los Angeles International Airport. The plant treats wastewater from almost all of the City of Los Angeles, as well as effluent from the cities of Beverly Hills, Burbank, Culver City, El Segundo, Glendale, San Fernando, Santa Monica, and portions of Los Angeles County. These neighboring areas are under contract to Los Angeles to participate in the cost of having their wastewater treated at the City's facilities.

The Hyperion Treatment System serves approximately 90 percent of the City of Los Angeles and 29 contract cities and agencies in the region. The Hyperion plant was designed and constructed in the late 1940s, began operation in 1950 and has been upgraded to process a maximum of 420 million gallons per day (mgd) of wastewater and a secondary treatment of 200 mgd. It is currently accommodating an average sewage flow of 350 million gallons per day. HTP improvements are underway and are expected to be completed by the end of this year, bringing the plant's capacity up to 450 mgd for both primary and secondary treatment.

The County of Los Angeles and local agencies are regulated specifically by Municipal Permit No. CAS614001, which was first issued in 1990 and subsequently renewed in 1996. This NPDES permit covers construction activities greater than 5 acres in extent and general on-going housekeeping programs. This general permit requires the following:

- discharges associated with construction activities to eliminate or reduce non-storm water discharges to storm water systems,
- implementation of a storm water pollution prevention plan, and
- monitoring storm water control structures and pollution prevention measures.

The project site's storm drain system consists of a 27" and a 24" reinforced concrete pipe (RCP) gravity main lines that, together, carry most of the storm runoff to a downstream off-site location. The 27" line is located along the north side of Marengo Street running in a westerly direction. This drainage main starts just east of Chicago Street, and increases to 36" between Cummings Street and State Street. From that point, the main increases to 42" as it continues west, intercepting the 27" line from State Street. The 27" line on State Street carries tributary flows from State Street, up to the area east of the Patient Services Building. This line also carries runoff from the area south of the General Hospital, the School of Nursing, the Psychiatric Hospital, the Graduate Hall, the southerly parking structures, the Outpatient Clinic, Cummings Street up to the north of Charlotte Street and Cornwell Street.

A pair of 8" and 10" lines draining the North Campus improvements come together on Zonal Avenue, near the five story parking structure and access to the Hospital. The resulting 24" line is located along Zonal Avenue, and intercepts flows from Biggy Street to the east, the Intern's Residence, the northerly parking structure, and the Materials Management Building and Warehouse. The line continues westerly and changes from 24" to 33" from State Street to Henry Street and picks up drainage from the area north of the General Hospital and northerly portion of State Street. From Henry Street, the line changes to 36" and joins the 4.5' x 4.0' reinforced concrete box culvert west of the Clinical Research Building and continues southerly across the site, crossing Marengo Street west of Lord Street.

Solid Waste

Solid waste generated by the existing facility is collected by private haulers. Current solid waste generation at the existing medical facility is approximately 23,200 pounds of solid waste per day or 4,234 tons of waste per year.[19]

There are several major landfills in the Los Angeles Metropolitan area which may serve the project site. These landfills are classified as major landfills, which are defined as those facilities that receive more than 250,000 tons of solid waste per year. Additionally, these landfills are classified as Class III since they are permitted to accept non-hazardous wastes only. Table 29 presents the anticipated remaining capacity and anticipated remaining years of operation and expansion status of each of the Major Class III landfills. Precise sites designated for the reception of project-generated solid waste cannot be determined at this time.

In 1995, 6,331,000 tons of solid waste was generated in the City of Los Angeles of this approximately 3,511,000 tons (55.5%) was disposed of at local landfills, while approximately 2,820,000 tons (44.5%) was diverted from landfills by recycling or source reduction.[20]

Public Resources Code 40,000 et.seq. and State Assembly Bill 939 (AB939) require all county governments to develop an integrated Waste Management Plan to achieve a 25 percent reduction in the amount of solid waste going to landfills by 1995 and a 50 percent reduction by the year 2000. The project will be required to comply with the Waste Management Plan designed for Los Angeles County.

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

The existing LAC+USC Medical Center is currently served with adequate fire emergency medical and police protection services. Public Safety officers would still be provided on the project site, but could be reduced due to closure of General Hospital. The vacant buildings could

[19] Ibid.

[20] Ibid.

TABLE 29: EXISTING AVAILABLE CLASS III SOLID WASTE DISPOSAL FACILTIES

Site	Location	Annual Capacity	Annual Disposal Quantities[a]	Total Remaining Capacity	Permit Expiration Date
Puente Hills	Whittier	3,744,000 tons	3,168,984 tons	29,328,000 tons	2003 (11/1)
Spadra	Pomona	780,000 tons	693,264 tons	2,117,000 tons	2010 (5/1)
Bradley[b]	Sun Valley	3,120,000 tons	1,267,968 tons	7,637,000 tons	2006 (3/18)
Calabasas	Agoura	1,085,000 tons	673,608 tons	15,060,000 tons	completion of project[c]
Chiquita Canyon	Valencia	1,560,000 tons	58,338 tons	1,878,000 tons	completion of project or 2019 (11/24)
Lancaster	Lancaster	312,000 tons	185,016 tons	472,600 tons	2002 (4/1)
Scholl Canyon[d]	Glendale	1,054,000 tons	451,776 tons	10,910,000 tons	completion of project
Sunshine Canyon[e]	Sylmar	2,059,200 tons	unknown[f]	16,900,000 tons	completion of project

a. Estimated by multiplying 1995 Average Daily Waste Quantities by operation (days/week) by 52 (weeks per year).
b. Bradley landfill is anticipated to reach full capacity in the year 2000.
c. The designation "completion of project" indicates there is no expiration date attached to the permit for the landfill, rather the permit expires when capacity of the landfill is exhausted.
d. A portion of the Sunshine Canyon landfill lies within the County of Los Angeles while another portion lies in the City of Los Angeles. The portion that lies within the City is currently exploring opportunities for creating capacity but is not yet permitted to accept waste.
e. No annual disposal quantities are known for the Sunshine Canyon Landfill since it opened in August 1996. Capacity at this landfill is estimated to be exhausted in approximately 14 years from the time of opening based on an average of 6,000 tons per day, six days a week.

Source: Los Angeles County, Countywide Siting Element, June 1997.

become a fire hazard and security/safety problem if not properly secured. Implementation of the No Project Alternative would continue to provide emergency vehicle access to the site. Temporary land closures or sidewalk closures would occur under this alternative during demolition of the existing Pediatric and Psychiatric hospitals, similar to the Proposed 600-Bed Alternative. Under the No Project Alternative utilities impacts would be the same as existing conditions and worse than the build alternatives. Demolition activities would generate

demolition debris that would be less than the build alternatives. With vacation of the buildings, demand for other services and utilities would be greatly reduced.

ALTERNATIVE 2- 600-BED REPLACEMENT FACILITY ALTERNATIVE (PROPOSED ALTERNATIVE)

Fire

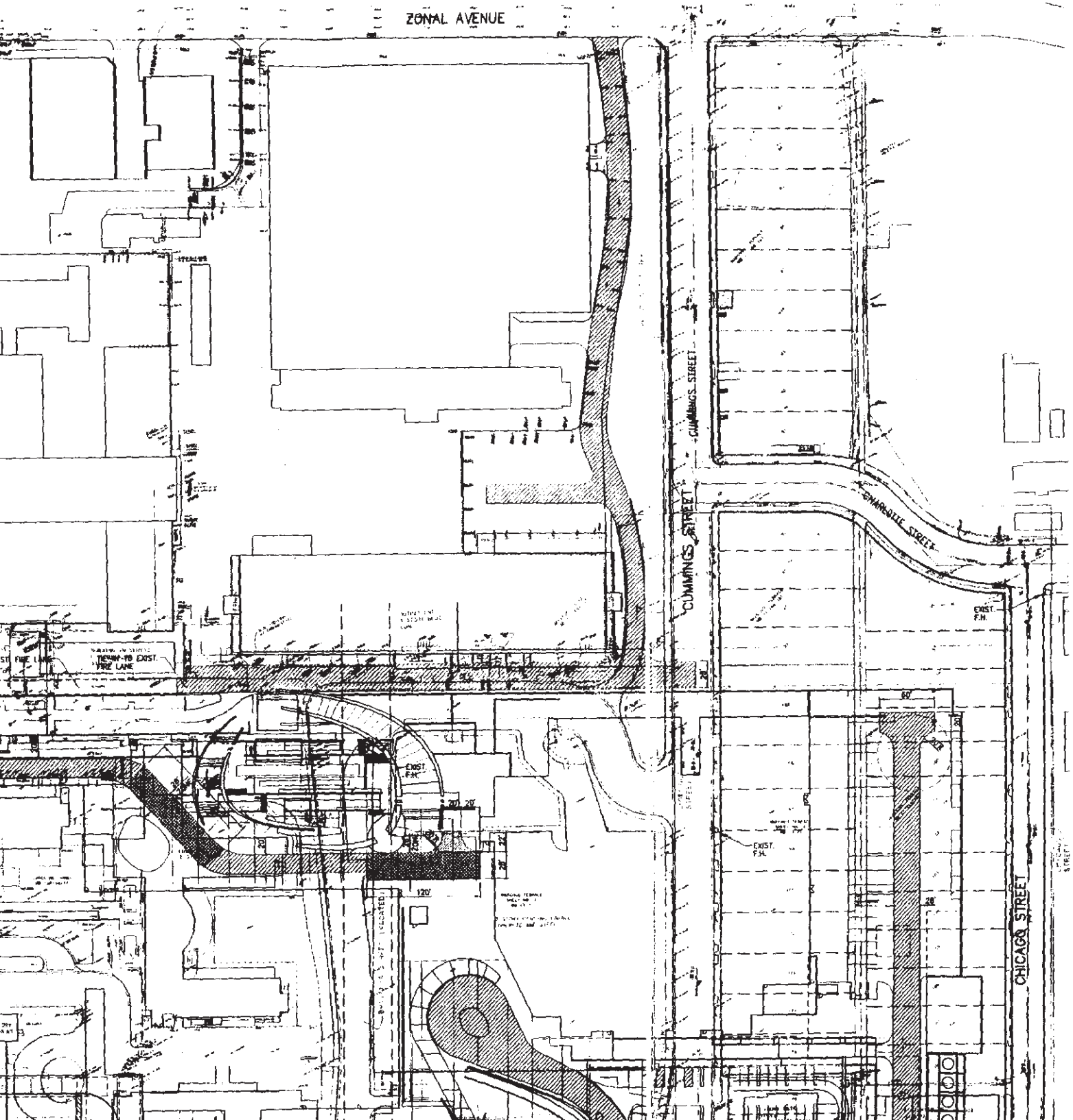
The LAFD in the 1994 EIR indicated that the required fire-flow for this project has been set at 9,000 gpm. The existing water system capacity is 8,000 gpm. To meet fire flow requirements, extensive main replacement and other water facility improvements will be required. On the basis of the required fire-flow of 9,000 gpm, the first-due Engine Company should be within 0.75 miles, and the first-due Truck Company should be within one mile. The closest Engine Company and Truck Company is Station No. 2, located 0.78 miles from the entrance to the site. The distance to actual structures on the project site would be a little further than the measured distance. Based on this criteria, the LAFD previously indicated that fire protection for this project was inadequate.

The Medical Center will consist of an Inpatient Building, Diagnostic and Treatment Building and Outpatient Building with horizontal connections at various levels. A separate Central Plant Building will be provided underground to serve the three buildings. The Fire Protection system has been designed to serve each building, with measures taken to insure the survivability of the services to each building due to a seismic event.

The following are the design criteria used for the design of the Fire Protection system for the facility (see Exhibit 34):

1. Combined Wet Pipe Standpipe and Automatic Fire Sprinklers:

   On-site 30 minute water storage with a 1500 GPM electric motor driven fire pump, connected to emergency power, to provide fire fighting water for standpipe hose stream coverage and automatic fire sprinkler system for the entire facility. A fire department pumper connection is included to provide a secondary back-up water supply by the local fire department.


ZONAL AVENUE
CUMMINGS STREET
CUMMINGS STREET
CHARLOTTE STREET
CHICAGO STREET
TIE-IN TO EXIST. FIRE LANE
EXIST. F.H.
EXIST. F.H.
EXIST. F.H.
120'
60'

2. Preaction Fire Sprinklers:

   Double interlocked precaution fire sprinkler system for the tape storage and computer support area in the D&T Building to limit water damage to sensitive equipment in case of fire.

3. Foam Concentrate:

   Foam concentrate fire suppression systems for helicopter fire extinguishing at the Heliports on the D&T Building roof.

   Additional design criteria have been included in the Fire Protection System Description.

4. Load Calculations:

   Fire protection load calculations were developed using the applicable code criteria developed by Schirmer Engineering, the Life Safety Code Consultant.

The Los Angeles Fire Department continually evaluates fire station placement and overall Department services for the entire City, as well as specific areas. Even though the new hospital structure will be a modern and more efficient building, the existing General Hospital would remain on-site. Reuse of the General Hospital would require upgrading to current fire safety codes.

The development of this proposed project, along with other approved and planned projects in the immediate area, may result in the need for one or both of the following:

- Increased staffing for existing facilities.
- Additional fire protection facilities.

Police

The replacement project includes removal of several existing buildings from use and the development of the new hospital. Upon completion, the entire medical center facility would be downsized. It is estimated that fewer persons would occupy the replacement project at any given time period. Additionally, the LAC+USC Medical Center is fully staffed with Public Safety officers both within the medical center facilities and on the grounds. The replacement project would be designed to minimize entrances and exits to allow for tighter security, and would

incorporate improved surveillance equipment. However, a number of vacant buildings would remain, requiring appropriate security at those locations. The primary security objectives for the replacement project are as follows:

- Provide for the safety of the facility patients, staff, and visitors.
- Safely detain the inmate patients in the facility jail and psychiatric unit.
- Deter theft and vandalism of the facility property.
- Ensure patient privacy.

The security objectives would be achieved while maintaining effective operation of the replacement project and complying with life safety requirements for egress. Another objective is to maintain effective security while not infringing on the privacy of the facility occupants.

To maintain effective security, the number of access points to the facility would be minimized and appropriate security would be provided at these access points. Special techniques would be applied to the emergency exits to allow effective security while complying with life safety requirements for egress.

Electronic security systems to be employed include access control (card or biometrics readers), door monitoring, closed circuit television, interior motion detectors, and panic alarm pushbuttons.

This project is not expected to impact local police services.

Schools

The proposed project is a hospital which will not directly generate new students that would have impacts on local schools. The project is expected to reduce the number of employees on-site therefore there would be no indirect generation of students due to employees finding housing in this area. Potential impacts to the local school, Francisco Bravo M.D. Medical Magnet High School, may include project generated traffic, air quality and noise, which are discussed separately in their respective sections of this document.

Telephone

The replacement project would generate an on-site demand for 5,000 telephones within the new facilities, and Pacific Bell indicates that the existing system is capable of meeting increased demand. Substantial on-site improvements will be required to serve the project. Service to new buildings will be provided through a new connection south of the new Central Plant.

Water

The existing infrastructure system can accommodate anticipated domestic water requirements for the proposed development with no significant impact on the existing water supply. The replacement project would result in a consumption of approximately 345,000 gallons of water per day or about 125.9 million gallons annually. This would lead to a net decrease of approximately 488,750 gallons of water per day or about 178.4 million gallons annually. Thus, the replacement project would consume less water than existing conditions at LAC+USC Medical Center. As a result, the replacement project would be more efficient in water usage than the existing campus facilities. The existing infrastructure system can accommodate anticipated domestic water requirements for the proposed development with no significant impact on the existing water supply. Existing system capacity is approximately 8,000 gpm. Fire flow requirements have been set at 9,000 gpm. To meet these fire flow requirements, extensive main replacement and other improvements would be required.

Sewers

The replacement project would result in a wastewater flow of approximately 300,000 gallons per day or about 109.5 million gallons per year. This would lead to a net decrease of approximately 425,000 gallons of wastewater flow per day or about 155.1 million gallons per year. As with water consumption, the replacement project would produce less sewage than the existing medical campus facilities. According to the City of Los Angeles Bureau of Engineering, the existing sewer system has the capacity to serve the new hospital facility.

Storm Drains

The replacement project storm drainage system would be provided by street and drainage facilities that will collect and transport runoff to the Marengo Street main line. Existing catch basins and connector pipes along the north side of Marengo Street from southeast of the Psychiatric Hospital to Chicago Street will be replaced and relocated appropriately. Proposed improvements would be compatible with the existing flow pattern and no diversion of flow is anticipated; therefore, it will not adversely affect the hydraulic integrity of the existing drainage system.

Solid Waste

The replacement project would generate approximately 9,600 pounds of solid waste per day or about 1,752 tons per year. The replacement project would result in a net decrease in solid waste generation of approximately 13,600 pounds per day or about 2,482 tons per year. No problems are anticipated in arranging for private haulers to continue to pick up from the project site. The replacement project would generate less solid waste than the existing health care facilities.

ALTERNATIVE 3 – 950-BED REPLACEMENT FACILITY ALTERNATIVE

Fire

Same impacts as Alternative 2- 600-Bed Replacement Facility Alternative (Proposed Alternative) the Proposed 600-Bed Alternative.

Police

Same impacts as the Alternative 2- 600-Bed Replacement Facility Alternative (Proposed Alternative).

Telephone

This Alternative would require approximately 7,500 telephones within the new facilities. Same impacts as Alternative 2- the 600-Bed Alternative (Proposed Alternative).

Water

This Alternative would result in a consumption of approximately 546,250 gallons of water per day or about 199.4 gallons annually. This would lead to net decrease of approximately 287,500 gallons of water per day or about 104.9 million gallons annually.

Sewers

The Alternative would result in a wastewater flow of approximately 475,000 gallons per day or about 173.4 million gallons per year. This would lead to a net decrease of approximately 250,000 gallons of wastewater flow per day or about 91.2 million gallons per year.

Storm Drains

Same impacts as Alternative 2- the 600-Bed Replacement Facility Alternative.

Solid Waste

This Alternative would generate approximately 15,200 pounds of solid waste per day or about 2,774 tons per year. This would result in a net decrease in solid waste generation of approximately 8,000 pounds per day or about 1,460 tons per year.

MITIGATION MEASURES (ALTERNATIVES 2 & 3)

Fire

- The proposed project shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles to the extent they are consistent with the State Fire Code.

- Definitive plans and specifications shall be submitted to the Office of Statewide Health, Planning and Development's Office of Fire Marshal and requirements for necessary permits shall be satisfied prior to any new construction.

- Automatic fire sprinklers shall be required throughout any new structure.

- Adequate off-site public fire hydrants are required. Private fire hydrants may be required. All portions of any non-residential building must be within 300 feet of an approved fire hydrant. Their number and location would be determined after the Fire Department's review of the plot plan.

- The project shall comply with State Fire Code requirements, including possible improvements to the water system of the area to provide a 9,000 gpm fire-flow.

- Access for Fire Department apparatus and personnel to and into all structures shall be required. Plans shall be submitted to the Los Angeles Fire Department which show the interior layout of the proposed hospital.

- The design, location, operation, and maintenance of any gates shall be to the satisfaction of the Fire Department.

- Private streets on-site shall conform to LA County Department of Public Works standards. However, where fire lanes are required, the pavement width shall be a minimum 20' to 28' as allowed by code. The passenger drop-off area must be widened if parking is allowed. Fire lanes shall terminate in a cul-de-sac or other approved turning area.

- The new building shall be fully sprinklered, will have fire-rated corridors, will incorporate smoke barriers, and shall have a water storage vault with pumps to supply water to sprinklers in case of a disruption in water supply.

- The Fire Department shall have access to all buildings, and normally all exterior walls will be within 150' of a fire lane. However, because the new building will be sprinklered, the permitted distance between fire lanes and all portions of the building is increased to 300 feet.

- Public and private roadways shall not exceed 15% in grade.

- All new fire lanes shall be a minimum of 20 feet to 28 feet in width, as allowed by code, with the exception of a temporary lane between the south face of the existing Outpatient Department and the edge of the shoring, which shall be 21 feet. To mitigate this, LAC+USC proposes larger than required staging areas at each end of the 21 foot segment.

- A new fire lane shall be provided east of General Hospital where none currently exists. New approved turn-arounds shall be provided south of General Hospital.

- Fire lanes shall be signed and shall remain clear.

- As the old buildings (that are to remain) are vacated, all furniture, papers, boxes, etc., shall be removed from the structures to prevent fire hazards.

Police

- Parking areas may be controlled by an electronic card-key gate in conjunction with a closed circuit television system.

- Entryway, elevators, lobbies, and parking areas shall be well illuminated and designed with minimum dead space to eliminate areas of concealment.

- Ornamental shrubbery shall not be planted in a way that provide cover for persons.

- Upon completion of the project, the sponsor shall provide the Hollenbeck Area commanding officer with a diagram of the project. The diagram shall include access routes, unit numbers, and any information that might facilitate police response.

- County shall maintain appropriate security measures at General Hospital.

Schools

None required.

Telephone

Off-site improvements are not required.

Water

- Automatic sprinkler systems should be set to irrigate landscaping during early morning hours or during the evening to reduce water losses from evaporation. Additionally, care must be taken to reset sprinklers to water less often in cooler months and during the rainfall season so that water is not wasted by excessive landscape irrigation.

- Installation of water saving devices, which also serve to reduce wastewater generation, shall be included in project design. These shall include at a minimum; low-flow showers, toilets, and faucets.

- Selection of drought-tolerant, low water consuming plant varieties shall be used where appropriate to reduce irrigation needs.

- Special arrangements shall be made with the Department of Water and Power to make improvements to the water system to provide the required fire flow of 9,000 gpm.

Sewers

Off-site improvements are not required.

Storm Drains

- A conceptual drainage plan showing the project design for the conveyance of site runoff shall be approved by the County DPW prior to issuance of grading permits for the project site.

- The project sponsor shall file a report with the County DPW and the Regional Water Quality Control Board (RWQCB) which complies with the National Pollution Discharge Elimination System (NPDES) Permit No. CA0061654.

- All paved areas shall be designed to carry surface water to the nearest practical street or storm drain. Concentrated flows of water from parking areas shall not flow by gravity over any public property or pedestrian walkway, but shall be collected in an appropriate manner within the property confines and conducted under the sidewalk.

- Timely removal and proper disposal of landscape debris, construction debris, fuel and chemical residue or other type of potentially harmful residue from areas susceptible to runoff shall be provided.

- During periods of rain or when water is used during construction, runoff shall be diverted from areas exposed by construction through the use of berms (sand bags) or other such devices to minimize stormwater contamination and prevent sediment-filled runoff from being deposited in County storm drains.

- Parking area maintenance and sweeping shall be conducted regularly (without the use of water) to reduce the amount of pollutants entering the County storm drain system.

- Hazardous materials shall be properly stored and located to prevent contact with precipitation or runoff. All receptacles containing toxic materials shall be protected from rainfall so that runoff from the project site does not contain contaminants. Effective monitoring and cleanup programs for spills and leaks of hazardous materials shall be prepared and approved by the appropriate agencies (Fire Department, County Health Agency, etc.).

Solid Waste

- The project shall be required to comply with the State's AB/939 resource reduction and recycling program.

- Any asphalt or pavement removed during construction shall be offered for sale for reuse in construction of other projects.

- The County shall require contractors to prepare and implement a plan to recycle as much construction and demolition materials as feasible.

- The County shall conduct an audit of the existing facility to determine the composition of waste generated and the potential for diversion programs. The results of the audit shall be used to develop a diversion program. The County shall then set aside adequate space for the collection and removal of identified recyclable materials.

- As mandated by the California Solid Waste Reuse and Recycling Access Act of 1991; by September 1993, development projects shall provide for an adequate storage area for collection and removal of recyclable materials.

ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 & 3)

The development of the proposed project, along with other approved and planned projects in the immediate area, may result in the need for increased Fire Department staffing for existing facilities, additional fire protection facilities, and/or relocation of present fire protection facilities. Incorporation of the mitigation measures recommended in this section would reduce impacts to public services and utilities to a level of insignificance.

4.9 WATER RESOURCES/WATER QUALITY

AFFECTED ENVIRONMENT

The site is located along the northern edge of the Los Angeles Forebay of the Central Basin, a sub-basin of the Los Angeles Coastal Plain. Within the forbay area, the site is situated along the southern edge of the Elysian Park-Repetto Hills, which are bisected by Los Angeles Narrows, a north-south trending valley underlain by Quaternary age alluvium deposited by the Los Angeles River. Quaternary age water-bearing deposits of the forebay area pinch out northward against Tertiary age sedimentary, including the Puente Formation. The regional groundwater flow in the site vicinity is generally towards the southwest.

Subsurface exploration of the site indicated that relatively complex hydrogeologic conditions exist beneath the site. Groundwater was encountered in most of the borings drilled at the site, at depths ranging from approximately 20 to 45 feet. Groundwater was encountered in both the underlying alluvial and bedrock units. Within the bedrock, groundwater was typically encountered in steeply dipping sandstone beds under semi-confined conditions.

Groundwater observation wells and isolated pore-pressure gages (electronic piezometers) aimed at individual water-bearing sandstone layers have been installed in selected locations to better understand groundwater conditions at the site. The piezometers offer a significant advantage over the open-standpipe observation wells. Data from the piezometers should facilitate characterization of the groundwater and its dependency on rainfall on a layer-by-layer basis, and the resulting recommendations for construction dewatering and water pressures on slabs and basement walls can be expected to be more realistic.

The wells and piezometers are currently being monitored in order to refine to an understanding of the groundwater levels at the site. The encountered contacts with groundwater at the time of drilling are shown on the logs of borings and are depicted in the subsurface cross sections. Seasonal fluctuations of up to 5 feet should be anticipated. Based on current and previous borehole data and assuming seasonal groundwater fluctuations, the anticipated groundwater levels relative to the proposed lowest finished floor elevations for the hospital buildings listed in Table 30.

TABLE 30: GROUNDWATER LEVELS TO FINISHED FLOOR

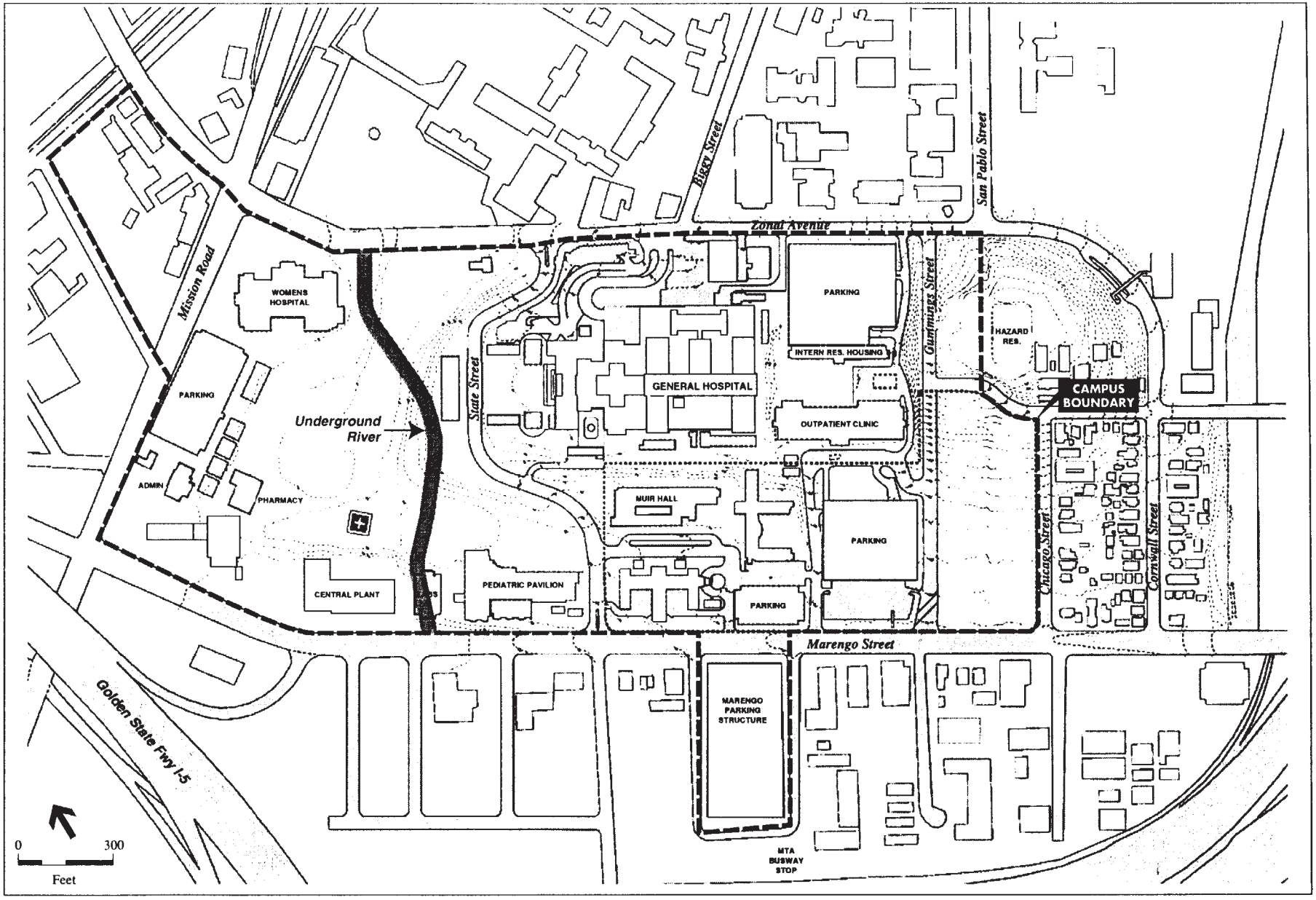
BUILDING COMPONENT	LOWEST FINISHED FLOOR ELEVATION	GROUNDWATER LEVELS RELATIVE TO FINISHED FLOOR (FF)	
		Lowest Level	Highest Level
Inpatient Tower	+340 ft MSL	Same level as FF	5 feet above FF
D+T Building	+329 ft MSL	5 feet below FF	5 feet above FF
Outpatient Clinic	+340 ft MSL	25 feet below FF	7 feet below FF
Central Plant Building	+323 ft MSL	5 feet below FF	1 foot above FF

SOURCE: Dames & Moore, 1999

As shown in Table 30, some construction dewatering should be anticipated during excavations within the Inpatient Tower, D+T Building and the Central Plant Building. Floor slabs and subsurface walls at the Inpatient Tower, D+T Building and Central Plant would also be subject to hydrostatic pressure assuming groundwater fluctuations of up to 5 above current levels.

The approximate location of the historic underground Arroyo De La Pasa River is depicted in Exhibit 35. The river flowed approximately in a southwesterly direction from the existing Clinical Research building south to the area near the existing Central Stream Plant and Central Laboratory buildings.

Approximately one mile west of the site is the Los Angeles River. Surface water drainage in the site vicinity is generally towards the Los Angeles River. Surface water drainage on the site follows local topography - flowing northerly and northeasterly in the north part of the site, and southerly or southwesterly in the south portion of the site. Runoff leaving the site eventually flows westerly or southwesterly towards the Los Angeles River.



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu, 1998.

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 35

Location of Historic Underground River
Arroyo De La Pasa

The quality of stormwater draining in Santa Monica Bay has been of regional concern, particularly for the City and County of Los Angeles. Urban runoff control programs have been implemented by the City and County of Los Angeles to reduce contaminants into the bay, including street sweeping, catch basin cleaning and other requirements to improve runoff water quality. For example, the County of Los Angeles currently diverts all of the dry weather runoff to control the deleterious effects of polluted storm water runoff. The quality of LAC+USC Medical Center stormwater is typical of urban areas and includes small quantities of suspended sediments and contaminants associated with motor vehicle operation, such as oil, grease and hydrocarbons, as well as fertilizers and pesticides associated with grounds maintenance.

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

The No-Project alternative would involve the removal of the Pediatric and Psychiatric hospitals. Assuming the basements of the two facilities would also be removed with the excavation filled in and the ground surface maintained in a landscaped condition, approximately 35,000 sf of additional permeable surface could be added to the site. Other areas of the project site would remain in their present condition. This alternative could increase pervious surfaces and the infiltration of runoff, and thus reduce the runoff that would require conveyance by existing storm drain facilities (a beneficial impact), which would be slightly higher under this alternative. Demolition of the Pediatric and Psychiatric hospitals would involve approximately ¾ of an acre, which is below the threshold for the need to comply with procedures of the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity. Although below the minimum threshold for the requirement of implementation of Best Management Practices (BMPs), it is concluded that the County would employ BMPs at the project site under this alternative. Water quality runoff under operational conditions would remain the same as at present until General Hospital closes.

ALTERNATIVE 2- 600-BED REPLACEMENT FACILITY ALTERNATIVE (PROPOSED ALTERNATIVE)

Project Construction

The quantity of surface water runoff during construction would generally be less than occurs under existing conditions, since the majority of the project site is currently almost completely covered by impervious surfaces that drain directly to street gutters. During construction activities, the proportion of impervious surfaces would not increase and during certain stages would be less than currently exists.

Surface water quality could potentially be affected by construction activities. Grading activities associated with demolition and construction could temporarily increase the amount of suspended solids associated with demolition and construction could temporarily increase the amount of suspended solids from surface flows derived from the project site during a concurrent storm event due to sheet erosion of exposed soil and building materials. The project would involve satisfying conditions under the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity. Compliance with the NPDES requirements includes development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) with associated monitoring and reporting. BMPs for controlling runoff water quality would be implemented as part of the required SWPPP. BMPs would serve to minimize sedimentation, prevent contamination of runoff by potentially hazardous materials, and eliminate non-storm water discharges.

Confined water in the steeply dipping sandstone layers may generate localized hydrostatic pressures within the bedrock and on subsurface structures, however, the amount of water that would need to be managed is expected to be relatively small. Localized sumps and dewatering systems should be sufficient to manage the groundwater during temporary excavations and construction. However, because of the potential for the groundwater level to rise above the floor slabs, a permanent dewatering system may be required under the buildings. Three permanent dewatering schemes/alternatives are currently envisioned including: (1) an "overflow" perimeter drain system to maintain groundwater at a specified design level; (2) a series of underdrains connected to a sump under each building; and (3) a partial underdrain and sump system. Due to environmental constraints, there is a possibility that the water generated from the dewatering

system might require treatment and individual NPDES permitting prior to discharging into the storm drain system.

Project Operation

The project incorporates design features to retain stormwater on-site within landscape areas. Given the proposed amount of open space, a significant reduction can be readily achieved. The project is not anticipated to increase flows to the drainage system. Surface water quality could be affected by landscaping management practices and/or site pavement maintenance practices; no other outdoor activities are expected to present sources of sedimentation or contamination. Although management practices are not expected to change compared to existing practices, the extent of landscaped areas would increase and exposed parking surfaces would decrease. As a result of demolishing Parking Structures #6 and #11, the amount of surface water runoff would decrease.

Confined water in the steeply dipping sandstone layers may generate localized hydrostatic pressures within the bedrock and on subsurface structures, however, the amount of water that would need to be managed is expected to be relatively small. Localized sumps and dewatering systems should be sufficient to manage the groundwater during temporary excavations and construction. However, because of the potential for the groundwater level to rise above the floor slabs, a permanent dewatering system may be required under the buildings. Three permanent dewatering schemes/alternatives are currently envisioned including: (1) an "overflow" perimeter drain system to maintain groundwater at a specified design level; (2) a series of underdrains connected to a sump under each building; and (3) a partial underdrain and sump system. Due to environmental constraints, there is a possibility that the water generated from the dewatering system might require treatment and NPDES permitting prior to discharging into the storm drain system.

ALTERNATIVE 3 – 950-BED REPLACEMENT FACILITY ALTERNATIVE

Impacts to Water Resources/Water Quality would be the same as the Proposed Alternative.

MITIGATION MEASURES (ALTERNATIVES 2 & 3)

- Permanent monitoring wells shall be installed within and around the perimeter of each building so that the groundwater levels can be monitored to evaluate the performance of the dewatering system. As dewatering of any deep excavation may affect adjacent structures, prior to the start of any dewatering, a baseline condition survey will be made of all adjacent foundations and structures. All signs of existing distress shall be recorded.

- The ground surface of the site should be adequately sloped to direct water away from the building and foundations. Areas where water could pond adjacent to the building in planters, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Area drains should not be placed next to or in contact with the building. The ground surface should be adequately sloped away from structures toward the area drains. Roof drainage should be controlled and directed to proper drainage devices in an acceptable manner.

- The County shall require each contractor to develop a specific erosion control plan, that is compatible with the overall site general erosion control plan, and submit their plan for approval to the governing regulatory agency. The contractor's erosion control plan must comply with the California Stormwater Best Management Practices Handbook.

ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 & 3)

Implementation of the mitigation measures recommended in this section would reduce any potential water resources/water quality impacts to levels of insignificance.

4.10 BIOLOGICAL RESOURCES

Executive Order 11990, Protection of Wetlands, requires federal agencies to take action to minimize the loss of wetlands. The NEPA compliance process requires federal agencies to consider direct and indirect impacts to wetlands, which may result from federally funded actions. [This EO uses the same analysis as EO 11988.]

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, the project area was evaluated for the potential occurrences of federally-threatened and endangered species. The ESA requires any federal agency that funds, authorizes or carries out an action to ensure that their action is not likely to jeopardize the continued existence of any endangered or threatened species (including plant species) or result in the destruction or adverse modification of designated critical habitats.

AFFECTED ENVIRONMENT

Virtually the entire project site is currently covered with impervious surfaces such as buildings and pavement. No wetland habitat exists on the project site due to its urban setting. The LAC+USC Medical Center campus has been landscaped with common urban species of trees and shrubs. The eight-acres of formerly residential land to the east of the campus is currently covered with weeds. Weed abatement is scheduled to occur shortly. (Residential uses were removed in 1998.) No endangered, threatened or rare species or their habitats currently exist on site. No locally designated natural plant, animal community or wetlands exists on the campus due to its urban setting.

POTENTIAL IMPACTS OF ALTERNATIVES

No impacts to biological resources are anticipated as a result of any of the alternatives. No mitigation is required because no significant impacts related to biological resources would occur. The United States Fish and Wildlife Service (USFWS) has concluded that the project will not affect federally listed species nor their designated critical habitat (see Appendix H).

4.11 CULTURAL RESOURCES

Cultural resources include archaeological or cultural sites, standing structures, and other historic properties considered to be eligible for or listed on the National Register of Historic Places. Section 106 of the National Historic Preservation Act mandates that federal agencies consider the impact of their undertakings on historic properties within the project's area of potential effect. If adverse effects on historic, archaeological or cultural properties are identified, then agencies must attempt to avoid, minimize, or mitigate these impacts to resources considered important in our nation's history.

AFFECTED ENVIRONMENT

HISTORIC PROPERTIES

Historic Context

Los Angeles County Hospital was established in an adobe home in 1858 by the Sisters of Charity. In 1878, the Los Angeles County (County) Board of Supervisors purchased 37.72 acres of land on Mission Road in Boyle Heights.[21] The land was acquired for construction of a County Hospital and Poor Farm, and first hospital building was constructed within a few months of wooden materials and almost no planning. Expansion of the hospital campus has since progressed successively eastward with acquisition of additional land and vacation of neighboring streets.

Construction began in 1897 to replace inadequate wooden buildings with larger, brick buildings. In 1900, electric lighting was installed, followed in 1902 by the first elevator. By 1904, there was a telephone system with an annunciator, intercom, and call-bells. A contract was awarded to a San Francisco-based architect, William Mooser,[22] for design of four new buildings which were

[21] Boyle Heights was originally a vineyard owned by Andrew A. Boyle. After his death in 1870, the land was sold to Louis Lewin and Charles Jacoby who subdivided it and named the area "Boyle Heights."

[22] William Mooser was the son of William Mooser, Senior (1834-1896) a pioneer San Francisco architect. Working under the firm name, William Mooser & Company after his father's death, William Mooser went on to design such notable Southern California landmarks as the Santa Barbara County Courthouse (1929) and the Eastern Star Home (1930).

completed in 1904. In 1909, a contract was let for construction of a new administration building. Designed by Hudson & Munsell, this is currently the oldest building still in existence.[23] These buildings were all constructed of brick with classically-inspired details.

Between 1920 and 1930, County population doubled and the hospital was expanded to meet the needs of a growing population. Overflow patients were housed in corridors connecting some buildings or in makeshift wards. County Hospital patients stricken with tuberculosis and other highly contagious illnesses were isolated in the largest building constructed during this period, the first Communicable Diseases Building (1924), designed by County architect Montrose Warn.[24]

Widespread prosperity and pressing need for more beds initiated planning in 1922 for a new, larger, and modern hospital. Upon completion, the new facility would eclipse the small scale of 19th century campus buildings located along Mission Road. A bond measure for construction was passed in 1923 and the Board of Supervisors selected Allied Architects Association[25] to design the new hospital. Additional property was purchased and annexed to the campus for construction of an Acute Unit, as General Hospital was called at the time. Development plans called for construction of a state-of-the-art high-rise hospital tower set on a promontory overlooking downtown Los Angeles, with extensive terracing and reconfiguration of North State Street into a formal vehicular drive leading uphill to the hospital entrance. Construction originally projected to cost about $5,000,000 reached nearly $13,000,000 when completed in late 1933.[26]

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[23] Frank D. Hudson and William A. Munsell were in partnership from 1901 until the early 1930s. Among their best known works were the County Hall of Records (1907, demolished) and the County Historical and Art Museum at Exposition Park (1912).

[24] Montrose Warn was variously referenced on drawings in the 1920s as "Architect Assistant" and as "Architect." It seems he served under Karl W. Muck, County Architect during this period. The beginning and ending dates of either of these two architects service to the County is not known, nor is any further information about them. Warn and Muck are deserve commendation for extraordinary design work their office produced in the 1920s and 1930s.

[25] The "Committee of Design" was composed of Edwin Bergstrom, Myron Hunt, William Richards, Pierpont Davis, and Sumner P. Hunt.

[26] The new hospital, also known as the Acute Unit, Unit 3 or later as General Hospital, received its first patients in December 1933 and was formally dedicated on April 16, 1934.

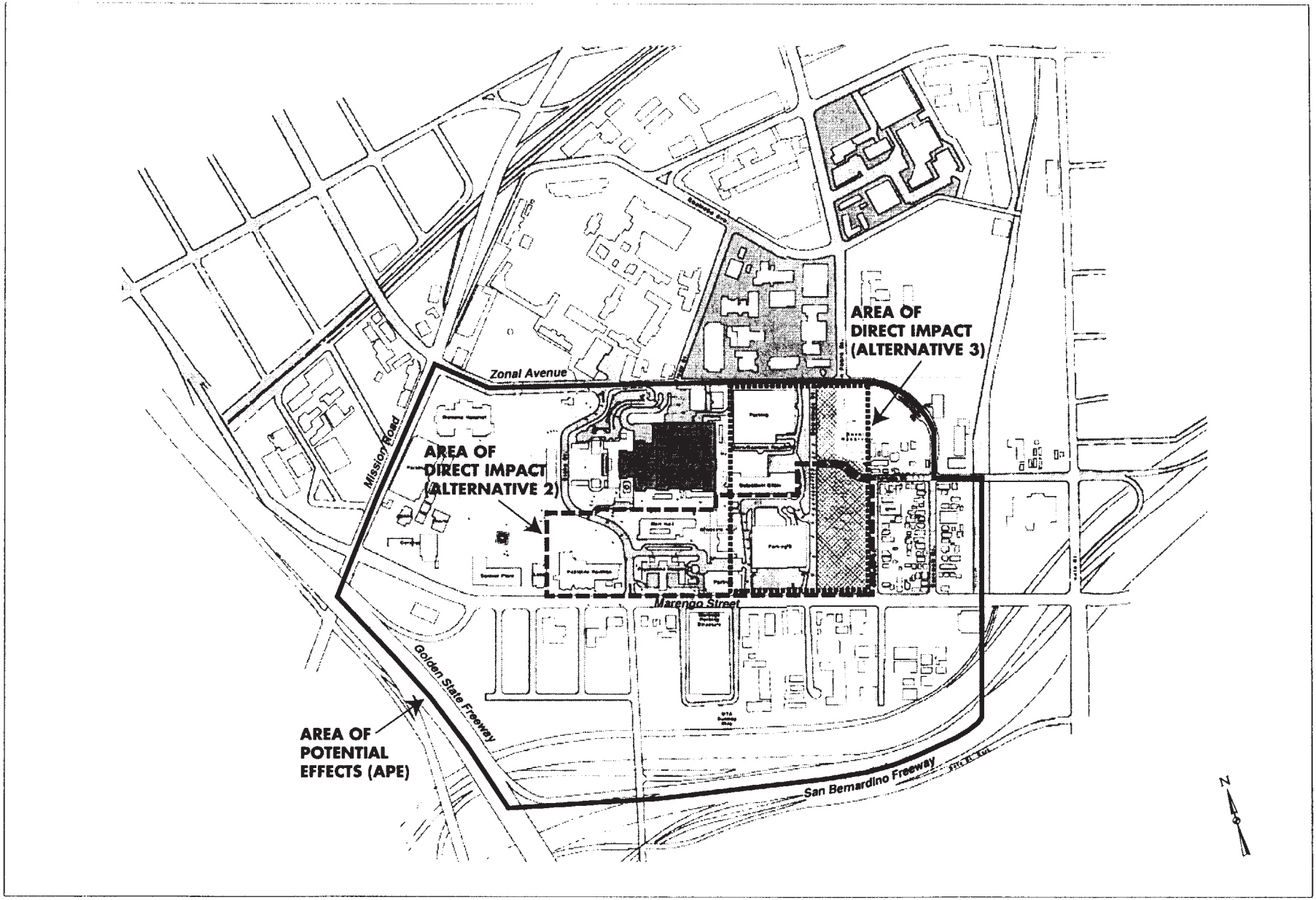
Post World War II was a period of rapid growth and development. With an increasing population, Los Angeles County General Hospital again expanded to provide additional services. Many new buildings were constructed, which required demolition of the earliest hospital buildings. Added property was purchased south and east of General Hospital annexing several residential blocks to the hospital campus. Construction of Psychiatric Hospital (1951), Graduate Hall (1953/1955), Pediatric Pavilion (New Communicable Diseases Unit, 1955), Osteopathic Hospital (AKA Women's and Children's Hospital, 1959), Muir Hall (1962), Outpatient Building (1963), and Intern-Resident Dormitory (1965) took place. Improvements to the campus thereafter were generally limited to modular buildings and trailers placed where space allowed, including roof terraces of General Hospital.

The period 1968-1978 brought some favorable developments. One achievement was a change in name in July 1968 from Los Angeles County General Hospital to Los Angeles County/University of Southern California (LAC+USC) Medical Center. This new name recognized all existing facilities of USC's Health Sciences campus and School of Medicine, located across Zonal Avenue, were available to serve the hospital. After 1968, General Hospital underwent further physical improvements, including smaller wards for patients, redecoration, new lighting, and high-speed elevators.[27]

Consultation with the Federal Emergency Management Agency and the State Office of Historic Preservation

The Los Angeles County General Hospital-Acute Unit (General Hospital), was determined National Register of Historic Places (National Register) eligible in 1994 by Federal Emergency Management Agency (FEMA) and State Historic Preservation Officer (SHPO). A "National Register Eligibility and Findings of Effects Report" was prepared for the project. The complete report is included in the Appendix of this EA/EIR. Exhibit 36 shows the Area of Potential Effects (APE) and Area of Direct Impact for both build alternatives. In addition to identifying National Register eligibility, this report assessed effects of the proposed project on eligible historic resources and establishes mitigation measures. This report is summarized in this section of the EA/EIR.

[27] Elevator tower addition was completed in 1972.



SOURCE: Mellon & Associates, 1999.

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 36

Area of Potential Effects (APE) and Area of Direct Impact

All buildings within the Area of Direct Impact were constructed after 1950 and are therefore not 50 years of age. General Hospital was determined National Register eligible in 1994 by consensus between FEMA and SHPO. Two site features dating from original construction contribute to historic character of General Hospital and appear eligible for National Register listing, namely the Marengo Street Gateway and the Configuration of North State Street. One other site feature, also constructed concurrently with General Hospital, the Hospital Place Gateposts, lack integrity and appear ineligible for National Register listing. Modular buildings and trailers placed after 1965 appear ineligible as well.

Identification of Historic Properties in the Project Area

On Site - Area of Direct Impact. The Area of Direct Impact for the replacement hospital is defined as the construction site. The construction site for Alternative 2 is generally bounded by General Hospital on the north, North Chicago Street on the east, Marengo Street on the south and North State Street on the west. North Cummings Street between Charlotte Street on the north and Marengo Street will be vacated and incorporated into the project. The construction site for Alternative 3 is generally bounded by Zonal Avenue on the north, Chicago Street on the east, Marengo Street on the south, and just west of Parking structures #11 and 12. Cummings Street between Marengo Street and Zonal Avenue will be vacated and incorporated into the project. A total of nine buildings and six structures exist within the Areas of Direct Impact. Two of the six structures directly associated with General Hospital, namely Marengo Street Gateway and the configuration of North State Street, are site features constructed concurrently with the original hospital, and retain their integrity and are National Register eligible. None of the eight buildings are 50 years of age, and three of the five structures appear ineligible for National Register listing. Table 31 lists buildings and structures, construction dates, and National Register eligibility. The Old Administration Building is currently being restored under a separate contract and environmental document approved by FEMA.

Marengo Street Gateway. There are two reinforced concrete piers at the Marengo Gateway, one set with decorative wrought iron gates, the second, missing gates for which hinges are present and its central gatepost. The gateway located on the north side of Marengo Street was constructed concurrently with General Hospital and completed in 1934. This gateway consists of poured-in-place concrete piers which have been painted, though were originally intended to be exposed board-formed concrete. The piers have decorative wrought iron gates and lamps, retain

TABLE 31: SUMMARY OF NATIONAL REGISTER ELIGIBILITY BUILDINGS AND STRUCTURES WITHIN AREA OF DIRECT IMPACT

Building/Structure	Architect/ Contractor	Construction Date	National Register Eligible
1. Psychiatric Hospital	Wilson Williams	1951	No
2. Graduate Hall	Wilson-Williams	1953, 1955	No
3. Pediatric Pavilion	Wilson-Williams	1955	No
4. Muir Hall	Wilson-Williams	1962	No
5. Pedestrian and Vehicular Tramway and Utility Tunnel Systems	Unknown	1951-1962	No
6. Modular Buildings and Trailers	Unknown	after 1965	No
7. Parking Structure 11	Fellows & Associates	1964	No
8. Parking Structure 6	Portable Parking Structures, International	1971	No
9. Marengo Street Gateway	Allied Architects	1933	Yes
10. Hospital Place Gateposts	Allied Architects	1933	No
11. Configuration of North State Street	Allied Architects	1933	Yes
12. North State Street Lampposts	Unknown	c. 1950s (?)	No
13. Shopping Center, 2057-2067 Marengo St.	Eddy Liu	1984	No
14. Burger King Restaurant, 2033-2055 Marengo St.	EP Clarke, Architect	1985	No

SOURCE: Mellon & Associates, 1999

their architectural integrity, and form a creative entrance gateway to the campus. This gateway continues themes established in the design of General Hospital, completing architectural and landscape composition which reconexhibited North State Street in 1934. It projects an arrival

sequence leading from Marengo Street to the hospital forecourt atop a promontory upon which the hospital stands. The Marengo Street gateway retains its architectural integrity, falls within the period of significance, and is a structure which contributes significantly to General Hospital. Therefore, the Marengo Street gateway has been determined eligible for National Register listing as part of the General Hospital complex.

Hospital Place Gateposts. Located north of Marengo Street on the east side of North State Street, there are two gateposts consisting of poured-in-place concrete piers which have been painted, similar to the Marengo Street gateway. These were constructed concurrently with General Hospital, but altered in 1951 by removal of a central gatepost dividing traffic on the same plan as Marengo Street Gateway. As a result of loss of central gatepost and iron gates (unknown date), this gateway lacks integrity and has been determined ineligible for National Register listing.

North State Street Lampposts. Several lamp posts line North State Street. These are decorative cast stone standards detailed with fluting and dentils surmounted by a lamp. The cast stone standards are compatible with stylized architectural character of General Hospital, but may not have been placed during the period of significance and no records associated with construction date of these site features was found. Due to inconsistent architectural character and incompatible relamping, these lamp posts has been determined ineligible for National Register listing.

North State Street. The Configuration of North State Street is integral to architectural setting, scale and character of General Hospital, and was conceived simultaneously with its design. Accordingly, street configuration, excluding the roadway surface, curbs and gutter, has been determined eligible for National Register listing.

Surrounding Vicinity - Area of Potential Effect. The boundary of the Area of Potential Effects (APE) includes properties potentially effected by the replacement hospital. The proposed boundary incorporates all of the superblock bounded by Zonal Avenue to the north, Cummings Street to the east, Marengo Street to the south, and Mission Road to the west. In addition to the medical center campus, the APE boundary incorporates all properties east to the former Pacific Electric Railway right-of-way and south to the San Bernardino (I-10) and Golden State (I-5) Freeways. Within the APE are residential and commercial properties, many of which are 50 years of age and were surveyed to determine National Register eligibility. Table 32 shows

TABLE 32: NATIONAL REGISTER ELIGIBLE PROPERTIES WITHIN THE AREA OF POTENTIAL EFFECTS

Building/Structure	Date Constructed
General Hospital-Acute Unit	1933
Payroll Building	1933
Quality Assurance Building	1933
Entrance Forecourt	1933
Configuration of North State Street	1933
Marengo Street and Zonal Avenue Gateways (East, Center and West)	1933
Vehicular/Pedestrian Tunnel/Tramway (from General Hospital underground through former Support Services Site connecting to Pharmacy Building)	1933
Pharmacy Building	1917
Old Administration Building	1910

SOURCE: Mellon and Associates, 1999.

buildings and structures that appear to be eligible for listing in the National Register. Table 33 shows impacts of the build alternatives to these properties as compared to the No Project Alternative.

A reconnaissance survey of the APE consisted of windshield photographic analysis. Based on a review of the photographic analysis, inconsistent in-fill buildings, demolition and/or substantial alteration of the vast majority of 50-year old buildings have caused an overall lack of integrity within the APE's off-campus environment. As a result of these changes over time, there is no National Register eligible separate property or district.

TABLE 33: IMPACTS TO NATIONAL REGISTER ELIGIBLE PROPERTIES WITHIN THE AREA OF POTENTIAL EFFECTS

Building/Structure	No Project Alternative	Proposed 600-Bed Alternative	950-Bed Alternative
General Hospital-Acute Unit	No effect	No effect	No effect
Payroll Building	No effect	No effect	No effect
Quality Assurance Building	No effect	No effect	No effect
Configuration of North State Street	No effect No effect	Effect No effect	Effect No effect
Marengo Street and Zonal Avenue Gateways (East, Center and West)	No effect No effect	Effect No effect	Effect No effect
Vehicular/Pedestrian Tunnel/Tramway (from General Hospital underground through former Support Services Site connecting to Pharmacy Building)	No effect	No effect	No effect
Pharmacy Building	No effect	No effect	No effect
Old Administration Building	No effect	No effect	No effect

SOURCE: Environmental Science Associates, 1999.

ARCHAEOLOGICAL RESOURCES

The absence of prehistoric sites within a one-mile radius of the project merits a low archaeological sensitivity rating.[28] The project site has been previously developed in at least two phases: a residential neighborhood and the Medical Center campus. A Phase I archaeological survey is not required.

[28] As described in the report by W.H. Bonner Associates dated January 27, 1999 attached in the Appendix.

ANALYSIS OF PREVIOUSLY EVALUATED PROPERTIES

General Hospital. The original survey form for General Hospital-Acute Unit was prepared by Dennis Smith and Tom Sitton of the Los Angeles County Natural History Museum in 1976. A number of structures are related directly to the General Hospital-Acute Unit and were constructed concurrently therewith and therefore contribute to the historic character of the determined eligible property. These features include: Payroll and Quality Assurance Buildings (single-story buildings which flank the hospital entrance forecourt); the Entrance Forecourt; the configuration of North State Street, and; Marengo Street and Zonal Avenue Gateways.

Support Services Site. The Support Services Site noted above, with the exception of the Pharmacy Building and Pedestrian/Vehicular Tramway/Tunnel viaduct, was demolished in 1995.

Street Lights. Although the records search indicates that the Street Lights are eligible, this is inaccurate. No formal determination of eligibility of the street lights was made, because no Federal undertaking existed in 1994 and only now is an official identification being carried out. The report prepared for this project determined Street Lights, referenced more accurately as "North State Street Lampposts" as ineligible for National Register listing due to their apparent construction in the 1950s and incompatibility of recent relamping. FEMA and SHPO have subsequently determined the street lights to be ineligible for National Register listing.

POTENTIAL IMPACTS OF ALTERNATIVES

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Under this alternative, General Hospital would close. The replacement hospital would not be constructed and the General Hospital would not be rehabilitated. FEMA funds would not be used and there would be no federal undertaking. General Hospital would remain, though its eventual function is not known at this time. As a landmark structure, it is assumed that General Hospital would be renovated for new uses. However, reuse is not reasonably foreseeable. As there is no enforceable mechanism to ensure proper maintenance, General Hospital has the potential to fall into disrepair.

ALTERNATIVE 2 – 600-BED REPLACEMENT FACILITY ALTERNATIVE (PROPOSED ALTERNATIVE)

Alternative 2 would have one temporary direct impact on a National Register eligible property; the configuration of North State Street. The configuration of North State Street is integral to the architectural setting, scale and character of the General Hospital, and was conceived simultaneously with its design. Accordingly, street configuration, excluding the roadway surface, curbs and gutter, are eligible for National Register listing. The Proposed 600 Bed Alternative may result in the partial demolition and temporary closure of State Street during construction within the project site. Given the nature and integrity of the resource, the extent of alterations to the existing configuration being limited to new curb cuts and driveways, the closure of State Street being temporary, and the reconstruction of demolished character-defining features, the Proposed Alternative is not anticipated to result in an adverse effect.

The Marengo Street Gateway could potentially be effected by adjacent construction activity. This gateway would be either be closed during the construction period or protected from inadvertent construction activity by full encasement in plywood barricades and placement of multiple steel bollards surrounding encased piers. Given the nature of the resource, limited period of time when it must be protected and the ability to readily remove temporary construction protection, it was determined that the Proposed Alternative would have no adverse effect.

The Proposed Alternative would have an indirect visual impact on the General Hospital-Acute Unit and its associated features including the Payroll Building, Quality Assurance Building, Marengo Street and Zonal Avenue Gateways. The primary resource is General Hospital, approximately 20 stories in height, with its ground floor level situated atop a promontory. Campus development in the 1950s and 1960s south of General Hospital included construction of various buildings approximately 10 stories in height. Alternative 2 would be located in the immediate vicinity of these buildings and of the same approximate height. The density of Alternative 2 would be greater than existing buildings on the project site; however, its bulk would be placed in the eastern portion of the project site, east of North State Street. Therefore, the visual effect of the Proposed Alternative would be similar to existing views just more dense. The general configuration of the project with various projecting wings and setbacks reflects precedents in design of the historic hospital but does not copy or mimic the original design. Use

of compatible materials, precast concrete or glass fiber reinforced concrete panels, would establish a rhythmic pattern of punched windows in a masonry facade. These elements would combine to establish a respectful relationship between the historic hospital and the replacement hospital. As a result of the project's limited visual effect and regard for character-defining features of the historic hospital, it was determined that the Proposed Alternative would have no adverse effect.

The Proposed Alternative would also have an indirect impact on General Hospital-Acute Unit in that FEMA funds allocated to rehabilitation of the historic hospital would be reallocated to the replacement hospital. Under Section 106 regulations, the Federal undertaking, diverting rehabilitation funding, would effect General Hospital. Once the replacement hospital opens, General Hospital would be decommissioned as a hospital under Office of Statewide Health Planning and Development (OSHPD) authority. As a result, its future adaptive use/rehabilitation would be subject to less stringent building codes. At the present time, the range of possible adaptive uses cannot be determined.

Since adaptive use/rehabilitation of General Hospital will likely be delayed in excess of one year from decommissioning as a hospital under OSHPD authority, the building must be maintained according to provisions contained in the most recent issue of *Preservation Brief 31: Mothballing Historic Buildings* (U.S. Department of the Interior, National Park Service). As a result of compliance with the Standards for any adaptive use/rehabilitation of General Hospital either during construction or after decommissioning as a hospital under OSHPD authority, and maintenance according to the noted Preservation Brief, as necessary, it is anticipated that the Proposed Alternative would have no adverse effect. Use of the Standards and maintenance procedures would reduce impacts to a level of insignificance allowing for a finding of no adverse effect.

ALTERNATIVE 3 – 950-BED REPLACEMENT FACILITY ALTERNATIVE

Although this alternative would have greater height and bulk, impacts to cultural resources under Alternative 3- the 950-Bed Alternative would be similar to those described for Alternative 3. Alternative 3 would have a greater indirect visual impact on the General Hospital-Acute Unit. As discussed above General Hospital is approximately 20 stories in height with its ground floor level situated atop a promontory. Campus development in the 1950s and 1960s south of General

Hospital included construction of various buildings approximately 10 stories in height. Alternative 3 would be located immediately adjacent to these buildings. With 15 floors it would be approximately forty to fifty feet higher than the existing Psychiatric Hospital. The density of the Alternative 3 would be greater than existing buildings on the project site, and its bulk would be placed in the eastern portion of the project site, east of North State Street. From view perspectives south and east of the site, the perception would be that General Hospital has two hospital towers. Therefore, the visual effect of the Alternative 3 would be greater than the Alternative 2 but would be still less than significant.

The new building's facade would contain design variations to reduce monotony and increase visual interest. The new building would relate to the existing General Hospital in terms of a strong axial relationship in the design, and emulate the certain massing strategies, particularly at the top of the building. Materials of the new building would relate to those of the General Hospital. The new building would be light in color and constructed with pre-cast concrete. The windows would be placed in vertical bands and recessed in the walls so as not to dominate the overall design. The glass would not be mirrored. The general configuration of the project reflects precedents in design of the historic hospital but does not copy or mimic the original design. Use of compatible materials, precast concrete or glass fiber reinforced concrete panels, would establish a rhythmic pattern of punched windows in a masonry facade. These elements would combine to establish a respectful relationship between the historic hospital and the replacement hospital. As a result of the project's limited visual effect and regard for character-defining features of the historic hospital, it was determined that the 950-Bed Alternative would have no adverse effect. With implementation measures identified above, cultural resources impacts would be less than significant.

Alternative 3 would also have an indirect impact on General Hospital-Acute Unit in that FEMA funds allocated to rehabilitation of the historic hospital would be reallocated to the replacement hospital. Under Section 106 regulations, the Federal undertaking, diverting rehabilitation funding, would effect General Hospital. Once the replacement hospital opens, General Hospital would be decommissioned as a hospital under Office of Statewide Health Planning and Development (OSHPD) authority. As a result, its future adaptive use/rehabilitation would be subject to less stringent building codes. At the present time, the range of possible adaptive uses cannot be determined.

Since adaptive use/rehabilitation of General Hospital would likely be delayed in excess of one year from decommissioning as a hospital under OSHPD authority, the building must be maintained according to provisions contained in the most recent issue of *Preservation Brief 31: Mothballing Historic Buildings* (U.S. Department of the Interior, National Park Service). As a result of compliance with the Standards for any adaptive use/rehabilitation of General Hospital either during construction or after decommissioning as a hospital under OSHPD authority, and maintenance according to the noted Preservation Brief, as necessary, it is anticipated that the Proposed Alternative would have no adverse effect. Use of the Standards and maintenance procedures would reduce impacts to a level of insignificance allowing for the finding of no adverse effect.

MITIGATION MEASURES (ALTERNATIVES 2 & 3)

HISTORICAL RESOURCES

Because a portion of the funding for construction of the LAC+USC Medical Center Replacement Project would come from FEMA to pay for replacement of buildings damaged in the 1994 Northridge Earthquake, the project would be subject to a consultation process under Section 106 of the National Historic Preservation Act of 1966. Section 106 requires a federal lead agency with jurisdiction over a federal, federally assisted, or federally licensed undertaking to take into account the effect of the agency's undertakings on properties included in or eligible for the National Register of Historic Places, and, prior to approval of an undertaking, to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This document together with the background reports provides the basis for consultation pursuant to Section 106 of the National Historic Preservation Act, and integrates the NEPA process with the Section 106 process.

As the federal lead agency in this process, FEMA would make a determination regarding the effect of the project on cultural resources and request concurrence from SHPO regarding this determination of effect. The three possible determinations of effect are: no effect, no adverse effect, and adverse effect. If FEMA determines that no effect or no adverse effect would occur and SHPO concurs with that determination, the Section 106 process is complete. If FEMA determines that an adverse effect would occur, measures to mitigate the adverse effect would be identified. The SHPO would be asked to concur with the determination and the implementation

of the identified mitigation measures by entering into a Memorandum of Agreement. In addition, the determination would be forwarded to the Advisory Council on Historic Preservation. The County would be a signatory to the Section 106 agreement, which would be concluded before project implementation.

The Memorandum of Agreement will be completed for disposition of the General Hospital building and will be included in the Final EA/EIR. Any comments on historic issues will be forwarded to SHPO.

Mitigation proposed for the project is as follows:

- Future adaptive use/rehabilitation of General Hospital after decommissioning shall comply with the Secretary of the Interior's Standards for Rehabilitation (Standards, 36, Code of Federal Regulations (CFR) § 67.7). As provided in Section 106 regulations (36 CFR § 800.9 (c)(2)) compliance with the standards would have no adverse effect.

- Prior to reuse the General Hospital shall be maintained and preserved, described in *Preservation Brief: Mothballing Historic Buildings*, measures would include among others:

  Document

  - *Document the architectural and historical significance of the building.*
  - *Prepare a condition assessment of the building.*

  Stabilize

  - *Structurally stabilize the building, based on a professional condition assessment.*
  - *Exterminate or control pests, including termites and rodents.*
  - *Protect the exterior from moisture penetration.*

  Maintain

  - *Secure the building and its component features to reduce vandals, break-ins and natural disasters.*
  - *Provide adequate ventilation to the interior.*
  - *Secure or modify mechanical systems and utilities.*
  - *Develop and implement a maintenance and monitoring plan for protection (see Table 34).*

TABLE 34: SAMPLE MAINTENANCE CHART

Periodic

- ☐ Regular drive by surveillance
- ☐ Check attic during storms if possible

Monthly Walk Arounds

- ☐ Check entrances
- ☐ Check window panes for breakage
- ☐ Mowing as required
- ☐ Check for graffiti or vandalism

Enter every three months to air out

- ☐ Check for musty air
- ☐ Check for moisture damage
- ☐ Check battery packs and monitoring equipment
- ☐ Check light bulbs
- ☐ Check for evidence of pest intrusion

Every six months; Spring and Fall

- ☐ Site clean-up; pruning and trimming
- ☐ Gutter and downspout check
- ☐ Check crawl space for pests
- ☐ Clean out storm drains

Every 12 Months

- ☐ Maintenance contract inspections for equipment/utilities
- ☐ Check roof for loose or missing shingles
- ☐ Termite and pest inspection/treatment
- ☐ Exterior materials spot repair and touch up painting
- ☐ Remove bird droppings or other stains from exterior
- ☐ Check and update building file

- The County shall comply with the standards under CEQA Guidelines (Title 14, California Code of Regulations, §15064.5 (b) (3)).

FEMA, SHPO, and the County have executed a Memorandum of Agreement covering the replacement and reuse of General Hospital. The Memorandum of Agreement includes stipulations for the development of an adaptive reuse plan and/or the Mothballing of the General Hospital Acute Care Center in accordance with the U.S. Department of the Interior's Preservation Brief 31, Mothballing Historic Buildings.

ARCHAEOLOGICAL RESOURCES

- If cultural resources are exposed during grading a qualified archeologist shall be contacted to assess significance of the find. The immediate area of find shall be avoided until such assessment has been performed. If human remains are exposed the Los Angeles County coroner must be contacted immediately and the area of the find avoided until the coroner can assess the remains. Any such resources would be treated as unanticipated discoveries and would be subject to additional Section 106 review and further mitigation may be required.

ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 & 3)

Implementation of the mitigation measures recommended in this section would reduce any potential cultural resources impacts to levels of insignificance.

4.12 CUMULATIVE IMPACTS

Cumulative impacts are defined as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts" in the *State CEQA Guidelines*. Individual effects include the various changes related to a single project, as well as the changes resulting from closely related projects that are either planned, under construction, or recently completed.

It is anticipated that the project would be implemented over an eight year planning and development horizon period. It was determined that a 1% cumulative growth per year would be used as the principal basis for the cumulative traffic (and thus mobile, air quality and noise) analyses in this EA/EIR. Table 35 list past, present and reasonably foreseeable projects with the potential to contribute to cumulative impacts was developed for the traffic analysis prepared for this project. Exhibit 37 shows the location of these projects. As shown on this map, no projects have been identified in the vicinity with potential to result in overlapping cumulative impacts.

The City of Los Angeles General Plan Framework did not identify any land use impacts on or from adjacent jurisdictions. The Northeast Los Angeles CPA and discussion with Northeast City planner did not identify any pending or approved projects within the vicinity of LAC+USC Medical Center[29]. Although no known development projects are in the immediate vicinity of the project site, as a result of continued development in the Los Angeles area traffic will increase and air quality and noise will continue to deteriorate. Cumulative development would also result in depletion of nonrenewable resources such as energy and construction materials. Cumulative demand for public services and utilities would increase, possibly requiring expansion of the municipal infrastructure. As a result of local population growth, demand for housing and for consumer goods and services would increase.

LAC+USC Medical Center is part of the County's health care system. Cumulative impacts are anticipated to be minor and diffused throughout the region, and are well within regional forecasts prepared by SCAG. Thus, the replacement project would not cause significant cumulative impacts which would substantially exceed the cumulative impacts identified in the 1994 EIR and are anticipated to be consistent with low end and regional growth forecasts and planning projections.

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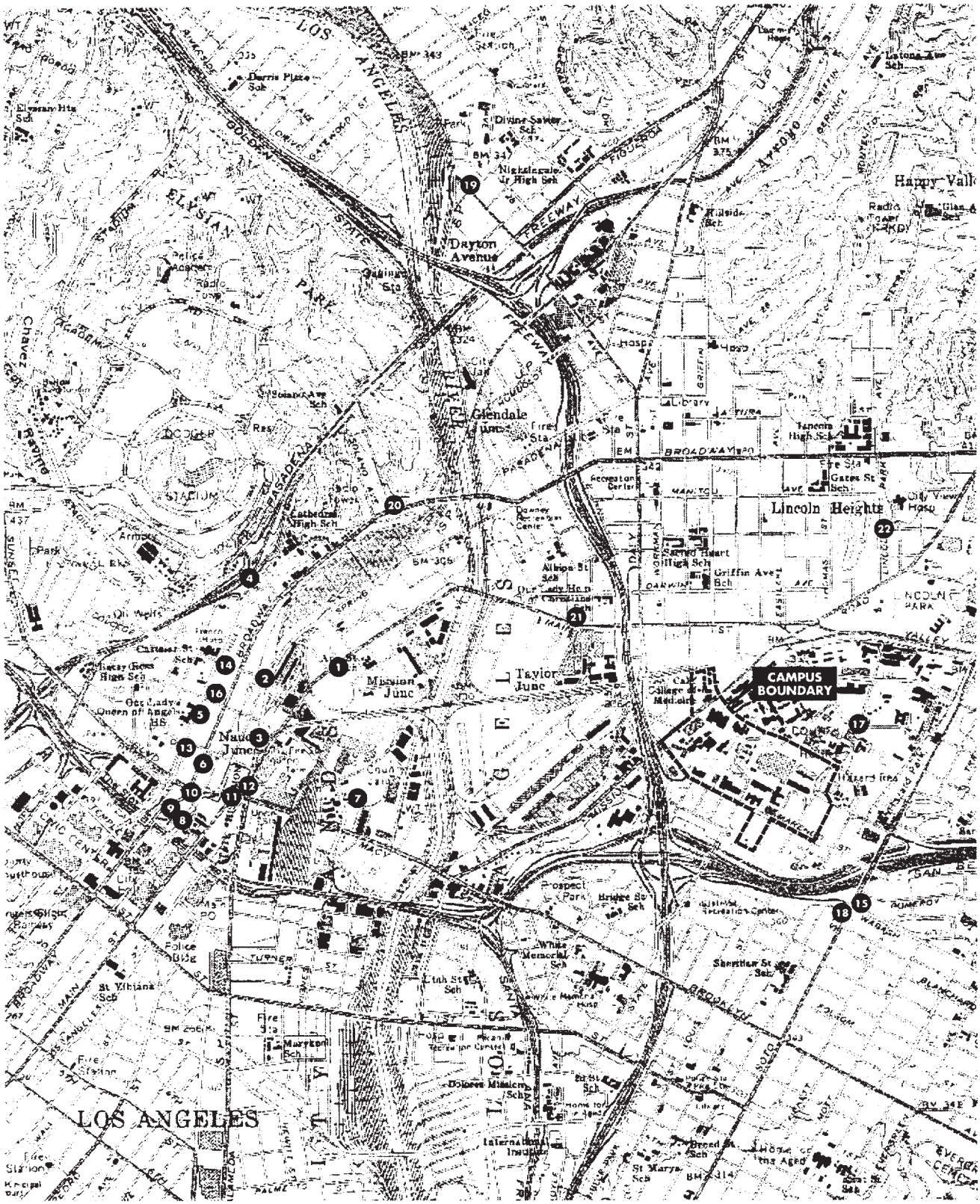
[29] Telephone interview with Bill Landa, 3/15/99.

TABLE 35: LIST OF CUMULATIVE PROJECTS

Map No.	Name	Land Use
1.	N. Main Swap Meet	Swap Meet, Retail, Office
2.	N. Spring Retail	Retail
3.	Dynasty Center	Retail
4.	988 N. Hill Street	Office, Restaurant
5.	Market Place	Office, Retail, Restaurant, Bank
6.	B.C. Plaza	Office, Retail
7.	County Jail Expansion (1)	Detention
8.	Olvera Street Hotel	Hotel
9.	El Pueblo International	Restaurant, Office
10.	Holiday Inn	Hotel
11.	N. Main & Macy	Hotel
12.	701 N. Main	Motel, Retail
13.	Hanan Development	Retail
14.	845 N. Broadway	Retail, Restaurant
15.	1025 Soto Street	Hotel
16.	788 N. Broadway	Hotel
17.	Doheney Eye Hospital	Hospital
18.	2310 Barlow	Residential
19.	Auto Dealership	Retail, Parking
20.	417 Casanova	Residential
21.	Trade School Expansion	School
22.	3707 Baldwin Street	Apartment
23.	4001 Mission Road	Residential, Daycare

(1) Note: Trip generation for detention center was obtained from Men's Central Jail Expansion EIR.

SOURCE: Traffic Study for LAC+USC Medical Center Prepared by Kaku Associates, March, 1999.



SOURCE: Kaku Associates.

LAC+USC Medical Center Replacement Project / 910161 ■

Exhibit 37

Location of Cumulative Projects

4.13 COORDINATION AND PERMITS

The LAC+USC Medical Center Replacement Project has involved the coordination of FEMA, the County of Los Angeles, the City of Los Angeles, OES, OSHPD and SHPO.

Implementation of the project will require the following actions:

County of Los Angeles:	Certification of the EIR; appropriate County Building and Safety permits, plot plan approval (Regional Planning).
Federal Emergency Management Agency (FEMA):	Approves the Environmental Assessment and prepares the Finding of No Significant Impact (FONSI).
Governor's Office of Emergency Services (OES):	Coordinates with FEMA.
Office of Statewide Health Planning Development (OSHPD):	Review and approval of the Medical Center construction plans, specifications and building permits.
CAL TRANS and Federal Aviation Administration:	Approval of helipads.
State Licensing and Certification:	Hospital license.
City of Los Angeles:	Vacation of Streets; issuance of sewer permits.
City of Los Angeles Fire Department:	Project review.
Air Quality Management District:	Review of project; potential permit issuance.
Regional Water Quality Control Board:	Review of project; potential permit issuance.

5.0 CEQA IMPACT OVERVIEW

UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

The proposed replacement project, if implemented, would result in environmental effects, as described in Section 4 of this EA/EIR. Mitigation Measures included in the project and identified in this report would, if implemented, reduce all but construction impacts to a less-than-significant level. The following construction impacts would be unavoidable even with implementation of mitigation measures: air quality and noise. These are short-term significant impacts, which would cease at the completion of construction activities. While construction impacts would be considered significant and unmitigatable under CEQA standards of significance, it would not be considered a significant regional impact under NEPA. According to NEPA Law and Litigation § 8:49, temporary environmental effects, including temporary disruption due to construction activities, "are not significant effects that require an environmental impact statement." Therefore, an environmental assessment is considered adequate for this project.

GROWTH INDUCEMENT

The proposed project would include replacing General Hospital (while retaining and maintaining the structure). The primary health care facilities would also be demolished and replaced, as well as removing Parking Structures #6 and #11. General Hospital, Woman's Hospital and the Outpatient Clinic would remain and have the potential to be rehabilitated and reused. Other buildings on campus not specifically discussed in the EA/EIR (e.g. Table 1) would also remain during and after construction of the new hospital.

The new hospital would reduce the number of functional beds from 1,450 to 950 or 600. The reduction in beds is partly due to modern medical practice that allows for more outpatient health care. Also, the County intends to redistribute services to other facilities in the County closer to patients in order to alleviate current demands on the LAC+USC Medical Center campus and to provide more convenient access to medical facilities from different areas of the County. The redistribution of County services will be accomplished through expansion of existing facilities

(emergency room, surgery, outpatient, etc.) at King/Drew Medical Center, Harbor/UCLA and LAC/Olive View Medical Center and/or contracting for services with other public health care providers, and thus, would not be considered a growth inducing project. Upon completion of the replacement project, the Department of Health Services anticipates staffing would be reduced. These reductions are not expected to be through employee layoffs, but will rather occur through attrition and relocation to other County Facilities.

RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

There would be no long term effects resulting from the project.

Considerations that would favor development of the project now, rather than reserving the option to build the replacement facility at some later time, include the existing demands of the regional healthcare system, aged facilities, the need to seismically upgrade for SB 1953 and the increasing costs to develop the project at a later date.

If the project is not built, this would result in the loss of the General Hospital's license which could cause the loss of funding from the federal and state government and the closure of the facility. Should the facility be closed for any reason the opportunity for reopening would be lost due to the current ability to "Grandfather" many of the existing conditions that do not meet current code for patient care or life safety.

The closure of this facility would have an impact on the health care community in Los Angeles County. This is due to the hospital's role as the "linch-pin" of the County trauma system and the hospital of last resort for a large population of the uninsured. Without this facility, many, if not all, of the remaining trauma and emergency centers may close to prevent the sudden inclusion of a large uninsured population into their hospitals that they would be unable to turn away.

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

If one of the "build" alternatives were selected, the replacement project would result in an intensification of land use, although not to an extent that would be considered incompatible with

surrounding urban uses. If the No Project Alternative is chosen development could again occur at some future date.

Construction and operation of the proposed project would result in the irreversible commitment of natural resources, including energy used in building construction and manufacture of building materials.

6.0 PUBLIC INVOLVEMENT

The LAC+USC Medical Center process has been ongoing for the past eight years. As part of the planning process, a public involvement program is being conducted to ensure that information is provided to the general public and public agencies from the earliest stages of project planning, and that input from interested parties is received and reviewed throughout the environmental review process. The LAC+USC Medical Center Replacement Project's Replacement Facility Advisory Committee (RFAC) has been one primary mechanism.

Federal agencies are required to provide readily accessible documents, notices, and hearings to inform individuals and organizations of the human health and environmental effects of a proposed action. The LAC+USC Medical Center will have a public outreach effort to provide information on the project and has already received considerable public comment on the much bigger previously proposed project in 1994. Several RFAC meetings were held during the public review period for the previous 950-bed project and input from recent meetings was considered in development of the alternatives analyzed in this document. In addition, the LAC+USC Medical Center Replacement Project has been the subject of several articles in the *Los Angeles Times* and *Daily News*.

The *1994 LAC+USC Medical Center Replacement Project Final Environmental Impact Report* also was available for public review at the following locations:

1) Los Angeles County Administration Offices.
2) Los Angeles City / County Public Library.
3) LAC+USC Medical Center.

As part of overall planning process, the County has coordinated with and provided opportunities for input from a variety of federal, state, regional, and local agencies. Numerous agencies, legislators and organizations have already commented on the 1994 EIR and received the Notice of Preparation on this document. Comments on the NOP for this document are included in Appendix. Federal, State and regional agencies that have been part of the process include the Governor's Office of Planning and Research, FEMA, OES, OSHPD, SCAG, RWQCB and

SHPO. Local agencies that have been part of the process and have provided input include the City of Los Angeles, and the South Coast Air Quality Management District. In addition, numerous neighborhood groups and organizations have been provided the opportunity for input into the planning process through the RFAC.

In compliance with the California Environmental Quality Act (CEQA), the County issued a Notice of Preparation (NOP). Comments received on the NOP are presented in the Appendix. Both the National Environmental Policy Act (NEPA) and CEQA require that the Final EA/EIR be made available for public review and comment. Accordingly, the Final EA/EIR will be available for public review for a period of 45 days. During this period, comments on the accuracy and completeness of the Final EA/EIR may be submitted by public agencies, other groups, and concerned individuals. Written comments should be submitted to the following person:

Brad Bolger
Project Director
LAC+USC Medical Center Replacement Project
1200 North State Street, Box 121
Los Angeles, CA 90033

A special effort was made to contact members of the surrounding community by mailings and public meetings.

The Final EA/EIR will be prepared to include comments received on the Final EA/EIR and the responses to those comments. The Final EA/EIR may be released for public review and comment. Notices of the availability of the Final EA/EIR will be placed in the Federal Register and in local newspapers. In addition, persons on the mailing list will be sent notification of the locations where the Final EA/EIR will be available for review.

7.0 REPORT PREPARERS

Responsibility for preparation of this Environmental Assessment and Environmental Impact Report (EA/EIR) rests with the Federal Emergency Management Agency (FEMA) and the County of Los Angeles. Listed below are the employees of FEMA and the County responsible for preparation of this EA/EIR. Consultants hired by the County of Los Angeles provided substantial assistance and data analysis. The prime consultant for preparation of this document was Environmental Science Associates (ESA).

It is recognized that no one individual can be an expert in all of the environmental analysis presented in this Final EA/EIR. Consequently, an interdisciplinary team, consisting of technicians and experts in various topics was required to prepare and complete this study. All decisions regarding the content, scope and methodology of the Final EA/EIR analysis were made by FEMA and the County of Los Angeles.

County of Los Angeles

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Robert Jay Chattel, AIA, Preservation Architect, 15 years experience.

8.0 COMMENTS AND RESPONSE TO COMMENTS

RESPONSE LETTERS

Letter	Commentors
Federal, State, and Regional Government	
A.001	Congress of the United States, Xavier Becerra, Member of Congress and Lucille Roybal-Allard, Member of Congress, November 17, 1999
A.002	Governor's Office of Planning and Research State Clearinghouse, State of California, Terry Roberts, Senior Planner, October 29, 1999
A.003	State of California, Department of Transportation, Stephen J. Buswell, IRG/CEQA Program Manager, October, 21, 1999
A.004	South Coast Air Quality Management District, Steve Smith, Ph.D., Program Supervisor, CEQA Section, November 3, 1999
A.005	Southern California Association of Governments, J. David Stein, Manager, Performance Assessment and Implementation, November 22, 1999
County, City, and School District	
B.001	County of Los Angeles, Board of Supervisors, Gloria Molina, Chair of the Board, Supervisor, First District, January 14, 2000
B.002	County of Los Angeles Fire Department, Michael A. Wilkinson, Chief, Forestry Division, Prevention Bureau, October 20, 1999
B.003	County of Los Angeles, Traffic and Lighting Division, K.E. Weary, October 25, 1999
B.004	County of Los Angeles, Department of Public Works, David Yamahara, Assistant Deputy Director, Planning Division, November 16, 1999
B.005	Los Angeles Unified School District, Raymond E. Dippel, Assistant Environmental Planning Specialist, October 27, 1999
B.006	City of Los Angeles, Department of Transportation, Robert T. Takasaki, Senior Transportation Engineer, October 28, 1999
B.007	City of Los Angeles, Department of Public Works, Bureau of Engineering, Vitaly B. Troyan, P.E., City Engineer, October 25, 1999

B.008 City of Los Angeles, Department of Public Works, Bureau of Engineering, Vitaly B. Troyan, P.E., City Engineer, and Ara Kasparian, Group Manager, Environmental Management Group, January 13, 2000

B.009 City of Los Angeles, Environmental Affairs Department, Lillian Kawasaki, General Manager, January 12, 2000

B.010 City of Los Angeles, City Council, Nick Pacheco, Councilman 14th District, January 14, 1999

B.011 City of Los Angeles, City Council, Nick Pacheco, Councilman 14th District, November 17, 1999

Groups and Individuals

C.001 Los Angeles County Medical Association, Brian D. Johnston, M.D., Chair, Board of Trustees, November 29, 1999

C.002 Hillside Village Property Owners Association, Inc., Renee M. G. Chavez, President, January 11, 2000

C.003 White Memorial Medical Center, Albert R. Deininger, Vice President, Ambulatory Care, November 17, 1999

C.004 AltaMed Health Services Corporation, Castulo de la Rocha, President and CEO, November 17, 1999

C.005 Lincoln Heights Chamber of Commerce Beautification Committee, Steve Kasten, Chairman

C.006 Sharon M.Y. Lowe, Attorney at Law, January 14, 2000

C.007 Robert G. Splawn, MD, MPH, November 17, 1999

C.008 Sharon M. Parker, Community Member, November 29, 1999

C.009 Nadine Diaz, January 14, 2000

Public Testimony

D.001 Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999
Nick Pacheco
Gerry Hertzberg
Robert Splawn
Al Deininger
Kim Tachiki and Janet Lim representing Congressman Xavier Becerra
Janet Lim
Don Toy
Diana Tarango
Sharon Lowe
Steve Kasten

Oscar Sandoval
Paul Teensma
Alex Man
Lillian Kawasaki
Jay Patel
Ross Valencia
Howard Watts
Arturo Herrera
Jorge Cabrera
Laura Pizana
Nadine Diaz

STAFF INITIATED TEXT CHANGES/ERRATA

Congress of the United States

Washington, DC 20515

Letter A.001

November 17, 1999

George Jones
Project Manager
Project Management Division
Department of Public Works
Los Angeles County
1200 N. State Street, Box 121
Los Angeles, CA 90033

Dear Mr. Jones:

We are writing in reference to the LAC+USC Medical Center Replacement Project Notice of Draft Environmental Impact Report/Environmental Assessment (EIR/EA) Meeting scheduled for this evening at Bravo Medical Magnet High School.

The LAC+USC Medical Center Replacement Project is critical to our Congressional Districts and the entire County of Los Angeles. We have worked diligently to ensure that the importance of this facility and its replacement is understood by federal officials in Washington, D.C. Through our efforts, and those of our colleagues, we were able to secure the FEMA funds for this vital project. 1

We are very concerned by the fact that we did not receive copies of the Draft EIR/EA until late yesterday. In order for us and the community at-large to be able to adequately review and prepare thoughtful and comprehensive remarks in response to this EIR/EA, it is imperative that we receive all pertinent information in a timely manner.

In the future, we would greatly appreciate thorough briefings and ample notification of hearings and meetings for all elected officials representing the service area. As Members of Congress we want to ensure that our constituents' concerns are fully addressed.

Therefore, we respectfully request an extension of the public comment period to January 15, 2000, and ask that an additional public meeting be scheduled.

Sincerely,

XAVIER BECERRA
Member of Congress

LUCILLE ROYBAL-ALLARD
Member of Congress

PRINTED ON RECYCLED PAPER

Letter A.001: Congress of the United States, Xavier Becerra, Member of Congress and Lucille Roybal-Allard, Member of Congress, November 17, 1999

Comment Number	Response
1.	Comment noted. The comment period was extended as requested.

STATE OF CALIFORNIA

Governor's Office of Planning and Research
State Clearinghouse

Gray Davis
GOVERNOR

STREET ADDRESS: 1400 TENTH STREET ROOM 222 SACRAMENTO, CALIFORNIA 95814
MAILING ADDRESS: P.O. BOX 3044 SACRAMENTO, CA 95812-3044
916-445-0613 FAX 916-323-3018 www.opr.ca.gov/clearinghouse.html

Loretta Lynch
DIRECTOR

October 29, 1999

Letter A.002

George Jones
Los Angeles County - Public Works
2020 Zonal Avenue
Room 720
Los Angeles, CA 90033

Subject: Los Angeles County + University of Southern California (LAC+USC) Medical Center REplacement Project EA/EIR
SCH#: 99031017

Dear George Jones:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period closed on October 28, 1999, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. 1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the eight-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Senior Planner, State Clearinghouse

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Document Details Report
State Clearinghouse Data Base

SCH# 99031017
Project Title Los Angeles County + University of Southern California (LAC+USC) Medical Center REplacement Project EA/EIR
Lead Agency Los Angeles County - Public Works

Type eir Draft EIR

Description Under the proposed alternative, LAC+USC would improve the existing medical services on campus by replacing and consolidating five primary healthcare facilities with one new (600 bed) hospital. The proposed project would consist of construction and demolition activities of the following four structures for the Medical Center: 1) 600-bed treestanding hospital; 2) diagnostic and treatment building; 3) central plant; and 4) outpatient department building. Two other alternatives, a 950 bed alternative and the no project alternative are evaluated in equal level detail in the document. The proposed hospital would respond to changing healthcare needs that are resulting in increased demand for outpatient services and decresed inpatient care. The existing General Hospital would also be closed and maintained until a future use is identified. The existing Women's Hospital would also be closed and would remain vacant until a future use is identified. Potential reuse of the existing Outpatient Clinic is considered in the EA/EIR.

Lead Agency Contact

Name George Jones
Agency Los Angeles County - Public Works
Phone 323/226-4726 **Fax**
email
Address 2020 Zonal Avenue
Room 720
City Los Angeles **State** CA **Zip** 90033

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets State/Marengo
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways 5, 10
Airports
Railways Southern Pacific Railroad Line
Waterways
Schools Bravo
Land Use City of Los Angeles General Plan: Community Center (Commercial)

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Toxic/Hazardous; Traffic/Circulation; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Caltrans, District 7; Department of Health Services; Integrated Waste Management Board; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; State Lands Commission

Date Received 09/14/1999 **Start of Review** 09/14/1999 **End of Review** 10/28/1999

Note: Blanks in data fields result from insufficient information provided by lead agency.

Letter A.002: Governor's Office of Planning and Research State Clearinghouse, State of California, Terry Roberts, Senior Planner, October 29, 1999

Comment Number	Response
1.	Comment noted.

Letter A.003

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY GRAY DAVIS, *Governor*

DEPARTMENT OF TRANSPORTATION
DISTRICT 07, ADVANCE PLANNING
IGR OFFICE 1-10C
120 SO. SPRING ST.
LOS ANGELES, CA 90012
TEL: (213) 897-1333 ATSS: 8- 647-1333
FAX: (213) 897-0590
E-Mail Smateen@dot.ca.gov/

October 21, 1999

Subj: LAC & USC Medical Center
EA/EIR, State St/Marengo
SCH #99031017, IGR #990938SM

RECEIVED
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STATE CLEARINGHOUSE

GEORGE JONES
DEPARTMENT OF PUBLIC WORKS
County of Los Angeles
LAC+USC Medical Center
1200 N. State Street, Box 121
Los Angeles, CA 90033

clear
10/28/99
Late c

Dear Mr. George Jones:

Thank you for the opportunity to comment regarding the above referenced project. This project is located at State and Marengo Streets. The proposed development is near to State Right-of-way (I-005, I-010 & I-110).

We are aware that the proposed project is to replace and consolidate five primary healthcare facilities with one new hospital. Please note that the intersection name "State Street and U.S. 101 N/B on-ramp" should read as "State Street and W/B 10 on-ramp". Since Interstate 005 (Golden State Freeway) is used regularly by the San Fernando Valley residents to get to and from the Medical Center, we would like to see this route included in this study. 1

Any transportation of heavy construction equipment, which requires the use of oversized transport vehicles on State Highways, will require a Caltrans transportation permit. We recommend that trucks be limited to off-peak commute periods. 2

If you have any questions regarding this response, please feel free to contact the undersigned at (213)897-4429 or Sameerah Mateen, the IGR/CEQA Coordinator for the project at (213)897-1333. Please reference this project by - IGR990938SM.

Sincerely,

Original Signed By

STEPHEN J. BUSWELL
IGR/CEQA Program Manager
Transportation Planning Office

cc: David Fukutomi, FEMA
✓Moise Boyd, State Clearinghouse
File - TPO

Department of Public Works

Project Management Division
2020 Zonal Avenue
Los Angeles, CA 90033

Phone: (323) 226-4726
Fax: (323) 226-8392

TRANSMITTAL
No. 00199

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT
Project Management Team

TO: Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010

DATE: 11/23/99

REF: Drat EIR/EA responses
DPW Planning Division
Clearinghouse

ATTN: Wendy Lockwood

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☐ Approval	☐ Approved as Submitted
☐ Letter	☑ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☑ Attached	☐ Returned for Corrections
☐ Other:	☑ Separate Cover Via: Hand Delivery	☐ Due Date:

ITEM NO.	COPIES	DATE	ITEM	NUMBER	REV. NO.	DESCRIPTION	STATUS
1		11/16/99	LOT			DPW Planning Division DEIR/EA response	
2		11/16/99	LOT			Clearinghouse DEIR/EA response	

Remarks:

CC:

Signed: George Jones
George Jones

Expedition ®

Letter A.003: State of California, Department of Transportation, Stephen J. Buswell, IRG/CEQA Program Manager, October, 21, 1999

Comment Number	Response
1.	The intersection name "State Street and US 101 N/B on-ramp" is revised to read "State Street and W/B 10 on-ramp" throughout the document. As indicated in the introduction to the EIR, the original traffic study, which addressed the potential impacts of a 946 bed hospital analyzed a much broader range of intersections than analyzed in this study. Since this study was directed at the analysis of potential impacts of a smaller project, i.e., a 600 bed hospital, only those intersections which were significantly impacted in the first study were re-analyzed. Therefore, it was determined that it would not be necessary to address impacts of the proposed project on I-5 since none were identified in the first study for the larger project.
2.	Comment noted. Because of the scheduling requirements, truck trips would occur during the a.m. peak hour. Few p.m. peak hour truck trips are anticipated. The proposed project will comply with all required Caltrans transportation permits.

Letter A.004

South Coast
Air Quality Management District
21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 · http://www.aqmd.gov

FAXED: NOVEMBER 3, 1999

November 3, 1999

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OTHER ESA-Lockwood

Mr. George Jones
LA County Department of Public Works
LAC + USC Medical Center
1200 N. State Street
Box 121
Los Angeles, CA 90033

Draft Environmental Impact Report for the Proposed 63.1 - Acre L.A. County + U.S.C. Medical Center Replacement Project: City of Los Angeles

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final Environmental Impact Report.

Pursuant to Public Resources Code Section 21092.5, please provide the AQMD with written responses to all comments contained herein prior to the adoption of the Final Environmental Impact Report. The AQMD would be happy to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Gordon Mize, Transportation Specialist – CEQA Section, at (909) 396-3302, if you have any questions regarding these comments.

Sincerely,

Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development & Area Sources

Attachment

SS:GM

LAC990915-09
Control Number

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To MR. GEORGE JONES	From G MIZE
Co. CA CTY/PUBLIC WKS	Co. SCAQMD - CEQA
Dept. CAC + USC MED CTR	Phone # 909-396-3302
Fax # 323-226-8392	Fax # 909-396-3324

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Draft Environmental Impact Report for the Proposed 63.1 - Acre
L.A. County + U.S.C. Medical Center: City of Los Angeles

- On page 154, it is stated that the South Coast Air Basin is a non-attainment area for NO2. The Basin has been designated an attainment area for N02 for both the state and national ambient air quality standards. 1

- Section 4.6, Air Quality page 164 Table 20 and page 168 Table 22 list the AQMD construction emissions threshold for volatile organic compounds (VOC or ROC) as 100 pounds per day. The daily emissions threshold figure should be 75 pounds per day (SCAQMD, CEQA Air Quality Handbook (Handbook), April 1993, Chapter 6.). 2

- Section 4.6, Air Quality page 162 and page 167 discuss project construction emissions for project alternative 2 – 600 bed replacement facility alternative and for project alternative 3 – 950 bed replacement facility respectively. Pages 162 and 167 refer to Tables C-1 and C-2, respectively, in Appendix C," which is "a complete breakdown of emissions by construction equipment type." Neither the table nor the breakdown of emissions by construction equipment type were included in either the Draft EA/EIR document or the Appendices document. The AQMD had to request and, ultimately received a faxed copy of the on-road and off-road construction equipment and emissions breakdown for each construction phase (Table C-1 "Estimated Construction Equipment Emissions, Alternative 2 and Table C-2 "Estimated Construction Equipment Emissions, Alternative 3). It is unfortunate that the general public was not afforded the opportunity to review these tables unless individuals specifically requested them from the lead agency. At the very least, it is recommend that in the Final EA/EIR, these tables be included to make the public record complete. 3

- Review of the faxed copies of Tables C-1 and C-2 indicate that emissions from worker commute trips were not calculated and, therefore were not included in the emission totals. Construction worker commute trip emissions should be calculated using the most current version of EMFAC, which is EMFAC7G. These factors can be obtained by contacting the California Air Resources Board website at www.arb.ca.gov. The results should be included in Tables C-1 and C-2, which should be incorporated into the final CEQA/NEPA document. Tables 20 and 22 in the final EIR/EA should also be updated. 4

Draft Environmental Impact Report for the Proposed 63.1 - Acre
L.A. County + U.S.C. Medical Center: City of Los Angeles

- Review of Tables C-1 and C-2 indicates that only combustion-related PM_{10} emissions from mobile sources were calculated. 5

    1. Fugitive dust emissions from earth disturbing activities such as grading, earth moving, etc., were not calculated and should be included in the final EIR/EA.

    2. Fugitive dust emissions from demolition activities were not calculated and should be included in the final EIR/EA.

    3. Although the document concluded that fugitive dust emissions during construction for both Alternatives 2 and 3 were significant, as an informational document fugitive dust emissions should be quantified. The AQMD's CEQA Air Quality Handbook contains methodologies for calculating fugitive dust from construction and demolition activities in Appendix A9.

    4. Fugitive dust estimates should be included in the final document.

- With regard to the mitigation measures are listed on page 172 for project construction, it should be noted that the project would be subject to AQMD Rule 403, which requires best available control measures to control PM10 from dust generating activities. In addition to the mitigation measures listed for construction emissions, Chapter 11 of the CEQA Air Quality Handbook, Table 11-2 through Table 11-4 lists additional mitigation measures applicable to construction emission sources. Specific comments on the mitigation measures include the following points. 6

    1. The first mitigation measure on page 172 under reducing particulate and dust emissions states in part, "...the site shall be watered appropriately..." The lead agency needs to clarify what this means. Does this require watering the site two times per day, three times per day, or according to some other schedule? 7

    2. Similarly, the last fugitive dust mitigation measure on page 172 states in part, "Silt shall be controlled by providing hard surfaces on any construction roads..." Please clarify whether or not this means paving surfaces, using soil stabilizers, etc. 8

    3. The last fugitive dust measure on page 173 states, "Dirt runoff and spills on traveled roadways shall be washed or swept as needed during construction." The lead agency should specify a streetsweeping schedule, e.g., sweep the affected streets once per day or what conditions will trigger the need for streetsweeping, e.g., visible accumulations of soil on roadways, etc. 9

Draft Environmental Impact Report for the Proposed 63.1 - Acre L.A. County + U.S.C. Medical Center; City of Los Angeles

4. Control factors are available for some fugitive dust control measures (see Handbook, Chapter 11). Once fugitive dust emissions from construction activities are calculated, the emission reduction effects of some control measures could be quantified, which could alter the significance conclusion related to fugitive dust. 10

Letter A.004: South Coast Air Quality Management District, Steve Smith, Ph.D., Program Supervisor, CEQA Section, November 3, 1999

Comment Number	Response

1. The second and third sentences in the third paragraph on page 154 of the DEIR are replaced by the following:

> **The South Coast Air Basin is designated a non-attainment area for O_3, CO, and PM_{10}; the air basin is classified as an attainment area for NO_2, SO_2, and Pb.**

2. Tables 20 and 22 are revised as follows (new numbers are in bold):

TABLE 20: CONSTRUCTION EQUIPMENT EMISSIONS – (ALTERNATIVE 2)

	POLLUTANT (lbs/day)				
	CO	ROC	NO_x	SO_x	PM_{10}
AQMD Thresholds	550	75	100	150	150
Demo Peds/Psychiatric (6 months)					
Estimated emissions	130.82	31.01	105.71	9.51	27.08
Quantity in Exceedance of limits	-419.18	-43.99	**5.71**	-140.49	-122.92
Demo Muir/Grad (5 months)					
Estimated emissions	130.82	31.01	105.71	9.51	23.21
Quantity in Exceedance of limits	-419.18	-43.99	**5.71**	-140.49	-126.79
Demo Parking Structure #6/#11 (5 months)					
Estimated emissions	130.82	31.01	105.71	9.51	42.58
Quantity in Exceedance of limits	-419.18	-43.99	**5.71**	-140.49	-107.42
Site Utility Relocation (5 months)					
Estimated emissions	125.42	29.79	92.19	8.37	13.46
Quantity in Exceedance of limits	--424.58	-45.21	**-7.81**	-141.63	-136.54
Mass Excavation and Shoring (11 months)					
Estimated emissions	200.24	40.82	269.63	27.45	25.86
Quantity in Exceedance of limits	-349.76	-34.18	**169.63**	-122.55	-124.14
Outpatient Foundations (7 months)					
Estimated emissions	138.32	31.19	111.23	8.78	14.53
Quantity in Exceedance of limits	-411.68	-43.81	**11.23**	-141.22	-135.47
Outpatient Steel Erection; Diagnostic/Inpatient Foundation (3 months)					
Estimated emissions	212.31	44.38	280.24	21.76	25.31
Quantity in Exceedance of limits	-337.69	-30.62	**180.24**	-128.24	-124.69
Outpatient Exterior Finishing; Diagnostic/Inpatient Steel Erection (7 months)					
Estimated emissions	200.40	48.93	232.08	14.20	23.94
Quantity in Exceedance of limits	-349.60	-26.07	**132.08**	-135.80	-126.06
Outpatient Interior Finishing; Diagnostic/Inpatient Exterior Finishing (16 months)					
Estimated emissions	191.63	46.94	210.11	12.34	22.13
Quantity in Exceedance of limits	-358.37	-28.06	**110.11**	-137.66	-127.87
Diagnostic/Inpatient Interior Finishing (14 months)					
Estimated emissions	191.63	46.94	200.68	12.34	15.05
Quantity in Exceedance of limits	-449.45	-74.91	**100.68**	-137.66	-134.95

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, April 1993; URBEMIS 7G, California Air Resources Board.

TABLE 22: CONSTRUCTION EQUIPMENT EMISSIONS – ALTERNATIVE 3

	POLLUTANT (lbs/day)				
	CO	ROC	NO_x	SO_x	PM_{10}
AQMD Thresholds	550	75	100	150	150
Outpatient, D&T, Central Plant Site Utility Relocation (11 months)					
Estimated emissions	174.74	44.22	113.61	10.29	20.73
Quantity in Exceedance of limits	-375.26	-30.78	**13.61**	-139.71	-129.27
Outpatient, D&T, Central Plant Install Shoring Soldier Beams (3 months)					
Estimated emissions	171.88	42.16	104.44	8.56	19.00
Quantity in Exceedance of limits	-378.12	-32.84	**4.44**	-141.44	-131.00
Outpatient, D&T, Central Plant Mass Excavation and Foundation (2 months)					
Estimated emissions	197.39	49.03	169.61	16.78	25.59
Quantity in Exceedance of limits	-352.61	-25.97	**69.61**	-133.22	-124.41
Outpatient, D&T, Central Plant Steel Erection (6 months)					
Estimated emissions	225.51	56.53	223.48	23.82	34.50
Quantity in Exceedance of limits	-324.49	-18.47	**123.48**	-126.18	-115.50
Outpatient, D&T, Central Plant Exterior Finishing (6 months)					
Estimated emissions	223.80	56.60	217.53	24.09	34.84
Quantity in Exceedance of limits	-326.20	-18.40	**117.53**	-125.91	-115.16
Outpatient Interior; D&T Exterior; Central Plant Equipment Installation (2 months)					
Estimated emissions	199.96	48.92	166.13	15.90	26.45
Quantity in Exceedance of limits	-350.04	-26.08	**66.13**	-134.10	-123.55
Interior Finishing; Central Plant Equipment Installation (8 months)					
Estimated emissions	209.31	52.87	182.92	20.40	31.16
Quantity in Exceedance of limits	-340.69	-22.13	**82.92**	-129.60	-118.84
D&T Interior Finishing; Site Clearance and Demolition for the Inpatient Tower (6 months)					
Estimated emissions	225.64	59.47	241.77	24.53	34.85
Quantity in Exceedance of limits	-324.36	-15.53	**141.77**	-125.47	-115.15
D&T Interior Finishing; Inpatient Shoring and Excavation (4 months)					
Estimated emissions	365.76	108.52	529.70	78.10	90.09
Quantity in Exceedance of limits	-184.24	**33.52**	**429.70**	-71.90	-59.91
Inpatient Shoring and Excavation (2 months)					
Estimated emissions	325.66	95.71	428.58	66.14	78.20
Quantity in Exceedance of limits	-224.34	**20.71**	**328.58**	-83.86	-71.80
Inpatient Tower Foundations (5 months)					
Estimated emissions	183.83	46.73	134.71	12.84	23.29
Quantity in Exceedance of limits	-366.17	-28.27	**34.71**	-137.16	-126.71
Inpatient Tower Steel Erection (9 months)					
Estimated emissions	309.77	74.01	440.33	39.40	49.45
Quantity in Exceedance of limits	-240.23	-0.99	**340.33**	-110.60	-100.55
Inpatient Tower Exterior Finishing (3 months)					
Estimated emissions	238.34	58.35	259.56	25.03	35.50
Quantity in Exceedance of limits	-311.66	-16.65	**159.56**	-124.97	-114.50

(Continued on the next page)

TABLE 22: CONSTRUCTION EQUIPMENT EMISSIONS – ALTERNATIVE 3 – (Continued)

	POLLUTANT (lbs/day)				
	CO	ROC	NO_x	SO_x	PM_{10}
AQMD Thresholds	550	75	100	150	150
Inpatient Tower Exterior and Interior Finishing (6 months)					
Estimated emissions	346.57	84.22	525.67	49.78	59.91
Quantity in Exceedance of limits	-203.43	**9.22**	**425.67**	-100.22	-90.09
Inpatient Tower Interior Finishing (13 months)					
Estimated emissions	244.85	58.64	280.24	24.75	35.02
Quantity in Exceedance of limits	-305.15	-16.36	**180.24**	-125.25	-114.98
Inpatient Tower Landscaping (5 months)					
Estimated emissions	181.00	43.15	135.25	13.02	22.64
Quantity in Exceedance of limits	-369.00	-31.85	**35.25**	-136.98	-127.36

SOURCE: SCAQMD, *CEQA Air Quality Handbook*, April 1993.

Due to the additions and revisions to the tables above, construction of the replacement facility under Alternative 3 would also result in the exceedance of the ROC thresholds for a few months of construction. Therefore, the fifth sentence in the second paragraph on page 167 of the Draft EA/EIR is revised as follows:

> **As shown in Table 22, the SCAQMD threshold for NOx is exceeded continually throughout the construction period, commencing at site utility relocation up to project landscaping. Additionally, the SCAQMD threshold for ROC is exceeded for a few months, intermittently.**

3. Tables C-1 and C-2 are included in the Final EA/EIR.

4. Tables C-1 and C-2 and the corresponding summary tables in the Draft EA/EIR, Tables 20 and 22, have been revised to include construction worker commute trip emissions using EMFAC7G emission factors. Additionally, PM_{10} emissions associated with demolition of several structures have been included in Tables C-1 and 20. Please see the revised tables in response to comment #2 above.

5. PM10 emissions associated with demolition of several structures have been included in Table C-1 and 20. Please see the revised tables in response to comment #2 above. Approximately 340,000 cubic yards of earth will be removed from the project site over an approximate 15 month period. Based on the emission rate of 26.4 pounds per acre per day (as presented in the CEQA Air Quality Handbook) used to estimate PM10 emissions generated by earth-disturbing activities and emissions from construction equipment and workers travel, the PM10 emissions will be about 46 pounds which would be well below the SCAQMD's threshold of 150 pounds per day.

6. Since the proposed project, as with any other project, would be required to comply with the Rules and Regulations of the South Coast Air Quality

Management District, compliance with AQMD Rule 403 was not considered as a mitigation measure. See responses to comments #7, #8, #9, and #10 below.

7. The first mitigation measure on page 172 of the Draft EA/EIR under reducing particulate and dust emissions is revised as follows:

- **During construction, the site shall be watered at least twice daily and all equipment cleaned to reduce particulate and dust emissions.**

8. The third mitigation measure on page 172 of the Draft EA/EIR under reducing particulate and dust emissions is revised as follows:

- **Silt shall be controlled by providing hard surfaces on any construction roads (e.g., paving, applying soil stabilizers, etc.), sweeping streets, and washing trucks leaving the site.**

9. The second mitigation measure on page 173 of the Draft EA/EIR is revised as follows:

- **Dirt runoff and spills on traveled roadways shall be washed or swept at the end of each construction day.**

10. As shown in the construction equipment emissions tables, Tables 20 and 22, PM_{10} emissions would not exceed the thresholds of significance of 150 pounds per day at any given time during the entire construction period. The last sentence on page 162 of the Draft EA/EIR is revised as follows:

Because the PM_{10} standards are commonly exceeded in Los Angeles, project-generated particulates would create an adverse impact on sensitive land uses in the vicinity of the project during demolition, grading, and excavation phases of the project.

Also, the following is added after the last sentence on page 163 of the Draft EA/EIR:

However, since PM_{10} emissions would not exceed the thresholds of significance of 150 pounds per day at any given time during the entire construction period, impacts associated with PM_{10} emissions would not be considered significant.

Letter A.005

SOUTHERN CALIFORNIA

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November 22, 1999

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Brad Bolger
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LAC+USC Medical Center Replacement Project
1200 North State Street, Box 21
P.O. Drawer 1788
Los Angeles, CA 90033

RE: **Comments on the Draft Environmental Assessment / Environmental Impact Report for the Los Angeles County + University of Southern California (LAC+USC) Medical Center Replacement Project - SCAG No. I 19990425**

Dear Mr. Bolger:

Thank you for submitting the **Draft Environmental Assessment / Environmental Impact Report for the Los Angeles County + University of Southern California (LAC+USC) Medical Center Replacement Project** to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

The attached detailed comments are meant to provide guidance for considering the proposed project within the context of our regional goals and policies. If you have any questions regarding the attached comments, please contact Jeffrey Smith, Senior Planner, at (213) 236-1867. Thank you.

Sincerely,

J. DAVID STEIN
Manager, Performance Assessment and Implementation

Con#:99005133.TIF

November 22, 1999

Brad Bolger
Project Director
LAC+USC Medical Center Replacement Project
1200 North State Street, Box 21
P.O. Drawer 1788
Los Angeles, CA 90033

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Sincerely,

J. DAVID STEIN
Manager, Performance Assessment and Implementation

COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT FOR THE LOS ANGELES COUNTY + UNIVERSITY OF SOUTHERN CALIFORNIA (LAC+USC) MEDICAL CENTER REPLACEMENT PROJECT

PROJECT DESCRIPTION

The County of Los Angeles proposes to redevelop the Los Angeles County + University of Southern California (LAC+USC) Medical Center and associated facilities in response to sever damage caused by the January 17, 1994 Northridge earthquake as well as aging and obsolescence of these facilities. The proposed Project consists of a replacement medical facility located on 87.5 acres in Los Angeles County, east of downtown Los Angeles. The Project considers three alternatives including, the No Project Alternative, 600-Bed Alternative (Proposed Alternative), and the 950-Bed Alternative. The replacement facility will be located southeast of the existing hospital structure and will replace and consolidate the existing five primary health care facilities with one hospital totaling approximately 1.5 million square feet.

INTRODUCTION TO SCAG REVIEW PROCESS

The document that provides the primary reference for SCAG's project review activity is the Regional Comprehensive Plan and Guide (RCPG). The RCPG chapters fall into three categories: core, ancillary, and bridge. The Growth Management (adopted June 1994), Regional Mobility (adopted June 1994), Air Quality (adopted October 1995), Hazardous Waste Management (adopted November 1994), and Water Quality (adopted January 1995) chapters constitute the core chapters. These core chapters respond directly to federal and state planning requirements. The core chapters constitute the base on which local governments ensure consistency of their plans with applicable regional plans under CEQA. The Air Quality and Growth Management chapters contain both core and ancillary policies, which are differentiated in the comment portion of this letter. The Regional Transportation Plan (RTP) constitutes the region's Transportation Plan. The RTP policies are incorporated into the RCPG.

Ancillary chapters are those on the Economy, Housing, Human Resources and Services, Finance, Open Space and Conservation, Water Resources, Energy, and Integrated Solid Waste Management. These chapters address important issues facing the region and may reflect other regional plans. Ancillary chapters, however, do not contain actions or policies required of local government. Hence, they are entirely advisory and establish no new mandates or policies for the region.

Bridge chapters include the Strategy and Implementation chapters, functioning as links between the Core and Ancillary chapters of the RCPG.

Each of the applicable policies related to the proposed project are identified by number and reproduced below in italics followed by SCAG staff comments regarding the consistency of the Project with those policies.

General SCAG Staff Comments

The Draft EA/EIR in section 4.2 (Land Use) includes a discussion of compliance with SCAG's Regional Comprehensive Plan and Guide (RCPG) policies and growth forecasts. 1

The Draft EA/EIR, on page 88, does adequately address the relationship of the proposed project to **applicable regional plans** as required by Section 15125 [d] of *Guidelines for Implementation of the California Environmental Quality Act.* However, appropriate discussion in section 4.3 (Traffic/Circulation/Parking) is lacking of the consistency of the project with applicable regional plans, specifically the *Regional Transportation Plan, and the Regional Comprehensive Plan and Guide* (which incorporates references to policies in the other regional plans). The Final EIR should address the relationships (consistency with core policies and support of ancillary policies) to SCAG's Regional Comprehensive Plan and Guide, utilizing commentary from the following detailed SCAG staff comments. The response should also discuss any inconsistencies between the proposed project and applicable regional plans. We suggest that you identify the specific policies, by policy number, with a discussion of consistency or support with each policy.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The Growth Management Chapter (GMC) of the Regional Comprehensive Plan and Guide contains a number of policies that are particularly applicable to the Los Angeles County + University of Southern California (LAC+USC) Medical Center Project.

Core Growth Management Policies

3.01 *The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.* 2

SCAG staff comments. As SCAG has designated subregions, the Project is situated in the Los Angeles City Subregion. The Draft EA/EIR references SCAG's

Cont'd.

Population, Household and Employment forecasts for the Subregion in Section 4.5 (Socioeconomic Issues/Environmental Justice). The forecasts are generally consistent with SCAG's forecasts. The Project is consistent with this core RCPG policy. 2

3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies. 3

SCAG staff comments. The Draft EA/EIR, on page 63, contains information on the probable sequence of preparation, demolition and construction of the proposed Project. The Project is consistent with this core RCPG policy.

The **Regional Transportation Plan (RTP)** also has goals, objectives, policies and actions pertinent to this proposed project. This RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. Among the relevant goals, objectives, policies and actions of the RTP are the following:

Core Regional Transportation Plan Policies

4.01 Transportation investments shall be based on SCAG's adopted Regional Performance Indicators. 4

SCAG staff comments. The Draft EIR does not address Transportation Investments based on the following SCAG adopted Regional Performance Indicators*:

Mobility - Transportation Systems should meet the public need for improved access, and for safe, comfortable, convenient and economical movements of people and goods.

- *Average Work Trip Travel Time in Minutes – 22 minutes*
- *PM Peak Highway Speed – 33 mph*
- *Percent of PM Peak Travel in Delay (All Trips) – 33%*

Accessibility - Transportation Systems should ensure the ease with which opportunities are reached. Transportation and land use measures should be employed to ensure minimal time and cost.

- *Work Opportunities within 25 Minutes – 88%*

Cont'd. 4

Environment - Transportation Systems should sustain development and preservation of the existing system and the environment. (All Trips)

- *Meeting Federal and State Standards – Meet Air Plan Emission Budgets*

Reliability - Reasonable and dependable levels of service by mode. (All Trips)

- *Transit – 63%*
- *Highway – 76%*

Safety - Transportation Systems should provide minimal, risk, accident, death and injury. (All Trips)

- *Fatalities Per Million Passenger Miles – 0.008*
- *Injury Accidents – 0.929*

Livable Communities - Transportation Systems should facilitate Livable Communities in which all residents have access to all opportunities with minimal travel time. (All Trips)

- *Vehicle Trip Reduction – 1.5%*
- *Vehicle Miles Traveled Reduction – 10.0%*

Equity - The benefits of transportation investments should be equitably distributed among all ethnic, age and income groups. (All trips)

- *Low-Income (Household Income $12,000)) Share of Net Benefits – Equitable Distribution of Benefits*

Cost-Effectiveness - Maximize return on transportation investment. (All Trips)

- *Net Present Value – Maximum Return on Transportation Investment*
- *Value of a Dollar Invested – Maximum Return on Transportation Investment*

*The numeric Regional Plan Objectives are not applicable on a project level, since the objectives are based upon performance of the regional system as a whole. Furthermore, several important policy issues are not accommodated in the Regional Plan Objectives, such as environmental impacts other than air quality. Individual projects must be evaluated by the local implementing agency and the goals and policies (i.e. mobility, accessibility, environment, reliability, safety, equity, Livable Communities, and cost-effectiveness) evaluated and weighed during the final project development. Such evaluation could occur via the MIS and/other environmental review processes. Projects are then proposed for funding through the RTIP which must be consistent with the RTP.

The Final EA/EIR should address the manner in which the Project is supportive of or detracts from the achievement of the eight core RTP objectives. Based on the information provided, we are unable to determine whether the Project is consistent with this core RCPG policy. It would be helpful if the Final EA/EIR would provide a

discussion on this policy.

4.02 Transportation investments shall mitigate environmental impacts to an acceptable level. 5

SCAG staff comments. The Draft EA/EIR does not adequately address the subject of transportation investments. However, Section 4.3 (Traffic/Circulation/Parking) identifies transportation and circulation impacts and details the measures to mitigate these impacts. The Project is partially consistent with this core RCPG policy.

4.03 Major Investment Studies and other studies of regional transportation facilities shall include consideration of freight movement 6

SCAG staff comments. The Draft EA/EIR does not address the subject of Major Investment Studies. We are therefore unable to determine whether the Project is supportive or this core RTP policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.04 Transportation Control Measures shall be a priority. 7

SCAG staff comments. The Draft EA/EIR does not address the extent to which the Project considers the implementation of Transportation Control Measures. Based on the information provided, we are unable to determine whether the Project is consistent with this core RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.05 The Regional Transportation Improvement Program (RTIP) shall be developed using the RTP as guidance, and approval shall be based on its implementation of the RTP. 8

SCAG staff comments. The Draft EA/EIR does not address the subject of RTIP. We are therefore unable to determine whether the Project is supportive or this core RTP objective. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.06 Implementing transit restructuring, including Smart Shuttles, freight improvements, advanced transportation technologies, airport ground access and traveler information services are RTP priorities. 9

SCAG staff comments. The Draft EA/EIR fails to adequately address the extent to which the Project considers the implementation of transit restructuring, Smart

Cont'd.

Shuttles, freight improvements, advanced transportation technologies, and traveler information services. Based on the information provided, we are unable to determine whether the Project is consistent with this core RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy. 9

4.07 *Projects proposed for the Regional Transportation Improvement Program (RTIP) that do not indicate a reasonable phasing of construction between segments will not be approved.* 10

SCAG staff comments. The Draft EA/EIR does not address the phasing of development and transportation improvements that may be proposed for inclusion in the RTIP. Based on the information provided, we are unable to determine whether the Project is consistent with this core RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.08 *All existing and new public transit services, facilities and/or systems shall be fully accessible to persons with disabilities as required by applicable sections of the 1990 Americans with Disabilities Act.* 11

SCAG staff comments. The Draft EA/EIR does not address the subject of accessibility. Therefore, we are unable to determine if the Project is consistent with this core RTP policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.10 *All existing and new public services shall be provided in a manner consistent with Title VI of the 1964 Civil Rights Act, prohibiting intentional discrimination and adverse disparate impact with regard to race, ethnicity, or national origin.* 12

SCAG staff comments. The Draft EA/EIR does not address the subject of consistency with Title VI of the Civil Rights Act. We are therefore unable to determine whether the Project is consistent with this core RTP policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.11 *All existing and new public transit services, facilities and/or systems shall evaluate the potential for private sector participation through the use of competitive procurement.* 13

SCAG staff comments. The Draft EA/EIR does not include an evaluation of the potential for private sector participation through the use of competitive procurement . We are therefore unable to determine whether the Project is supportive or this core RTP policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.15 Arterial HOV facilities to support transit and rideshare will be supported and encouraged. 14

SCAG staff comments. The Draft EA/EIR does not address the subject of arterial HOV facilities. We are therefore unable to determine whether the Project is supportive or this core RTP policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.16 Maintaining and operating the existing transportation system will be a priority over expanding capacity 15

SCAG staff comments. The Draft EA/EIR, does not address the subject of maintaining and operating the existing transportation system. We are therefore unable to determine if the Project is consistent with this core RTP policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

4.17 Alternatives to highway expansion must be evaluated before giving regional approval to expand capacity 16

SCAG staff comments. The Draft EA/EIR, does not address the subject of alternatives to highway expansion. We are therefore unable to determine if the Project is consistent with this core RTP policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE REGIONAL STANDARD OF LIVING

The Growth Management goals to develop urban forms that enable individuals to spend less income on housing cost, that minimize public and private development costs, and that enable firms to be competitive, strengthen the regional strategic goal to stimulate the regional economy. The evaluation of the proposed project in relation to the following policies would be intended to guide efforts toward achievement of such goals and does not infer regional interference with local land use powers

3.04 Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices. 17

SCAG staff comments. The Draft EA/EIR includes no information on the types of jobs and housing prices. However, the Draft EA/EIR projects that the number of construction workers will peak at 500 in the year 2003. Based on the information provided, we are unable to determine if the Project is partially supportive of this

Cont'd.

ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy. 17

3.05 *Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities.*

SCAG staff comments. The Draft EA/EIR in Sections 4.3 (Traffic/Circulation/Parking) and 4.8 (Public Services and Utilities) acknowledges that the Project will maximize the use of existing infrastructure and improve infrastructure deficiencies to meet the needs of the proposed Project. The Project is supportive of this ancillary RCPG policy.

3.08 *Encourage subregions to define economic strategy to maintain economic viability of the subregion, including the development and use of marketing programs, and other economic incentives, which support the attainment of subregional goals and policies.* 18

SCAG staff comments. The Draft EA/EIR does not address the economic aspects of the proposed project. We are therefore unable to determine if the Project is supportive of this ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

3.09 *Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.* 19

SCAG staff comments. The Draft EA/EIR in Sections in Sections 4.3 (Traffic/Circulation/Parking) and 4.8 (Public Services and Utilities) identify infrastructure and public service facilities to serve the Project. Improvements reflect necessary extension of existing facilities or the construction of new facilities, where none currently exist. Infrastructure is designed to minimize cost to the maximum extent. The Project is supportive of this ancillary RCPG policy.

3.10 *Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.* 20

SCAG staff comments. The Draft EA/EIR only addresses subjects that may have adverse environmental impacts. It is written in a concise manner, where all possible adverse impacts are mitigated this will help minimize red tape, and help maintain the economic vitality and competitiveness of the County of Los Angeles. In addition, the Draft EA/EIR, on pages 11 and 40, includes project objectives and characteristics that will also help to minimize red tape, and help maintain the

economic vitality and competitiveness of the County of Los Angeles. The Project is supportive of this ancillary RCPG policy.

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPRPVE THE REGIONAL QUALITY OF LIFE

The Growth Management goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life, that accommodate a diversity of life styles, that preserve open space and natural resources, and that are aesthetically pleasing and preserve the character of communities, enhance the regional strategic goal of maintaining the regional quality of life. The evaluation of the proposed project in relation to the following policies would be intended to provide direction for plan implementation, and does not allude to regional mandates.

3.11 *Support provisions and incentives created by local jurisdictions to attract housing growth in job rich subregions and job growth in housing subregions.* 21

SCAG staff comments. The Draft EA/EIR does not address the subject of jobs/housing. See SCAG staff comments on policy 3.04. We are therefore unable to determine if the Project is supportive of this ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

3.12 *Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.* 22

SCAG staff comments. The Draft EA/EIR acknowledges in Section 4.3 (Traffic/Circulation/Parking) potential traffic and circulation impacts of any future development and outlines mitigation measures to address these impacts. The Project is supportive of this ancillary RCPG policy.

3.13 *Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.* 23

SCAG staff comments. The Draft EA/EIR acknowledges in Section 4.3 (Traffic/Circulation/Parking) that the Project will allow the existing transit service to serve and provide access to the new development and redeveloped areas. The Project is supportive of this ancillary RCPG policy.

3.14 *Support local plans to increase density of future development located at strategic* 24

Cont'd.

points along the regional commuter rail, transit systems, and activity centers. 24

SCAG staff comments. The Draft EA/EIR does not address the relationship of density increases along major development corridors and existing or proposed transit services. We are therefore unable to determine whether the project is supportive of this ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

3.15 *Support local jurisdictions' strategies to establish mixed-use clusters and other transit-oriented developments around transit stations and along transit corridors.* 25

SCAG staff comments. The Draft EA/EIR does not describe the existing transit system and its relationship to mixed-use and other transit-oriented development. We are unable to determine whether the Project is supportive of this ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

3.16 *Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment.* 26

SCAG staff comments. See SCAG staff comments on policy 3.14. We are unable to determine whether the Project is supportive of this ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

3.17 *Support and encourage settlement patterns which contain a range of urban densities.* 27

SCAG staff comments. The Draft EA/EIR does not address the subject of urban densities. Based on the information provided, we are unable to determine if the Project is supportive of this ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

3.18 *Encourage planned development in locations least likely to cause adverse environmental impact.* 28

SCAG staff comments. The Project is proposed in a manner which will minimize adverse environmental impacts. Mitigation measures included in the Draft EA/EIR have been developed to address identified environmental impacts. The County of Los Angeles should carefully consider the adequacy of these measures. The Project is supportive of this ancillary RCPG policy.

3.21 *Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.* 29

SCAG staff comments. The Draft EA/EIR in Section 4.11 (Cultural Resources) acknowledges that the proposed Project will have potential impacts on historic, archaeological, and cultural resources. Mitigation measures included in the Draft EA/EIR have been developed to address identified impacts. The County of Los Angeles should carefully consider the adequacy of these measures. The Project is supportive of this ancillary RCPG policy.

3.22 *Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.* 30

SCAG staff comments. The Draft EA/EIR in Sections 4.1 (Geology/Soils) and 4.8 (Public Services and Utilities) identifies potential impacts related to seismic ground shaking, fault rupture, liquefaction, poor soil conditions, and storm drainage. Mitigation measures included in the Draft EA/EIR have been developed to address identified environmental impacts. The County of Los Angeles should carefully consider the adequacy of these measures. The Project is supportive of this ancillary RCPG policy.

3.23 *Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans* 31

SCAG staff comments. The Draft EA/EIR in Section 4.7 (Noise) acknowledges potential noise impacts related to vehicular traffic, and construction activities. Mitigation measures included in the Draft EA/EIR have been developed to address identified environmental impacts. The County of Los Angeles should carefully consider the adequacy of these measures. The Project is supportive of this ancillary RCPG policy.

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended guide direction for the

accomplishment of this goal, and does not infer regional mandates and interference with local land use powers.

3.24 *Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.* 32

SCAG staff comments. The Draft EA/EIR does not address the provision of affordable housing. We are therefore unable to determine if the Project is supportive of this ancillary RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

3.27 *Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.* 33

SCAG staff comments. The Draft EA/EIR in Section 4.8 (Public Services and Utilities) acknowledges the Projects efforts to address the provision of fire and police protection, and schools. The Project is supportive of this ancillary RCPG policy.

AIR QUALITY CHAPTER CORE ACTIONS

The Air Quality Chapter (AQC) core actions that are generally applicable to the Project are as follows:

5.07 *Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.* 34

SCAG staff comments. The Draft EA/EIR fails to adequately address the extent to which the Project considers the implementation of telecommunications, community based shuttle services, demand management based programs or vehicle-miles-traveled/emission fees. Based on the information provided, we are unable to determine whether the Project is consistent with this core RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

5.11 *Through the environmental document review process, ensure that plans at all* 35

Cont'd.

levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts. 35

SCAG staff comments. The Draft EA/EIR, in Section 4.6 (Air Quality), addresses consistency of the proposed Project with regional air quality policies and includes mitigation measures for impacts to air quality. The Project is consistent with this core RCPG policy.

WATER QUALITY CHAPTER RECOMMENDATIONS AND POLICY OPTIONS

The Water Quality Chapter core recommendations and policy options relate to the two water quality goals: to restore and maintain the chemical, physical and biological integrity of the nation's water; and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters.

11.02 Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts. 36

SCAG staff comments. The Draft EA/EIR, in Section 4.10 (Biologic Resources), states that, "No wetland habitat exists on the project site due to its urban setting". The Project is consistent with this core RCPG policy.

11.03 Coordinate watershed management planning at the subregional level by (1) providing consistent regional data; (2) serving as a liaison between affected local, state, and federal watershed management agencies; and (3) ensuring that watershed planning is consistent with other planning objectives (e.g., transportation, air quality, water supply). 37

SCAG staff comments. See SCAG staff comments on policy 11.02. The Project is consistent with this core RCPG policy.

11.05 Support regional efforts to identify and cooperatively plan for wetlands to facilitate both sustaining the amount and quality of wetlands in the region and expediting the process for obtaining wetlands permits. 38

SCAG staff comments. See SCAG staff comments on policy 11.02. The Project is consistent with this core RCPG policy

11.06 Clean up the contamination in the region's major groundwater aquifers since its 39

Cont'd.

water supply is critical to the long-term economic and environmental health of the region. The financing of such clean-ups should leverage state and federal resources and minimize significant impacts on the local economy. 39

SCAG staff comments. The Draft EA/EIR, in Section 4.9 (Water Resources/Water Quality), discusses groundwater found at the Project site, but does not address the subject of contamination and clean-up of the region's groundwater aquifers. Based on the information provided, we are unable to determine if the Project is consistent with this core RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

11.07 *Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.* 40

SCAG staff comments. The Draft EA/EIR does not address the subject of water reclamation. Based on the information provided, we are unable to determine if the Project is consistent with this core RCPG policy. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

OPEN SPACE CHAPTER ANCILLARY GOALS

Outdoor Recreation

9.01 *Provide adequate land resources to meet the outdoor recreation needs of the present and future residents in the region and to promote tourism in the region.* 41

SCAG staff comments. The Draft EA/EIR does not address the subject of providing adequate land resources for outdoor recreation needs. Based on the information provided, we are unable to determine if the project is supportive of this ancillary RCPG goal. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

9.02 *Increase the accessibility to open space lands for outdoor recreation.* 42

SCAG staff comments. See SCAG staff comments for goal 9.01. We are unable to determine if the Project is supportive of this ancillary RCPG goal. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

9.03 *Promote self-sustaining regional recreation resources and facilities.* 43

Cont'd.

SCAG staff comments. See SCAG staff comments for goal 9.01. We are unable to determine if the Project is supportive of this ancillary RCPG goal. It would be helpful if the Final EA/EIR would provide a discussion on this policy. 43

Public Health and Safety

9.04 Maintain open space for adequate protection of lives and properties against natural and man-made hazards. 44

SCAG staff comments. The Draft EA/EIR does not discuss the subject of maintenance of open space for adequate protection of lives and properties against natural and man-made hazards. Therefore, we are unable to determine if the Project is supportive of this ancillary RCPG goal. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

9.05 Minimize potentially hazardous developments in hillsides, canyons, areas susceptible to flooding, earthquakes, wildfire and other known hazards, and areas with limited access for emergency equipment. 45

SCAG staff comments. The Draft EA/EIR does not discuss the subject of potentially hazardous developments, and areas with limited access for emergency equipment. Therefore, we are unable to determine if the Project is supportive of this ancillary RCPG goal. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

9.06 Minimize public expenditure for infrastructure and facilities to support urban type uses in areas where public health and safety could not be guaranteed. 46

SCAG staff comments. The Draft EA/EIR does not address the subject of public expenditures for infrastructure and facilities. Therefore, we are unable to determine if the Project is supportive of this ancillary RCPG goal. It would be helpful if the Final EA/EIR would provide a discussion on this policy.

Resource Production

9.07 Maintain adequate viable resource production lands, particularly lands devoted to commercial agriculture and mining operations. 47

SCAG staff comments. The Draft EA/EIR does not discuss the subject of resources production lands. In addition, the Draft EA/EIR, on page 4, discusses the scope of environmental analysis. The Initial Study (Appendix B) determined

Cont'd.

that Agricultural and Mineral Resources would not have a significant impact on the proposed Project. The Project is supportive of this ancillary RCPG goal. 48

Resource Protection

9.08 Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands. 48

SCAG staff comments. See SCAG staff comments on policy 11.02. The Draft EA/EIR, in Section 4.10 (Biologic Resources), states that, "No wetland habitat exists on the project site due to its urban setting". The Project is supportive of this ancillary RCPG policy.

Conclusions and Recommendations:

1. As noted in the staff comments, the proposed Draft Environmental Assessment / Environmental Impact Report for the Los Angeles County + University of Southern California (LAC+USC) Medical Center Replacement Project is consistent with or supports some of the core and ancillary policies in the Regional Comprehensive Plan and Guide. 49

   Based on the information in the Draft EA/EIR, we are unable to determine whether the Project is consistent with core policies 4.01, 4.03-4.11, 4.15-4.17, 5.07, 11.06, 11.07. Based on the information in the Draft EA/EIR, we are unable to determine whether the Project is supportive of ancillary policies 3.04, 3.05, 3.09-3.18, 3.21-3.24, 3.27 and 9.01-9.06. Furthermore the Project is partially supportive of ancillary policy 4.02. 50

2. As noted in the General Staff Comments, the Final EIR should address the relationships (consistency with core policies and support of ancillary policies) to SCAG's Regional Comprehensive Plan and Guide and discuss any inconsistencies between the proposed project and applicable regional plans. 51

3. All mitigation measures associated with the project should be monitored in accordance with CEQA requirements. 52

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS is a ***Joint Powers Agency*** established under California Government Code Section 6502 et seq. Under federal and state law, the Association is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). Among its other mandated roles and responsibilities, the Association is:

! Designated by the federal government as the Region's ***Metropolitan Planning Organization*** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. '134(g)-(h), 49 U.S.C. '1607(f)-(g) et seq., 23 C.F.R. '450, and 49 C.F.R. '613. The Association is also the designated ***Regional Transportation Planning Agency***, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

! Responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the ***South Coast Air Quality Management Plan***, pursuant to California Health and Safety Code Section 40460(b)-(c). The Association is also designated under 42 U.S.C. '7504(a) as a ***Co-Lead Agency*** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

! Responsible under the Federal Clean Air Act for determining ***Conformity*** of Projects, Plans and Programs to the State Implementation Plan, pursuant to 42 U.S.C. '7506.

! Responsible, pursuant to California Government Code Section 65089.2, for ***reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans*** required by Section 65080 of the Government Code. The Association must also evaluate the consistency and compatibility of such programs within the region.

! The authorized regional agency for ***Inter-Governmental Review*** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

! Responsible for reviewing, pursuant to Sections 15125(b) and 15206 of the CEQA Guidelines, ***Environmental Impact Reports*** of projects of regional significance for consistency with regional plans.

! The authorized ***Areawide Waste Treatment Management Planning Agency***, pursuant to 33 U.S.C. '1288(a)(2) (Section 208 of the Federal Water Pollution Control Act)

! Responsible for preparation of the ***Regional Housing Needs Assessment***, pursuant to California Government Code Section 65584(a).

! Responsible (along with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council) for preparing the ***Southern California Hazardous Waste Management Plan*** pursuant to California Health and Safety Code Section 25135.3.

Revised January 18, 1995

Letter A.005: Southern California Association of Governments, J. David Stein, Manager, Performance Assessment and Implementation, November 22, 1999

Comment Number	Response
1.	Comment noted see specific comments below.
2.	Comment noted.
3.	Comment noted.
4.	The project is a replacement hospital that provides healthcare facilities for the immediate area and County as a whole. The project would not substantially change existing travel patterns including the regional performance indicators specified in the comment. Project access has been designed to allow easy access by car and bus. The SCAG standards clearly state that the standards do not apply to individual projects. Project impacts should be determined by local agencies. Therefore, the traffic study was directed at impact criteria established by the City of Los Angeles and the County of Los Angeles. Standards established by the LADOT and the County of Los Angeles DPW do not include impacts on the various performance indicators identified by the letter.
5.	Comment noted, the project is not a transportation project, however it is designed to minimize impacts on the transportation infrastructure.
6.	The project does not involve freight movement. Hospital deliveries would continue as at present or potentially less.
7.	The project represents a decrease in size from the existing facility, Transportation Control Measures are not necessary.
8.	The project is a replacement facility and does not impact the regional transportation infrastructure.
9.	The project is located on Marengo Street a major bus route. The project would include features designed to facilitate access from transit.
10.	The project is not included in the RTIP; therefore, this policy is not applicable.
11.-12.	The project would be in full compliance with the 1990 Americans with Disabilities Act, and the 1964 Civil Rights Act.
13.	The project is not a public transit service or system, this policy does not apply.
14.	The project does not involve HOV facilities. This policy does not apply.

15. The project would not cause an adverse impact on the transportation system.

16. The project does not involve highway expansion; therefore, this policy does not apply.

17. The project is a replacement facility; no new permanent/operational jobs would be created. Temporary jobs would be created during construction, which would cease to exist at the completion of construction activities. As noted in the comment, the project would maximize the use of existing infrastructure. The project would be smaller than the existing facility and would not cause any impacts on existing infrastructure. The proposed project would improve any infrastructure deficiencies to meet the needs of the project.

18. The project is a replacement facility needed to provide healthcare to the region. It is being developed in a cost effective manner by the County given the many factors that influence location of such a facility.

19. Comment noted.

20. Comment noted.

21. The last sentence of the fourth paragraph on p.53 of the Draft EA/EIR states that (staff) reductions are not expected to be through employee layoffs, but rather through attrition and relocation to other County facilities. The proposed project is a replacement facility and the nature of the project is not anticipated to attract housing growth.

22. Comment noted.

23. Comment noted.

24. The project is located along Marengo Street near the I-10 freeway. Thus, this regional facility is close to the regional transportation network, including transit. Since the project is a replacement facility and reuse of the existing facilities is not reasonably foreseeable at this time, this policy is not applicable.

25. As noted above, the project is a replacement facility adjacent to existing transportation infrastructure. This policy does not apply.

26. The project is a replacement facility located in an existing center of activity near existing transportation corridors. The project would partially address this policy.

27. The project would not cause an adverse impact on settlement patterns. Please refer to the second paragraph on p.95 and the third sentence of the second paragraph on p.101 of the Draft EA/EIR.

28. Comment noted.

29. Comment noted.

30. Comment noted.

31. Comment noted.

32. The project would not cause an adverse impact on the supply or quality of affordable housing. The 1994 EIR included mitigation for the housing impact that has already occurred. See response to Comment B.001-4.

33. Comment noted.

34. The project does not involve command and control regulations. This policy does not apply.

35. Comment noted.

36. Comment noted.

37. Comment noted.

38. Comment noted.

39. A discussion of water quality is presented in section 4.9. The County will be required to treat and dispose of any contaminated water in accordance with applicable regulations that are designed to protect public health.

40. Since the project is a hospital with associated health concerns, reuse of grey water could be a concern. The project does not address this policy.

41. The project does not involve outdoor recreation land resources or tourism. This policy does not apply.

42. The project does not involve outdoor recreation. This policy does not apply.

43. The project does not involve recreational resources and facilities. This policy does not apply.

44. The project would include well-maintained and lighted open space and would support this policy.

45. This project is not in an area susceptible to known hazards and is itself a facility that provides assistance in the event of an emergency; the project would support this policy.

46. The third paragraph on p.10 of the Draft EIR states that the County applied for and received an "improved project" status which will allow the County to replace the damaged hospitals with one new facility instead of repairing them. FEMA Funding allocated would be approximately $469 million of the total projected cost of $818 million. The County will fund the remainder of the project cost. The County, the lead agency, the State's OSHPD, and DHS will be "cooperating" agencies.

47. Comment noted.

48. Comment noted.

49. Comment noted.

50. See responses to comments above.

51. Comment noted, see responses above.

52. Comment noted. All mitigation measures associated with the project will be monitored in accordance with CEQA requirements.

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES
856 KENNETH HAHN HALL OF ADMINISTRATION / LOS ANGELES, CALIFORNIA 90012 / (213) 974-4111

GLORIA MOLINA
SUPERVISOR, FIRST DISTRICT
CHAIR OF THE BOARD

January 14, 2000

Mr. Brad Bolger
Project Director
LAC+USC Medical Center Replacement Project
1200 North State Street, Box 121
Los Angeles, California 90033

LAC+USC Replacement Project
Draft Environmental Assessment/ Environmental Impact Report (EA/EIR)

Dear Mr. Bolger:

As I stated in my comments at the November 17, 1999 hearing regarding this EA/EIR, I view the environmental review process of any project with great seriousness. State and Federal environment laws were created to assure that the environmental impacts associated with projects are thoroughly identified so they may be totally eliminated if possible, or mitigated to the maximum extent feasible if elimination is infeasible.

This Draft EA/EIR must ultimately meet, if not exceed, the Federal National Environmental Protection Act (NEPA) standards, the California Environmental Quality Protection Act (CEQA) requirements as well as subsequent case law governing their implementation.

Despite the well-intentioned efforts of any agency, draft environmental documents frequently require improvements before the final environmental documents meet the requisite standards. That is the purpose of adequate hearing and thoughtful review processes before the final documents are prepared and approved by the lead agencies. My comments, and those of community members and others, are offered to assist in the preparation of final environmental documents and the subsequent development of necessary mitigations to best protect the community from negative environmental impacts for the duration of the project.

Consistent with the testimony my office delivered at the November hearing, I shall outline the areas in the draft EA/EIR which I believe require either greater attention to accurately identify the probable environmental impacts of the LAC+USC Replacement Project; to eliminate or best mitigate these impacts, and to communicate all information more accurately and fully within the EA/EIR.

1. Hospital Size

Throughout the EA/EIR, there are repeated references indicating that a 600-bed hospital is justified by the projected community heath care need, that experts have supported this size facility, and that the current budgeted770 beds meet current needs. 1

None of these statements are accurate. Prior to Board direction not to pursue the 750-bed facility, every expert hired by the County, and every expert that testified in numerous Board of Supervisors' hearings testified that the need was a minimum of 750 beds. This is indisputable. Even after the Board of Supervisors' action, with the exception of the experts under Board direction, every expert and health care organization did not waiver from their original assessment. In fact, throughout all the hearings, there was not a single individual, organization, or expert who testified publicly in favor of the 600-bed option.

If the agencies responsible for the drafting of the EA/EIR believe otherwise, the CEQA Guideline 15151 still requires that "the EIR would summarize the main points of disagreement among the experts".

The references contained within the Draft EA/EIR suggesting that today's budgeted capacity of 770 beds is adequate to meet today's needs are similarly flawed. The actual capacity of LAC+USC frequently exceeds the 770 patients that are budgeted. In addition, the emergency room is closed to transfers on a regular basis. Given that a hospital is defined as full at 85% of actual beds, today's usage would require a hospital of approximately 950 beds. Conversely, a 770-bed hospital would leave almost 200 patients looking for care elsewhere every day. Again, refer to CEQA Guideline 15151. 2

2. Relocation of the Jail Ward

One of the major changes that will occur with the replacement facility is the relocation of jail ward. Many, if not all of these inmates have committed serious crimes and are deemed dangerous to the community. In the replacement facility, inmates would be treated in a portion of the facility which is on the ground floor, within a stone's throw of residents. Much closer to residents and neighborhoods than they currently are. 3

Clearly this is an area the environmental documents must consider in great, great detail, yet the Draft EA/EIR omits it in total.

Cont'd.

What dangers does this pose? What alternatives are available to provide enhanced community safety? Can those dangers be eliminated? If they cannot be eliminated, what safety measures will be provided to mitigate them to the greatest degree feasible? 3

NEPA is clear that environmental consequences must be eliminated if possible, and if not, then mitigated to the greatest degree. As the General Manager of the Los Angeles Environmental Affairs Department testified last November, "What you really should be doing is [evaluating] how you can redesign, reevaluate this project in a way that you avoid the impacts; and only if you cannot avoid them, minimize them. Then you deal with the issue of mitigation. These are people's lives and homes we are talking about".

Options exist to eliminate any potential dangers. The EA/EIR must consider them.

3. Housing Relocation and Replacement

Since I became involved in this project, I have worked hard to ensure that residents who were displaced be treated fairly, that replacement assistance be granted, and the housing be replaced in a manner that would serve community needs. Years of efforts have occurred to deal with this crucial issue. 4

Negotiations have occurred with residents. Agreements to mitigate housing impacts have been developed. The housing impacts and the mitigation measures should be reflected in this EA/EIR.

4. Standard for Comparison of Impacts

As I understand it, the environmental analysis employed compared the impacts that would occur on traffic, for instance, between the proposed project and the licensed capacity of the current facility of some 1,700 beds. While any reduction in size should logically decrease traffic impacts absent other changes, the comparison with facility that has not been used at a 1,700-bed capacity for decades, would greatly overestimate the reduction in environmental impacts. 5

My understanding is that CEQA case law has determined that comparisons should occur with a baseline at the time the environmental document is prepared, not determined by some theoretical possibility. This EA/EIR appears to utilize a comparison with phantom patients.

In a related matter, the EA/EIR assumes that the current LAC+USC main building will be mothballed. While no determination has been made for its use, it was always my understanding that the building is likely to be reutilized in some non-hospital capacity. It is an enormously expensive building to remove, has historic significance, and is structurally stable for a non-hospital use. Given these facts, isn't the assumption made in the EA/EIR that building will remain vacant an inaccurate one? Doesn't this inaccuracy underestimate the environmental impacts which must be mitigated? 6

5. Marengo Traffic Crossing

I am extremely concerned about the traffic safety measures that will be employed to assure community safety. A glaring example is the pedestrian access from the parking lot on Marengo Boulevard. Given that many visitors to the hospital will be hurried and possibly frantic, wouldn't a pedestrian bridge be a safer alternative to a street crossing? 7

The EA/EIR should carefully examine the issues of pedestrian safety, and propose mitigation's to eliminate the dangers.

6. Transfer of Patients

If the 600-bed option is not augmented by a community hospital of sufficient size in Baldwin Park, one in six of the patients admitted in the emergency room will be transferred to another facility. 8

The EA/EIR must examine the impacts of this plan. What will the impact be on traffic? What are the total impacts, including the impacts on the areas and facilities where the transfers will occur? What is the impact on Social Justice, an examination that NEPA requires.

7. Decline in Emergency Room Capacity

The EA/EIR fails to accurately reflect and examine the impacts of the reduction in emergency room capacity that will occur if a stand-alone 600-bed hospital is built, and not augmented by a satellite community hospital. 9

Emergency Room capacity will be reduced from 217,000 visits to 175,00 visits. Outpatient capacity will decline from 717,000 visits to half that level--350,000 visits.

Cont'd.

The EA/EIR should reflect these reductions and examine the impacts. What will happen to other facilities? What is the impact on Social Justice? 9

In relationship to the transfer issue, identified above, how will it affect patient care? How long will these transfers take? What is the impact on projected freeway volumes on the transfers? These are just some of the issues that must be analyzed as a result of these transfers and capacity reductions? The addition of the NEPA Social Justice requirements nessitate a thorough review of these and other issues.

8. Community Buffer

I understand that the proximity of the replacement to adjacent neighborhoods will require a 15-foot wall between the facility and the neighborhood. 10

What safety problems and nuisances could develop due to this placement? Will adequate surveillance and lighting be in place? The EA/EIR should identify the potential impacts, and means to eliminate them.

In conclusion, I provide these comments with the sincere hope that they will assist everyone involved producing subsequent environmental review documents and necessary mitigations that will make this project welcome in the community. It is imperative that as this process moves forward, all comments are adequately addressed, and the community is thoroughly informed. I believe that CEQA and NEPA hearing requirements should be viewed as "the minimum". Our goal should be to do whatever is necessary to best inform the community and others throughout the environmental review process.

Sincerely,

GLORIA MOLINA
Chair of the Board
Supervisor, First District

GM/ghk

Letter B.001: County of Los Angeles, Board of Supervisors, Gloria Molina, Chair of the Board, Supervisor, First District, January 14, 2000

Comment Number	Response
1,2.	After having heard hours of testimony and reviewed multiple studies/reports, the Board of Supervisors (BOS) authorized commencement of the design of a 600-bed replacement facility at LAC+USC Medical Center. The 600-bed option (130 ICU, 295 ACU, 10 burn AC, 10 burn ICU, 24 jail, 10 pediatric ICU, 25 pediatric ACU, 40 neonatal ICU, 32 obstetrics, 24 psychiatric) represented the best allocation of available resources in light of the need assessments, health care industry trends, improved medical treatment technology, shorter length of stay, hospital capacity throughout Los Angeles County, continued shifts to outpatient care and the uncertain future of health care financing. The projected need in 2005 for the replacement facility is 610 ADC according to the April 1998, Plan to Consolidate, Integrate and Expand DHS Health Delivery System, by Zaretsky. Given approximately an 85% occupancy rate, the 600-bed facility would accommodate about 510 patients per day. This would indicate a need for 100 beds from other hospitals (public and, possibly, private). There is ample capacity within the DHS system to accommodate this 100 bed differential. However, given patient origins, and visitor considerations, Zaretsky indicates that only 45 beds within the DHS system would be available to meet this deficit without requiring patients to travel farther than they would have traveled to LAC+USC. Thus, 55 beds would need to be available to accommodate these patients in private hospitals in the area closest to the patients' homes. The replacement hospital will have fewer beds than the current facility. However, the direct comparison of the number of beds is not meaningful because of inefficiencies that exist in the current facility. (For example, five of the six beds in an existing 6-bed ward cannot be utilized when an isolation patient is in one of those beds.) Although the new facility has fewer beds, its state-of-the-art design and emphasis on efficient operating models will greatly enhance DHS's ability to meet projected needs. The replacement facility will continue to function as the backbone of the County's safety net and remain a Level I trauma center and teaching hospital. The emphasis will be on high-end, specialized acute care services. There will be a higher proportion of ICU beds with beds increasing from today's 68 to 130 in the new hospital, and the diagnostic and treatment capabilities for traumas and higher acuity emergencies will be maintained close to current levels. The plan for appropriately addressing patient needs in a 600-bed facility is based on several factors. It is expected that during the seven years leading to the opening of the replacement hospital, efforts will be made to change referral patterns from the comprehensive health centers, the health centers and public/private partnership clinics so that if medically appropriate, more patients are referred to and hospitalized at a DHS hospital closer to their residence.

The replacement Emergency Department (ED) is expected to continue as a major regional trauma center and emergency service provider. Its considerable trauma and emergency service capabilities are expected to remain close to current levels. The new ED has a 20 bed observation/holding area. This will enable patients to be accommodated and stabilized until a bed is assigned in the hospital or arrangements are made for transfer to another County hospital or contracted private hospital.

On September 15, 1998, when the BOS authorized DPW and DHS to commence the design of a 600-bed replacement hospital, they also made provisions for a 150-bed Annex should the following criteria be met:

1) State approval of SB1732 funding for up to 750 beds and associated planning activities;
2) Extension of the 1115 Waiver;
3) LAC+USC maintains an annual average ADC of 770 or more in 2000 to 2002; and
4) The State provides funds to offset the costs of plans and specifications of the Annex.

If the presently proposed 600-bed facility proves to be insufficient to meet patient demand, the County is prepared to take additional action providing there is State funding and Federal cooperation as described above.

3. The proposed jail ward unit related to the new replacement hospital has been reduced to 24 acute care beds from its current number of 39 beds. In both cases, patients needing ICU, CCU, maternity or burn care services will be "out-posted" under Sheriff personnel surveillance with the general patient population.

Although the planned location of the jail ward unit does not have a significant environmental impact as defined by CEQA and NEPA, we are providing the following information for the benefit of the general public. The architectural team worked extensively with LAC+USC and Sheriff Department personnel during the early design phase to ensure the appropriate placement of medical services within the new hospital buildings including jail ward services. The final selection of the jail ward site on the first floor isolates the jail unit from public areas and provides the highest level of security to patients, visitors, employees and neighborhood residents by minimizing physical and visual contact of inmates and reducing circulation conflicts with other hospital operations.

The proposed security measures which include a highly secure sally port area, video surveillance equipment and standard custody operating procedures were thoroughly discussed with and approved by Sheriff personnel. The jail unit is located 250 feet north of Marengo Street and 12 feet below grade with the entrance enclosed by 18- to 24-foot high concrete walls and a steel mesh ceiling. This below grade location, bus sally port enclosure, and loading dock concrete retaining walls effectively screens the view of these functions from the neighborhood residents. A 15 to 35-foot buffer zone between the community and hospital facilities will also be landscaped.

Operationally, a bus or van under security control and observation of Sheriff personnel is used to transport inmates. These vehicles will use Marengo Street to arrive at the hospital loading dock area and enter the secured sally port area. Inmates are handcuffed individually and shackled as a group and escorted by Sheriff personnel at all times. Inmates are loaded and unloaded from the bus once the sally port area is closed and fully secured. Two access points to the facility will require Sheriff personnel to electronically unlock security doors simultaneously from inside and outside the jail unit.

Additionally, the County recently explored alternate locations for the jail ward. While all these locations are feasible none provides comparable security, hospital operations and patient care benefits compared to the proposed location. Futhermore, these alternatives will negatively impact the overall hospital schedule and budget as shown in the following matrix.

JAILWARD LOCATION OPTIONS

OPTION	LOCATION	CRITICAL PATH SCHEDULE DELAY	COST IMPACT (HARD AND SOFT COSTS) MID POINT OF CONSTRUCTION
1	Level One of Inpatient Tower Building (southwest quadrant)	2 months	$9,500,000
2	Level One of Inpatient Tower Building (northeast quadrant)	3 months	$11,500,000
3	Level Three of Inpatient Tower Building (north of elevator core)	10 months	$36,400,000
4	Level Nine, Penthouse Level of Inpatient Tower Building (northern portion of this level) requires additional construction of a partial 9th level.	5 months	$22,200,000
5	Free standing annex north of Inpatient Tower Building at approximate elevation of Levels 3 and 4	3 months	$18,100,000

4. The housing impacts described in the 1994 EIR have already occurred as has the mitigation. For the commenter's information, the following is provided:

On April 12, 1994, the Board of Supervisors certified the Final Environmental Impact Report for the LAC+USC Medical Center Replacement Project (950 beds). A number of mitigation measures contained in the 1994 LAC+USC

Medical Center Replacement Project EIR were implemented and completed in conjunction with initial project demolition and construction activities, prior to the project change considered in the current EA/EIR (600 beds).

At the November 17, 1999 public meeting, comments were presented requesting documentation of County compliance with the replacement housing mitigation measure that was developed and certified in the 1994 EIR.

The 1994 EIR Mitigation Monitoring Program (Appendix "F" attached) required the County to "*develop an additional program to create 105 dwelling units of affordable housing. Seventy-four rental units affordable to very low income families earning 50 percent of less of median income and 31 home ownership units affordable to low income families earning not more than 80 percent median income will be developed. The bedroom mix will be 55 two bedroom units and 50 three bedroom units. A total of 260 bedrooms will replace the demolished 260 bedrooms. The home ownership units will all have three bedrooms. The units will be restricted to being within ten miles of the LAC+USC Medical Center, with priority given to sites within the communities Boyle Heights, Lincoln Heights, El Sereno, East Los Angeles, City Terrace, and Highland Park. Priorities will be given to relocating existing structures to vacant lots in the communities noted above, where economically feasible.*"

The monitoring schedule further specified that 50% of the units would be ready for occupancy within 4 years of completion of demolition of the existing housing, and all housing development should be ready for occupancy within five years of demolition of the existing housing. Demolition of the last housing unit to clean the site for construction of the 950 bed hospital was completed in December 1996.

The Department of Health Services and the Community Development Commission were designated responsible agencies for monitoring and verifying compliance of the replacement housing issue. The measure was intended to mitigate the impact of housing to be demolished on the 15 acres located east of the Medical Center that the County, in 1994, intended to purchase. The County only purchased 8 of these acres and proceeded with demolition of only 110 bedrooms rather than the 260 bedrooms originally anticipated.

Originally, the CDC had designated $2 million in City of Industry redevelopment "set aside funds" to satisfy the 1994 replacement housing obligation. Unfortunately, these monies were tied up in litigation until mid-1998. However, the 1994 Final EIR also indicated in section VIII, Response to Comments Page 301 that "*If the City of Industry funds should not become available within the necessary time frame, the CDC receives various federal funds which will be utilized for development of the affordable housing. Sources of funds include CBDG, HOME, and Housing Authority Funds. It should be noted that all federal funds received by CDC can only be used in the unincorporated areas and participating cities, which does not include the City of Los Angeles. Therefore, if housing is to be located in the City of Los Angeles and federal funds are used, the County will seek assistance from the city.*"

Given this, the CDC proceeded with a number of low income housing projects using other funding sources, the sum total of which more than meet the LAC+USC Medical Center 1994 EIR replacement housing mitigation requirements.

The following tables summarize CDC housing development projects for ownership and rental units within 10 miles of the Medical Center following certification of the EIR in 1994 that satisfy the EIR replacement housing mitigation measure.

Summary of completed Ownership/Single Family Units - Low Income

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	29	116	0	0
3 Bedrooms	68	204	31	93
2 Bedrooms	6	12	0	0
1 Bedroom	0	0	0	0
0 Bedroom	0	0	0	0
	103	332	31	93

Summary of completed Rental/Multi Family Units - Very Low Income

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	27	108	0	0
3 Bedrooms	46	138	19	57
2 Bedrooms	56	112	55	110
1 Bedroom	82	82	0	0
0 Bedroom	0	0	0	0
	211	440	74	167

Summary of projected Ownership/Single Family Units to be completed by December 2001 - Low Income (including those already completed)

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	35	140	0	0
3 Bedrooms	68	204	31	93
2 Bedrooms	6	12	0	0
1 Bedroom	0	0	0	0
0 Bedroom	0	0	0	0
	109	356	31	93

Summary of Rental/Multi Family Units to be completed by December 2000 - Very Low Income (including those already completed)

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	27	108	0	0
3 Bedrooms	155	465	19	57
2 Bedrooms	169	338	55	110
1 Bedroom	445	445	0	0
0 Bedroom	106	106	0	0
	902	1462	74	167

The CDC has issued a new RFP to allocate the $2,000,000 towards replacement housing as an additional demonstration of County commitment to affordable housing.

5. The base analysis for the EIR considers a hospital with a capacity of 1,450 beds. This was the capacity in 1994 and was used in this document to provide consistency with the 1994 EIR and because the current condition is an "interim" condition caused by the earthquake. However, the traffic analysis compares actual traffic based on counts (adjusted as appropriate) with projected traffic. See also response to comment B.009-2.

6. Reuse of General Hospital (Women's Hospital and the Outpatient Building) is not reasonably foreseeable at this time Reuse possibilities and the timing of any such reuse is entirely speculative. A brief discussion of rehabilitation of General Hospital and reuse of the outpatient building are discussed on pp. 42 and 43 of the Draft EA/EIR. Analysis of reuse options will occur once they have been defined.

7. A pedestrian bridge from Marengo Parking building to the new hospital site is being designed and will be included in the construction document as an additive/alternative.

8. The projections made in the April 1998, Zaretsky Report were based on a higher average daily census (ADC) which excluded the well baby nursery. If the current ADC trend continues at its current rate of decline, the number of transfers will be reduced. Moreover, during the seven years leading to the opening of the LAC+USC replacement hospital, efforts will be made to change referral patterns from the comprehensive health centers, the health centers and the public/private partnership clinics so that, if medically appropriate, more patients are hospitalized at a DHS hospital closer to their residence. If and when transfers are required, the general rule is: patients who would otherwise use LAC+USC Medical Center would not be required to travel to another hospital unless that hospital is no further from their residence than is LAC+USC. Furthermore, only stable patients will be considered for transfer. To the extent medically appropriate capacity is not available at the DHS facilities, private-sector contracting for beds will be utilized. It is anticipated that patients transferred to the other hospitals will in all cases be closer or just as close to their place of residence as LAC+USC Medical Center. No substantial impacts are anticipated to result from these transfers. Also see Letter B.001, Comments 1 & 2.

9. Since the replacement emergency department (ED) is expected to maintain its role as the region's major trauma and emergency service provider, its size and capacity is the same as that for a 750-bed hospital. The space capacity of the new ED is much improved from the current ED. The new ED has a 20-bed observation area that is currently nonexistent. In addition, there will be an enhanced capability in the 600-bed replacement facility because of an increase of ICU beds over the existing beds. Also, see Letter B.001, Comments 1, 2, and 8. The Tranquada/Zaretsky County of Los Angeles Health Facilities Improvement and Replacement Plan Analysis of October 1996; the April 1998, Plan to Consolidate, Integrate and Expand DHS Health Delivery System, and the LA Model are available for review with the Project Management Office located on the LAC+USC MC campus.

10. A 15 to 35 foot wide landscaped buffer is proposed along Chicago. The wall of the facility along Chicago would vary in height from 10 feet to 15 feet. This would be part of the retaining wall and structure surrounding the cooling towers. The wall as well as the rest of the hospital exterior would be maintained, lighted and monitored to prevent problems. No safety or nuisance problems are anticipated.

Letter B.002

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

(323) 890-4330

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

October 20, 1999

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Mr. George Jones
County of Los Angeles
Department of Public Works
LAC + USC Medical Center Replacement Project
2020 Zonal Avenue, 7th Floor
Los Angeles, CA 90033

Dear Mr. Jones:

SUBJECT: ENVIRONMENTAL IMPACT REPORT – LOS ANGELES COUNTY+UNIVERSITY OF SOUTHERN CALIFORNIA (LAC +USC) MEDICAL CENTER REPLACEMENT PROJECT/SEISMIC HAZARD MITIGATION PROGRAM FOR HOSPITALS (EIR#733/1999)

The Environmental Impact Report for the Los Angeles County + University of Southern California Medical Center Replacement Project for Seismic Hazard Mitigation Program for hospitals has been reviewed by the Planning, Subdivision, and Forestry Divisions of the County of Los Angeles Fire Department. The following are their comments:

SERVICE RESPONSIBILITY

The subject property is totally within the City of Los Angeles and does not appear to have any impact on the emergency responsibilities of this Department. It is not a part of the emergency response area of the Consolidated Fire Protection District. 1

Size, complexity, and projected use of the proposed development may necessitate multiple ingress/egress access for the circulation of traffic, and emergency response issues.

The Department may condition future development to provide a second and in some cases a third means of access due to the number of units and street widths in existing development. The development of this project must comply with all applicable code and ordinance requirements for construction, access, water main, fire flows and hydrants.

Specific fire and life safety requirements for the construction phase will be addressed at the building fire plan check. There may be additional fire and life safety requirements during this time. When involved with subdivision; Fire Department requirements for access, fire flow and hydrants are addressed during the subdivision tentative map stage.

Cont'd. 1

It is strongly suggested that fire sprinkler systems be installed in all commercial and residential buildings. This will reduce potential fire and life losses. Systems are now technically and economically feasible for residential use.

COMMERCIAL OR INDUSTRIAL

Development will require fire flows up to 5,000 gpm at 20 pounds per square inch residual pressure for up to five-hour duration. Final fire flows will be based on the size of buildings, their relationship to other structures, property lines, and types of construction used.

All on-site driveways shall provide a minimum unobstructed width of 26 feet, clear-to-sky. The on-site driveway is to be within 150 feet of all portions of the exterior walls of the first story of any building.

Driveway width for commercial or industrial developments shall be increased when any of the following conditions will exist:

1. Provide twenty-eight (28) feet width when buildings are three stories or more than 35 feet in height above access level. Also, for using Fire Truck ladders, the centerline of the access roadway shall be located parallel to, and within 30 feet of the exterior wall on one side of the proposed structure.
2. Provide thirty-four (34) feet width when parallel parking is allowed on one side of the access roadway/driveway. Preference is that such parking is not adjacent to the structure.
3. Provide forty-two (42) feet width when parallel parking is allowed on each side of the access roadway/driveway.
4. All "Fire Lanes" will be depicted on the final map, and will be designated with the appropriate signage. "Fire Lanes" are any ingress/egress roadway/driveway with paving less than 34 feet in width, and will be clear-to-sky.

HIGH DENSITY RESIDENTIAL

Development will require fire flows up to 5,000 gpm at 20 pounds per square inch residual pressure for up to five-hour duration.

Final fire flows will be based on the size of buildings, its relationship to other structures, property lines, and types of construction used.

All on-site driveways shall provide a minimum unobstructed width of 26 feet clear-to-sky. The on-site driveway is to be within 150 feet of all portions of the exterior walls of the first story of any building. The 26 feet width does not allow for parking, and shall be designated as a "Fire Lane," and have appropriate signage.

The 26 feet width shall be increased to:

1. Thirty-four (34) feet width when parallel parking is allowed on one side of the access way.
2. Thirty-six (36) feet width when parallel parking is allowed on both sides of the access way.

Cont'd.

3. Any access way less than 34 feet in width shall be labeled "Fire Lane" on the Final recording map, and Final Building Plans. Driveway labeling is necessary to ensure access for Fire Department use. 1

Should any questions arise regarding design and construction and/or water and access, please contact Mr. Wally Collins at (323) 890-4243. If there are questions regarding the project, please call Captain John Freeman at (323) 890-4137.

ENVIRONMENTAL ISSUES

The statutory responsibilities of the County of Los Angeles Fire Department Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources and the County Oak Tree Ordinance. 2

The areas germane to these statutory responsibilities of the County of Los Angeles Fire Department have been addressed in each of the three project alternatives.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

Michael A. Wilkinson

MICHAEL A. WILKINSON, CHIEF, FORESTRY DIVISION,
PREVENTION BUREAU

MAW:sc

Letter B.002: County of Los Angeles Fire Department, Michael A. Wilkinson, Chief, Forestry Division, Prevention Bureau, October 20, 1999

Comment Number	Response
1.	The County has met with the Los Angeles County Fire Department, County Facilities Unit several times over the past year. The plans for fire lanes, access during construction, fire flow at hydrants and connections, and locations of hydrants have been developed in conjunction with the members of the LACFD Facilities Unit. All new fire lanes and hydrants will meet County Fire Department guidelines established in their EIR response. Any necessary variances from those guidelines will be specifically addressed and approved by the County Facilities Unit prior to construction.
2.	The project has developed specific drawings and specifications that address erosion control. Detention basins, sandbags along Marengo and State Street, berms, temporary area drains, and other erosion control measures have been indicated on an overall site general erosion control pain and are described in detail in the attached letter from KPFF Civil Engineering. The general erosion control drawings and specifications have been submitted to the County Building and Safety Department for review and approval. The following mitigation is added on p. 213 of the Draft EIR/EA to the list of mitigation measures. This measure is added as the third measure on p. 213. **The County shall require each contractor to develop a specific erosion control plan, that is compatible with the overall site general erosion control plan, and submit their plan for approval to the governing regulatory agency. The contractor's erosion control plan must comply with the California Stormwater Best Management Practices Handbook.** The statutory responsibilities of the County Fire Department including erosion control, watershed, rare and endangered species, vegetation, fire zone 4, archeological and cultural resources, and the County Oak Tree Ordinance will be reviewed and developed in conjunction with the Facilities Unit or other appropriate Los Angeles County Fire Departments units during the permitting phase of the project. The project has developed specific drawings and specifications that address erosion control. Detention basins, sandbags, berms, and other erosion control measures have been indicated on an overall site general erosion control plan. Each Contractor is required to develop a specific erosion control plan, that is compatible with the general plan, and submit their plan for approval to the governing regulatory agency. The Contractors erosion control plan must comply with the California Stormwater Best Management Practices Handbook. The general erosion control drawings and specifications have been submitted to the County Building Safety Department for review and approval.

Letter B.003

October 25, 1999

# of pages	1	Date:	10/25/99
To: Mr. Brad BOLGER		From: Suen Fei LAU	
Co.: LACDPW-Proj Managmnt Div.		Co.: LACDPW-Traff&Ltg/Studies	
Phone #: (323) 226-4726		Phone #: (626) 458-5909 x3725	
Fax #: (323) 226-8392		Fax #: (626) 458-5936	

Please review our comments and if possible let us know tomorrow if the comments are acceptable. We need to response to Planning Div by 10/26/99.

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TO: Dave Yamahara
Planning Division

FROM: K. E. Weary
Traffic and Lighting Division

DRAFT ENVIRONMENTAL ASSESSMENT/
ENVIRONMENTAL IMPACT REPORT (SEPTEMBER 1999)
TRAFFIC STUDY (MARCH 1999)
LOS ANGELES COUNTY + UNIVERSITY OF SOUTHERN CALIFORNIA
MEDICAL CENTER REPLACEMENT PROJECT
CITY OF LOS ANGELES

As requested, we have reviewed the Traffic/Circulation/Parking Section of the above-mentioned document, which contains findings of the revised March 1999 Traffic Study. The Project is located on approximately 87.5 acres of property entirely within the City of Los Angeles, bounded by Zonal Avenue to the north; Chicago Street to the east; Marengo Street to the south; and Mission Street to the west. 1

The objective of the proposed replacement Project is to maintain existing patient care, educational research, and community service programs while at the same time replacing existing damaged and obsolete facilities, constructing a replacement facility, and creating new open space in a logical sequence. The replacement facility would be located directly southeast of the existing General Hospital structure and would contain 600 beds and would comprise a total of 1,470,000 gross square feet (GSF). The proposed Project would consist of four distinct buildings, a 36,000 GSF underground Central Plant; a 744,000 GSF Inpatient Tower; a 340,000 GSF Diagnostic and Treatment Building; and a 325,000 GSF Outpatient Clinic Building. The existing LAC+USC Medical Center maintains an estimated 1,450 functional beds (licensed for 2,105 beds). This 600-bed replacement Project represents a 59 percent reduction in the number of beds. The proposed Project is estimated to generate approximately 7,060 daily vehicle trips, with 642 and 732 vehicle trips during the a.m and p.m peak hours, respectively, which represents a reduction of 59 percent in vehicle trips from the existing project.

We generally agree with the traffic study that exiting southbound traffic at the proposed emergency walk-in driveway located opposite Kingston Avenue at Marengo Street may experience long delays. The County is considering whether to install traffic signals at the intersection or construct a pedestrian bridge across Marengo Avenue from the existing 3,000-space Marengo Parking Structure directly to the hospital. A traffic signal warrant analysis should be conducted after the completion of the hospital, emergency walk-in parking lot on

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Cont'd.

Marengo Avenue at the above-mentioned driveway/intersection. The traffic signal should only be installed when actual traffic conditions warrant the traffic signals. Other mitigation measures should also be considered such as right-turn out only for exiting southbound traffic at the above-mentioned emergency walk-in driveway. 1

We recommend the State of California Department of Transportation and the City of Los Angeles review this document for significant impacts/mitigations within their jurisdictions.

If you have any questions, please contact Scott Angus of our Traffic Studies Section at Extension 5909.

SJA:
T-2/LACUSCMC1

cc: Brian T. Sasaki

Letter B.003: Traffic and Lighting Division, Los Angeles County, K.E. Weary, October 25, 1999

Comment Number	Response
1.	A traffic signal warrant analysis has been conducted at this location (Kingston Avenue and Marengo Street intersection), which indicated that several warrants would be satisfied by the signalization of this intersection, as stated on p. 133 of the DEIR/EA.

Letter B.004

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100

HARRY W. STONE, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

November 16, 1999

IN REPLY PLEASE
REFER TO FILE: P-2

Mr. George Jones
Los Angeles County Department of Public Works
LAC+USC Medical Center
1200 North State Street
P.O. Box 121
Los Angeles, CA 90033

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Dear Mr. Jones:

RESPONSE TO A DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)/ ENVIRONMENTAL ASSESSMENT (EA) LOS ANGELES COUNTY + UNIVERSITY OF SOUTHERN CALIFORNIA MEDICAL CENTER REPLACEMENT PROJECT

Thank you for the opportunity to provide comments on the DEIR/EA for the proposed Los Angeles County+University of Southern California Medical Center Replacement Project. We have reviewed the DEIR and offer the following comments:

Environmental Programs

As projected in the Los Angeles County Countywide Siting Element (CSE), which was approved by a majority of the cities in Los Angeles County in late 1997 and by the County Board of Supervisors in January 1998, a shortfall in permitted daily landfill capacity may be experienced in the County within the next few years. The construction and demolition activities and post-development operations associated with the proposed project may increase the generation of solid waste, and may negatively impact solid waste management infrastructure in the County. Therefore, the proposed EIR/EA must identify what measures the project proponent may implement to mitigate the impact. Mitigation measures may include, but are not limited to, implementation of waste reduction and recycling programs to divert the solid waste, including construction and demolition waste, from the landfills. 1

The definition of a "major landfill" given on page 193, second paragraph, conflicts with the definition given in the CSE (which is referenced on page 194). The CSE defines a Major Class III Landfill as a Class III landfill which is permitted to receive 250,000 tons or more of solid waste per year. 2

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The EIR/EA indicates on page 205, that "the project shall be required to comply with the State's AB939 resource reduction and recycling program". The EIR/EA should instead indicate specific actions the project proponent will use to mitigate the impact of solid waste (such as placing receptacles for recyclables in key locations, etc.). 3

The California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires each "development project" to provide adequate storage area for collection and removal of recyclable materials. The EIR/EA should include/discuss standards to provide adequate "waste storage areas" for collection/storage of recyclable and green waste materials for this project. 4

The EIR/EA needs to fully assess the impact of this project on the quality of stormwater runoff. The municipal stormwater National Pollutant Discharge Elimination System permit issued to Los Angeles County and 85 cities by the Los Angeles Regional Water Quality Control Board on July 15, 1996, required the development and implementation of a program addressing stormwater pollution issues in development planning for private projects. Part of the resulting program to address these stormwater pollution issues are Urban Stormwater Mitigation Plans (USMPs) for priority projects. Enclosed is an Announcement describing which projects require USMPs. The appropriate post construction Best Management Practices selected and incorporated into the project plans should be in compliance with the Development Planning Program and USMPs. 5

Flowing southwest through the proposed project location, parallel to Mission Road, is the County Hospital Drain which discharges into the Los Angeles River. If any connections are made to this storm drain, a permit is required from this Department's Construction Division. 6

Should any operation within the subject project include the construction/installation, modification, or removal of underground storage tanks and/or industrial waste control or disposal facilities, this Departments' Environmental Programs Division must be contacted for required approvals and operating permits. 7

If you have any questions regarding the above comments, please contact Mr. Gerald Ley at (626) 458-2190.

Traffic and Lighting

We generally agree with the traffic study that exiting southbound traffic at the proposed emergency walk-in driveway located opposite Kingston Avenue at Marengo Street may experience long delays. The County is considering installing traffic signals at the 8

intersection and constructing a pedestrian bridge across Marengo Avenue from the existing 3,000-space Marengo Parking Structure directly to the Hospital. A traffic signal warrant analysis should be conducted after the completion of the Hospital's emergency walk-in parking lot on Marengo Avenue at the above-mentioned driveway/intersection. The traffic signal should only be installed when actual traffic conditions warrant the traffic signals. Other mitigation measures should also be considered such as right turn out only for exiting southbound traffic at the above-mentioned emergency walk-in driveway. 8

We recommend the State of California Department of Transportation and the City of Los Angeles review this document for significant impacts/mitigation within their jurisdictions.

If you have any questions, please contact Mr. Scott Angus of our Traffic Studies Section at (626) 458-5909.

If you have any questions regarding the environmental reviewing process of this Department, please contact Mr. Scott Schales at the address on the first page or at (626) 458-4119.

Very truly yours,

HARRY W. STONE
Director of Public Works

T. Scott Schales

For: DAVID YAMAHARA
Assistant Deputy Director
Planning Division

YC:ro
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Enc.

bc: Environmental Programs
Traffic and Lighting
Planning (Schales)

Letter B.004: Department of Public Works, County of Los Angeles, David Yamahara, Assistant Deputy Director, Planning Division, November 16, 1999

Comment Number	Response
1.	The following mitigation is added on p.205 of the Draft EA/EIR to the list of mitigation measures. This measure is added as the third measure under the solid waste section on p.205. **The County shall require contractors to prepare and implement a plan to recycle as much construction and demolition materials as feasible.**
2.	Page 193: the "50,000" tons of solid waste per year cited is changed to **"250,000"** tons per year.
3.-4.	The following mitigation is added on p.206 of the Draft EA/EIR to the list of mitigation measures. This measure is added as the fourth measure under the solid waste section on p.206. **The County shall conduct an audit of the existing facility to determine the composition of waste generated and the potential for diversion programs. The results of the audit shall be used to develop a diversion program. The County shall then set aside adequate space for the collection and removal of identified recyclable materials.**
5.	The total project site is approximately 1,040,000 sf. The baseline conditions at the site contained 231,829 sf of pervious materials, pervious being defined as landscaped areas or areas allowing the penetration of water into soil. The proposed replacement project will contain 343,900 sf of pervious materials. There is a net result of an additional 112,071 sf of pervious material and a decrease in stormwater runoff. The County is also providing gravel infiltration beds in the surface parking lot west of the new Outpatient Building. This would add additional pervious area to the aforementioned pervious material. The County has prepared a site specific "Storm Water Pollution Prevention Plan" which includes the Notice of Intent, topographical base maps, site maps depicting drainage patterns, areas of cut and fill, and other required maps, staging areas and preventative measures around staging areas and preventative measures around staging areas, recommendations for Best Management Practices, and recommendations for post-construction BMP's, monitoring, and inspection. The SWPPP will be submitted to the jurisdictional review agency for approval prior to construction. Further, each General Contractor performing work on the project will be required to prepare an individual SWPPP that is in compliance with the general SWPPP mentioned above, but is tailored for their specific

activities or location on the site, including their staging areas and preventative measures. All construction activities will be covered by an NPDES permit also which the County will review and obtain concurrence of the Regional Water Quality Control Board.

6. Comment noted. If connections are necessary the permit will be obtained from the County of Los Angeles Construction Division.

The City of Los Angeles, Bureau of Sanitation/Wastewater Engineering has investigated the anticipated flow generated from the 600 bed hospital, and concluded that adequate capacity exists in the City mains (reference the attached correspondence from the Bureau of Sanitation). The proposed 946 bed alternate would have a greater impact than the proposed 600 bed facility because of a greater number of fixture units calculated for the present medical center facility. The County is funding numerous upgrades to City infrastructure. The overhead power poles along Marengo will be placed underground along the project site. The County is funding new conduit, feeders, and the installation, as well as the engineering, for the power line undergrounding. The county is providing for the design and construction of new domestic water lines from Cummings/Charlotte streets to Chicago/Marengo. The City of Los Angeles Department of Water and Power will be installing the new water, and power, lines. The County has also agreed to fund to the Department of Water and Power, for all underground utility rerouting. This is intended to fund the roadway resurfacing for streets that have been sawcut and repaved in the course of utility installations.

7. Comment noted. A permit will be obtained for tank removal/construction if applicable, however, underground tanks have not been detected during the geotechnical research phase, therefore, not currently anticipated. On going geotechnical investigations will take place under existing buildings after demolition of foundations and slabs on grade.

The County under took a Phase II Geotechnical Assessment including in an area where a former gas station and towing yard existed (southeast corner of the site). The results of the borings and a recommended remediation plan have been submitted to the California Regional Water Quality Control Board (CRWB) for review and approval.[1]

The Phase II Geotechnical Assessment addresses the potential for other underground tanks in the region of the project site. The Geotechnical Assessment states that there is a low potential for encountering any other underground tanks and a low potential for tanks adjacent to the site leaking onto the project site.

8. See Response to Comment B.003-1.

[1] Dames and Moore, April 13, 1999 Phase II Geotechnical Assessment. This report is on file and available for review at the Department of Public Works Office, Interns and Residents Dorm, 7th Floor LAC+USC Medical Center.

Letter B.005

Los Angeles Unified School District

DR. RUBEN ZACARIAS
Superintendent of Schools

HOWARD MILLER
Chief Executive Officer

WILLIAM T. PANOS
Director of Environmental Health & Safety

Environmental Review File
LAC & USC Medical Center

October 27, 1999

Mr. George Jones
LA County Department of Public Works
LAC+USC Medical Center
1200 N. State St., Box 121
Los Angeles, CA 90033

SUBJECT: LAC+USC Medical Center Replacement Project, EA/EIR

Dear Mr. Jones:

The following mitigation measures were agreed upon as part of the Supplemental Mitigation Measures for the LAC+USC Medical Center Replacement Project, Final EIR (see attachments A and B). However, these measures have not been included in the revised text of the Draft LAC+USC Medical Center Environmental Assessment/Environmental Impact Report. Therefore, the following measures remain issues of concern and we request their inclusion in the subject Final EA/EIR.

Failure to address these mitigation measures, as defined below, could result in significant unmitigated negative impacts. These impacts include health risks due to harmful particulates in the air, significant increases in noise levels as well as the safety of students arriving and departing school. 1

- Realignment of Cummings Street into Cornwell Street – Signalization of this intersection will include a left-turn arrow with designated left-turn lane to provide access to the LASUD site from Marengo Street, audible signalization to aid visually impaired students, and inclusion into ATSAC system. The project sponsor shall expedite the development of this intersection. Implementation is subject to LADOT approval. 2

- To allow for safe access to and from the ELAOC site, the sponsor will provide a flag person or traffic control personnel at the intersection of realigned Cummings/Cornwell Street and Marengo Street if required during construction. Implementation is subject to LADOT approval. 3

- The project sponsor will provide for a crossing guard or flag person along Zonal Avenue between the hours of 12:00 noon and 3:00 p.m. during the phases of construction which will require San Pablo to used as a construction truck route. This will assist students crossing San Pablo to the USC School of Medicine. Implementation is subject to LADOT approval. 4

BUSINESS SERVICES CENTER ANNEX: 1449 S. San Pedro St., Los Angeles, CA • MAILING ADDRESS: Box 512298, Los Angeles, CA 90051 • Telephone (213) 743-5086 • Fax (213) 749-7201

- To reduce vehicle traffic adjacent to the Newman Nutritional Center and Bus Yard, construction related traffic, including vehicles to transport construction workers, will not be allowed to use Charlotte Street between Cornwell Street and Soto Street as a travel route between the hours of 2:30 p.m. and 4:00 p.m. If the prohibition of construction traffic on Charlotte does not effectively eliminate the project-generated traffic as mutually agreed upon by LASUD and the County, a Traffic control person will be provided from 2:30 p.m. and 4:00 p.m. to ensure that vehicles, including school buses, can access Charlotte Street from the LASUD facility. 5

- The staging or queuing of construction vehicles will be prohibited on Marengo Street in the vicinity of ELAOC; however, construction-through traffic will be allowed. 6

- The project sponsor will require the construction contractor to remove any fugitive dust from the LASUD facilities as a result of project construction and project-related traffic. 7

We value this opportunity to ensure that environmental issues affecting the schools and other District facilities, in close proximity to this proposed project, will be addressed and that adequate mitigation is provided to compensate for any impact upon the District. 8

Thank you for your attention to this matter and please call should you have any questions. I can be reached at (213) 633 - 7371

Sincerely,

Raymond E. Dippel

Raymond E. Dippel
Assistant Environmental Planning Specialist

Attachments

RED:al

C: David Tokofsky
Ruben Zacarias
Howard Miller
William T. Panos
Antonio A. Rodriguez
Joe Nardulli
Rosa Maria Hernandez
Robert Anthony Biegger
Grant Clinton

LAC+USC

Los Angeles County
University of Southern California
Medical Center

1200 North State Street
Los Angeles, CA 90033

Phone: (213)

Edward L. Martinez
Executive Director

Sol Bernstein, M.D.
Chief of Staff

Katherine A. Eaves, R.N.
Acting Director, Nursing Services
and Education

County of Los Angeles
Department of Health Services

September 12, 1994

To All Interested Parties:

NOTICE OF AVAILABILITY
RESPONSE TO COMMENTS
LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

The purpose of this letter is to provide notice of the release and availability of the response to comments received by the Los Angeles County Board of Supervisors at the public meeting on April 7, 1994, in regard to the Final Environmental Impact Report for the LAC+USC Medical Center Replacement Project.

The responses to comments are provided for informational purposes on behalf of the Board Motion approved at the time the Final EIR was certified.

Copies of the responses to comments are available at the LAC+USC Medical Center Project Office, Interns & Residents Building, 2020 Zonal Avenue, 8th Floor, Los Angeles, CA 90033. The document is also available at the following public libraries: Benjamin Franklin Branch; East Los Angeles County Library; Malabar Branch; El Sereno Branch; Lincoln Heights Library; Chinatown Branch; City Terrace Library; and the Los Angeles Central Library.

If you have any questions or would like to receive a copy, please contact Fernando Vizcarra, Project Director, at (213) 226-6873.

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SEP - 9 1994

J. PERSONS COMMENTING AT THE PUBLIC HEARING OF APRIL 7, 1994

The response to comments received by the Los Angeles County Board of Supervisors on the Final EIR at the public hearing on April 7, 1994 are presented in this section. The meeting was located within the Board Auditorium, Kenneth Hahn Hall of Administration, 500 West Temple Street, Los Angeles, California. The following persons testified at this hearing:

Speaker A.	Councilman Richard Alatorre
Speaker B.	Congressman Xavier Becerra
Speaker C.	Aydee Valle-Amescua
Speaker D.	Antonio Aguilar
Speaker E.	Alan Clayton
Speaker F.	Don Toy
Speaker G.	Aurora Castillo
Speaker H.	Albert Deininger
Speaker I.	Leo Salazar
Speaker J.	Father Carmine Barro
Speaker K.	Xochitl Alcala
Speaker L.	Steve Barba
Speaker M.	Tilly Bowman
Speaker N.	Monsignor John Muretta
Speaker O.	John Hisserich
Speaker P.	Alex Man
Speaker Q.	Ray Abboud
Speaker R.	Amparo Juarez
Speaker S.	Yolanda Arias
Speaker T.	Lynette Kampe
Speaker U.	Stephanie Mancillas
Speaker V.	Sharon Lowe
Speaker W.	Joan Friedman
Speaker X.	Donald Brandon
Speaker Y.	Marianna Pacheco
Speaker Z.	Maria Gomez

government entities more than once in their lives. As part of this project, the County will implement a Relocation Assistance Program, which will be customized, applied and implemented in a sensitive manner according to the residents' individual needs and situations.

2. Comment noted. The following is added between the first and second paragraph on page 49 of the Final EIR:

> The County acknowledges the significant adverse impact on the remaining strip of residences isolated to the east of Cornwell Street, and will authorize that a feasibility study be prepared to determine and assess the County's and the residents' joint options to prevent adverse socio-economic impact to the residential strip, such as blight, including but not limited to the exploration of acquisition and community-oriented re-use, landscaping, mini-bus or transportation shuttles.

Please refer to comment U2.

3. The strategic plan for earthquake recovery projects on the campus and the need for additional environmental review is currently being considered by the County. However, as indicated by the commentor, damage to the campus as a result of the Northridge Earthquake is anticipated to have an impact on the future plans of the medical center and is expected to provide opportunities for future development, including the County's plans to construct the Phase II parking structure currently planned east of Cummings Street. The Project Delivery Team anticipates that as these and other long-term projects become better defined with time, additional environmental review will be undertaken. The County will ensure that all future environmental review include the evaluation of reasonable alternatives prior to proceeding with implementation.

Speaker W. Response to Comments from Ms. Joan Friedman

1. The following mitigation measures are added on page 96 of the Final EIR:

- To allow for safe access to and from the East Los Angeles Occupational Center (ELAOC) site, the project sponsor will provide a flag person or traffic control personnel at the intersection of realigned Cummings Street and Marengo Street, if required, during construction.

- The project sponsor will provide for a crossing guard or flag person along Zonal Avenue, if required, between the hours of 12:00 noon and 3:00 p.m. during the phases of construction which will require San Pablo to be used as a construction truck route. This will assist students crossing San Pablo to the USC School of Medicine.

- To reduce vehicle traffic adjacent to the Newman Nutritional Center and Bus Yard, construction related traffic, including vehicles to transport construction workers, will not be allowed to use Charlotte Street between Cornwell Street and Soto Street as a travel route between the hours of 2:30 p.m. and 4:00 p.m.

If the prohibition of construction traffic on Charlotte does not effectively eliminate the project-generated traffic as mutually agreed upon by LAUSD and the County, a traffic control person will be provided from 2:30 p.m. and 4:00 p.m. to ensure that vehicles, including school buses, can access Charlotte Street from the LAUSD facility.

- The staging or queuing of construction vehicles will be prohibited on Marengo Street in the vicinity of ELAOC; however, construction-through traffic will be allowed.

The following Phase I mitigation measure is added on page 97 of the Final EIR:

- Realigned Cummings Street and Marengo Street - Signalization of this intersection will include a left-turn arrow with designated left-turn lane to provide access to the LAUSD site from Marengo Street, audible signalization to aid visually impaired students, and inclusion into ATSAC system. The project sponsor shall expedite the development of this intersection. Implementation is subject to LADOT approval.

The following mitigation measure is added on page 122 of the Final EIR:

- The project sponsor will require the construction contractor to remove any fugitive dust from the LAUSD facilities as a result of project construction and project-related traffic.

The following construction mitigation measures are added on page 135 of the Final EIR:

- Upgrade or replace the air-conditioning systems within the Administration Building and modular structure AW20/21 (located directly adjacent to Marengo Street) so that occupants will not need to rely on operable windows for ventilation. The work will be conducted by County Building Crafts or the project sponsor will provide funding to LAUSD to implement the work.

- Provide a sound-insulated wall with R-11 batt insulation on the north side of AW20/21 to reduce traffic generated noise. The six existing windows will be replaced with dual-pane insulated glass. The work will be conducted by County Building Crafts or the project sponsor will provide funding to LAUSD to implement the work.

The monitoring responsibility of the above measures will be by the County project delivery team with support from the LAUSD. Monitoring will occur during the construction phase of the project and verification of compliance will be completed through field inspections and progress meetings between the monitoring agencies.

LAC+USC

Los Angeles County
University of Southern California
Medical Center

1200 North State Street
Los Angeles, CA 90033

Phone: (213)
226-6853

Edward L. Martinez
Executive Director

Sol Bernstein, M.D.
Chief of Staff

Katherine A. Eaves, R.N.
Acting Director Nursing Services
and Education

County of Los Angeles
Department of Health Services

May 24, 1994

Robert Niccum, Director of Real Estate
Los Angeles Unified School District
P.O. Box 2298, Room 101
Los Angeles, CA 90051

Dear Mr. Niccum:

SUPPLEMENTAL MITIGATION MEASURES
LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

This is to express the commitment on behalf of the LAC+USC Medical Center to supplement the Mitigation Monitoring Program to reduce construction-related impacts on Los Angeles Unified School District (LAUSD) facilities in accordance with the amended motion approved by the County Board of Supervisors on April 12, 1994 (enclosed).

The additional measures which have been mutually agreed upon by the Project Delivery Team and representatives of LAUSD are outlined within Attachment I. These measures are planned to be implemented in conjunction with the mitigation program included within the Final Environmental Impact Report.

We look forward to working with you and your staff to ensure that this project is developed in a manner that will minimize construction impacts to LAUSD facilities.

If you have any additional questions, please don't hesitate to contact me at (213) 226-6853 or Mr. Fernando Vizcarra, Project Director, at (213) 226-6873.

Very truly yours,

Edward L. Martinez
Executive Director

ELM:y

Enclosures

c: Fernando Vizcarra

Attachment I

SUPPLEMENTAL MITIGATION MEASURES
LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

a. Upgrade or replace the air-conditioning systems within the Administration Building (8 package units) and AW20/21 so that occupants will not need to rely on operable windows for ventilation. The work will be conducted by County Building Crafts or the project sponsor will provide funding to LAUSD to implement the work.

b. Provide a sound-insulated wall with R-11 batt insulation on the north side of AW20/21 to reduce traffic generated noise. The existing windows (total of 6) will be replaced with dual-pane insulated glass. The work will be conducted by County Building Crafts or the project sponsor will provide funding to LAUSD to implement the work.

c. Realigned Cummings Street and Marengo Street - Signalization of this intersection will include a left-turn arrow with designated left-turn lane to provide access to the LAUSD site from Marengo Street, audible signalization to aid visually impaired students, and inclusion into ATSAC system. The project sponsor shall expedite the development of this intersection. Implementation is subject to LADOT approval.

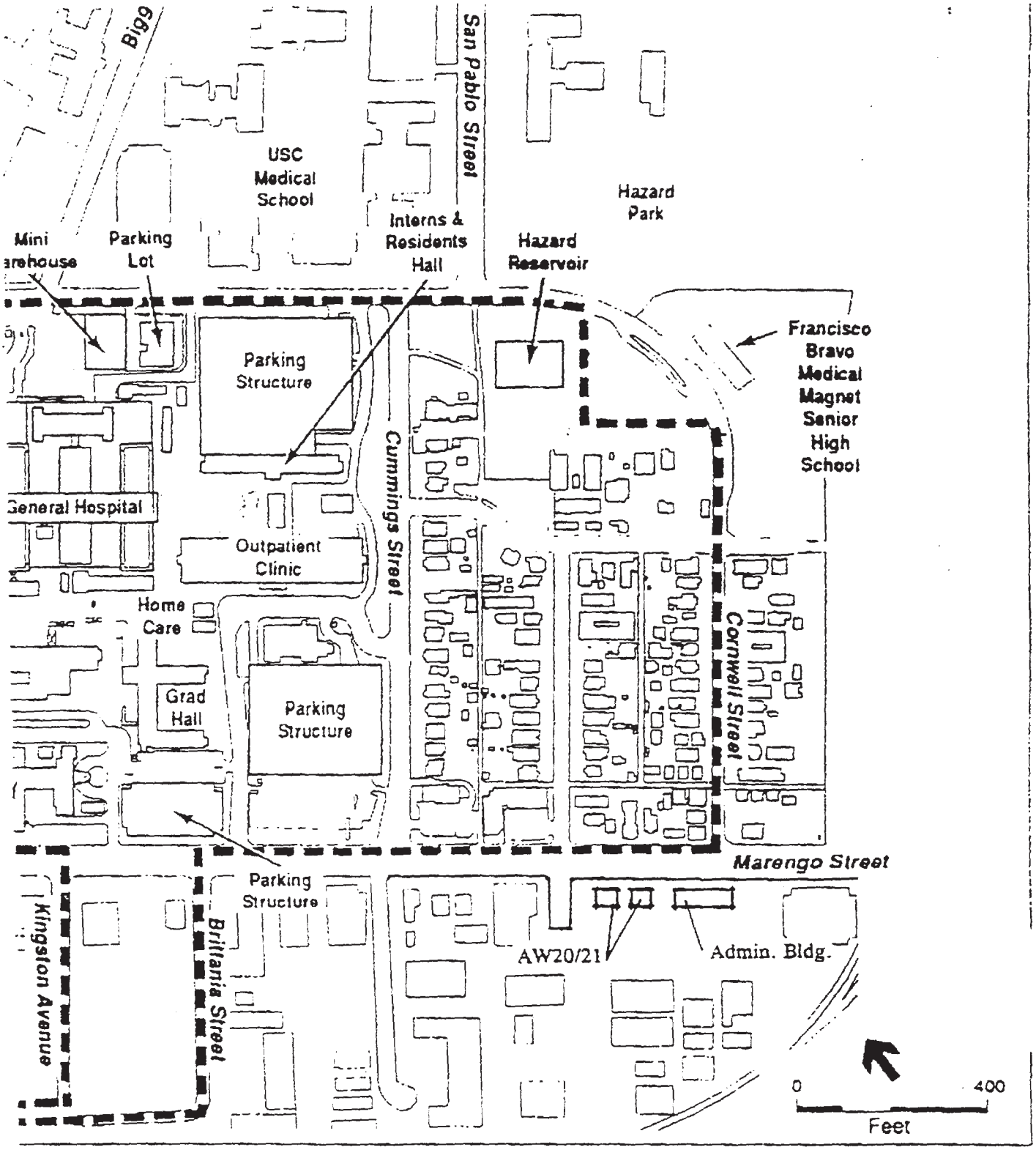
d. To allow for safe access to and from the ELAOC site, the project sponsor will provide a flag person or traffic control personnel at the intersection of realigned Cummings Street and Marengo Street if required during construction. Implementation is subject to LADOT approval.

e. The project sponsor will provide for a crossing guard or flag person along Zonal Avenue between the hours of 12:00 noon and 3:00 p.m. during the phases of construction which will require San Pablo to be used as a construction truck route. This will assist students crossing San Pablo to the USC School of Medicine. Implementation is subject to LADOT approval.

f. To reduce vehicle traffic adjacent to the Newman Nutritional Center and Bus Yard, construction related traffic, including vehicles to transport construction workers, will not be allowed to use Charlotte Street between Cornwell Street and Soto Street as a travel route between the hours of 2:30 p.m. and 4:00 p.m. If the prohibition of construction traffic on Charlotte does not effectively eliminate the project-generated traffic as mutually agreed upon by LAUSD and the County, a traffic control person will be provided from 2:30 p.m. and 4:00 p.m. to ensure that vehicles, including school buses, can access Charlotte Street from the LAUSD facility.

g. The staging or queuing of construction vehicles will be prohibited on Marengo Street in the vicinity of ELAOC; however, construction-through traffic will be allowed.

h. The project sponsor will require the construction contractor to remove any fugitive dust from the LAUSD facilities as a result of project construction and project-related traffic.



LA USC Medical Center / 910161

Existing Site Plan

Letter B.005: Los Angeles Unified School District, Raymond E. Dippel, Assistant Environmental Planning Specialist, October 27, 1999

Comment Number	Response
1.	Comment noted.
2.	The following mitigation is added on p. 133 of the Draft EA/EIR to the list of mitigation measures. This measure is added as the sixth measure on p. 133. The intersection of Cummings/Chicago and Marengo will be signalized.
3.-7.	The following mitigations are added on p. 133 of the Draft EIR/EA to the list of mitigation measures. These measures are added as the second, third, fourth and fifth measures on p. 133: • **To allow for safe access to and from the ELAOC site, the sponsor will provide a flag person or traffic control personnel at the intersection of realigned Chicago Street and Marengo Street if required during construction. Implementation is subject to LADOT approval.** • **The Construction specifications shall include San Pablo, Zonal and Charlotte Avenues as off limits during construction so a crossing/guard or flag person shall not be required.** • **The staging or queuing of construction vehicles shall be prohibited on Marengo Street in the vicinity of ELAOC; however, construction-through traffic shall be allowed.** • **The project sponsor shall require the construction contractor to remove any fugitive dust from the LAUSD facilities as a result of project construction and project-related traffic.**
8.	Comment noted.

FRANCES T. BANERJEE
GENERAL MANAGER

CITY OF LOS ANGELES
CALIFORNIA

RICHARD J. RIORDAN
MAYOR

DEPARTMENT OF
TRANSPORTATION
221 N. FIGUEROA STREET, SUITE 500
LOS ANGELES, CA 90012
(213) 580-1177
FAX: (213) 580-1188

Letter B.006

October 28, 1999

Marengo St. & State St.

Mr. George Jones, Project Director
Los Angeles County Department of Public Works
LAC+USC Medical Center
1200 North State Street, Box 121
Los Angeles, CA 90033

RECEIVED
NOV 1 1999
Kaku Associates, Inc.

Dear Mr. Jones:

DRAFT ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT (DEA/EIR) FOR THE PROPOSED LOS ANGELES COUNTY+UNIVERSITY OF SOUTHERN CALIFORNIA (LAC+USC) MEDICAL CENTER REPLACEMENT PROJECT

The Los Angeles Department of Transportation (LADOT) has reviewed the DEA/EIR dated September 1999 and supporting traffic study prepared by Kaku Associates for the proposed LAC+USC Medical Center Replacement Project . The DEA/EIR addresses the potential impacts of a 600-Bed Alternative, 950-Bed Alternative and No Project Alternative. The proposed project is located in the area generally bounded by Zonal Avenue on the north, Chicago Street on the east, Mission Road on the west and Marengo Street on the south. The DEA/EIR analyzed six study intersections and determined that there is no significant impact at any of the study intersections.

PROJECT DESCRIPTION

The existing LAC+USC Medical Center is made up of several buildings and originally licensed for 2,045 beds with inpatient facilities in the General Hospital, Women Hospital, Pediatrics Hospital and Psychiatric Hospital. However, only 1,450 beds are actually functional. In 1993, the Los Angeles County Board of Supervisors approved an EIR for a 950-bed Medical Center Replacement Project to replace the existing General Hospital. However, before the approved project could be implemented, the 1994 Northridge earthquake substantially damaged several of the hospital facilities. As a result of the earthquake, the Pediatrics and Psychiatric Hospitals were closed and ceased to operate as inpatient facilities. Currently, the Medical Center is licensed to operate 1,779 beds. However, due to a decline in demand, only 770 beds are budgeted for operation. As a result of the earthquake and changes in medical demand, the County proposes to downsize the 950-bed project to a 600-bed project.

AN EQUAL EMPLOYMENT OPPORTUNITY – AFFIRMATIVE ACTION EMPLOYER
Recyclable and made from recycled waste

The DEA/EIR analyzed the potential traffic impacts of the following three alternatives:

- Alternative 1 - No Project Alternative
- Alternative 2 - 600-Bed Alternative
- Alternative 3 - 950-Bed Alternative

DEA/EIR determined that Alternative 2 is environmentally superior to Alternative 3 because it would involve fewer environmental impacts associated with construction and operation of the hospital, and superior to Alternative 1 because it would achieve the County's objective to provide an upgraded hospital structure at the LAC+USC Medical Center.

Alternative 1 - No Project Alternative (The "No-build" Condition)

Under this alternative, no new project will be constructed on the proposed site. However, the existing 177,000 square feet (SF) Pediatric Pavilion and 145,300 SF Psychiatric Hospital would be demolished immediately and by the year 2008, the General Hospital and Women's Hospital would have to be closed. The study indicates that there will be no change in traffic generation, distribution and circulation from the existing condition, except during clearance and hauling of debris by the demolition. No mitigation is required under this alternative.

Alternative 2 - 600-Bed Replacement Project (Preferred Alternative)

This alternative consists of the replacement of the existing General Hospital structure with an approximately 1,470,165 SF (600-bed) Medical Center consisting of approximately 380,508 SF Inpatient Services, 193,756 SF Outpatient Services, 114,886 SF Administrative Services, 75,405 SF General Services, 301,968 SF Diagnostic and Treatment Services, 36,000 SF Central Plant, 70,000 SF Base Isolation and 307,090 SF of miscellaneous and support facilities. The replacement project will require the demolition of six existing structures totaling 880,800 SF and consisting of 177,000 SF Pediatric Pavilion, 145,300 SF Psychiatric Hospital, 53,000 SF Grad Hall, 132,000 SF Muir Hall, 158,500 SF (600 space) Parking Structure #6 and 215,000 SF (600 space) Parking Structure #11. The replacement project will also require the immediate closure and vacation of the 212,900 SF Inpatient Clinic and 347,800 SF Women's Hospital. The existing 1,292,000 SF General Hospital will remain in use but will be closed upon the completion of the replacement project. The replacement project will be constructed in five phases beginning in the year 2000 and be completed around the year 2006. Access to the project will be primarily from Marengo Street and State Street with service access from Marengo Street west of Chicago Street. The project, as described above, will result in a net decrease of approximately 13,165 daily trips, 1,106 AM peak hour trips and 1,302 PM peak hour trips due to a reduction from 1450 beds to 600 beds and existing uses being removed. However, during construction, approximately 1,062 daily trips and 96 AM peak hour trips will be generated.

Alternative 3 - 950-Bed Replacement Project

This alternative consists of replacing the existing General Hospital structure with an approximately 2,368,524 SF Medical Center consisting of approximately 576,300 SF Inpatient Services, 241,800 SF Outpatient Services, 396,348 SF Ancillary Services, 196,656 SF Administrative Services, 158,090 SF General Services, 10,487 SF Academic Administrative Services, 174,531 SF Education Services, 38,895 SF Research Programs and 574,467 SF of miscellaneous and support facilities. The replacement project will require the demolition of twelve existing structures totaling 2,399,500 SF

and consisting of 212,900 SF Outpatient Clinic, 347,800 SF Women's Hospital, 93,000 SF Interns/Residents Building, 177,000 SF Pediatric Pavilion, 145,300 SF Psychiatric Hospital, 53,000 SF Grad Hall, 132,000 SF Muir Hall, 24,000 SF Lab, 158,500 SF (600 space) Parking Structure #6, 400,000 SF (1,000 space) Parking Structure #10, 215,000 SF (600 space) Parking Structure #11 and 441,000 SF (1,200 space) Parking Structure #12. The existing 1,292,000 SF General Hospital will remain in use but will be closed upon the completion of the replacement project. The project will also be constructed in five phases beginning in the year 2000 and be completed around the year 2006. Access to the project will be primarily from Marengo Street and State Street with service access from Zonal Avenue. Also, an emergency room access will be provided from Cummings Street. The project, as described above, will result in a net decrease of approximately 9,055 daily trips, 731 AM peak hour trips and 875 PM peak hour trips due to a reduction from 1450 beds to 950 beds and existing uses being removed. However, during construction, approximately 2,100 daily trips and 180 AM peak hour trips will be generated.

VACATION OF CUMMINGS STREET

Under both Alternatives 2 and 3, Cummings Street between Zonal Avenue and Marengo Street is proposed to be vacated along the east side of the campus and a replacement street will be provided utilizing portions of existing Cummings Street, Charlotte Street and Chicago Street. Before existing Cummings Street can be vacated and closed, the County must dedicate and construct a replacement street between Zonal Avenue and Marengo Street satisfactory to LADOT and Bureau of Engineering (BOE) and complete processing of a street vacation request through BOE and the City Council. Cummings Street is designated as a collector street and carries almost 4,000 vehicles a day south of Zonal Avenue. In order to maintain adequate circulation around the campus, LADOT recommends that the County provide a suitable replacement street as a condition for the street vacation. The vacation of Cummings Street will also require the removal of the existing traffic signal at Cummings Street and Marengo Street and the installation of a new traffic signal at Chicago Street and Marengo Street if found warranted by LADOT. The County shall be responsible for all costs associated with the removal and installation of the traffic signals.

PARKING ANALYSIS

Alternative 2 will provide approximately 4,200 parking spaces by utilizing the existing 3,000 space Marengo Parking Structure south of Marengo Avenue between Kingston Avenue and Brittania Street and by rehabilitating the currently closed 1,200 space Parking Structure #12 on Zonal Avenue west of Cummings Street.

Alternative 3 will provide approximately 4,400 parking spaces by utilizing and rehabilitating the same parking structures as Alternative 2 as well as providing 200 additional parking spaces for short-term and long-term parking on the west side of realigned Cummings Street north Marengo Street.

TRAFFIC ANALYSIS

The DEA/EIR included a traffic study done in March 1999 which is an update of a December 1993 traffic study done for the previously approved 950-bed project. An EIR for the 950-bed facility was certified in April 1994 and is the basis of the entitlements for Phase 1 of the previously approved

1

project. Some elements of the previously approved project have been implemented. The current 600-bed facility project replaces Phase 2 of the previously approved project and all requirements will now be based on the current project. The March 1999 traffic study incorporates all the findings of the previously adopted EIR to form the base data of the current project. Because the current project is smaller, 600 beds vs. 950 beds with less medical activity in each element of the facility, the current project will generate less trips. Also because current conditions were constantly changing due to implementation of several elements of the previous plan, the County's traffic consultant determined that traffic counts from the December 1993 study would be used and adjusted to reflect all of the changes that have occurred, ie. construction of 3,000 space Marengo Parking Structure and installation of new traffic signals at State Street and I-10 Freeway Westbound Off Ramp, at Pomeroy Avenue and State Street and at Brittania Street and Marengo Street. Cont'd. 1

LADOT concurs with the DEA/EIR that none of the study intersections analyzed would be significantly impacted by project related traffic and that no traffic mitigation measures would be needed at any of the study intersections. LADOT also concurs with removal of the traffic signal at Cummings Street and Marengo Street and installation of a new traffic signal at Chicago Street and Marengo Street if found warranted by LADOT. The County shall also be responsible for all cost associated with the removal of the existing signal and installation of the new signal including interconnect to the existing signal system. However, the proposal to install a new traffic signal for the emergency walk-in on Marengo Street opposite Kingston Avenue is not acceptable to LADOT because the new traffic signal will be too close to the existing traffic signal at the intersection of Brittania Street and Marengo Street. Instead, LADOT recommends that a pedestrian bridge be constructed over Marengo Street to connect the Marengo Parking Structure with the new medical center and that signs be installed within the Marengo Parking Structure directing people to walk towards the Brittania Street and Marengo Street corner of the parking structure to cross Marengo Street at the signal.

In addition, on Page 113 of the DEA/EIR the intersection of State Street and 101 Freeway Northbound On-Ramp is erroneously listed as one of the study intersections. The correct intersection should be State Street and I-10 Freeway Westbound On Ramp. 2

TRAFFIC MANAGEMENT PLAN DURING CONSTRUCTION

Prior to the start of construction, the County shall submit a work site traffic control plan satisfactory to LADOT which show the location of any roadway or sidewalk closures, traffic detour plans, haul routes, hours of operation, protective devices, warning signs and access to abutting properties during construction. 3

REMOVAL OF UNAUTHORIZED TRAFFIC CONTROL DEVICES

LADOT previously requested the removal of existing unauthorized flashing yellow signals adjacent to the Marengo Parking Structure on the east side of Kingston Avenue just south of Marengo Street and just north of Pomeroy Avenue. The flashing yellow signals were probably installed by the County to warn motorists of pedestrians crossing Kingston Avenue at Marengo Street and at Pomeroy Avenue. These signals do not meet City standards and are not warranted at these locations and therefore must be removed immediately. Additionally, the "Slow Children Crossing" warning sign 4

Cont'd.

on the east side of Kingston Avenue at Pomeroy Avenue is an unauthorized sign and should also be removed immediately. If you have any questions regarding this matter, call our Central District office at (213) 580-3777. 4

HIGHWAY DEDICATION AND STREET WIDENING REQUIREMENTS

Marengo Street between Mission Road and Chicago Street is classified as a Major Highway which requires a 40-foot half width roadway on a 50-foot half width right-of-way. The north side of Marengo Street adjacent to the project frontage is presently improved to a 35-foot half width roadway on a 45-foot half width right-of-way except between Cummings Street and Chicago Street where it is improved to a 35-foot half width roadway on a 50-foot right-of-way. LADOT recommends a 5-foot future street dedication to Major Highway standards along the north side of Marengo Street from Mission Road to Cummings Street but does not recommend any widening at this time. 5

Cummings Street is classified as Collector Street between Zonal Avenue and Marengo Street. Both Alternatives 2 and 3 propose to vacate Cummings Street between Zonal Avenue and Marengo Street. In order to maintain adequate circulation around the campus, LADOT recommends that the County dedicate and construct a replacement street satisfactory to LADOT and BOE on the east end of the campus connecting Marengo Street and Zonal Avenue utilizing portions of Cummings Street, Charlotte Street and Chicago Street. 6

Zonal Avenue between Cummings Street and Mission Road is classified as a Secondary Highway which requires a 33-foot half width roadway on a 43-foot half width right-of-way. The south side of Zonal Avenue between State Street and Cummings Street is presently improved to a 20-foot half width roadway on a 30-foot half width right-of-way. LADOT recommends a 13-foot future street dedication on the south side of Zonal Avenue between State Street and Cummings Street but no widening at this time. 7

The County should check with BOE's, Land Development Division at (213) 485-5339 for any additional highway dedication or street widening requirements.

Unless otherwise specified, the proposed improvements shall be implemented through the BOE's B-permit process. Construction of the improvements to the satisfaction of LADOT and BOE must be completed before issuance of any certificate of occupancy. In the event the developer is unable to obtain necessary construction permits from the concerned agencies in a timely fashion, a temporary certificate of occupancy may be granted by the City provided the developer has demonstrated reasonable efforts to complete the necessary designs and improvements to the satisfaction of LADOT. Should any improvement not receive required approval, the City may substitute an alternative measure of an equivalent cost and effectiveness. Prior to setting the bond amount BOE shall require that the developer's engineer or contractor contact LADOT's B-Permit Coordinator, telephone (213) 580-5336, to arrange a pre-design meeting to finalize the proposed design needed for the project. 8

DRIVEWAY ACCESS

The review of this DEA/EIR does not constitute approval of the driveway access and circulation 9

Cont'd.

scheme. Those require separate review and approval and should be coordinated as soon as possible with LADOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 3rd Floor, Station 23) to avoid delays in the building permit approval process. All gates or guard booths should be set back far enough from the back of sidewalks to ensure that entering or exiting vehicles do not block the sidewalk or extend into street. 9

If you have any questions, please contact Jimmy Ewenike of my staff at (213) 240-3074.

Sincerely,

Robert T. Takasaki
Senior Transportation Engineer

RTT\GTJ\wpwin\county-usc

c: Council District No. 14
Central District, LADOT
Design Division, LADOT
Land Development Division, BOE
Charles Rausch, Los Angeles Department of City Planning
Bruce Chow, Kaku Associates
David Fukutomi, FEMA

Letter B.006: Department of Transportation, City of Los Angeles, Robert T. Takasaki, Senior Transportation Engineer, October 28, 1999

Comment Number	Response
1.	Comments noted. The pedestrian bridge from Marengo Parking building to the new hospital site is being designed and will be included in the construction document as an additive/alternative.
2.	See response to comment A.003-1.
3.	Comment noted.
4.	These lights were removed on January 27, 2000.
5.	Comment noted.
6.	The proposed street at the east end of the campus will be as shown on Exhibit 11 (Cummings to Charlotte to Chicago). The County is discussing necessary street width with LADOT and will meet their requirements. See response to comment B.007-4.
7.	Comment noted.
8.	Comment noted.
9.	Comment noted.

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October 25, 1999

Mr. David Fukutomi
FEMA
PO Box 6020
Pasadena, California 91102-6020

Mr. George Jones
LA County Department of Public Works
LAC+USC Medical Center
1200 North State Street
Box 121
Los Angeles, California 90033

Dear Messrs. Fukutomi and Jones:

SUBJECT: COMMENTS ON A DRAFT ENVIRONMENTAL ASSESSMENT/ ENVIRONMENTAL IMPACT REPORT FOR THE LOS ANGELES COUNTY + UNIVERSITY OF SOUTHERN CALIFORNIA (LAC+USC) MEDICAL CENTER REPLACEMENT PROJECT

Staff members of the City of Los Angeles Bureau of Engineering have reviewed the above referenced document and have the following comments:

Page 42, Rehabilitation of General Hospital

This section begins by declaring that "[i]t is likely that General Hospital may ultimately be reused." However, the second paragraph lists a number of potential uses and states that although "these uses did at one time seem reasonably foreseeable, such is not the case" now. Moreover, the paragraph concludes that the Draft EA/EIR "does not speculate on future reuse of the General Hospital" and considers only "closure of the facility and ongoing maintenance of the historic structure" until an undefined later date. Please note that existing infrastructure supporting General Hospital may have limited available capacity and development of either proposed alternative may reduce the options for reuse of General Hospital. Additionally, delay in selecting a plan for reuse

1

Cont'd.

may result in additional demands placed on existing infrastructure and, hence, further reduce options for reuse. 1

Page 45, Table 3, LAC+USC Medical Center Tabulation of Space by Function; Page 83 et seq., Land Use; Various Sections

Changes in developed land area or configuration could impact stormwater flow. Changes in onsite land use Table 3 reports that Alternative 2, the 600-Bed Alternative and Preferred Alternative, has a "Total Building Gross Area" of 1,470,165 square feet. Footnote 2 adds that an additional "1,852,700 [square feet] of existing buildings would remain closed and vacant" until an unspecified time when "a new use is identified and environmental review is completed". Thus, the total square footage of buildings on the campus will increase by approximately 13 percent from the current 2,939,469 square feet listed in Table 3. However, no table exists that indicates increases (or decreases) to the total area of land that would be occupied by these buildings, pavement, or other non-landscape improvements, nor could the Bureau find such information summarized in the text. As such, the Final EA/EIR should include a summary of current and proposed land uses, measured in units of area, to assist in determining impact to stormwater runoff. 2

The Draft EA/EIR relies, in part, on the LAC + USC Medical Center Initial Study (Initial Study) for analysis of impact to utilities. Regarding stormwater, the Initial Study (page 32) reports that "[v]irtually the entire project site is currently covered with impervious surfaces such as buildings and pavement." Although a large portion of the site is covered with impervious surfaces, many parts of the site are landscaped. Also, the 8-acre area recently acquired between Cummings Street and Chicago Street is presently undeveloped; presumably, when this area was residential, many of the former residential lots also included significant undeveloped or landscaped areas. Thus, the Initial Study's assertion that the proposed projects "would not be expected to increase storm water runoff due to the increase of permeable surfaces proposed on-site" may need further study. Without empirical data regarding the "increase of permeable surfaces", the basis for these assertions remains unclear.

This portion of the Initial Study concluded by stating "[a]lthough existing storm drainage infrastructure is expected to be adequate . . . the project may alter storm water flows in the area, thereby requiring localized improvements to storm water conveyance infrastructure." While this statement implicitly acknowledges the need for further investigation, the Initial Study and Draft EA/EIR do not provide a scientific or engineering basis for making this determination. Furthermore, Table 2 of the Draft EA/EIR suggests that "[a]ll paved areas shall be designed to carry surface water to the nearest practical *street* or storm drain" (emphasis added). With these things in mind, the Final EA/EIR should address and provide calculations for the impact that change in developed area and/or configuration may have on stormwater runoff. Most particularly, the Bureau is concerned about possible changes to stormwater flows entering public streets.

As a footnote, many of the numbers listed in Table 3 do not appear to coincide with the numbers described in the text and no explanation for the apparent discrepancy exists. For example, the "Demolition/Remaining Structures" section of the 600-Bed Alternative description on page 53 states that "[t]he existing total square footage on campus is approximately 3.1 million [gross square feet]", compared with the 2,939,469 square feet total building gross area listed in Table 3. Similarly, the corresponding section for the 900-Bed Alternative on page 61 has the correlative apparent discrepancies. An explanation of how these numbers are derived may be useful in analyzing the reported totals. 2

Page 46, Exhibit 4, (Alternative 2) 600-Bed Site Plan @ Level 1

Presumably, a Meditation Garden is planned, not a Mediation Garden. 3

Page 53, Street Vacation; Page 56, Access; Page 59, Street Vacation; Various Other Sections

These sections address vacating and/or realigning Cummings Street. The Final EA/EIR should contain a detailed discussion of the impacts associated with the relocation or abandonment of the sewer and stormwater systems within the project site. The discussion should include the collection areas, capacities, and current flow rates of these systems, and should detail whether the lines will be abandoned or relocated. Moreover, the Final EA/EIR should address which sewers will be used to provide service to the project and include calculations used to determine feasibility. If abandonment is proposed, the Final EA/EIR should discuss how and where these lines will be replaced and who will replace them. If relocation is proposed, the Final EA/EIR should discuss the location and method of such relocation and identify who will be responsible for the work. 4

The Draft EA/EIR states that no offsite sewer and stormwater construction will be necessary. However, these conclusions were not fully explained in the Draft EA/EIR. As such, if offsite sewer work may be needed to connect either of the proposed project alternatives to a sewer with available capacity, the Final EA/EIR must discuss the associated construction activity as if it were part of the proposed project and include an analysis of the environmental impacts likely to be associated with the work. 5

Additionally, the vacation and/or realignment of Cummings Street will impact the intersection with Charlotte. The Final EA/EIR should contain a brief discussion of the impacts associated with rebuilding the intersection and should discuss how, when, and where the curbs, gutters, and street pavement will be replaced and who will replace them. 6

Page 59, Construction Workers Parking

This section describes locations where construction workers may park, but does not indicate on what surfaces they will park. Since vehicular traffic over the construction 7

Cont'd.

workers' parking areas will obviously not allow for growth of vegetation, what measures will be implemented to prevent stormwater runoff from transporting soils onto streets and/or stormwater drainage systems? While the Draft EA/EIR (page 205) proposes mitigation for exposed areas of construction, it does not extend such measures to parking areas. On the same page, however, the Draft EA/EIR proposes "maintenance and sweeping" of a parking area. Yet, nowhere does Draft EA/EIR indicate with what material the parking area will be paved, if any. 7

Assuming the parking area will be unpaved, will other parking be available to construction workers during or immediately after inclement weather? If only these areas will be available, what will be done to prevent the construction vehicles from tracking mud, etc., onto streets? The Mitigation Measures section on page 172 indicates that "[t]he contractor shall install a wheel wash station to remove all debris from earth trucks prior to entering public streets". If this measure is necessary for "earth trucks", then by logical extension the same concerns and remedy should apply to any vehicles entering unpaved areas. The Final EA/EIR should discuss what additional measures are planned for other vehicular traffic.

The mitigation measures described on page 172 also indicate that silts will be controlled by "providing hard surfaces on any construction roads . . . and washing trucks leaving the site". Again, by logical extension, these practices should apply to all areas where vehicular traffic is anticipated, including parking areas. The Final EA/EIR should discuss what additional measures are planned.

Page 69, Geologic Hazards; Page 79, Geotechnical Mitigation Measures

The Geologic Hazards section reports that much of the site is landscaped or covered with pavement, concluding that it "is not susceptible to erosion". This section does not discuss, however, that many portions of the site are not developed or landscaped and, moreover, that many other portions that are now developed will be made bare during demolition and construction activities. The Final EA/EIR must address erosion control measures required to eliminate impact to streets and stormwater systems. 8

Similarly, the Final EA/EIR should address mitigation measures for erosion/runoff control measures planned for the soil stockpile locations described in the Geotechnical Mitigation Measures section.

Page 199, Sewers; Page 201, Sewers

The Final EA/EIR should address which sewers will be used to provide service to the project and include calculations used to determine feasibility. While the existing sewer system may have the capacity to serve the new hospital, such usage may be dependent upon which sewer lines are used. As such, please provide the condition, capacity, and current flow rates for those lines, as well as numerical analyses of the anticipated wastewater generation increase/decrease for each line used. Alternatively, please provide the name and title of the City of Los Angeles Bureau of Engineering employee 9

who made the determination of non-significance. In either case, the Final EA/EIR should include a copy of the Wye (Sewer) map for the immediate area and indicate where connections are proposed. 9

Page 200, Storm Drains; Page 201, Storm Drains

The Draft EA/EIR concludes that "[p]roposed improvements would be compatible with the existing flow pattern" but does not support that conclusion with empirical data. The Final EA/EIR should include the data and calculations used to arrive at this conclusion. Although Table 2 indicates that a "conceptual drainage plan . . . for site runoff will be approved by the County DPW" before obtaining grading permits, such analysis should be performed at this stage to guarantee feasibility. Additionally, the Final EA/EIR should include a discussion of maintenance activities planned for the catch basins and collector pipes. 10

Any other factors that may impact stormwater runoff should also be addressed. The Final EA/EIR should include a hydrology/hydrologic study to address the drainage discharge from the site. Stormwater quality issues should be addressed. The Final EA/EIR should consider necessary drainage facilities to mitigate any additional stormwater runoff in conjunction with development of the site. Based on the site's size, a separate National Pollution Discharge Elimination System (NPDES) Permit may be required for construction activities and should include appropriate Best Management Practices that will be implemented to mitigate any potential stormwater impacts during construction.

Thank you for allowing the Bureau to comment in this matter. If you have any questions, please contact Paul Teensma of my staff at (213) 847-8692.

Sincerely,

Vitaly B. Troyan, P.E.
City Engineer

By: Ara J. Kasparian
Environmental Affairs Officer
Environmental Management Division

Letter B.007: City of Los Angeles, Department of Public Works, Bureau of Engineering, Vitaly B. Troyan, P.E., City Engineer, October 25, 1999

Comment Number	Response
1.	Comment noted. See also response to comment B.001-6.
2.	Please refer to Letter B.004, Comment 5.
3.	Page 46, Exhibit 4 should read Meditation Garden.
4.	Please refer to Letter B.004, Comment 6. The County is providing a true collector street on the east side of the proposed project. The current condition of the street does not meet collector standards for maximum percent grade. The County is removing the non-conforming section of the street, to a depth of 15 feet below present grade, to bring the street within compliance. Signalization, including new ATSAC systems, are being proposed for the intersections of Chicago/Marengo and Kingston/Marengo. The County is providing new curb, gutter, and sidewalk on the south side of Charlotte and the west side of Chicago from Cummings to Marengo. Curb, gutter, and sidewalk are also being provided along Marengo from Chicago to State Street. Street lighting and trees are being upgraded along all the new walkways described above. By City Ordinance Nos. 171922 and 171923 and Resolution No. 96-0726, a Street Damage Restoration Fee is being imposed on the County for cutting and trenching the streets. Subsequently, the County is providing for maintenance of the streets along with the walkway, street tree, and lightings. The City of Los Angeles Bureau of Engineering, Land Development Division has notified all affected utility agencies of the County's desire to vacate Cummings Street from Charlotte to Marengo Streets. The Department of Water and Power has responded to the notice and has begun the redesign of their systems to accommodate the street vacation. As of now, there has been no response regarding storm and sewer abandonment or rerouting, however, the sewer systems seem to have been primarily used by the residences on the east side of Cummings, which no longer exist. The County will continue to develop utility relocation plans in conjunction with the Land Development Division and the B Permit agencies and comply with their requirements when they become available.
5.	The City of Los Angeles, Bureau of Sanitation/Wastewater Engineering has investigated the anticipated flow generated from the 600 bed hospital, and concluded that adequate capacity exists in the City mains. The proposed 946 bed alternate would have a greater impact than the proposed 600 bed facility because of a greater number of fixture units but would still result in a net reduction in the amount of fixture units calculated for the present medical center facility.

6. The County is providing a collector street on the east side of the proposed project. The current condition of the street does not meet collector standards for maximum percent grade. The County is removing the non-conforming section of the street, to a depth of 15 feet below present grade. Signalization, including new ATSAC systems, are being proposed for the intersections of Chicago/Marengo and Kingston/Marengo. The County is providing new curb, gutter, and sidewalk on the south side of Charlotte and the west side of Chicago from Cummings to Marengo. Curb, gutter, and sidewalk are also being provided along Marengo from Chicago to State Street. Street lighting and trees are being upgraded along all the new walkways described above. By City Ordinance Nos. 171922 and 171923 and Resolution No. 96-0726, a Street Damage Restoration Fee is being imposed on the County for cutting and trenching the streets. Subsequently, the County is providing for maintenance of the streets along with the walkways, street tree, and lighting.

7. The County will surface the Contractor's Parking Area with aggregate recycled from demolition of the Pediatrics and Psychiatric Buildings. This will create an additional 147,000 sf of pervious material where buildings and surface parking lots use to exist. There is no positive drainage away from the Contractor's Parking Area presently. The County will utilize the existing area drainage system and will submit the grading and utility plans to Building and Safety in the future. Paved roads currently lead to the future parking area and will be maintained throughout construction, providing a hard surface for a vehicles entering and leaving the area.

8. The project has developed specific drawings and specifications that address erosion control. Detention basins, sandbags, berms, and other erosion control measures have been indicated on an overall site general erosion control plan. Each Contractor is required to develop a specific erosion control plan, that is compatible with the general plan, and submit there plan for approval to the governing regulatory agency. The Contractors erosion control plan must comply with the California Stormwater Best Management Practices Handbook. The general erosion control drawings and specifications have been submitted to the County Building and Safety Department for review and approval.

9. The City of Los Angeles, Bureau of Sanitation/Wastewater Engineering has investigated the anticipated flow generated from the 600 bed hospital, and concluded that adequate capacity exists in the City mains. The proposed 946 bed alternate would have a greater impact than the proposed 600 bed facility because of a greater number of fixture units but would still result in a net reduction in the amount of fixture units calculated for the present medical center facility.

10. An existing and proposed runoff conditions were simulated using the Los Angeles County Rational Method. (the entire hydrological modeling analysis is available for review at the project site). The stormwater runoff from the proposed developed area, including the maximum theoretical .22 cfs flow from the proposed underslab subdrain system, is less that the storm runoff from the existing medical campus condition. The Marengo storm sewer system should therefore receive less runoff from the proposed developed area than from the existing condition.

A Phase II Geotechnical Assessment was prepared for the site that addresses both the depth and elevation of the groundwater at the project site (section 5.2). Depths were found to be between 10 to 45 feet below grade. The groundwater flow was determined to flow roughly with the topography of the site, generally in a south-southwest direction.

Due to the anticipated low dewatering flow rates, a substantial cone of depression is not expected below the project. Furthermore, according to Environmental Data Research (EDR), Inc., there are no drinking water supply wells located within 1¼ miles of the site. Therefore, an impact to water supply wells due to dewatering is not anticipated.

It was also determined that the worst case scenario for groundwater flow from the subsurface drainage would be 100 gpm, and it is highly unlikely the flow will reach 100 gpm. Never the less, this flow rate was used for the analysis of the total project storm water flow. A stormwater report (conducted by KPFF Consulting Engineers) concluded that the 600 bed project will result in a decrease of storm water flow, including the conservative 100 gpm subsurface drainage calculation. The total pervious area of the site also increases substantially to further reduce storm water run off. The project will also utilized filtration beds in the west parking area to return stormwater to the site.[2]

The water quality limits for discharge of water have been submitted to the California Regional Water Quality Board. The County has requested that the CRWQB establish quality limits and approve mitigation measures suggested if the limits are exceeded. The Phase II Geotechnical Assessment requirements for groundwater discharge.[3] The project will also have to apply for and receive an approved NPDES permit prior to any dewatering activities.

[2] KPFF Report

[3] Dames and Moore, April 13, 1999, Phase II Geotechnical Assessment. This report is on file and available for review at the Department of Public Works Office, Interns and Residents Building, 7th Floor, LAC+USC Medical Center.

Letter B.008

CITY OF LOS ANGELES
CALIFORNIA

RICHARD J. RIORDAN
MAYOR

County to reply

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FILE
PD PM MF, GJ SPM
OHS JS JAN 14 2000 PM
CAO COST
OTHER Wendy Lockard SCHED
DPW-HQ A/E
OTHER Diane W.

January 13, 2000

Federal Emergency Management Agency (FEMA)
P.O. Box 6020
Pasadena, California 91102

Mr. George Jones
Project Management Team
1200 North State Street, Box 121
Los Angeles, California 90033

Dear Mr. Jones and FEMA:

SUBJECT: ADDITIONAL COMMENTS REGARDING THE DRAFT EA/EIR FOR THE LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

Staff members of the City of Los Angeles, Department of Public Works, Bureau of Engineering, Environmental Management Group (EMG) reviewed the above-referenced document and prepared the comments herein. The comments in this letter focus primarily on issues affecting dewatering of the proposed project's site, both during and after construction.

Dames & Moore Geotechnical Investigation

Appendix E of the Draft Environmental Assessment / Environmental Impact Report (Draft EA/EIR) contains a Geotechnical Investigation Phase 1 (GI) report, dated January 04, 1999, prepared by Dames & Moore (D&M) for the County of Los Angeles. Page 9 of that document reports that D&M found groundwater "in both alluvium and bedrock at depths of 10 feet to 45 feet below existing grade." The document discusses three alternative dewatering schemes, but does not discuss alternatives to how and where the County will dispose the water. Instead, the GI report merely concludes that "[d]ue to environmental constraints, there is a possibility that the water generated from the dewatering system might require treatment and NPDES permitting prior to discharging into the storm drain system." 1

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D&M's GI report states that "the amount of water that would need to be managed is expected to be relatively small." In the next paragraph, however, D&M states that based on a 1993 D&M study, D&M estimates water flow from the site at 100 gallons per minute. To convert this estimate, EMG performed the calculations in Attachment 1 and found that dewatering activities may result in daily water flow of approximately 140,000 gallons, 19,000 cubic feet, or 0.44 acre-foot. 1

Dames & Moore Phase I Environmental Site Assessment

D&M also prepared a Phase I Environmental Site Assessment (Phase I ESA) report, dated January 5, 1999, and contained in the Draft EA/EIR as Appendix G. The ESA identified several issues affecting, or possibly affecting, the environment. Those which D&M reports could affect groundwater include: 2

- Naturally occurring crude oil in bedrock beneath the site.
- Volatile organic compounds in groundwater samples collected from onsite wells.
- Potential subsurface impacts from "former gasoline and automobile service facilities" on the site.
- A former leaking underground storage tank at the medical center.

D&M repeatedly emphasized the need for further investigation in the Phase I ESA at most of the areas of identified concern. Moreover, D&M concludes that "all recommendations" in its Phase I ESA "are currently being addressed through ongoing environmental investigations" and "the results of which will be presented in a separate report."

Discussion

D&M's cover letter to the GI report, also dated January 04, 1999, states that a reports "presenting the results of [D&M's] . . . environmental investigation [is] presented under separate cover." Similarly, as stated in the paragraph above, the Phase I ESA also reports "ongoing environmental investigations" that would be reported upon. Although the Draft EA/EIR was made available in September 1999, it does not appear to contain any reports of additional investigation, either in the text or in the appendices. The Final EA/EIR should report any additional environmental investigation. 3

The Draft EA/EIR addresses the groundwater management issue in much the same manner as the GI report, but does not appear to address all the concerns connected with dewatering. Fundamentally, the Draft EA/EIR and GI report characterize the volume of water that may need to be disposed of as "relatively small." EMG urges quantification and explanation of this conclusion in light of the 140,000 gallons per day that may require disposal, based on D&M's estimates reported in the GI report. 4

The Draft EA/EIR reports the plan to dispose of the extracted water into the storm drainage system, but does not adequately address how to deal with contaminated water if it is encountered. The Phase I ESA identified several actual and possible locations of chemical impact to groundwater. Because of these concerns, the Final EA/EIR must address how they will be managed. The Draft EA/EIR states on pages 211 and 212 that "there is a possibility that the water generated from the dewatering system might require treatment . . . prior to discharging into the storm drain system." Since some chemical impact to groundwater is already known and there is a likelihood of treatment necessary, the Final EA/EIR must address how and where this water will be treated, if required. Specifically, the Final EA/EIR must address what treatment technologies are being considered and how those treatment technologies will influence the environment. 5

In addition, the Final EA/EIR should address whether dewatering may create a cone of depression and what influences, if any, such a cone of depression may create. 6

There appears to be a discrepancy regarding the minimum depth to groundwater. Page 207 of the Draft EA/EIR reports groundwater "depths ranging from approximately 20 to 45 feet" but, on page 9, the GI report states that D&M found groundwater "in both alluvium and bedrock at depths of 10 feet to 45 feet below existing grade." A difference in groundwater elevations of only 10 feet can have a dramatic affect on the quantity of water requiring extraction. As such, the Final EA/EIR should correct the error or explain the apparent discrepancy. 7

Lastly, the Final EA/EIR should address stormwater drainage system capacity and specifically how the system may be impacted by the addition of 140,000 gallons per day. 8

Thank you for allowing the Bureau to comment in this matter. If you have any questions, please contact Paul Teensma of my staff at (213) 847-8692.

Sincerely,

Vitaly B. Troyan, P.E.
City Engineer

By: Ara J. Kasparian, Ph.D.
Group Manager
Environmental Management Group

ATTACHMENT 1
Volume Calculations

From page 11 of Dames & Moore's January 4, 1999, report, the estimated groundwater flow, based on a 1993 study, is 100 gallons per minute. To convert this estimate to gallons per day, EMG multiplied using this formula:

$$\frac{100 \text{ gallons}}{1 \text{ minute}} \times \frac{60 \text{ minutes}}{1 \text{ hour}} \times \frac{24 \text{ hours}}{1 \text{ day}}$$

Multiplying and canceling units results in:

$$\frac{100 \text{ gallons}}{1 \text{ ~~minute~~}} \times \frac{60 \text{ ~~minutes~~}}{1 \text{ ~~hour~~}} \times \frac{24 \text{ ~~hours~~}}{1 \text{ day}} = \frac{144{,}000 \text{ gallons}}{1 \text{ day}}$$

To convert from gallons per day to cubic feet per day, EMG used the equivalent of 1 gallon equals 0.1337 cubic feet, as published in *Hydrology for Engineers,* third edition, by Linsley et al. (McGraw-Hill, 1982):

$$\frac{144{,}000 \text{ gallons}}{1 \text{ day}} \times \frac{0.1337 \text{ feet}^3}{1 \text{ gallon}}$$

Multiplying and canceling units results in:

$$\frac{144{,}000 \text{ ~~gallons~~}}{1 \text{ day}} \times \frac{0.1337 \text{ feet}^3}{1 \text{ ~~gallon~~}} = \frac{19252.8 \text{ feet}^3}{1 \text{ day}}$$

To convert this result to acre-feet per day, EMG multiplied using this formula:

$$\frac{19252.8 \text{ feet}^3}{1 \text{ day}} \times \frac{1 \text{ acre}}{43{,}560 \text{ feet}^2}$$

Multiplying and canceling units results in:

$$\frac{19252.8 \text{ feet}^3}{1 \text{ day}} \times \frac{1 \text{ acre}}{43{,}560 \text{ ~~feet~~}^2} = \frac{0.441983 \text{ acre-foot}}{1 \text{ day}}$$

Assuming that Dames & Moore's estimate was accurate to two significant figures, EMG rounded each respective result above to the following units per day:

$$\frac{140{,}000 \text{ gallons}}{1 \text{ day}} \approx \frac{19{,}000 \text{ cubic feet}}{1 \text{ day}} \approx \frac{0.44 \text{ acre-foot}}{1 \text{ day}}$$

Thus, by Dames & Moore's estimate, dewatering activities may result in water flow of approximately 140,000 gallons, 19,000 cubic feet, or 0.44 acre-foot per day.

Part A. Type of Proposed Project:
A 100+ home subdivision
A 10-99 home subdivision
A 100,000+ square-foot commercial or industrial development *
An automotive repair shop (SIC codes 5013, 5014, 5541, 7532-7534, and 7536-7539) *
A retail gasoline outlet
A restaurant (SIC code 5812) *
A hillside-located single-family dwelling ③

Part B. Project Characteristics or Activities:
Automotive or Equipment Repair and/or Maintenance
Car Wash
Automotive or Equipment Washing or Cleaning Area(s)
Gas Station or Fuel Dispensing
Parking lot with 25 or more parking spaces
Outdoor Material or Waste Handling or Storage
Chemical handling and/or storage of petroleum products, paints, solvents, concrete, or hazardous waste?
Outdoor Equipment or Product Fabrication including welding; cutting; sawing; metal fabrication; assembly; application of paints, coatings, or finishes; pre-cast concrete fabrication; etc.
Outdoor Areas for Equipment or Machinery Repair and/or Maintenance
Dry Cleaning Factory
Food Service
Food Processing Plant
Hospitals, Laboratories, or Other Medical Facilities
Nursery (Plant Materials)
Animal Slaughtering
Animal Confinement, Pet Care Facilities, Stables, Kennels, etc.
Public Recreation Uses such as Tennis Courts, Swimming Pools, Golf Courses
10 or More Dwelling Units
Hillside Location
Landscaped Areas > 5 acres, including cemeteries, golf courses, etc.
Location adjoining to, bisected by, or discharging to a designated environmentally sensitive area, riparian corridor, or wetland

* In utilizing the table, a commercial or industrial development of 100,000 or more square feet shall be based on total impermeable area as opposed to lot size or building footprint. This interpretation shall be used because of the intent to manage stormwater runoff from paved areas associated with buildings.

* A restaurant is a facility that would use the Standard Industrial Classification (SIC) code of 5812 and an automotive repair shop is a facility that would use one of the following SIC codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.

③ Hillside development shall be defined as development having any of the following characteristics:

- location in an area known to have erosive soil conditions as identified in the *Los Angeles County Department of Public Works Hydrology/Sedimentation Manual*;
- grading on any natural slope where the natural slope is 25 percent or greater; or plans include cut or fill slopes that are 30 feet high or greater.

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Letter B.008: City of Los Angeles, Department of Public Works, Bureau of Engineering, Vitaly B. Troyan, P.E., City Engineer, and Ara Kasparian, Group Manager, Environmental Management Group, January 13, 2000

Comment Number	Response
1.	The maximum discharge of the groundwater, as referenced in the Dames & Moore letter, is not anticipated to be more than 100 gpm. The on to off site storm drainage (has been/has not been) sized to accommodate the subsurface groundwater drainage. The County has applied for a building permit for the tie into the City's storm drain system. Building and Safety is reviewing storm drainage tie ins and the County will comply with Building and Safety comments to obtain the permit.
2.	The Phase II geotechnical report is available for review at DPW. The Phase II report provides the supplemental information that the Phase I report indicates would be performed in the future. The County has reviewed and discussed all the geotechnical mitigation measures described by their consultant in the geotechnical reports. The County is complying with all recommendations made by its geotechnical reports. The County is complying with all recommendations made by its geotechnical consultant. The geotechnical mitigation measures for the 1994 EIR were for a different site than the one proposed in the current EIR, with some overlapping areas. The County is utilizing the '99 geotechnical mitigation measures since the '94 measures address geotechnical conditions not on the current site.
3.	Please refer to Letter B.008, Comment 2.
4.	Please refer to Letter B.008, Comment 1. The 100 gpm calculation is a reasonable assumption that is derived from static water level measurements in monitoring wells located throughout the project area. Groundwater levels are generally below the planned finish floor elevation of the buildings, with the exception of the northern portion of the Central Plant where virtually no dewatering will be required. Here the head levels would only be approximately 3 to 4 feet above the buildings finished floor elevation. Groundwater level data indicates the level is decreasing overall rather than increasing. Groundwater at the site also occurs sporadically in discontinuous layers, seams, and fractures in the bedrock. Therefore, only a fraction of the formation will yield any water at all compared to a homogenous alluvial aquifer that would produce water much more consistently. The County will also comply with any further testing required by the Regional Water Quality Board subsequent to their review of the Phase II geotechnical report and remediation plan.
5.	Please refer to Letter B.008, Comment 1 and 4.
6.	Please refer to Letter B.008-1.

7. Please refer to Letter B.008-1. The geotechnical report gives the correct depth of groundwater at 10 to 45 feet.

8. Please refer to Letter B.007, Comment 10.

Letter B.009

CITY OF LOS ANGELES
CALIFORNIA

ENVIRONMENTAL AFFAIRS DEPARTMENT

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RICHARD J. RIORDAN
MAYOR

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January 12, 2000

Mr. George Jones
Los Angeles County Department of Public Works
LAC+USC Medical Center
1200 North State Street
Box 121
Los Angeles, CA 90033

Mr. David Fukutomi
Federal Emergency Management Agency
P.O. Box 6020
Pasadena, CA 91102-6020

Dear Mr. Jones and Mr. Fukutomi:

Subject: Comments on the Draft Environmental Assessment/Environmental Impact Report for the LAC+USC Medical Center Replacement Project

The City of Los Angeles is a responsible agency for the Los Angeles County and University of Southern California (LAC+USC) Medical Center Replacement Project. As an agency that will issue permits for the project, the City will need to comply with the California Environmental Quality Act (CEQA). According to the State CEQA Guidelines Section 15096 (a), as a responsible agency, the City will comply with CEQA "by considering the Environmental Impact Report (EIR) or negative declaration prepared by the lead agency and by reaching its own conclusions on whether and how to approve the project involved." As a responsible agency, the City would like to ensure that the environmental document prepared for the LAC+USC Medical Center Replacement Project is adequate for use by the City and, thus, requests that the following comments be considered and addressed.

The relationship to the Final EIR prepared for the LAC+USC Medical Center Replacement Project in March 1994 should be clearly described in the Environmental Assessment (EA)/EIR. Specifically, the statement on page 2 of the Draft EA/EIR that the Draft EA/EIR is a "stand alone document" should be explained. It seems that the document could have been a supplemental or 1

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subsequent document. Also, there should be more information about compliance with the National Environmental Policy Act (NEPA) and why an EA was prepared. When and how will the information in the EA be used to determine whether an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI) is required to comply with NEPA? It is not clear how a FONSI could be used given that there are potentially significant impacts that cannot be fully mitigated. 1

The City is concerned about the potential impacts resulting from the LAC+USC Medical Center Replacement Center and believes all potential significant impacts during construction and operation need to be fully evaluated and mitigated. To this end, the baseline conditions for the analysis should be defined and explained in the EA/EIR. The Draft EA/EIR seems to indicate that the proposed 600-bed alternative will be less than the existing facility and will meet patient demand. These may be conflicting assumptions that need to be reconciled. The Draft EA/EIR provides the following numbers: 2

2,045 beds licensed prior to the earthquake
1,450 beds functional prior to the earthquake
1,779 beds currently licensed
770 beds currently budgeted

What is the assumed baseline for the existing conditions? What is the current, future, and historic demand for services? What information and assumptions are used to determine the projected future demand? If less current demand is cited as a reason to justify a smaller project, then the environmental baseline should be consistent with the lower current demand. In that case, the conclusions in the Draft EA/EIR that the proposed 600-bed and 950-bed alternatives would have beneficial impacts because they are smaller than the number of beds currently used should be revisited. If the proposed facility would provide fewer beds than currently used, then the basis for reduced future demand should be provided or the potential for diverted trips, which figure into noise, air quality, and traffic impacts, should be evaluated.

The EA/EIR needs to adequately address direct and indirect effects as well as all cumulative impacts. The need to replace housing units that may be displaced as a result of the project should be explained. Environmental impacts related to any replacement housing need to be evaluated in the EA/EIR for the LAC+USC Medical Center Replacement Project. The cumulative analysis needs to clearly show the effect of the LAC+USC Medical Center Replacement Project considered together with the effect of the 23 cumulative projects listed in Table 35 and mitigate the project's contribute to any significant cumulative impacts. 3

The Final EA/EIR should include a Mitigation Monitoring and Reporting Plan (MMRP) that clearly shows the mitigation measures and agencies involved with implementing, monitoring, and enforcing. Because there may be multiple jurisdictions involved with the project (e.g., City of Los Angeles and County of Los Angeles), the MMRP is very important and should be circulated for review and comment. 4

Air Quality

The Draft EA/EIR performs an analysis of construction emissions, but construction worker trips do not appear to be included in these emissions calculations. Another concern about the air quality analysis is the threshold for reactive organic compounds. It is our understanding that the South Coast Air Quality Management District (SCAQMD) recommends using 75 pounds per day while in the EIR the threshold is 100 pounds per day. The air quality analysis should use the SCAQMD recommended threshold to determine the potential for significant impacts. This is particularly important because emissions from the D&T Interior Finishing phase of construction could now exceed the threshold. The methodology used to evaluate impacts should be developed in coordination with the appropriate regulatory agencies, such as SCAQMD. 5

Alternatives two and three state that PM10 emissions would be considered a significant, unmitigated impact requiring a statement of overriding consideration. Mitigations should be evaluated to ensure that all available measures are considered, all feasible measures required, and measures are enforceable and specific. The reasons that measures are found to be infeasible need to be documented. The list of potential mitigation in the *SCAQMD CEQA Air Quality Handbook* should be reviewed as a source of measures. On page 172, one of the mitigation measures states, "During construction, the site shall be watered appropriately and all equipment cleaned to reduce particulate emissions." There needs to be a clear determination of the frequency of watering. The mitigation measure that addresses silt being controlled, "by providing hard surfaces on any construction roads..." is also unclear. There needs to a definition of what "hard surfaces" means and consideration of storm-water runoff from the hard surfaces. The mitigation measure covering "Dirt runoff and spills on traveled roadways shall be washed or swept as needed during construction" should have a set schedule for washing or sweeping. Potential impacts during the demolition of buildings containing asbestos, lead, or other hazardous materials should be addressed in the air quality or public health and safety/hazardous materials chapter and mitigated to the extent feasible, if significant. 6

As discussed at the meeting with City and County staff, the loading dock is presently proposed to be across the street from residences on Chicago Street. A description of the loading dock, including volume of use, time of day to be used, and the types of equipment and vehicles, needs to be included in the analysis. Additionally, an appropriate analysis, possibly a health risk assessment, should be performed to determine potential localized impacts from the loading dock as a source of CO and toxic air contaminants (especially from diesel exhaust) and mitigation measures should be recommended for all significant impacts. 7

Finally, it appears that there was no technical appendix with air quality information, calculations, or breakdown of emissions even though there is a reference on page 167 to Appendix C. This information should be included for full disclosure. 8

Socioeconomic Issues/Environmental Justice

The socioeconomic issues/environmental justice analysis should provide a complete discussion of the issues and assessment of potential, significant impacts during construction and operation. The *Environmental Justice Guidance Under the National Environmental Policy Act* prepared by the Council of Environmental Quality (CEQ) should be used during preparation of the environmental justice analysis and as part of determining the thresholds of significance. Construction impacts such as increased air emissions, noise, and traffic and visual and land use impacts should be evaluated to determine the potential to disproportionately impact a community of concern. That construction is expected to last for seven years should also be considered in evaluating the significance of the impact. 9

Additional information is needed about the number and types of beds proposed for the replacement facility as well as the current, future, and historic demand for services. If the proposed facility would provide fewer beds than currently used, then the basis for reduced future demand should be provided or the potential for diverted trips, which figure into noise, air quality, and traffic impacts, and the potential for an environmental justice impact from failing to provide sufficient healthcare services to a minority community should be evaluated. 10

On page 7, the introduction to the Draft EA/EIR states that the "LAC+USC Medical Center also provides unique services not available at other County hospitals or private hospitals (e.g., jail ward)." This seems to indicate there is a jail ward only at the LAC+USC Medical Center. As documented in the socioeconomic issues/environmental justice section, 82% of the people in the community surrounding the LAC+USC Medical Center are from non-Hispanic white ethnic groups. This is higher than the average for both Los Angeles County and California. Given this, the presence and location of the jail ward is a potential environmental justice impact that should be evaluated in the EA/EIR. It is important to remember that the hierarchy for addressing significant impacts is to first avoid the impact and second require changes or mitigation where the impact cannot be avoided. 11

Community participation is at the heart of environmental justice. Sufficient and appropriate community outreach should be undertaken as part of the consideration and evaluation of the LAC+USC Medical Center Replacement Project. At community meetings, all relevant information should be made available in an appropriate format. 12

Thank you for your consideration of these comments. If you have any questions or need further clarification, please contact Renee Brandt of my staff at (213) 580-1058.

Sincerely,

Lillian Kawasaki

Lillian Kawasaki
General Manager

Letter B.009: City of Los Angeles, Environmental Affairs Department, Lillian Kawasaki, General Manager, January 12, 2000

Comment Number	Response
1.	The County chose to make this EA/EIR a "stand alone" document because of the need to combine it with the federal process and the wholesale change to the project description. It was thought that a stand alone document could then be understood without the need to refer back to another document. Of course this document is consistent with the 1994 EIR and builds upon and updates, where appropriate, information in that document. When the Final EA/EIR is completed, it will be reviewed to determine if any of the alternatives causes significant impacts to the environment that have or cannot be mitigated to below a level of significance. If it is determined there are no such impacts, then a finding of no significant impact (FONSI) will be written and the project would be allowed to proceed conditional to the mitigation measures defined in the EA/EIR. If the impacts identified are significant and cannot be mitigated then an EIS or a modified project would be required.
2.	The assumed baseline is the 1,450 functional beds prior to the earthquake because the existing condition is an "interim" condition that resulted from the earthquake and not a stable existing condition. However, where possible impact analyses (e.g., traffic, air quality and noise) are based on a comparison of measured conditions (counts) adjusted for the passage of time, compared to projected impacts of each alternative. In the event where measurement of the baseline was not possible (e.g., certain services and utilities) the baseline is based on the 1,450 beds with the existing 770 currently budgeted beds addressed wherever appropriate. Please also refer to Letter B.001-1.
3.	The EA/EIR addresses direct, indirect and cumulative effects. See response to comments B.001-4.
4.	The Mitigation Monitoring and Reporting Plan is included in this Final EIR.
5.	Please refer to Letter A.004-2.
6.	Alternatives 2 and 3 state that PM_{10} emissions associated with project construction would contribute to existing excesses in the project vicinity. This would be considered an adverse impact of the project. However, since PM_{10} emissions would not exceed the thresholds of significance of 150 pounds per day at any given time during the entire construction period, impacts associated with PM_{10} emissions would not be considered significant. Each building that would be removed would be cleared of asbestos, lead, and any other hazardous materials prior to demolition activities in compliance with state and local laws regulating the handling of asbestos-containing materials, lead-based materials, and hazardous materials.

7. Please refer to Letter B.010, response to comment #3.

8. Tables C-1 and C-2 have been included in the Final EA/EIR.

9. Environmental justice issues, including construction are addressed in the EIR.

10. The proposed beds for the 600-bed replacement facility is as follows:

Bed Category	# of Beds
Adult ICU	130
Adult Med/Surg ACU	295
Burn Acute Care	10
Burn ICU	10
Jail	24
Pediatrics ICU	10
Pediatric Med/Surg ACU	25
Neonatal ICU	40
Obstetrics	32
Psychiatric	24
TOTAL	**600**

The projected need for 2005 at LAC+USC MC is 610 patients per day. Using an approximate 85% occupancy rate, the 600-bed facility would accommodate 511 patients per day. Augmentation of 99 beds from other hospitals (public and, possibly, private) would be required to meet the projected need.

There is sufficient inpatient capacity within the DHS system for approximately 50 beds allowing patients to obtain care in DHS hospital near their place of residence. Zaretsky also refers to the LA Model which indicates that there will be a considerable surplus of community hospital beds in the LAC+USC MC area in 2005.

Based on projected demand for LAC+USC MC inpatient services; available capacity in other DHS hospitals; and geographic origin of current LAC+USC patients, outside contracting is estimated to require approximately 35 med/surg beds and less than 20 psychiatric beds according to the Zaretsky Report of April 1998. (This does not account for some 49 med/surg beds available at Rancho Los Amigos Medical Center that would further reduce, if not eliminate, the need for outside contracting.) In view of Mental Health's experience in contracting for approximately 90 acute care inpatient beds on an ongoing basis, DHS is confident that similar arrangements can be made for medical/surgical beds where and when necessary.

It must also be kept in mind that the projections made in the April 1998 Zaretsky Report were based on a higher ADC that excluded well baby nursery. If the current ADC trend continues at its current rate, the number of transfers will be reduced. Moreover, during the seven years leading to the opening of the LAC+USC replacement hospital, efforts will be made to change referral patterns from the comprehensive health centers, the health centers and the public/private

partnership clinics so that, if medically appropriate, more patients will be hospitalized at a DHS hospital closer to their residence.

The above data and details based on bed categories, DHS demand and surplus, projected and historical, are discussed in the April 1998, Plan to Consolidate, Integrate and Expand DHS Health Delivery System by Zaretsky, on file with the Project Management Office located on the LAC+USC MC campus.

11. The present hospital has 39 jail beds. These are the only beds designated for incarcerated patients in the entire County. The Replacement Hospital will only have 24 jail beds. In both the existing and new facility patients needing ICU, CCU, maternity, or burn care will be "out-posted" with the general patient population and under Sheriff Deputy surveillance. See also response to comment B.001-3.

12. Comment noted.

Letter B.010

Nick Pacheco
Councilmember
Fourteenth District

City Council
of the
City of Los Angeles

200 North Main Street
City Hall East, Room 504
Los Angeles, CA 90012-4878
Tel: (213) 485-3335
Fax: (213) 847-0680

January 14, 1999

RECEIVED
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FILE
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OTHER
OTHER Diane W.

Mr. George Jones
Los Angeles County Department of Public Works
LAC+USC Medical Center
1200 North State Street
Los Angeles, CA 90033

SUBJECT: CITY OF LOS ANGELES COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT FOR THE LAC/USC MEDICAL CENTER REPLACEMENT PROJECT

Dear Mr. Jones:

Thank you for extending the comment period on the Draft Environmental Assessment/Environmental Impact Report for the LAC/USC Medical Center Replacement Project. Although this project is very important to my district and to the region, I want to ensure that the County of Los Angeles is diligent in addressing the negative impacts of this project to the local community and that adequate mitigation measures are taken to protect the health, safety and welfare of my constituents.

Enclosed for your review, please find comments from the City of Los Angeles Environmental Affairs and Public Works Departments on the Draft EA/EIR. You have previously received comments from the City's Department of Transportation in a letter dated October 28, 1999. As you are aware, the City of Los Angeles is a responsible agency under CEQA and the City of Los Angeles will have jurisdiction over permits and approvals necessary to move this project forward. In the spirit of cooperation and good faith, I am requesting the County of Los Angeles make a firm commitment to address the concerns and issues outlined by the City's public agencies.

Specifically, I am requesting the following commitments from the County of Los Angeles:

1) Construction of a pedestrian bridge from the Marengo parking structure to the hospital. 1

2) A Mitigation Monitoring and Reporting Plan that specifically outlines all mitigation measures and identifies the agencies responsible for implementing and enforcing these measures. 2

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3) The County must conduct a health risk assessment of the air quality impacts from the loading dock to residences east of Chicago Street. 3

4) Additional air quality mitigation measures must be considered to address PM 10 emissions generated during demolition and construction. 4

5) An assessment of contamination levels for any groundwater that will have to be disposed of and potential impacts and health risks associated with treatment and disposal of any contaminated groundwater. 5

6) The jail ward proposed to be located in the in-patient building must be relocated. 6

In addition, I am concerned about the potential wear and tear to city streets resulting from increased traffic do to temporary street closures and construction vehicle traffic. Repairs to city streets is not discussed and mitigation measures need to be identified to compensate the city for additional wear and tear and repairs. 7

Protecting public health and improving pedestrian safety is one of my top priorities. I respectfully request that the issues identified here and in the attached letters from the City's public agencies be thoroughly responded to. Thank you for your attention to these issues.

Sincerely,

Nick Pacheco
Councilman 14th District

Letter B.010: City of Los Angeles, City Council, Nick Pacheco, Councilman 14th District, January 14, 1999

Comment Number	Response
1.	A pedestrian bridge from the Marengo Parking structure to the new hospital is being designed and will be included in the construction document as an additive/alternative.
2.	The Mitigation Monitoring and Reporting Program is included with the Final EA/EIR.
3.	A health risk assessment for operation of the loading dock is not necessary. The dock is located approximately 234 feet from the residences; this would include 15-35 feet of landscaping. It is anticipated that loading activity would be similar to or less than the existing activity dispersed throughout the day. A 20-foot wall would be erected along the eastern boundary of the loading dock to serve as 1) a retaining wall since the loading dock area would be depressed and would be approximately 12 feet lower than Chicago Street, and 2) an eight-foot barrier between the loading dock and the residences across Chicago Street. Activity at the dock would not result in a change in health risk to residents in homes along Chicago Street.
4.	The EIR already includes all reasonably available mitigation to address PM_{10}. The commentator does not identify what additional measures he believes to be appropriate. Please refer to the responses to Letter A.004.
5.	The extent of any contaminated groundwater is unknown. The County will be required to treat and dispose of any such water in accordance with applicable regulations that are designed to protect public health.
6.	See response to comment B.001-3.
7.	Please refer to B.007-6. The County will repair any damage caused by equipment during construction.

Nick Pacheco
Councilmember
Fourteenth District

City Council
of the
City of Los Angeles

200 North Main Street
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Los Angeles, CA 90012-4878
Tel: (213) 485-3335
Fax: (213) 847-0680

November 17, 1999

Mr. Harry Stone, Director
L.A. County Department of Public Works
900 S. Fremont Avenue
Alhambra, CA 91803

RE: DRAFT EIR FOR LOS ANGELES COUNTY/USC MEDICAL CENTER REPLACEMENT PROJECT

Dear Mr. Stone:

I am requesting that the comment period for the draft EIR on this project be extended to provide my office and other city departments adequate time for review and comment. My office did not receive a copy of the draft EIR that was previously circulated and the only city departments who received and commented on this document are the Public Works and Transportation Departments. Furthermore, not once since July 1, 1999 when I took office have I been contacted by the County's Public Works Department for a briefing or presentation on this proposal. Given the scope and importance of this project, I would expect that more outreach efforts would have been made to my office. 1

Therefore, I am requesting that you extend this period for a minimum of 30 more days to allow my office to coordinate responses with the appropriate city departments, and that you schedule another public hearing after January 1, 2000. However, based on a cursory review of the draft EIR, I am submitting preliminary comments.

RESIDENTIAL COMPATABILITY

One of my biggest concerns with respect to the design of the facility is that, as proposed, the project contemplates placing the jail ward directly across the street from residential uses. This design is completely insensitive to the residences located along Chicago Street. These residences are already bearing the impacts of the physical alteration of the residential character of the street. To add to this impact by placing an incompatible use such as a jail ward directly across from this residential street is not only poor planning but extremely insensitive. Given the size of the site and the range of uses proposed for the facility, it seems incomprehensible that a design could not have been achieved that respected the only residential neighborhood that abuts the site. 2

PEDESTRIAN ACCESS

The proposed project does not contemplate constructing a pedestrian bridge over Marengo Avenue from the existing parking structure to the medical center. Pedestrian accesss and safety are critical issues that must receive high priority. Given the number of pedestrian tragedies that have occurred in my district, pedestrian safety must not be compromised and I will accept nothing less a pedestrian bridge to facilitate pedestrian movement safely. 3

HOUSING REPLACEMENT

The Draft EIR does not appear to address the issue of housing replacement. This community has lost, and will lose, a substantial share of its housing stock through displacement by numerous public works projects such as the MTA Redline and the 710 Freeway. Replacing the housing that has been previously demolished for this project is a critical issue that must be addressed. 4

INFRASTRUCTURE CAPACITY

Although the EIR indicates that the replacement project will not generate more significant impacts than the existing hospital, the infrastructure in many portions of this community is deficient. An analysis should be completed to determine whether upgrades to the existing infrastructure are needed based on current capacities. This should include upgrades to the sewer, storm drain and street circulation system. 5

The city's Department of Public Works currently does not have the resources to make necessary upgrades under the city's capital improvement program. The county should make any necessary upgrades to service the replacement facility.

I would like to reiterate that further review is necessary by my office in cooperation with the city's departments to ensure that all related environmental issues are addressed.

Sincerely,

Nick Pacheco
Councilman 14th District

Letter B.011: City of Los Angeles, City Council, Nick Pacheco, Councilman 14th District, November 17, 1999

Comment Number	Response
1.	Comment noted. The comment period was extended.
2.	See response to comment B.001-3.
3.	See response to comment B.001-7.
4.	See response to comment B.001-4.
5.	Please refer to Letter B.007- 6.

Letter C.001

STATEMENT ON THE ENVIRONMENTAL IMPACT OF THE REBUILDING OF LAC-USC MEDICAL CENTER

Dear Sirs and Madams,

Thank you for the opportunity to comment on the environmental impact of the proposed rebuild of the LAC-USC Medical Center at 600 beds.

I would respond in person but I heard of your hearing on the 15th of November and am scheduled to work the night of the 17th at a nearby hospital. I therefore respond in writing, apologizing for being unable to answer questions.

No objective study supports the 600 bed re-build. All the previous studies were well analyzed and reported by Drs. Tranquada and Zaretsky in 1996 or 1997. They recommended 750-780 beds. The Medical Association felt that number was low, but supported Tranquada-Zaretsky because their analysis was thorough and credible. The 600 bed plan represents a political compromise, just a s the proposal to build a very small hospital in Baldwin Park represents a political solution to a divergence of political opinion. 1

The present hospital is too small. You do not need to do a study to show that, you have only to look at the waiting rooms and ask the patients how long they've been waiting. Ask how long it takes to get a bed upstairs. Ask how long it takes to get an elective surgery on the schedule, and how often elective cases are "bumped" by emergencies.

I work in the ED at a nearby hospital. We have noted that LAC-USC with its current 800 beds is frequently on diversion. We inquired of the County EMS officials and learned that LAC-USC is on diversion, that is to say they are diverting paramedic ambulances away- not receiving critically ill patients, a significant portion of the time even with 800 beds to admit to. Here are the numbers: January 130 hours, February 173 hours, March 140 hours, April 152 hours, May 149 hours, June 142 hours, July 168 hours, and August 89 hours, in 1999. That's 7 out of 31 days in July; 7.2 out of 28 days in February. That's a very hefty number. 2

Where do those patients go? They go without, or they go to another hospital. Some have insurance, and some pay cash, but in LA where 1/3 of the population under age 65 has no insurance, many of those patients run up sizable bills which they cannot pay. More than 60% of LA's hospitals are operating in the red today, and adding unpaid bills will certainly drive some of them under. That will have an adverse environmental impact. When I ask my friends at LAC-USC why they are on diversion so much, they tell me they get backed up in the ED because they can't get beds upstairs.

A 600 bed hospital will make that worse, even if nothing else changes.

But many key factors are changing. LA's population, according to SCAG (Southern California Association of Governments), will increase by 6.7 million between now and 2022. Many of those people will be uninsured and depend on public hospitals and clinics. The numbers of employers providing insurance for workers in California is dropping. It was 68% in 1992; it was 54% in 1998.

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15,000 people join the ranks of the uninsured in Los Angeles County every month.

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2

LAC-USC is strategically located. We have a large underserved population in the center of the greater LA metropolitan area. LAC-USC serves that population, and it is full to exploding. The empty beds in this county are in the wealthier suburbs, where they are of little use to those downtown. They should not be considered in the equation.

Lastly, the County is the provider of last resort, under the law (Welfare & Institution Code 17,000, Chapter 5). Private hospitals and doctors have a moral and ethical obligation to care for the poor, and they have a long and admirable record of doing so. The County has a legal obligation to care for the poor and their record is not so good. In the Tailfeather case the County counsel argued that the County was only obligated under law to take care of those on general relief, some 90,000 people, at a time when there were more than 2 million uninsured in Los Angeles County. The County threatened to shut down all its public health clinics and comprehensive centers in 1995 when it was going broke, and would have done so in the absence of a Federal bail out.

It is this same thought process which builds a 600 bed hospital when the human need, the medical need, is obviously not going to be met, and when the population trends and income trends clearly point to a profound adverse impact in the community.

I urge the County to build at least 750 beds, using a modular construction so that further beds may be rapidly added when they are needed, as they most surely will be.

In considering the environmental impact, if you are sincere, you must ask and answer the question of what will happen to people needing trauma services, emergency services, hospital services, and followup care if we only build 600 beds. How big will the overflow be? What will be the immediate health consequences for patients who can't get into a 600 bed LAC-USC. What will be the effect on the non-county system of those patients arriving unfunded at the doors of other facilities? Unless you answer those questions you will not have done your job.

Thank you very much.

Brian D. Johnston, M.D.,
Chair, Board of Trustees
Los Angeles County Medical Association

BDJ:mcj

Letter C.001: Los Angeles County Medical Association, Brian D. Johnston, M.D., Chair, Board of Trustees, November 29, 1999

Comment Number	Response
1.	See response to comments B.001; #1, 2; 8.
2.	The replacement emergency department (ED) is expected to maintain its role as the region's major trauma and emergency service provider. The replacement emergency department (ED) is expected to accommodate 175,000 visits. The size of the (ED) and number of visits (175,000) to the Department of Emergency Medicine (ED) is expected to be identical for a 600 or 750 bed hospital. It is recognized that with a 600 bed hospital some of the patients may be transferred to other county or private facilities. A good percentage of the ED visits are non-urgent; about 18% of the emergency room visits resulted in admissions. The reduction to 175,000 visits at LAC+USC MC is premised largely on a further decline in non-urgent volume that will occur through improved case management, extended hours in the health centers, patient education, triage, and a system of notifying patients on how to access urgent care services in less acute settings, such as comprehensive health centers. Overall, the services remaining at LAC+USC MC will focus on higher acuity patients. Request for closure/diversion of paramedic runs from LAC+USC MC ED has increased recently in the past several months. There seemed to be a similar pattern with other EDs surrounding LAC+USC MC in 1999. LAC+USC MC actually had fewer hours of closure than many of the other public and private hospitals. That said, there are several reasons for requesting ED closure/diversions; including the recent flu epidemics that affects both patients and staff. Another reason has been the shortage of nurses in the critical care areas, which appears to be a nation-wide problem at this time. The operational efficiency of the ED in the new hospital is much improved from the current ED. The new ED has a 20 bed observation area that is currently non existent. In one respect, there will be an enhanced capability to admit critically ill patients in a timely manner in the 600-bed replacement facility because of an increased number of ICU beds. Requesting closure/diversion for the ER does not necessarily mean that all paramedic runs are diverted. Because several of the nearby hospitals (California, Good Samaritan, and White Memorial hospitals) have a service area contract that prevents County from diverting patients to them, paramedics' options are limited to East Los Angeles Doctors', Greater El Monte and other community hospitals within a 15 minute transport time. Occasionally, paramedics have no option but to transport patients to LAC+USC MC despite its closed status. Emergency Medical Tech runs automatically transport patients to the nearest facility

regardless of closure. LAC+USC MC continues to provide care to these patients. Closure of the ED generally means that no hospital transfers of non-emergencies are taking place. This has been estimated to be about 10% of all ED admissions and frees up staff and beds for true emergencies.

HILLSIDE VILLAGE PROPERTY OWNERS ASSOCIATION, INC.
POST OFFICE BOX 71203
LOS ANGELES CA 90071

Letter C.002

January 11, 2000

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Mr. Brad Bolger
Project Director
LAC+USC Medical Center Replacement Project
1200 North State Street - Box 121
Los Angeles California 90033

Federal Emergency Management Agency (FEMA)
Post Office Box 6020
Pasadena, CA 91102

RE: LAC+USC Medical Center Replacement Project
Draft Environmental Assessment/ Environmental Impact Report (EIR/EA)

Dear Sirs:

I am writing on behalf of the residents and business owners that are represented by our organization, the Hillside Village Property Owners Association, Inc. regarding the above referenced project which is of great importance to our organization and all Los Angeles City and County residents, employees and employers. The LAC+USC Medical Center (Medical Center) is one of the leading resources for health manpower training of physicians, nurses, and allied health care personnel in the United States and is a critically needed project. Consequently, it is imperative that this project be undertaken seriously by those responsible for its implementation.

The following items of great concern to us and require clarification, further study, additional information, public hearing and ultimately the proper notation/change in any Environmental Assessment regarding the LAC+USC Medical Center:

Hospital Size

Throughout the EIR/EA, there are several references indicating that a 600-bed hospital is justified by the projected community heath care need, that experts have supported this size facility, and that the current budgeted 770 beds meet current needs. 1

RENEE M. G. CHAVEZ
PRESIDENT
213-955-6443 - 213-955-5161 FAX
213-218-7439 PAGER - RCHAVEZ196@AOL.COM

Hillside Village

Cont'd.

None of these statements can be accurate. Currently the hospital is a 950-bed facility that is only using approximately 750 beds due to various reasons known your office including safety issued posed by the lack of sprinklers in the facility. It is our understanding that every expert hired by the County recommended and testified, in numerous Board of Supervisors' hearings, that we need a minimum of 750 beds. It is also our understanding that throughout all the hearings, there was not a single individual, organization, or expert who testified publicly in favor of the 600-bed option. If that is not the case, please provide us with that information. 1

Within the Draft EIR/EA it is suggesting that today's budgeted capacity of 770 beds is adequate. The actual capacity of the Medical Center frequently exceeds the 770 patients that are budgeted. It is our understanding that the emergency room is closed to transfers on a regular basis. Consequently, that is suggestion is inaccurate and should be studied and corrected.

Given that any hospital is defined as full at 85% of actual beds, today's usage would require a hospital of approximately 950 beds (the current hospital size). This is a disparity of 200 beds which would leave those patients without medical care.

Relocation of the Jail Ward

The proposed relocation of the jail ward to the ground floor is of great concern. In the EIR/EA there is no plan about how the safety will impact the community and or measures will be put in place to ensure patient, Medical Center staff and community safety. 2

However, we would like to ask the following question:

WHY DOES THERE HAVE TO BE A JAIL WARD IN THE FACILITY? WHY NOT TREAT THESE CRIMINALS AT THE NEW TWIN TOWERS FACILITY? 3

Doing so would mitigate any possible problems/impact to the Medical Center and to those who use and work there.

However, as the jail ward will probably be forced into this facility, (as most negative projects are on the Eastside,) systems should be in place and identified in the EIR/EA to handle this problem. Perhaps this portion of the Replacement Project should be be rethought and redesigned in order to minimize the potential danger to the community. The EIR/EA must detail these systems and possible impact. 4

RENEE M. G. CHAVEZ
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Hillside Village

Housing Relocation and Replacement

The housing impacts and the mitigation measures taken over the years should be reflected in this EIR/EA. 5

Pedestrian Safety

It is not apparent in the EIR/EA that any studies concerning pedestrian safety were conducted or the issued would have be fully identified and discussed. Careful examination of this issue and proposed mitigations to eliminate such dangers should be identified. 6

Transfer of Patients

The 600-bed option will require the transfer of at least one in six admitted patients. The EIR/EA does not identify the associated impacts to the affected communities and receiving hospital facilities including traffic and environmental. 7

Items that should be identified are:

1. How will patient care be affected?
2. How long will these transfers take?
3. What is the impact on projected freeway volumes on the transfers?
4. How do these transfers affect the transient population?

There is no reference to any "Social Justice" impacts. These impacts must be clearly identified and addressed.

Decline in Emergency Room Capacity

It has come to our attention that based on the 600-bed replacement option, Emergency Room capacity will be reduced from 217,000 visits to 175,00 visits and outpatient capacity will decline from 717,000 visits to half that level - 350,000 visits. The EIR/EA should reflect these reductions and examine the impacts on patient care. 8

Also not identified in the EIR/EA is how other health care facilities be impacted by this change? (It is our belief that private hospitals can not or will not provide the much-needed services provided by the Medical Center.)

Again, the impact to transient population is not identified. This is a population that will be severely affected by this changed but is ignored in the EIR/EA. (We hope that this has been an oversight.)

RENEE M. G. CHAVEZ
PRESIDENT
213-955-6443 - 213-955-5161 FAX
213-218-7439 PAGER - RCHAVEZ196@AOL.COM

Hillside Village

Community Buffer (Wall)

We understand that the proximity of the replacement facility to the adjacent neighborhoods will require a 1-foot wall between the Medical Center and the neighborhood. The EIR/EA does not identify safety problems and nuisances that could develop due to this placement or systems to prevent them. 9

Main Building Use

It appears that the EIR/EA assumes that the current LAC+USC main building will be demolished. This building is of historic significance to Los Angeles and a landmark that must be preserved. We are convinced that the building has uses other than as a hospital. Perhaps the EIR/EA does not take into consideration the use of this building after the new Medical Center has been built. Consequently, all impacts may not be fully identified. 10

We look forward to reading the next set of documents and request notification of any public hearing regarding this matter. We are very concerned about the continued safety of our community which requires the appropriate health care facilities.

Sincerely,

RENEE M. G. CHAVEZ
President

RENEE M. G. CHAVEZ
PRESIDENT
213-955-6443 - 213-955-5161 FAX
213-218-7439 PAGER - RCHAVEZ196@AOL.COM

Hillside Village

Letter C.002: Hillside Village Property Owners Association, Inc., Renee M. G. Chavez, President, January 11, 2000

Comment Number	Response
1.	See response to comments B.001-1, 2; 8.
2.	The present hospital has 39 jail beds. The Replacement Hospital will only have 24 jail beds. In both cases patients needing ICU, CCU, maternity, or burn care will be "out-posted" with the general patient population and under Sheriff Deputy surveillance. The placement of the jail unit on the first floor of the new hospital maximizes safe access and effective use of medical services for all patients. There are no other patients on this floor of the Inpatient Tower.
3.	The Twin Towers facility does not meet structural standards for hospitals as required by OSHPD. It does not have acute inpatient care beds or the necessary diagnostic and treatment facilities.
4.	See response to comment B.001-3.
5.	See response to comment B.001-4.
6.	No pedestrian safety impacts are anticipated. See also response to comment B.001-7.
7.	Patient origin data from the Zaretsky Report of April 1998, indicated that approximately 25% of the inpatient population at LAC+USC MC live closer to other County hospitals and could be served at the closer DHS facility just as well. Staff will assess and consider all patients' needs, if and when transfers are required. Only stable patients will be transferred. It is anticipated that patients transferred to the other County hospitals will in all cases be closer to their place of residence. During the seven years leading to the opening of the LAC+USC replacement hospital, efforts will be made to change referral patterns from the comprehensive health centers, the health centers and the public/private partnership clinics so that, if medically appropriate, more patients are hospitalized at a DHS hospital closer to their residence. Continuous Quality Improvement (CQI) programs and other frequent reviews and audits by governing and regulatory bodies ensure that all patients receive appropriate quality care. As a teaching hospital with multiple governing and regulatory bodies, LAC+USC MC is held to higher, more stringent standard of care than a non-teaching facility.

There are many variables that would determine how long the process for transfer will take. At this time, we can only say that the replacement facility will be designed with particular emphasis on efficiency.

Depending on the nature of the patient's condition, individual patients would be transferred to the most convenient/appropriate facility within the county system or at a contract hospital. The impact of patient transfers on the freeway system would be negligible.

In FY 1998-99, there were 1,647 transient patient admissions at LAC+USC MC, which made up 3.3 % of the total admissions. The transfer guidelines discussed in the Zaretsky Report of April 1998, would apply equally to all patients.

8. See Letter C001- 2 - LA County C.MA, Dr. Brian D. Johnston, M.D.

Outpatient Issues - The outpatient visits are currently running about 500,000 annually, and not 717,000 as stated in your letter. The replacement facility is expected to handle 350,000 outpatient visits. Other listed facilities are expected to be able to handle the overflow of patient visits.

Outpatient services in the replacement facility are to be limited to hospital-based specialty outpatient care. As part of the 1115 Federal Waiver, the County has committed to provide 3.9 million ambulatory care visits county-wide. DHS plans to fulfill its commitment through an improved health care delivery system with expanded ambulatory care provided at County comprehensive health centers, health centers, public/private partnership sites, and school-based clinics which are more conveniently located for access. The Replacement facility would be used for Specialty Clinics purposes. Other patients would be referred elsewhere.

In addition, less acute specialty care services are in the process of being relocated to the comprehensive health centers in the community.

9. See response to comment B.001-10.

10. See response to comment B.001-6.

Letter C.003

White Memorial Medical Center

Adventist Health

1720 Cesar E. Chavez Ave.
Los Angeles, CA 90033
213-268-5000

November 17, 1999

STATEMENT ON THE ENVIRONMENTAL IMPACT OF THE REBUILDING OF LAC-USC MEDICAL CENTER ON WHITE MEMORIAL MEDICAL CENTER

Dear Sirs and Madams:

Thank you for the opportunity to comment on the environmental impact (EIR) of the proposed rebuild of LAC-USC Medical Center at 600 beds.

1. ***Emergency Department Visits*** 1

Pages 47-50 of the EIR discuss the increase in emergency visits at the medical center. White Memorial, because of current county contractual agreement, can not divert paramedic runs to its emergency department due to saturation, in other words, too many patients to handle or lack of staff. However, currently LAC-USC can and does divert paramedic runs to local community hospitals. They diverted the following number of hours this year:

January	130 hours	May	149 hours
February	173 hours	June	142 hours
March	140 hours	July	168 hours
April	152 hour	August	89 hours.

That is seven days per month for July and February.

The final EIR needs to address the current and future emergency department capacity and elimination of diversions.

2. ***Reduced Bed Size to 600 Beds—LAC-USC*** 2

- One of the strategies mentioned on page 11 of the EIR is to reduce the number of beds by contracting with public/private hospitals. White Memorial has previously supporteded the rebuilding of the medical center and submitted proposal for a public/private partnership, but its proposal was not accepted, as the costs were considered too high.

- The public/private hospitals bids that were accepted have not been consummated, because, in negotiations the costs were determined to also be too high. 3

This proposed decrease in beds without a plan will have a negative impact on routing additional visits to White Memorial Medical Center. 4

The final EIR needs to address the lack of public/private contracts for hospital beds in order to meet the reduced bed capacity of the medical center. 5

3. *Outpatient Business*

Page 9 of the EIR proposes a 50% increase in outpatient business. However, it does not indicate if the 1115 waiver goals have been met. This proposed increase without a plan will have a negative impact on routing additional visits to surrounding hospitals. 6

The final EIR needs to address how the 1115 waiver goals will be met.

4. *Emergency Department Transfers*

The EIR does not speak to the number of transfers that come from White Memorial and other surrounding hospitals emergency departments to LAC-USC. A very important function of the LAC-USC medical center is to provide tertiary, quaternary and indigent care. 7

The final EIR needs to address community hospital transfers to LAC-USC Medical Center.

5. *Lack of Input into EIR*

As far as we have been able to determine, White Memorial has not been contacted for input into the EIR. 8

Sincerely,

Albert R. Deininger
Vice President, Ambulatory Care

ARD:kjs

11-17-99.01

Letter C.003: White Memorial Medical Center, Albert R. Deininger, Vice President, Ambulatory Care, November 17, 1999

Comment Number	Response
1.	See response to comments B.001-1, 2, 8 and 9 and response to C001-2.
2.-5.	DHS did not proceed with the demonstration project to contract for acute beds in 1998, due to funding shortfalls. However, the community response to the Request for Proposal and initial negotiations indicated that there were available beds in the area at the cost targeted by County. In view of the County Department of Mental Health's experience in contracting for approximately 90 acute care inpatient beds on an ongoing basis, DHS is confident that similar arrangements can be made for medical/surgical beds where and when necessary. The Zaretsky Report of April 1998 refers to the LA Model, which indicates that there is a considerable surplus of community hospital staffed beds in the LAC+USC MC area.
6.	Based on current volumes, DHS expects to have 2.8 million outpatient visit this fiscal year, and anticipates that it will reach the 1115 Waiver commitment to provide 3.9 million outpatient visits (which is 50% of our FY'94-95 baseline) by 2005. DHS is working out the details for ambulatory care expansion in the health centers, comprehensive health centers, public/private partnerships, and school-based clinics in the 1115 Waiver extension proposal. Efforts have been underway in many areas these past few years. DHS has partnered with the private sector to provide outpatient services at 120 sites. Some specialty care services have been expanded into the community. Hours at outpatient sites have been extended, the financial screening process is being streamlined and numerous other measures are being taken to improve patient access.
7.	In FY 1997-98, LAC+USC MC accepted 6,368 transfers county-wide. 1,518 of those came from the surrounding hospitals (within 5 mile radius). See responses to comments above.
8.	Comment noted.

Letter C.004

LETTER OF POSITION
REGARDING
LAC + MEDICAL CENTER REPLACEMENT PROJECT
NOTICE OF DRAFT ENVIRONMENTAL IMPACT REPORT

November 17, 1999

Mr. David Fukutomi
FEMA
P.O. Box 6020
Pasadena, Ca. 91102

Mr. George Jones
LA County Department of Public Works
LAC+USC Medical Center
1200 North State Street
Box 121
Los Angeles, Ca. 90033

Re: **Comments on a draft Environment Assessment/Environment Impact Report for the Los Angeles County + University of Southern California (LAC + USC) Medical Center Replacement Project.**

Dear Mr. Jones and Fukutomi:

On behalf of AltaMed Health Services Corporation we would like to provide the following comments regarding the Environmental Impact Report (EIR) for the Los Angeles County + University of Southern California Medical Center Replacement Project. AltaMed Health Services appreciates the opportunity to comment on the above-mentioned document.

AltaMed Health Services Corporation is a private non-profit health and human services organization based in Los Angeles County with four primary care clinics in East Los Angeles, Pico Rivera, and El Monte. We also have a methadone clinic which is located on Zonal street near the LAC+USC Medical Center. Our mission is to provide and manage coordinated, high quality comprehensive health and human services for underserved populations. We serve more than 32,000 families annually in the greater Los Angeles area.

As a health care provider, we recognize the importance of this project in providing additional health care to our most needy members of society. It was reported that during the fiscal year 1998-99, the Public Private Partnerships have provided almost 600,000 visits. These visits provide access to culturally sensitive and linguistically appropriate care. AltaMed Health Services values its ability

to provide these services. But more is needed, especially ambulatory care expansion. A recent Los Angeles County Health Survey showed that there is an estimated 1.7 million people in Los Angeles County who are both uninsured and poor. Given the magnitude of the problem, expanding ambulatory care access to a vast, geographically dispersed, and culturally diverse uninsured population is of utmost importance.

AltaMed Health Services Corporation also understands the importance of addressing the issue of those individuals who are in need of inpatient care. Our experience in the health care industry leads us to believe that a 600 hospital bed facility will not meet the needs of our community. In addition, area scholars such as Dr. Henry Zaretsky in April, 1998 reported that additional beds are necessary beyond the 600 and that at least a 718 bed facility is needed. Therefore, we support a 750 bed facility that was originally intended by the 1115 Waiver, which guaranteed inpatient and outpatient services to local communities. 1

However, in the draft of the EIR it is mentioned on several occasions that with a hospital bed size of 600 there will be an increase demand for outpatient services and a decreased demand for inpatient care. It is our concern that the EIR appears to have a serious flaw in determining the actual number of inpatient and outpatient visits. It is our recommendation, that the EIR carefully explain this discrepancy in numbers. We do not understand how a 600 bed hospital which will serve an approximate amount of 350,000 outpatient visits, be considered an improvement of what is currently being seen at 500,000 visits. This is a reduction of over 100,000 visits. 2

According to the EIR, one of the objectives that guide the LAC + USC Medical Center Replacement Project is to "improve patient access to health-care services", however according to these numbers this not seem to be the case. We at AltaMed Health Services hope that the final version of the EIR be honest and accurately represent the true needs of our community. 3

We agree with the EIR's objective of entering the new Millennium with the idea of greater health care access for our communities. If the EIR's true objective is to provide a more efficient facility with greater flexibility to adapt to future needs, then we need to be realistic, and understand that there are other valuable options. One of these options is to build a 750 bed facility.

We appreciate your serious consideration of these critically important issues.

Respectfully Yours,

Castulo de la Rocha
President and CEO
AltaMed Health Services Corporation

cc: Marie Torres, Senior Vice President of Long Term Care and Government Relations
AltaMed Health Services Corporation
Martha Molina-Aviles, Office of Gloria Molina, Supervisor, First District

Letter C.004: AltaMed Health Services Corporation, Castulo de la Rocha, President and CEO, November 17, 1999

Comment Number	Response
1.	See Letter B.001, #1, 2, 8.
2.-3.	Outpatient services in the replacement facility are to be limited to hospital-based specialty outpatient care. Other listed facilities are expected to be able to handle the overflow of outpatient visits. As part of the 1115 Federal Waiver, the County has committed to provide 3.9 million ambulatory care visits. DHS plans to fulfill its commitment through an improved health care delivery system with expanded ambulatory care provided at County comprehensive health centers, health centers, public/private partnership sites, and school-based clinics which are more conveniently located for access. Efforts have been underway in many areas these past few years. DHS has partnered with the private sector to provide outpatient services at 120 sites. Some specialty care services have been expanded into the community. Hours at outpatient sites have been extended, the financial screening process is being streamlined as well as numerous other measures are being taken to improve patient access.

Letter C.005

TESTIMONY PRESENTED BY
THE
LINCOLN HEIGHTS CHAMBER OF COMMERCE BEAUTIFICATION COMMITTEE CHAIRMAN, MR. STEVE KASTEN
ON THE ENVIRONMENTAL IMPACT REPORT FOR THE LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

Ladies and Gentlemen,

I come before you as the former Chairman of the Coalition Against the Prison in East Los Angeles which was established in 1985. 1

I was strongly disappointed to learn that 14 years later, the County Department of Public Works continues to ignore the East and Northeast communities and their elected representatives.

You are probably not aware that we became environmental experts throughout our 8 year battle which kept a state prison out of the East Los Angeles community. However, you are aware that the local community has a problem with your proposal to place the LAC+USC Medical Center's Jail Ward on the first floor and immediately adjacent to the only residential neighborhood that will face the new hospital.

Despite warnings you received about the sensitivity of such an issue, not only did you maintain the same recommendation and location of the Jail Ward, but you ignored and did not include any mitigations whatsoever in the Environmental Impact Report.

It is unfortunate for you that this community is well trained, well versed, and well informed now about its rights under local, state and federal environmental laws. It is unfortunate for you that this East Los Angeles community is responsible for a section now called "environmental justice" that is now required in all environmental impact reports.

It is, therefore, under such rights that we insist upon a mitigation plan to be included in the Environmental Impact Report for the Jail Ward. 2

1. What will the 15 foot buffer include? Will it be properly lit? Does the City allow a 15 foot buffer and how do you ensure it is indeed a safe buffer and not an attractive nuisance for neighbors who live across the street from the hospital?
2. What is the traffic flow for residents on Chicago Street? 3
3. How will you protect the neighbors from potential prisoner escapes? How and where will prison inmates be brought in and how will they be transported out of the hospital? What time of the day will this occur? Who is responsible for escapes, LAPD or the Sheriff's Department? 4

Please respond to these questions and include them in your Final EIR. Our communities deserve no less.

STEVE KASTEN
2718 NORTH BROADWAY
L.A. CA 90031
(323) 222-3489

Letter C.005: Lincoln Heights Chamber of Commerce Beautification Committee, Steve Kasten, Chairman

Comment Number	Response
1.	Comment noted. See response to comment B.001-3.
2.	See response to comment B.001-10.
3.	A substantial change in traffic along Chicago is not anticipated see pp.121 to 133 of the Draft EIR for a discussion of traffic impacts along Chicago.
4.	See response to comment B.001-3. The present hospital has 39 jail beds. The Replacement Hospital will only have 24 jail beds. In both cases patients needing ICU, CCU, maternity, or burn care will be "out-posted" with the general patient population and under Sheriff Deputy surveillance. Buses bringing patients from Twin Towers for clinic appointments come in the morning, Tuesday through Friday, and leave in the afternoon – after all patients have been seen. Both the LAPD and the Sheriff Department would be responsible if there was an escape.

Letter C.006

SHARON M.Y. LOWE
ATTORNEY AT LAW
ALAMEDA STATION BOX NO. 86474, LOS ANGELES, CALIFORNIA 90086
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smylesq@earthlink.net

January 14, 2000

RECEIVED
LAC+USC/MCRP/PUBLIC WORKS
JAN 18 2000

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
LAC+USC MEDICAL CENTER REPLACEMENT PROJECT
2020 ZONAL AVENUE, 7TH FLOOR
LOS ANGELES, CALIFORNIA 90033

Attn.: Brad Bolger

RE: Additional/Supplemental Comments on Draft EA/EIR
For LAC+USC Medical Center Replacement Project

Dear Mr. Bolger:

The following written comments are additional/supplemental to previous oral comments at the November 17, 1999 public hearing on the Draft EA/EIR for the LAC+USC Medical Center Replacement Project:

I. Description of Proposed Project

The Draft EA/EIR provides the public and the ultimate governmental decision-maker, the Board of Supervisors, with an incorrect "Description of the Proposed Project". As presently drafted, this environmental review document mischaracterizes the proposed project as a stand alone project for environmental review purposes and thus minimizes the significant environmental impacts. 1

The Draft EA/EIR language misleads the public and decision-maker. It treats the implemented portions of Phase I of the originally 1994 certified and approved project as existing conditions for its described proposed project. It operates upon the false and deceptive premise that such activities were not related or part of or necessary to the implementation of the larger medical center replacement project. 2

The implemented portions of the Phase I 1994 approved project are not independent and separate from the currently proposed project, but rather are earlier and necessary inclusive activities of the same larger project.[1] Such activities included but are not limited to the demolition and acquisition of at least 26 residential properties totally 58 dwelling units [approximately 13 single family residences and 7 multiple family residences] and 2 commercial properties; displacement and 3

[1] "The acquisition of 8 acres in Phase I was determined necessary for a new replacement facility to proceed; this land was acquired and 58 dwelling units (containing 110 bedrooms) and eight commercial units were demolished." Draft EA/EIR - LAC+USC Medical Center Replacement Project, page 88.

Cont'd.

relocation of at least 86 low income minority households and 8 small businesses; demolition of Bernece Carlson Elementary School; displacement and relocation of students and staff; resultant student population impact on surrounding neighborhood schools; and construction of 3000 parking structure. 3

The Draft EA/EIR seeks to piecemeal and obscure the environmental review of the LAC+USC Medical Center Replacement Project and does not adequately or accurately inform the public nor the government decision-maker of the total and cumulative potential significant adverse environmental impacts of the larger hospital rehabilitation and replacement project. This is in direct contravention to one of CEQA's and NEPA's basic purposes. 14 Cal Code Reg § 15992(a)(1). 4

The presently described project cannot be presented as independent and separate. The 1994 approved Phase II portion which encompassed re-use of General Hospital is no longer applicable[2], however the current project proposal is no more than a substantially revised Phase II or perhaps even a Phase III of the larger LAC+USC Medical Center Replacement and Rehabilitation Project, and as such CEQA mandates its cumulative environmental impacts be analyzed and reviewed.

The LAC+USC Medical Center Replacement Project is comprised of multiple individual activities/projects as follows:

Phase I:	Activities certified and approved by the 1994 FEIR and that have been implemented. This includes the activities and aspects of the mitigation monitoring plan that have been implemented since the 1994 approval through the present;
Phase II:	Rehabilitation and repair activities of several red tagged buildings subsequent to the 1994 earthquake for which negative declarations have been prepared[3];
Phase III:	Presently described project which is proposed to be completed by 2007;
Phase IV:	Study of Re-use Options to commence in 2004/2007; and
Phase V:	Implementation of "Re-use Plan for General Hospital, Women's Hospital, and the Outpatient Clinic Building, which is projected to commence in 2007.

II. Programmatic EIS/Program EIR Is Appropriate form and Level of Environmental Review

CEQA Guidelines [14 Cal Code Regs §15165] require the preparation of a program EIR for the LAC+USC Medical Replacement Project. All of the above individual projects together compose a 5

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[2] "Since the reuse of General Hospital is not reasonably foreseeable at this time, Phase II is not required in this document." Draft EA/EIR - LAC+USC Medical Center Replacement Project, page 88.

[3] The County DPW is restoring the old Administration with FEMA funding separate from the Replacement Project. A Negative Declaration has been prepared. The north campus (located at the southwest corner of Zonal/Griffin and Mission) consisting of 3 buildings (Tower Hall, Building 10/20 & Building 110 is also being repaired by DPW with FEMA funds separate from the Replacement Project. All of these buildings suffered major 1994 earthquake damage are red-tagged." Draft EA/EIR - LAC+USC Medical Center Replacement Project, page 83.

Cont'd.

single project, are being implemented in phases, and are necessary precedents and pieces of the larger project. The cumulative effect of the environmental changes that will result from the combined or ultimate project must be evaluated for such multiple or phased projects. 14 Cal Code Regs §15165; Whitman v. Board of Supervisors (1979) 88 CA3d 397. 5

Under 14 Cal Code Regs §15168(a), a program EIR is an EIR prepared for a series of actions that can be characterized as one large project and are related:

- Geographically;
- As logical parts in the chain of contemplated actions;
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or
- As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways.

The program EIR is similar to the "programmatic EIS" under NEPA. A program EIR would also serve as an environmental data base that is incorporated by reference in subsequent EIRs and negative declarations such as the "Study of Re-Use Options and adoption of a Re-Use Plan for General Hospital, Women's Hospital, and the Outpatient Clinic". 14 Cal Code Regs §15168(d).

CEQA mandates a full and complete environmental analysis of the true project description. Currently, the Draft EA/EIR fails to include the previously identified significant environmental impacts in the 1994 FEIR, fails to include the adopted mitigation measures, fails to provide an update status of the implementation of the adopted Mitigation Monitoring Plan, and it fails to analyze several cumulative environmental impacts of the "combined or ultimate project" on the surrounding community, particularly in the area of Environmental Justice.

The Draft EA/EIR is an inadequate circumvention of NEPA and CEQA. A FONSI under NEPA is clearly inappropriate for a project of this magnitude and impact on the surrounding East and Northeast Los Angeles communities particularly in view of its failure to address the significant environmental impacts on the City and the County of Los Angeles' Housing Elements, the loss of affordable housing stock, the displacement of 86 low income, minority households in an Enterprise Zone and region of Los Angeles, which has an existing cumulative history of massive residential displacement, and the demolition of Berenice Carlson Elementary School in a region where school overcrowding is at crisis-level. 6

A Programmatic EIS/Program EIR should be prepared and re-circulated. At a minimum, the new environmental document should inform the public and the Board of Supervisors of (1) the extent of the 1994 described Phase I that has been completed; (2) the significant environmental impacts attributed to the completed portions of the 1994 Phase I project; (3) the applicable adopted mitigations; (4) the status of implementation of the 1994 Mitigation Monitoring Plan; (5) incorporate by reference the 1994 FEIR; (6) identify and include those portions of the 1994 FEIR and Mitigation Monitoring Plan into the Programmatic EIS/Program EIR's environmental analysis, mitigation measures, and mitigation monitoring plan, particularly the adopted mitigation measures that remain applicable and are not yet completed. 7

In addition, the negative declarations for the repair and rehabilitation projects of "red tagged" buildings of the Medical Center should be identified and incorporated by reference into the 8

Cont'd.

Programmatic EIS/program EIR document, and it should include an environmental analysis of the "re-use plan" for General Hospital, Women's Hospital, and the Outpatient Clinic Building. Lastly, the Programmatic EIS/Program EIR must include an analysis of the cumulative impacts of the multiple phases of the LAC+USC Medical Center Replacement & Rehabilitation Project, such as

8

III. Inadequacy of Draft EA/EIR Environmental Analysis

a. Land Use and Planning: Population/Employment/Housing

9

The Draft EA/EIR fails to include and/or update the environmental impact analysis of the 1994 FEIR on the City and County of Los Angeles' Housing Element Components of the City's and County's respective General Plans.

The City and County of Los Angeles are presently updating the Housing Elements of their General Plans and are scheduled for completion by June 2000. The City of Los Angeles submitted its Draft Housing Element with the State on November 23, 1998. The County's Housing Element was adopted on March 5, 1993, but has not been updated since 1989.

10

Originally 160 units of affordable housing were proposed for elimination. Only 58 affordable housing units have been demolished. The remainder is no longer required under the current project proposal. However, it should be noted that the majority of the housing stock that was to be acquired in Phase II are larger multiple family dwellings, and thus the single family housing character of the surrounding Marengo Terrace neighborhood has been substantially changed.

11

In addition, throughout the 1995 acquisition process, it was established that the number of households to be displaced was greater than originally anticipated due to multiple households living in a single unit. As of March 1995, 86 households had been identified for displacement and relocation.

According to a study released by the Center on Budget and Policy Priorities, the shortage of low-rent housing in the United States reached a record high in 1995 when the number of low-income renter households exceeded the number of low-cost rental units by 4.4 million. See Center on Budget and Policy Priorities, June 10, 1998 Press Release: In Search of Shelter: The Growing Shortage of Affordable Rental Housing, attached as Exhibit A. The shrinking of affordable housing stock was reinforced in a recent HUD report called "The Widening Gap: New Findings on Housing Affordability in America". See HUD No. 99-198, September 23, 1999 Press Release: New HUD Report Shows Growing Shortage of Affordable Housing, attached as Exhibit B.

Phase I's displacement of Marengo Terrace residents typified the reality of overcrowding of units by multiple households in Northeast and East Los Angeles. Although the overall number of dwelling units and households to be removed and displaced has been reduced under the current proposed project, the loss of 58 dwelling units [110 bedrooms] remains an unavoidable significant environmental impact that must be mitigated. The mitigation adopted in the 1994 FEIR[4] must be included in the Programmatic EIS/Program EIR for the LAC+USC Medical Center Replacement Project.

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[4] See 1994 Final EIR, Mitigations, pages 209-211; Responses to Comments, pages 462-476.

In addition, the potential for blight and isolation of the remaining Marengo Terrace neighborhood must be adequately analyzed and mitigated in the Programmatic EIS/Program EIR for the LAC+USC Medical Center Replacement Project[5] as both an adverse socio-economical environmental impact and as part of the required Environmental Justice analysis. 12

b. Transportation, Circulation and Parking

The Draft EA/EIR is deficient in its environmental impact analysis of the traffic and parking conditions both during construction and at build-out. It is incomplete and fails to analyze the impacts to the intersections of Mission/Daly/Marengo, Mission/Zonal, and any of the intersections along Zonal. The traffic study conducted concentrates primarily along Marengo frontage of the LAC+USC Medical Center site. 13

In addition, the cumulative impact analysis does not include even a general analysis of potential "Re-Use" of General Hospital, Women's Hospital, and the Outpatient Clinic Building. It also does not include the cumulative impacts of the heavy truck and bus traffic production by adjacent and nearby regional facilities, such as LACMTA Bus Facility on Mission, just south of the project site, or the school bus parking facilities southwest of the project site between Main and Alameda Streets, and the massive UPS shipping facility on Main Street just south of Daly Street. 14

In addition, Bravo Sr. High is a magnet school and therefore, a substantial majority of the students are bussed to and from school. A traffic and safety plan must be implemented and approved to ensure the welfare of the students and to not unduly impact the transportation of students to and from school as a result of project construction. 15

c. Public Health and Safety/Hazardous Materials

The Draft EA/EIR is deficient in its mitigations and does not appear to follow the recommendations of its own consultants, Dames & Moore. These recommendations should be included as part of the environmental impact analysis and mitigations.[6] In addition, the mitigation measures previously adopted in the 1994 FEIR should be included.[7] 16

In addition, the Programmatic EIS/Program EIR must include a cumulative analysis of the hazardous materials impacts as a result of the "ultimate project". In particular, the cumulative asbestos and lead paint abatement and removal analysis is clearly deficient in the present Draft EA/EIR. 17

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[5] See 1994 Final EIR, Mitigations, pages 49, 50, 67, and 68; Responses to Comments, page 482.

[6] See Draft EA/EIR - LAC+USC Medical Center Replacement Project, Appendix G, pages 27-29

[7] See 1994 Final EIR, Mitigations, pages 166-169; Responses to Comments, pages 479-480.

d. Socioeconomic issues/Environmental Justice Issues

This section of the Draft EA/EIR is an insult to the public and particularly to the surrounding communities of Northeast and East Los Angeles and compliance with Executive Order 12898 dictates that this section be totally rewritten and a thorough, good faith Environmental Justice analysis be conducted. 18

At the minimum, the Environmental Justice analysis must address the cumulative and historical environmental impacts to Northeast and East Los Angeles of massive residential displacement in communities of color, of the loss of affordable housing stock, of the loss of an elementary school during an overcrowded school crisis, and an analysis of the reduction of hospital beds and pediatric and psychiatric services to the immediately adjacent communities of color. If these health care needs are being addressed and otherwise mitigated through other county healthcare delivery systems or private contractors, then they should be so identified and explained to the public and the government decision-maker.

e. Air Quality

The elderly housing residents across from the 3000 car parking structure on Britannia Street are not identified as sensitive receptors. They are extremely susceptible to the ambient dust particles that are highly likely to result throughout construction. In addition, the close proximity to the adjacent residences on the eastside of the project site and to Bravo Magnet Sr. High warrants a more stringent mitigation monitoring plan than "water down" as needed. Given the high volume of construction vehicles to and from the site throughout the day, washing down of vehicles should be strictly enforced and monitored and the "watering down" of soil should be on a strict schedule plus "as needed". 19

Again a cumulative impact analysis must be conducted to properly analyze the "ultimate" multiple staged project.

f. Public Services and Utilities.

The Draft EA/EIR does not even mention the demolition of Bernece Carleson Elementary School. The elimination of an entire school in a region where the schools are beyond capacity is an unavoidable adverse environmental impact that has yet to be mitigated. Since the Draft EA/EIR fails to acknowledge the existence of Bernece Carleson Elementary School and its demise, it obviously also fails to provide the public or the decision-maker with any information as to the relocation of students and the resultant impact on the school capacity of neighborhood schools. 20

Furthermore, it is an incorrect presumption that the hospital employee staff do not impact local schools in the neighborhood. LAUSD provides parents with the choice to enroll their children in schools close to their places of employment. This is done on a permit basis. In addition, there are several magnet schools in the neighboring area, e.g., Bravo Sr. High Medical Magnet, Wilson Sr. High Administrative Law Magnet, Lincoln Sr. High Math Science Magnet, El Sereno Middle School Gifted Magnet and Math Science Magnet, Multnomah Elementary School Highly Gifted Magnet and Environmental Science Magnet, and both Multnomah and El Sereno also house schools for the Hard of Hearing and Deaf. Therefore, the Draft EA/EIR is deficient in its analysis of the impacts on local schools because it fails to assess this potential and real impact and does not even acknowledge the existence of these Magnet schools or the employment permit process. 21

Inclusion of the analysis in the 1994 FEIR and an update status report on the relocation of out patient students to existing LAC+USC trailers at Wilson High School and the inpatient students receiving their schooling in the Psychiatric Hospital facility is required to fully assess the environmental impact of the loss of Bernece Carleson Elementary School. In addition, an update status on the permanent relocation site of the school should also be included.[8] The enrollment and capacity data at neighboring schools cited in the Draft EA/EIS is outdated [1996-1997] and not inclusive of all the schools in the area [Farmdale ES, Multnomah ES, Highly Gifted & Environmental Magnets, Wilson High School]. The implementation of the state-mandated 20-1 classroom ration in grades K-3 and the substantially high Kindergarten enrollment are indicative of a growing overcrowding condition at the elementary school 22

No information is provided as to:

- Size of impacted student population;
- Nature of impacted special programs;
- Feasibility of LAUSD to offer such special programs at other schools within the impacted communities;
- Temporary transfer of students to other schools and the resultant impacts of such impacts on the students; their families, and the receiving schools; I
- Information as to the potential future site, development/construction plans of a replacement school structure in the impacted communities; and
- Costs related to or the identification of the entity responsible for replacement costs.

The Draft EA/EIR is deficient in its analysis of the negative impact of the reduction in hospital beds at LAC+USC Medical Center. 23

The LAC+USC Medical Center project will reduce the number of beds at the medical facility from 1450 to 600. The Draft EA/EIR section on "Public Services and Utilities" does not even mention the impact of the reduced number of beds and there is no proposed mitigation measure.

The Draft EA/EIR states that the current hospital facility is budgeted for 770 beds, but it does not state whether it is operating at this full capacity; whether or not this 770 figure meets the current hospital bed demands of the regions of the county serviced by LAC+USC Medical Center. Nor does the document address whether the County is in compliance with the Section 1115 Waiver and thereby providing access to health care through these other delivery methods. The Draft EA/EIR also fails to analyze the impact that the hospital bed reduction will have on cumulatively on surrounding private hospitals and the delivery of hospital care from these medical facilities. 24

g. Cumulative Environmental Impacts

For the reasons stated above the Draft EA/EIR's cumulative Environmental Impact Analysis is deficient. A Programmatic EIS/Program EIR should conduct a cumulative impact analysis of the multiple stages of the "ultimate project" to avoid repetition and multiple EIRS. In particular, the cumulative traffic, circulation, and parking; air quality, public safety/hazardous materials, public services/utilities could be adequately analyzed for all phases of the "ultimate project" in the Program EIR. 25

[8] See 1994 Final EIR, page 189; Responses to Comments, page 480.

h. Alternatives to the Project

The Project Alternatives Section of the Draft EA/EIR fails to address the conflicts and contradictions with the 1994 FEIR in which a "reduction in beds" was found to be infeasible, and the 946 bed facility was found to be the environmentally superior alternative. The Draft EA/EIR appears to make a major leap without any explanation. 26

The Project Alternatives Section fails to consider a 770 bed alternative, which would be the equivalent of the previously 1994 analyzed 25% of 946 bed reduction alternative. Given that this is the current usage and the continuing growth of population in the Eastern region of the County, analysis of a 770 bed alternative is warranted. 27

In addition, the Project Alternatives Section must include an analysis of alternatives to the "Re-Use" Options for General Hospital, Women's Hospital, and the Outpatient Building. The Draft EA/EIR must be replaced with a Programmatic EIS/Program EIR to properly analyze the feasibility of project alternatives. Without additional information, the public is deprived of their right to a comprehensive environmental review of the "ultimate project" which fully examines the true project and its alternatives. 28

For all the above-stated reasons, a Programmatic EIS/Program EIR under NEPA and CEQA is essential and mandated.

Respectfully submitted,

Sharon M.Y. Lowe, Attorney at Law

CENTER ON BUDGET AND POLICY PRIORITIES

Press Release

In Search of Shelter:

The Growing Shortage of Affordable Rental Housing

STUDY FINDS AFFORDABLE HOUSING SHORTAGE AT ALL-TIME HIGH

Three of Every Five Poor Renters Spend More than Half of Income on Housing

The shortage of low-rent housing in the United States reached a record high in 1995 when the number of low-income renter households exceeded the number of low-cost rental units by 4.4 million, according to a study released by the Center on Budget and Policy Priorities.

Click here for PDF file of complete report

With nearly two low-income renters for every low-cost unit, most poor renters paid large proportions of their incomes for housing, the study found. Based on Census data for 1995, the most recent data available, the study reported that three of every five poor renters paid more than half of their incomes for rent and utilities. The typical poor renter family paid 60 percent of income for these costs.

To be considered affordable under federal standards, housing should consume no more than 30 percent of a low-income family's income. The study found 82 percent of poor renter families paying more than 30 percent of income for rent and utilities in 1995.

The shortage of affordable housing grew substantially even in the 1990s, according to the study, despite strong economic growth. Between 1991 — when the recession of the early 1990s reached bottom — and 1995, the gap rose by one million, with the number of low-cost units declining another 100,000 and the number of low-income renters rising 900,000.

The study found that two of every three poor renters receive no housing assistance. Roughly two million low-income households remain on waiting lists for such assistance. The report also noted that legislation before Congress could make it more difficult for poor families to gain access to the limited supply of subsidized housing.

Housing Shortage Affects All Regions

The severe shortage of low-income rental housing affects every region of the country, with the greatest shortage in the West, where there were nearly three low-income renters for each low-cost unit. The study also found large housing shortages in nearly all of the nation's 45 largest metropolitan areas as well as in rural areas. The Center's study, *In Search of Shelter: The Growing Shortage of Affordable Rental Housing*,

includes data on all 45 large metro areas for which the Census Bureau collects housing data.

Many of the poor families facing affordability problems are working families, the analysis found. Over half of all poor renter families with children have one or more working adults. Some 78 percent of working poor renters spent more than 30 percent of income on housing in 1995.

"The number of low-income families unable to find apartments they can rent without paying the lion's share of their income has continued mounting despite economic growth," said Jennifer Daskal, the study's author. "These families, many of them working poor families with children, have little money left for other necessities."

Widening Gap Reflects Economic, Policy Trends

The report noted that in 1970, the number of low-cost rental units *exceeded* the number of low-income renters by 300,000. By 1995, there were only 6.1 million low-rent units for the nation's 10.5 million low-income renter households, a shortage of 4.4 million units. This shift occurred because the number of low-income renter families climbed sharply over this 25-year period while the number of low-rent units in the private market declined. (The study defines low-income renter households as those with incomes below $12,000 a year, as measured in 1995 dollars, about equal to the poverty line for a family of three. Low-rent units are defined as those costing no more than $300 a month in 1995 dollars; units at that cost level would consume 30 percent of the income of a family with a $12,000 income.)

The report found that expansions in federal housing assistance since the 1970s have helped to address the loss of affordable private housing and kept the affordable housing gap from growing still wider. Subsidized housing now accounts for half of all low-cost rental units in the country, the study said, up from one-fourth in 1975.

Nevertheless, policy changes in recent years have nearly halted the extension of housing assistance to more low-income households. The number of new housing subsidies the federal government funded in 1997 was one-seventh the number of new subsidies funded 20 years earlier, in 1977. If the new commitments had not been reduced so sharply, the study noted, the affordable housing shortage would be less acute today.

The study found that renters at higher income levels do not encounter housing affordability problems of comparable severity. Some 59 percent of poor renters paid at least half of their income for housing in 1995, compared with 20 percent of renters with incomes between 100 percent and 200 percent of poverty and just two percent of renters with incomes exceeding twice the poverty line.

The study found improvement in one area — the proportion of poor renters living in physically deficient housing fell from 22 percent in 1985 to 14 percent in 1995. The proportions of poor renters living in overcrowded housing or housing in which families are doubled up, however, stayed the same or increased. The study also found that 55 percent of all poor renters living in physically deficient, overcrowded, or "doubled-up"

housing spent at least half of their income for such housing.

Congressional Action Could Exacerbate or Ease Affordable Housing Shortage

Several proposals before Congress could affect the magnitude of the affordable housing shortage in coming years, the study said. Today, housing assistance becomes available primarily through turnover, as some families leave the program. Legislation both the House and Senate have passed would allow housing authorities to allocate a large share of available units to families with incomes well above the poverty line. This would aggravate the shortage of affordable housing among poor renters, the study said, including the working poor.

The study sounded a warning particularly about the provisions that would shift a portion of federal housing vouchers from poor families to those who have higher incomes and less need for government rent subsidies. Some poor families living in blighted areas now can use vouchers to move to areas with better job opportunities, enabling them to seek employment that may lift them out of poverty, the study said. Housing vouchers also can help working poor families struggling to raise their children on low wages to make ends meet.

"The congressional bills would force working poor families and parents moving from welfare to work to sit even longer on waiting lists for housing assistance, while shortening the wait for less needy families. That would be unwise policy, " the Center's director, Robert Greenstein, commented.

The study also reported that in recent years, Congress has reversed a longstanding policy of gradually increasing the number of low-income households provided rent subsidies each year, a policy designed to help offset the ongoing decline in the number of low-cost rental units in the private housing market. The discontinuation of this policy has contributed to the worsening of the low-income housing shortage, the study found. It also noted that a pending Administration proposal to provide 50,000 new rental vouchers for use in state and local programs that would seek to move families from welfare to work and support working poor families could modestly ease the growing rental housing shortages among low-income families, while also promoting welfare reform efforts.

State and Local Housing Groups

Contact these groups for comment and information about local press activity

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Christine Minnehan
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press release

HUD News

HUD No. 99-198
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For Release
Thursday
September 23, 1999

NEW HUD REPORT SHOWS GROWING SHORTAGE OF AFFORDABLE HOUSING

The Widening Gap: New Findings on Housing Affordability in America

NOTE: Definitions for 30% of median income in many metro areas are listed at **http://www.huduser.org/datasets/il/fmr99rev/index.html**
Click on a state on the map and you get a list of metro areas in the state. The first full column - L30 30% of median - lists the 30% figure by family size from 1 to 8 people.

WASHINGTON - The number of houses and apartments that families with low-wage incomes can afford to rent is shrinking, burdening more families with high housing costs and threatening many with homelessness, according to a Department of Housing and Urban Development report issued today.

"The sad truth is that more and more people working at low-wage jobs, as well older Americans living on fixed incomes, are being priced out of the housing market as rents rise," said HUD Secretary Andrew Cuomo.

The new report - called The Widening Gap: New Findings on Housing Affordability in America - has four main findings, based primarily on new data from the U.S. Census Bureau's latest American Housing Survey:

- Despite a period of robust economic expansion, the housing stock affordable to struggling families continues to shrink. The number of such affordable rental units decreased by 372,000 units - a 5 percent drop - from 1991 to 1997. Struggling families are defined as those with incomes at or below 30 percent of the area median.
- Rents are rising at twice the rate of general inflation. According to U.S. Bureau of Labor Statistics data, in 1997 rents increased 3.1 percent while the overall Consumer Price Index (CPI) increased by only 1.6 percent. In 1998, rents increased 3.4 percent while the overall CPI increased 1.7 percent.
- As the affordable housing stock shrinks, the number of renters at or below 30 percent of median income continues to grow. Between 1995 and 1997, the number of struggling renter households increased by 3 percent, from 8.61 million to 8.87 million - one of every four renter households in America.
- The gap between the number of struggling Americans and the number of rental units affordable to them is large and growing. In 1997 for every 100 households at or below 30 percent of median income, there were only 38 units both affordable and available for rent.

"The four findings in this report clearly demonstrate that the affordability gap in

rental housing is at crisis levels and continues to worsen," the report says. "The continued widening of this gap can be attributed in large part to the lack of federal appropriations for new housing assistance."

Congress Members Barbara Lee of California and Bruce Vento of Minnesota joined Cuomo at a news conference on the new report and called for more federal funding for affordable housing.

The report says President Clinton's Fiscal Year 2000 budget that calls for HUD to issue 100,000 additional rental assistance vouchers is needed to stop the loss of affordable housing.

The figure for 30 percent or less of the area median income varies in different communities, but the national figure amounts to $12,900 a year for a family of three and $14,350 for a family of four. That's more than the $10,700 annual income of a person working full-time at the national minimum wage of $5.15 an hour.

In areas with high living costs, the 30 percent of median income figure is higher, putting affordable housing even further out of reach of low-wage families. For example, in the Washington, DC area the limits of 30 percent of median income are $21,250 for a family of three and $23,600 for a family of four. The latter figure is more than two people working full-time at the minimum wage would make in a year. Localized figures for 30 percent of median income are available on the web (see note at top of release).

After four years when Congress did not provide funds for HUD to issue new rental assistance vouchers, Congress provided HUD with 50,000 new vouchers for the current fiscal year. HUD now provides housing assistance through Section 8 rental assistance to 3 million households and subsidizes public housing units for another 1.3 million households - for a total of 4.3 million.

In the past, Congress has responded to findings of serious housing affordability shortfalls by providing new rental assistance. For instance, the period between 1985 and 1987 saw a decline in the number of families in need of affordable housing. This period saw the number of rental assistance vouchers issued by HUD grow by 80,000 to 100,000 additional families each year. In the 1970s Congress often provided vouchers for hundreds of thousands of new families each year.

COMMENTS ON HUD's REPORT ON THE AFFORDABLE HOUSING SHORTGAGE

Senator Paul D. Wellstone (MN): "Although our country is at peak economic performance, millions of working families and the working poor find themselves falling farther and farther behind. We cannot continue to ignore their needs during this time of prosperity. If families are to move out of poverty and toward self-sufficiency they have to be able to find affordable housing. Now is the time to look at the needs of families and to make it our priority to improve the lives of the working poor."

Senator Jack Reed (RI): "Despite the country's economic prosperity, we are not doing enough to help working families obtain decent, safe and affordable rental housing. We must address this shameful situation and provide more housing vouchers for the elderly and the working poor and encourage the building of new affordable housing units."

Congressman Patrick Kennedy (RI): "The availability of low-income housing for our nation's less fortunate is at a deplorably low level. Considering this situation,

these cuts by the Republican Congress are irresponsible at best, and at worst, malicious."

Congressman Bruce Vento (MN): "Congress has a serious responsibility to meet housing needs. Safe, affordable housing shouldn't be a luxury - it's the foundation of the American dream. These appropriation bills aren't structurally or socially sound. I commend Secretary Cuomo for leading the effort to restore fairness to these funding levels."

Congresswoman Nancy Pelosi (CA): "The nation is in the midst of an affordable housing crisis. Millions of parents must choose between having a roof over their family's heads or putting food on the table. That is a choice no parent should have to make."

Congressman Jim McDermott (WA): "We are rapidly approaching a housing crisis in this country. In Seattle, the city I represent, affordable housing is scarce. While the disparity between family incomes and the increasing cost of housing is growing at an alarming rate, Congress has failed to act. It is critical that the Administration receive the 100,000 vouchers requested, our working families depend on it."

Letter C.006: Sharon M.Y. Lowe, Attorney at Law, January 14, 2000

Comment Number	Response
1.	See response to comment B.009-1.
2.-4.	This EIR updates the existing conditions to reflect changes from the 1994 EIR. See also response to comment B.001-4. All components of the Medical Center are addressed in this EA/EIR. Reuse of some campus buildings is not reasonably foreseeable at this time, and is remote and speculative. Such reuse will need to be environmentally assessed when the characteristics of reuse are determined.
5.	This EIR addresses the project as a whole to the extent it is foreseeable. A programmatic document is not necessary since all reasonably foreseeable elements are defined beyond the programmatic level to a project level. All applicable mitigation measures are included in this Final EIR. Certain measures required in the 1994 Final EIR have been implemented (see response to comment B.001-4), and are not repeated in this EIR since they were completed.
6.	The project does not involve demolition of an elementary school. The EA/EIR discloses all potential impacts. FEMA will decide whether a FONSI is appropriate based on evidence in the record.
7.	The history of the project and components of the 1994 project that were completed are presented in the overview section (pp. 1-3). See also response to comment B.001-4 re-housing mitigations completed. In addition applicable construction mitigation measures were implemented in accordance with the Mitigation Monitoring Plan in connection with the Marengo Parking structure. Relevant portions of the 1994 EIR are included and/or summarized as appropriate in the current 1999 EIR, including all relevant and applicable mitigation measures.
8.	Appropriate environmental documentation was prepared and filed with the County Clerk for repair of the "red tagged" Building. Currently, there is no "reuse plan" for the General Hospital. See response to comments B.001-6 and B.001-4.
9.	Updating the discussion of the City and County Housing elements is not necessary since no additional impacts to housing are anticipated beyond those that have already occurred and were discussed in the 1994 EIR.
10.	Comment noted.
11.	See response to comment B.001-4.
12.	The impact of demolition of housing and the potential impact on remaining units was addressed in the 1994 EIR. This occurred prior to the now proposed

replacement project. The impact of the currently proposed project on the Marengo Terrace neighborhood is discussed throughout the EA/EIR.

13. Since the proposed project would be smaller than existing facilities, traffic would be less overall; however some redistribution of traffic would occur to Marengo, thus, potential increases in traffic could occur along Marengo in the vicinity of the hospital entrance and the Marengo parking structure, but likely not along Zonal or Mission.

As indicated in the introduction to the EIR, the original traffic study, which addressed the potential impacts of a 1,400 bed hospital analyzed a much broader range of intersections than analyzed in this study. Since this study was directed at the analysis of potential impacts of a smaller project, i.e., a 600 bed hospital, only those intersections which were significantly impacted in the first study were re-analyzed. Therefore, it was determined that it would not be necessary to address impacts of the proposed project on the intersection of Mission/Daly/Marengo, Mission/Zonal and others along Zonal since none were identified in the first study for the larger project.

14. Reuse of General Hospital, Women's Hospital and the Outpatient Clinic Building is not reasonably foreseeable at this time. See also response to B.001-6. The traffic analysis takes into account all existing facilities including those listed by the commenter.

15. LAUSD has reviewed this EA/EIR and has provided suggestions for mitigation measures to improve safety.

See responses to comments from LAUSD, letter B.005.

16. Please refer to Letter B.008, Comment 2.

17. All buildings slated for demolition have been surveyed for the presence of asbestos, lead based paints, PCBs, mercury, and other hazardous materials. The County has utilized code approved containment methods for the removal of asbestos and lead based paint and utilized a State of California certified abatement contractor. The removals have been conducted under the supervision of a full time certified environmental technician. Mandated AQMD notifications have been given for each of the hazardous material removal projects. Containment was removed only after final clearances were granted from the environmental technician. Final reports indicating clearances have been submitted for the completed projects.

18. The Environmental Justice section addresses the impacts of the currently proposed project on the existing environment as required by EO 12898 and NEPA. See also response to comment B.001-1, 2.

19. The project includes the maximum available control of construction air emissions. The EA/EIR includes a discussion of sensitive receptors including residences, the hospital itself, and schools (see p.160). The EA/EIR includes an analysis of all applicable cumulative projects.

20. There was never a Bernice Carleson Elementary School on site.

The LAUSD solution for the Bernice Carlson School students was to continue the program at the Wilson High School site. That program was moved in August/September 1993. There are 30 to 40 students of High School age. Classroom space as well as space for program staff has been provided.

Shuttle buses, provided by LAUSD, transport the students and staff from the Wilson High School site to the LAC+USC Psychiatric Outpatient Clinic for group and individual sessions several times a week.

21. As the new hospital will have fewer employees than at present, it is assumed that there will be less of an impact on local schools.

The project would be smaller than the existing facility and employment would decrease, therefore the project would have no impact on local schools.

22. Please refer to Letter C.006, Comments 20 and 21.

23. See Letter B.001-1, 2, 8.

24. See Letter B.001-1, 2, 8.

The 600-bed replacement facility is in keeping with the 1115 Waiver commitments which is to reduce inpatient care through more appropriate utilization, at the same time increase outpatient care by 50%. The year-to-date average daily census for the current 770-bed Facility is 726 beds, which is 93.1% occupancy.

Advances in bio-medical technology and further reorientation of health-care delivery in response to managed care pressures have resulted in a marked shift in resources away from inpatient settings to outpatient settings; a shift that is generally viewed as enabling a more productive use of resources and more appropriate level of care. In light of this, and as part of the 1115 Waiver goals, DHS has committed to shift its emphasis from inpatient care to outpatient care. According to the Zaretsky Report of April 1998, the greatest gap in meeting needs of the population for which DHS has primary responsibility is in the ambulatory care area.

It is anticipated that all transfers will be accepted for patients requiring higher-level specialty services that are geographically available only at LAC+USC MC.

See Response to Letter B.001-8.

25. The EIR discloses and analyzes all project components and all cumulative projects.

26. Between 1994 and 1999 the environment within which the project is to occur has changed. Healthcare delivery has changed resulting in fewer and shorter hospital stays and County funds have changed.

27. A 750 bed alternative would fall within the range of alternatives discussed in the EA/EIR. Separate analysis is not necessary.

28. Reuse of General Hospital, Women's Hospital and the Outpatients Building are speculative at this time. A brief discussion of rehabilitation of General Hospital and reuse of the outpatient building are discussed on pp. 42 and 43 of the Draft EA/EIR.

Letter C.007

LAC-USC Medical Center Replacement Project

Environmental Impact Hearing Report

Testimony by Robert G. Splawn, MD, MPH

November 17, 1999

Mr. Stone, Ladies and gentleman:

Thank you for allowing me the opportunity to testify before you today on the issue of the replacement of the LAC-USC Medical Center.

Reportedly, the new LAC-USC Medical will be staffed for 511 inpatients when it is scheduled to open in 2008. The current census at the Medical Center averages between 750-800 patients per day, yet this is not noted in your Environmental Impact Report. Various assumptions are made, however, which would lead one to believe that a patient overflow will not exist in this service area. 1

As the Director of Emergency Services for California Hospital Medical Center, also considered a safety net hospital, I am painfully aware of the financial and staffing limitations that our hospitals face today. It is painful to envision the state of our health care system in the Year 2008 when we may have more uninsured patients and less available beds, both in the county system and the private system, particularly if hospitals are unable to meet mandated seismic requirements. 2

I am proud to stand before you as a medical professional that trained at the "General" as we called it. As such, I am keenly aware of the tremendous patient demand for services. Currently, no other County facility provides the full gamut of specialty services provided by the Medical Center.

The Environmental Impact Report cites as one of its objectives, to "alleviate current demands on the LAC-USC campus by redistributing services to other County operated medical facilities and/or contracting services with other private or public health care providers so the health care is available in closer proximity to patients in different areas." Reportedly to date, the LAC Department of Health Services has NO secured contracts with private hospitals for the provision of inpatient services. 3

Another objective of the replacement project proposes to "improve patient access to health care services." The additional facility being proposed for the San Gabriel Valley will be of benefit if it is full-service, or if the replacement facility will continue to have the capability for requisite tertiary care, and if a seamless 4

Cont'd.

transfer protocol is established and maintained. There should also be an assessment of the capability of area emergency departments to alleviate future patient care demands. 4

Your report deals primarily with the environmental assessment and impact of the "replacement project," yet you hint at the "people impact." As a physician on the front line, I encourage you to address these issues and involve the equally important private sector in your discussions. 5

Thank you again for the opportunity to speak.

Letter C.007: Robert G. Splawn, MD, MPH, November 17, 1999

Comment Number	Response
1.	Approximately 2,600 patients visit the Medical Center daily. See Letter B.001-1, 2, 8.
2.	The Zaretsky Report of 1998, which is an update of the 1996 Report by Tranquada and Zaretsky, details the projections made. These reports are available in the Project Manager's office located on the LAC+USC MC campus. Even allowing for area-wide capacity reductions due to the mandated seismic requirements, it was projected that there would be a considerable surplus of beds in the LAC+USC MC area.
3.	See Letter C.003-2-5.
4.	Comment noted. See Response to Letter C.003-6. DHS is exploring the feasibility and need for a facility in the San Gabriel Valley which will be part of an integrated delivery system comprised of the main LAC+USC MC campus, and nearby comprehensive health centers and health centers.
5.	The Draft EA/EIR addressed potential environmental impacts including socio-economic impacts. The commenter does not indicate what additional information he would like.

Letter C.008

Sharon M. Parker

959 North Palm Avenue, #210 • West Hollywood, CA 90069-4045 • (310) 659-9661 Unlisted

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29 November 1999

Mr George James
Project Management Team
1200 North State Street, Box 121
Los Angeles, California 90033

RE: Draft EIR/EA, LAC-USC Medical Center Replacement Project

Dear Mr James,

As someone who has utilized both the patient care and educational facilities of LAC-USC Medical Center since 1965 I have concerns about the Medical Center Replacement Project.

For the local residents who previously lived on Cumings Street this project has already had a negative environmental impact. They and their neighbors were displaced from their homes and had those homes razed well in advance of any plans for the replacement medical center being finalized. The land where their homes once stood is now a large weed-overgrown, garbage strewn vacant lot that oozes mud onto Zonal Avenue with ever rain storm. Prospects are poor for this situation to change anytime soon since the replacement Medical Center is not scheduled to be operational until the year 2014 - conceivably the start of construction could be delayed until 2012, leaving the vacant site to deteriorate further over the next 12 years. 1

The proposed size of the replacement medical center is also problematic. As I understand the proposed configuration, the new hospital/medical center will incorporate services under one roof that were previously provided by 3 separate, free-standing hospital units : Unit I, the acute unit, and currently main hospital structure; the Pediatric Pavilion; and Unit III, the 8-story psychiatric unit where 5 floors were dedicated to in-patient psychiatric care prior to the Northridge earthquake of January 1994. The total number of hospital beds (approximately 650 - 750) will be fewer than the total number of beds available in Unit I which means even more patients will be discharged sicker and sooner adding to the already overwhelming patient load on the outpatient clinic facilities in effect denying follow-up care to 2

CR/02476/CB

Cont'd.

many patients who lack other options for meeting their health care needs. At this point it becomes an environmental health problem as those without access to adequate follow-up care who have been discharged from in-patient care to recover at home. Wounds will become infected, infectious diseases will be spread and patient load on the hospital acute care services will spiral back into overload on the available services as patients who were discharged return to the hospital sicker than when they were initially admitted for care. And the population of Los Angeles County is predicted to increase, primarily via immigration (legal or otherwise), with fewer people able to afford health insurance. 2

Population demographics are not the only potential environmental nightmare facing the replacement medical center as currently conceived. Downtown Los Angeles sits atop the Elysian Park fault line, and the hill on which the current and proposed replacement medical centers are situated indicates the presence of a "thrust" fault. Yes, seismologists can label such fault zones as "inactive" but so was the Lavic Lakes fault that caused the 7.+ earthquake on 16 October. Were any of the myriad fault lines that underlie the Los Angeles region to cause a major earthquake it is conceivable that multiple hospitals and trauma centers would be damaged, destroyed, or so overwhelmed that LAC-USC Medical Center would be called upon to absorb both displaced patients and major trauma cases in addition to its "normal" patient load. Without a facility large enough to permit expansion, both in staffing and patient load, to approximately 1000 - 1200 beds the replacement medical center will be doing a disservice to the residents and taxpayers of Los Angeles County. 3

The medical center, as currently configured and as proposed for replacement, is a teaching facility that draws medical students to itself because of the variety of patient exposures, culturally and medically, which it supplies. A replacement medical center of the proposed size, and still more than a decade from reality, will have a negative impact on the opportunities nursing and medical students, interns and residents will have for patient interaction in an acute care setting. As ever more of their time gets spent tending to patients in an ever more overwhelmed outpatient setting both the time spent with and the quality of care for each patient will be diminished, doing a double disservice to both the patients and the medical 4

trainees.

As yet I have neither seen nor heard what is being planned for the still standing but unutilized Psychiatric Hospital (Unit III) and Pediatric Pavilion buildings or the land on which they sit. Neither have I heard a plausible proposed use for the Acute/Main Unit (Unit I) building once the proposed replacement medical center is constructed. If Unit I is suitable for conversion to office facilities for the medical center, as I have heard proposed, then it should be structurally sound enough (and the money that would be spent on conversion to office space should be available) to restore and upgrade, including installation of a fire sprinkler system, the facilities for continued in-patient hospital care. 5

To date, by repeatedly missing deadlines for decisions and documentation, the Los Angeles County Board of Supervisors have led me to believe that, like the MTA subway boondoggle, the replacement medical center project is just a way to reward major political campaign contributors with construction contracts and related favors. As a county construction project, I further suspect that, even were construction to actively begin today on the replacement medical center, come 2014 the proposed replacement medical center will be over-budget and uncompleted. 6

Given all of these considerations (patient environment, educational environment, neighborhood environment, seismic hazard, and political environment) I must voice my opposition to the LAC-USC Medical Center Replacement Project as currently proposed. 7

Thank you this opportunity to share my views on this important regional matter.

Sincerely,

Sharon M. Parker

cc: FEMA

Letter C.008: Sharon M. Parker, Community Member, November 29, 1999

Comment Number	Response
1.	The replacement medical center is scheduled to begin operation in 2008. Construction is scheduled to begin in 2001.
2.	See response to comment B.001-1, 2.
3.	Funding realities dictates that hospitals cannot be planned or built to accommodate the most extreme possible situation. The health care provider community (public and private) must work as a team to provide emergency services. Under the worst scenario, one or two County hospitals would be impacted by a large disaster, leaving four other County hospitals to absorb potential County patient load. DHS does have a disaster plan and conducts exercises for such incidents. The Zaretsky Report of April 1998, refers to the LA Model, which indicates that there is a considerable surplus of community hospital staffed beds in the Los Angeles area. That level of excess capacity provides a considerable cushion in the event of a disaster.
4.	There have been changes in medical student education over the last decade. While the 600 bed facility will house fewer patients each day, due to advances in technology and shorter length of stays the total experience will not be altered. The total numbers of patients utilizing services will probably continue similar to today but in different venues and for shorter times. This will make medical education more intensive. Teaching methods and curricula will have to keep up with changes in medical delivery. The challenge will be there for all involved.
5.	As identified in the EA/EIR the Psychiatric and Pediatric hospitals are proposed for demolition. See also response to comment B.001-6.
6.	Comment noted.
7.	Comment noted.

213 613 1739
JAN-14-2000 17:38 FROM GLORIA MOLINA OFFICE TO 13232268392 P.02/03

TO: L.A. County Dept. of Public Works
RE: LACUSC EIR
FR: Nadine DIAZ (2 pages)

My name is Nadine Diaz and I am a third generation constituent of Boyle Heights, East Los Angeles. I have several questions regarding the EIR:

I. Jail Ward

1. Why is there a Jail Ward? [1]
2. What is the Section/Code that states a Jail Ward must be part of the hospital?
3. Why is the Jail Ward on the First Floor?
4. Why isn't there a plan about the Jail Ward in the EIR that pertains to safety measures?

II. Housing, Relocation & Replacement [2]

1. Why doesn't the EIR discuss and address a potential housing + relocation plan?
2. Where is the residential property owners/ tenants relocation mitigation plan?
3. How many months of Relocation Benefits are residential property owners/tenants entitled to?
4. Who will be paying for moving expenses?

1.

III. 750 Bed Alternative

1. Where in the EIR does it address and discuss the 750 Bed Alternative? 3
2. Why doesn't the EIR discuss the 750 Bed Alternative?

IV. Community Buffer:

1. Where in the EIR does it address the 15ft. Community Buffer? 4
2. Why doesn't the EIR state how the 15 ft. Community Buffer between the Hospital and the Residents is going to be mitigated?

It is important that these questions are answered. Unfortunately, these issues were not presented in the EIR and I would like to know why.

Sincerely,
Nadine Diaz

Letter C.009: Nadine Diaz, January 14, 2000

Comment Number	Response
1.	See response to comment B.001-3.
2.	See response to comment B.001-4.
3.	A 750 bed alternative would fall within the range of alternatives addressed in the EA/EIR, individual analysis of a 750 bed alternative is not necessary.
4.	See response to comment B.001-10.

DEPARTMENT OF PUBLIC WORKS

PUBLIC HEARING

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

NOVEMBER 17, 1999

MR. BOLGER: Good evening. My name is Brad Bolger, project director for the LAC+USC Medical Center Replacement Project. On behalf of the County, I want to welcome all of you to tonight's public hearing for the project Environmental Impact Report.

Our agenda for tonight's meeting is fairly straightforward. First, we will have a presentation by Wendy Lockwood, our environmental consultant, from Environmental Science Associates. Wendy will make a presentation to briefly describe the project, potential project environmental impact, and our recommendation for impact mitigation action.

Following Wendy's presentation, we will invite comments from the public. However, in accordance with California Environmental Quality Act, we will not be responding to your comments tonight. All of your comments and the County's formal responses will be included in the final Environmental Impact Report which is currently scheduled to be heard by the Board of Supervisors at the end of January or early in February of next year.

Now, I have been advised by the First District and Estela Leon -- are there a few elected officials or a few other folks that needed to make -- had previous engagements and needed to make their comment regarding the Environmental Document now?

MS. LEON: Yes, there are. There's five people: Councilman Nick Pacheco; representing Supervisor Gloria Molina, Gerry Hertzberg; Dr. Robert Splawn; Al Deininger; and Steve Kasten.

MR. BOLGER: Shall we have the first speaker? One thing I also want to make note for anyone in the audience tonight. If you have a written statement or a comment that you're not comfortable with making a verbal presentation or comment on

tonight, we can accept your comments in writing; and that has just as much weight and significance as a verbal comment. Thank you.

MR. PACHECO: Thank you. First of all as the council member for the District, I wanted to make my comments very brief and to the point, because I believe that there's a -- there needs to be more dialogue on this issue, but also, I do have my written comment or I have a letter to the Board that I wanted to make sure that's part of your record. So I'm going leave that with you. Who will I leave that with? Okay.

I'm not going to read the letter, but I'm going to basically do some highlights. My concern here is that I just recently received the draft EIR which was not acceptable in a sense that I just got it a couple days ago, and it's a pretty large document.

So the first thing I want to say, I want to make sure that we get an extension on the period of comment for another 30 days. I understand it's going to be closing soon. I want to make sure that you knew my office and my position was that we're officially asking for an extension of 30 days and that you schedule another public hearing similar to this one after January first. That would be the two things I want to say up front. 1

A quick review of the draft EIR, though, brought out some problems from our viewpoint. One is that I understand that there's a jail ward. And I know the hospital -- the County hospital must have a jail ward, because as a prosecutor, a lot of the defendants sometimes were in the jail ward; so I'm very familiar with the jail ward. But to the idea of putting it on the first floor seems to be very problematic and not a really good idea concerning that the residents are going to have some real problems understanding why they would have to commingle so closely with the defendants and criminal individuals or at least people accused criminal crimes. So we're asking, or at least I'm asking, that you deal with that issue and try to mitigate that and move it. I 2

understand that it's on the 13th or one of the higher floors in the hospital. So something similar to that would be a good alternative. Cont'd 2

Also in terms of pedestrian traffic, I noticed here, on the way over here that the Bravo Medical School has a pedestrian bridge over the street right here. I think that a similar pedestrian bridge should be put on Marengo Avenue for the existing parking structures coming to the new medical center. So I want that to go on the record for that issue. 3

Also with the housing that was lost through the displacement through all these Public Works projects in the district, I wanted to make sure that we have some sort of plan in dealing with how we're going to deal with new housing and housing replacement as a part of this whole project. 4

Also I wanted to make sure that you understood that the -- with every new development, there's a strain on infrastructure including the sewers, the storm drain, and the street circulation in terms of traffic. I want to make sure that a complete analysis is done on whether or not that this project will require an upgrade on the infrastructure. 5

And the main concern that we have with infrastructure is that if the project comes in, there maybe some expectation that the city side will carry the financial burden on the infrastructure upgrades; and we want to talk about that and have a serious discussion about whether or not that's really equitable under the current plans. 6

I also wanted to reiterate that for me it's really and opportunity for my office in cooperation with the city departments to review the draft EIR and come back to you with a more -- basically, a more -- a better researched presentation, and it's difficult to do that right now because of the short window that we were given.

No one in the office, at least from my review asking the staff, no one from

the County's Public Works Department at any point had offered a briefing or presentation to my office. And I know I was newly elected on July first, but I would think that between July first and now that someone would have at least made some courtesy effort to come by and give us some information so we can intelligently discuss these issues. So I just want today go on record asking for a 30-day expansion for my office to work with the city departments to coordinate a response to you and for another public hearing after January first, 2000. Thank you for allowing me to speak. 7

MR. HERTZBERG: Thank you. First, I'm trying to mitigate the impact on my glasses. My name is Gerry Hertzberg. I'm here on behalf of L. A. County Supervisor Gloria Molina who would have to like to have been here today but unfortunately her schedule will not allow. And I'm going to read a statement on her behalf, and I will be submitting written testimony later prior to the deadline. 1

"Throughout the years, first to my capacity as a State Assembly member, then as city council representative, and now as a county supervisor, I've become acutely aware of the importance of environmental assessments.

Too often EIRs serve as little more than rubber stamped for projects rather than accurate assessments of two environmental impacts and careful development of necessary mitigation. Too often effective public notice and participation is given short drift. I have not allowed this to occur for project in the districts I have represented. The residents I have represented will not allow it either.

Many have grown accustomed to studying these documents and participating in the EIR process forcing public debate and assisting upon full environmental reviews. Collectively, we have taught those who thought they can put negative projects in our neighborhood. We will not be a path of least resistance any more. In the past we had to. Otherwise countless unwanted projects from jails to toxic

incinerators would have been located within our communities.

The project we're here discussing today, the replacement of LAC+USC is different in one major respect. The hospital is critically needed. A hospital that meets the healthcare needs and joys widespread community support, but that does not mitigate the need for effective community participation. It doesn't minimize the need for effective environmental assessments and identification of measures that will best communicate all impacts of project.

I'm unhappy to say today that both this public process and the EIR itself are in need of drastic improvement before any final EIR is submitted to the Board. I know the County Public Works Department is capable of much better than we have seen to date. I'm counting on you to listen to the concerns you hear today and submit in written form subsequently and correct any and all deficiencies. I shall submit my detailed comments in the EIR/EA in written form prior to the deadline.

However, today I'd like to just summarize several areas that have thus far caught my concern. May I start with hospital size? We all know the size of this hospital has been the subject of great controversy to say the least. Hopefully, this will be resolved in another forum soon with next negotiations with state representatives. But given the history, I was shocked - shocked to read in the EIR that experts support a 600-bed hospital. Nothing, absolutely in this case, nothing is less than accurate. There's absolutely no discussion of a 750-bed alternative. The absence of analysis of a 750-bed option is just baffling. It was the major other alternative considered by the Board of Supervisors. How can it be ignored when a 750-bed hospital which is less likely is.

Thirdly, outpatient emergency room projections: The EIR does not accurately reflect the reduction of outpatient room capacity and emergency room

Cont'd 1

2

capacity that will occur with a 600-bed replacement. Emergency capacity will decline from 217,000 visits to 175,000 visits. Outpatient capacity will decline from 717,000 visits, the latest figure, to 350,000. Half -- that's half. This must be reflected in the EIR. Cont'd 2

Fourth. Housing relocation and replacement: The absence of discussion of house issues and mitigation in this EIR is not acceptable. From the moment I became involved in this project, I have worked to assure that the relocated residents will be treated fairly and housing impacts will be fully mitigated. It's imperative that the EIR outline a replacement plan to achieve one-for-one replacement. 3

Fifth. Comparison with the 1450-bed hospital impacts: The EIR utilizes a 1450-bed hospital as the base of comparison to determine the environmental mpacts. Doesn't this theoretical and utterly unrealistic assumption result in the under-estimation of every impact in this report? Will it not reduce the subsequent mitigation? Consider traffic alone. Are the traffic improvements identified in the EIR just theoretical? Are other important impacts similarly under-estimated? 4

Six. Other traffic issues: I'm particularly interested in the traffic affects upon community safety. For instance, is the Marengo pedestrian access safe considering that many visitors and relatives of hospital patients will be hurried and frantic? May a pedestrian bridge be a safer alternative? What other alternatives are possible? How do they compare? The EIR should compare these. 5

Jail ward as the council member mentioned, I was dismayed not to find a discussion of the possible impacts of the re-siting of the jail ward. Given that the new site will move inmates from a top floor lockup to a ground floor site, closer to residents. How can this issue be ignored? What safety measures apply? What are the alternatives that could best enhance community safety? The EIR must examine these issues and alternatives. 6

Transfer of patients: The 600-bed replacement option will necessitate the transfer of at least one of every six admittees in the hospital. How would this impact traffic and other environmental concerns? What will the anticipated impacts be on the location they're transferred to? Not just here but they're going to go elsewhere. What's going to happen there? And what is the impact on social justice? The EIR must address these issues. 7

The community buffer: The EIR discusses the a 15-foot buffer between the hospital and nearby residents. What are the nuisance and safety concerns on the neighborhood? How will they be mitigated? This too should be carefully addressed in the EIR. 8

As I stated initially, I cannot accept shortcut and compromise needed in the EIR public process or the analysis itself. In both regard improvement is essential. My office in the community will expect nothing less than most effective environmental review process as we continue. There must be adequate public notice from this moment on. At least one additional community hearing must be established before this final or a final EIR is submitted in to the Board. Documents and answers to all concerns must be provided in a reasonable time frame prior to that next community meeting. Thank you very much for this opportunity." 9

MS. LEON: Dr. Robert Splawn.

MR. SPLAWN: Mr. Stone, ladies and gentlemen, thank you for allowing me the opportunity to testify before you today on the issue of the replacement of L.A. County USC Medical Center.

Reportedly, the new medical center will be staffed for 511 patients when it is scheduled to open in 2008. The current census at the medical center averages between 750 to 850 patient per day. Yet this is not noted in the Environmental Impact 1

Report. Various assumptions will be made, however, which would lead one to believe that a patient overflow will not exist in this service area.

As the Director of Emergency Services for California Hospital Medical Center also considered a safety net hospital, I am painfully aware of the financial and staffing limitation that our hospitals face today. It is painful to envision the state of our healthcare system in the year 2008 when we may have more uninsured patients and less available beds both in the county system and the private sector at large, particularly, if hospitals are unable to meet mandated seismic requirements.

I'm proud to stand before you as a medical professional that trained at the "General" as we called it. As such I'm keenly aware of the tremendous patient demand for services. Currently no other county facility provides a full gamut of specialty services provided by the medical center.

The Environmental Impact Report cites as one of its objectives to alleviate current demands on the L.A. County USC campus by redistributing services to other county operating medical facilities and/or contracting services with other private or public health providers so the healthcare is available in closer proximity to patients in different areas. Reportedly to date, the L. A. County Department of Health Services has no secured contracts with private hospitals for the provision of inpatient services.

Another objective of the replacement project proposes to improve patient access to healthcare services. The additional facility being proposed for the San Gabriel Valley will be a benefit if it is full service or if the replacement facility will continue to have the capability for requisite tertiary care and if the seamless transfer protocol is established and maintained. There should also be an assessment of the capability of area emergency departments to alleviate future care demands.

Your report deals primarily with environmental assessment and impact of

Cont'd 1

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the replacement project, yet you elude at the people impact. As a physician on the front line, I encourage you to address these issues and involve the equally important private sector in your discussions.

Thank you again for the opportunity to speak.

MS. LEON: Al Deininger, Vice President, White Memorial.

MR. DEININGER: Thank you. My name is Albert Deininger. I'm the Vice President of Ambulatory Care at White Memorial Medical Center.

Dear Sirs and Madams: Thank you for the opportunity to comment on the Environmental Impact Report of the proposed rebuilt of LAC+USC Medical Center at 600 beds.

White Memorial Medical Center and the County have had a long and symbiotic relationship, and we have supported throughout this whole process the rebuilt of the med center. In fact, our survival depends upon it.

First, I have five points I would like to make. The first, Emergency Department Visits: Pages 47 to 50 of the EIR discuss the increase in emergency visits at the medical center. White Memorial, because of current County contractual agreement cannot divert paramedic runs to its emergency department due to saturation. In other words, too many patients, to little space, not enough staff. However, currently LAC+USC can and does divert paramedics runs to local community hospitals. They diverted the following number of hours this year: January, 130 hours; February, 173 hours; March, 140 hours; April, 152 hours; May, 149 hours; June, 142 hours; July, 168 hours; in August, 89 hours. That is seven days per month for the months of July and February. Seven days out of 28 in the month of February. The final EIR needs to address the current and future emergency department capacity and elimination of these diversions.

Cont'd 2

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2. Reduce bed size to 600 beds: One of the strategies mentioned on page 11 of the EIR is to reduce the number of beds by contracting with public/private hospitals. White Memorial has previously supported the rebuilding of the medical center and submitted proposal for a public/private partnership, but its proposal was not accepted, as the costs were considered too high. the public private hospital bids that were accepted have not been consummated because in negotiations the cost were determined to also be too high. This proposed decrease in beds without a plan will have a negative impact on routing additional visits to White Memorial and other community facilities. The final EIR needs to address the lack public/private contracts for hospital beds in order to meet the reduced bed capacity of the medical center. 2

3. Outpatient Business: Page 9 of the EIR proposes a 50 percent increase in outpatient business. However, it does not indicate if the 1115 waiver goals have been met. This proposed increase without a plan will have a negative impact on routing additional visits to surrounding hospitals. The final EIR needs to address how the 1115 waiver goals will be met. 3

4. Emergency Department Transfers: The EIR does not speak to the number of transfers that come from White Memorial and other surrounding hospital emergency departments to the med center. A very important function of LAC+USC Medical Center is to provide tertiary, quaternary, and indigent care. The final EIR needs to address community hospital transfers to LAC+USC Med Center. 4

And five, last. Lack of Input on EIR: AS far as we have been able to determine, White Memorial has not been contacted for input into the EIR. In fact, I did not see a copy of this until last evening. 5

Thank you for your time. And I have a written comment that I like to submit here. Thank you.

MS. LEON: Kim Tachiki, representative for Lucille Roybal, and Janet Lim representative for Congressman Xavier Becerra.

MS. TACHIKI: This letter is addressed to Mr. Jones, Project Management Division, Department of Public Works.

Dear Mr. Jones, we are writing in reference to LAC+USC Medical Center Replacement Project Notice of Draft Environmental Impact Report/Environmental Assessment Meeting scheduled for this evening at Bravo Magnet High School.

The LAC+USC Medical Center Replacement project is critical to our Congressional Districts and the entire County of Los Angeles. We have worked diligently to ensure that the importance of this facility and its replacement is understood by federal officials in Washington, D.C. Through our efforts and those of our colleagues, we were able to secure the FEMA funds for this vital project. 1

MS. LIM: We are very concerned by the fact that we did not receive copies of the draft EIR/EA until late yesterday. In order for us and the community at large to be able to adequately review and prepare thoughtful and comprehensive remarks in response to this EIR/EA, it is imperative that we receive all pertinent information in a timely manner.

In the future we would greatly appreciate thorough briefings and ample notification of hearings and meetings for all elected officials representing the service area. As Members of Congress, we went to ensure that our constituents' concerns are fully addressed. Therefore, we respectfully request an extension of the public comment period to January 15, 2000, and ask that an additional public meeting be schedule. And it is signed by Congressman Xavier Becerra and Congresswoman Lucille Roybal-Allard. Thank you very much.

MR. BOLGER: Estela, are there a few others that have previous

engagements? For those of you that may have just shown up or didn't hear why we had some comments from the public before we made the formal presentation, we had a request by some of the elected officials that have previous engagements if they could make their comments because they had completely reviewed the Environmental Document.

Now we came tonight prepared to make a presentation for the community, for the public, so that they can better understand the Environmental Document; so that if it sparked any concerns or comments that you would have an opportunity to make a comment following the presentation. It's only about a fifteen, twenty-minute presentation. Don, I know --

MR. TOY: Well, are you really going to make a 15-minute presentation? Is it going to go on and on and on? I -- just that -- I appreciate that public officials have schedules so do the community people, especially those with families. I mean it's the middle of dinner time. I think it's good of the service for people to take time out and want to come and not allow them to be part of that process. To have the (inaudible) in saying, it's not good.

I understand if public officials need to go and (inaudible). I don't think that's the case. But what I've seen is a mish-mash of (inaudible), and you and the people who are doing these meetings, I get very upset when we don't follow certain things; and things doesn't seem to be as fair as it could be. So that's my -- you say it's going to be 15 minutes and we're going to go through it. Let's do it. If not, I think myself and other people representing the communities as well as those who need to speak also. We're all busy. In fact our service providers – I want to get back some services to our community.

MR. BOLGER: Right. And I understand your comments completely. We

had a few, you know, just a couple of requests and our environmental --

MS. LOCKWOOD: It will take just 15-20 minutes.

MR. BOLGER: Our environmental consultant promises a 15-20 minute presentation. I think it would be of the benefit of folks in the community that may not have had an opportunity to go through the Environmental Document yet. So I think it might be the best for everyone. So if it's okay, I would like to reintroduce Wendy Lockwood from Environmental Science Associates and give her an opportunity to make the presentation and then re-establish our public comment period.

MS. LOCKWOOD: Thank you, Brad. I think the problem maybe I may go a little to fast, so if I'm going too fast so I've please feel free to slow me down.

I'm going to give you a brief overview of what the California Environmental Quality Act and the National Environmental Policy Act is and what they mean, a brief description of the process and the schedule. Then I'm going to go into pretty much the heart of the presentation which is a summary of the draft of the Environmental Impact Report/Environmental Assessment. I'm going talk a little bit about mitigation monitoring and what that means, and then we'll go to the public testimony.

An Environmental Document is prepared by the lead agencies. In this case it's Los Angeles County and the Federal Environmental Management Agency. But there there are also other agencies involved in review of the document: The Office Statewide Health Planning and Development, various county departments, various city departments, the South Coast Air Quality Management District, and the Regional Water Quality Control Board, among others. All these agencies review the document and provide technical comments to us and technical adequacy of the document. Then there is also other offices such as the Governor's Office of Emergency Services.

The California Environmental Quality Act and the National Environmental

Policy Act are parallel documents that apply to review projects such as this. The purpose of this document is to provide information on the potential and environmental effects of the project and alternatives. It is a tool for the decision makers to assist them in making a decision on the project. But by itself, it's just intended to present information on environmental issues.

At the present time we're half way through the schedule which is the public meeting. The yellow dots that are half way down. We prepared an initial study at the beginning of this year. Circulated it in January and February. Since that time we have been preparing technical studies and the meat of the document itself. The document was circulated.

Here's the public meeting that we're at now in the middle of November. The conclusion of the public comment period which is currently scheduled at the beginning of December, we will start preparing the formal responses and comments that we received. Those include the comments that we receive this evening, the written comments, and other comments that we receive during the comment period -- during that period. We don't know exactly how long that will be, but we're anticipating that will take us through the end of January.

Once the responses are complete, we will circulate a final environmental document, and the Board of Supervisors will make their decision on the project, and FEMA will issue their record of decision.

The overall project schedule, I think many of you are familiar with, is just a summary of all the components. There are different aspects that will be continuing at different times. In general as can you see, Environmental Review is scheduled to be completed at the beginning of the year 2000. The demolition we'll bring in, in the middle of year 2000, followed by foundation works, steel erection, exterior walls,

interior finishing, and finally occupancy in the third quarter of the year 2006.

There's a variety of ways for the public to comment on this Environmental Document and on the project itself. I mentioned that the public comment period is going from September 17 to December -- oh, I said the 3rd, but I think it's December 1st, officially, with the comments expected by December 2nd, or you can give oral testimony today and also at the Board meeting on the final document which we're expecting to be January/February.

So at the moment we're expecting your comments on the Environmental Document. The time to submit your comments on the project and its issues is before the L. A. County Board of Supervisors at their meetings, and it's part of the Community Project Outreach Program.

There's a number I have given you previously to call and that number is provided at the bottom 1-800-416-6688. A copy of this presentation is available in both English and Spanish at the door. So please pick up your copy at the door if you haven't already done so if you need it.

Going to the main part of the Environmental Document, the map that's shown on the screen at moment is from the draft EIR. It shows the overall vicinity of the project. The red boundary outlines the overall project site which is basically the campus boundary.

This Environmental Document, as I mentioned at the beginning, satisfies both California Environmental Quality Act and the National Environmental Policy Act. We have analyzed three alternatives as an equal level of detail: a 600-bed alternative, a 950-bed alternative, as well as the no action. Each one of those were alternatives is analyzed in equal detail in the document. This means that any alternative which is selected within that range is covered within the range of environmental -- we're going to

take comments at end. Am I going too fast? So the alternatives or the 600-bed, the 950-bed, or no action.

The 600-bed alternative is shown here in the overall site plan, and I think you seen at previous public meetings what all that entails. I'm not going to go into a detailed description of a site plan. This graphic pretty much depicts the relative heights of the existing General Hospital which is supposed to remain and the proposed hospital. You can see here this is sort of a sliced through the hospital with Marengo Street right here and then State Street, of course, will run this way.

This is a view along Marengo. So Marengo would run along here. Here's Chicago Street. Again you can see that the height of the building is 148 feet.

The 950-bed alternative -- we just saw that the site plan for the 600-bed is oriented this way. The 950-bed alternative we looked at is oriented this way. This alternative was pretty much twice as tall as can you see here. 271 feet to the top most level here, and this gives another view of the 950 bed so this is asymmetric in a bird's-eye view. All these graphics are depicted in the EIR, so you can take a closer look there. I know it's hard to read some of these.

This graphic shows the buildings that are to be demolished. Here the buildings in red will be demolished as part of the 600-bed alternative. Obviously, if the 950-bed alternative were to proceed, these building were to be demolished.

One of the options that's looked at in the Environmental Document is reuse of the General Hospital and the women's alternative hospital. The reasons that these alternatives cannot be reused is because the reuse is not reasonablely foreseeable at the present time. The General Hospital is historic, and reuse will have to comply with historic preservation requirements. Once a decision is made as to what the reuse options are or what the reuse will be, further environmental analysis will be

required. But at the present time, we don't have enough information to say we know what's going to occupy those buildings and go ahead and analyze it, so we're not ready.

We have heard some of the comments of the capacity of the hospital. Pretty much the pre-earthquake maximum capacity is the 1450 beds as analyzed in the Environmental Document. The current maximum capacity is about 1100 beds, and the current average daily use at least in 1998 was at least 770 beds.

Now we're going to go into some of the environmental issues -- all of the Environmental issues that are addressed in the Environmental Document. Pretty much what we tried to do here is highlight the key issues that are identified in the Environmental Document. The existing buildings were not build to current stringent seismic codes. The new construction, of course, will meet these codes. The Environmental Document identifies numerous geotechnical requirements which the building will have to comply with in order to meet the current codes. One of the requirements will of course be that an on-site soils engineer will monitor earthwork/foundations.

This graphic is from the Environmental Document. You can see right here, it is a liquefaction zone, and an historic river bed that goes across the site. You can see that the proposed hospital is built well away from those liquefaction zones.

When we look at land use, the key issues that we see here is a consolidation of an old hospital into a new state of the art facility. This will need about 1.8 million square feet of space in existing buildings which will be available for future use. Further environmental analysis will be required of that future use before it proceeds. The proximity to homes on Chicago and the proposed landscape buffer is addressed in the Environmental Document as an issue.

When we look at land uses, it surrounds the hospital. We see the

residential neighborhood along Chicago here and then a mixture of uses surrounds remainder of the campus.

The document includes a number of photos which depict views of the various uses in the vicinity. This is a view along Chicago looking south, so you can see the homes on this side.

Here's the currently vacant lot where the homes were demolished in 1994-95. This looks across Cummings at that now vacant lot and the homes along Chicago.

This is a view looking west along Marengo, and this is a view of the relatively newly constructed Marengo parking structure across Marengo from the hospital.

Here's a nice view of downtown skyline across the hospital, and another view along Marengo. You can see the existing hospital building.

This graphic depicts the new hospital tower which will be right here, and in dark shaded area -- it's kind of hard to read, but it's in the Environmental Document -- is the proposed landscape buffer along Chicago Street. If you look down here you can see the scale is -- that dimension there is 110 feet. So you can see from the homes -- actually from the center line -- it will be another graphic -- that shows the center line of Chicago to the face of the hospital building, I think is about 210 feet.

Now when we look at traffic and parking, one of the primary things to consider is the fact that we're looking at a replacement hospital which is 600 beds compared to the current existing average daily census of 770 or the former capacity or the maximum capacity of 1450.

So the issues that are of primary concerns given that difference in reduction in beds are the construction traffic. That would be mainly on Marengo and

Mission. There would be no construction traffic near either this school or the homes along Chicago. The new hospital smaller than the existing, either the existing average daily census or the maximum capacity, so there will be less traffic.

Given the reorientation of the site, there is one potential impact to the intersection of Kingston and Marengo which we are recommending would trigger the need for a signal to mitigate that impact. When we look at where parking will be located, it will be mainly in the Marengo parking structure and hospital entrances. It would be designed to meet demand.

Public health and hazardous materials is a big concern. When we look at the existing buildings, they do contain some hazardous materials, for example, asbestos and lead. Removal of those both asbestos and lead will be required to comply with the laws. The hospital does use hazardous materials, but the proposed 600-bed facility will use either the same amount or less than is currently used in its existing facility.

When we look at Socioeconomics/Environmental justice, we look at about 1900 fewer employees will be located on this campus. They will be relocated or they will retire. The federal environmental process is concerned mainly with long-term project impacts and not with short-term construction impacts. We don't anticipate any long term impact to minority or low-income population.

The no-project alternative which would result in no replacement of the hospital, could result in healthcare impact to minority, low-impact population by not providing healthcare services in the vicinity.

When we look at air quality, one of the biggest concerns, of course, is construction. We are anticipating a short-term significant impact on NOx. We also anticipate that dust is an issue, but extensive mitigation is proposed, in fact, required.

We are anticipating that that would mitigate the dust levels, called PM10, issue. Again similar to traffic, we anticipate the operational impacts will be less than existence because of the reduced size of building.

Some of the construction air quality mitigation are identified here. Compliance with the South Coast Air Quality Management Districts, what they call their Rule 403, will keep dust levels below their thresholds of significance. They require that.

Rule 403 requires -- one of the mitigation requirements of Rule 403 is that the site be ordered to keep dust levels low. That is the primary mitigation measure to keeping dust levels down. Also maintaining equipment to reduce emissions and making sure that equipment is washed before leaving the site.

Noise is another issue. The construction impact is identified again as a short-term significant impact. The hours of construction will be 7 a.m. to 5 p.m. in general and operational impacts again will be less than existing.

Just a little bit to set the context for noise. I think it's sometimes difficult to judge what is a loud noise compared to what is an everyday noise. This is taken from the Environmental Document which shows that if you look at the very bottom of the graphic here, a library is general considered to be around 35 D.B.A. Typical daytime suburban background is the 50/55 D.B.A. level. And then noise levels along a busy street or a street such as Chicago are a 70 D.B.A. -- actually that's a measured level of Chicago. And then Marengo which is a much busier street, it's noise levels are at 80 D.B.A.

So when we look at the what we call sensitive receptors, these are generally the homes along Chicago which will be sensitive to noise which would occur on the project site. So we look at about 48 -- we estimate 48 units located in these residences. And the main area of concern for us will be the construction of this

inpatient tower.

So when we look at what actually reduces noise, one of the biggest noise reduces, if you will, is just sheer distance. So as you double the distance going from 50 to 100 feet or from 100 feet 200 feet, we general anticipate a six-decibel reduction in noise levels. The difference between noise and what is called soft-surface environment versus a hard surface which, would be concrete, would be three decibels. Putting a barrier such as a wall or a berm between house and the noise source can result in a five to ten decibel decrease in noise. And the difference between being inside a structure versus outside a structure is minus 15 to 20 decibels.

So when we look at what noise levels would be inside homes on Chicago during construction, during the different phases of construction, we look at the numbers that are highlighted in yellow are actual changes in noise levels. So once you get to be more than 200 feet away, these very few phases of construction which are going to be popping up above existing noise levels.

There are actually no homes within 50 feet of the noise, so we are looking at basically the 100- or 200-foot distance for the different phases in construction in terms of identifying what the impact is, so the note down here says the existing noise levels inside homes are approximately 55 to 59 D.B.A. So when we look at, I think I mentioned previously the distance from the middle of Chicago to the exterior face of the proposed tower, we're looking at 210 feet. So when we're talking about foundations, erection, finishing will be only noise level which would be discernable above existing and existing as you can see from 55 to 59 D.B.A. So we tried to estimate how noise levels will fluctuate over the construction period. So here you can see existing levels in 1999 are about 55 D.B.A. Noise levels would increase during the site preparation work and again during excavation, but as you increase the distance as

as the construction equipment moves away from the boundary along Chicago, noise levels will decrease. So by 2003 we would expect most of the work in the vicinity of the homes of Chicago to be completed and most of the work then to occur inside the hospital which would mean background levels will fall back to what they currently are.

Here's what we're looking at in terms of trying to mitigate some of the noise levels. We want to try and make sure that noisy activities are not scheduled so that they happen together. So if there are two different types of activities that would generate significant noise levels, we want to make sure that their schedules do not happen simultaneously.

No construction would occur after 5 p.m. in the evening or before 7 a.m. in the morning or on weekends and/or holidays without prior approval. For particularly noisy pieces of equipment, shielding will be placed around that equipment to muffle the noise.

Talking about in general services and utilities, again the proposed hospital is smaller than the existing facility, so impacts are anticipating to be less than existing.

One of the primary considerations in designing a hospital is fire access. And that is actually effective in the design of the hospital so that it complies with life and fire safety requirements.

The hospital will have its own on-site security, therefore, reducing the impact of police services.

One of the impacts of the areas that we identified was new water mains will be needed along Chicago.

In the area of water resources, the site is unblamed by high ground water table. In fact that is the historic underground stream that is part of the liquefaction zone discussed earlier. Water levels will need to be monitored during construction and

operations (inaudible), and water removal could be necessary if the ground water table grows high enough.

Biological resources is an area that's identified in both NEPA and CEQA. No impact on this site.

Cultural resources: The existing General Hospital is a historic resource. It was built in the 20's and solid building represents a certain style of architecture period in our history. The project construction will not impact General Hospital. Reuse of General Hospital once it is identified will be required to comply with strict preservation requirements.

When we looked at the potential impacts on cultural resources, we looked at two areas. An area of potential effects which is the larger purple area and the area of direct impacts which is the green area.

And we looked at the various -- this is kind of hard to read, but again it's in your handout -- looking at the various elements that our historic General Hospital Payroll Building, Quality Assurance Building, configuration of State Street itself is a historic resource, Marengo Street and Zonal Gateways.

What else do we have there? The Payroll Building and the Old Administration Building. as you can see, no project, no effect, of course. The proposed 600-bed alternative has a potential effects on the configuration of State Street during construction only. Same thing for Marengo Street and Zonal Gateways, a potential effect during construction. But once the hospital is completed, it will go to no effect.

Now we're going to skip to another component of the environmental process that is required by the California Environmental Quality Act and not the National Environmental Policy Act which is a mitigation monitoring plan. Mitigation monitoring plan will specify that every mitigation measure identified in the

Environmental Document will be monitored during both the construction process and any mitigation that's identified for operational facility. It will set out how and when the measures will be monitored and how any violations which are noted either by the public or agencies how they will be reported. And once they report it, it will identify procedures for handling any violations for mitigation measures.

All right. I think we did our 15-20 minutes. We're ready to go to the public testimony. Pretty much we're looking for comments to be limited to three minutes or less if you can. Try not to repeat comments of others. Once we have got a comment down, we will respond. We ask that you focus on environmentally related issues. We do have some comment cards available if you prefer to write your comments on those cards. Please feel free to do so, or if you like to submit your comment in writing up until December 1st, we will be accepting those comments up until that time.

Please remember your written comments carry as much weight, equal weight, as your comments you make tonight. Don't feel you have to put your comments both in writing and testify this evening. If you submit your comments one way or the other, or if you hear somebody else give that comment, we will respond formally in the final Environmental Impact Report.

Your comments again should be submitted in writing to the County or FEMA by December 1st.

Just to illustrate the kind of comments when you're commenting in Environmental Document. If the analysis is unclear or not detailed enough, if the analysis appears incorrect, or if the environmental analysis is missing, comments on the project itself, or alternatives should be submitted to the Board of Supervisors, or you can call the number shown on the screen.

Again we're focusing on environmental impacts and comments on environmental impacts this evening. So with that we will turn it over for public testimony. Maybe we can have the lights back up?

MR. BOLGER: Thank you, Wendy. Ron, how did we do on time? Well, I apologize for that. I think it is worthwhile for folks to get a well-rounded review of the Environmental Document.

So our procedure then for the rest of the evening is anyone that is interested in speaking can just come up to the podium and make sure that you give your name and address so that the court reporter can get everything appropriately. Thank you.

MR. TOY: My name is Don Toy. My address is 600 North Broadway, Suite D, L. A., 90012. Let me speak on two levels. Let me start by speaking as the chairman of the LAC+USC Replacement Project, we have been in existence for about nine years. Our charge through Supervisor Molina's efforts and as well as some of the other supervisors at the time when this particular project was started was to have community input and give community an opportunity to be represented and also to be able to interface with the different departments as well as, at this point, the project management team and the other people that are involved. 1

Let me say that, in general, in the beginning, there seems to have been much more openness in terms of warning the community input or warning the community of overall work. I would say that the most recently and not necessarily at the fault of staff presently, but perhaps because of the atmosphere that the Board has set up in terms of specific way of moving forward, a specifically wanting a size hospital they feel is important for whatever reason, I think the communication has broken down and that we as a community do feel that openness and that dialog has been impaired

and has not worked on.

With that in mind, Brad, let me also say that I think three minutes is not necessarily enough. I think as we go along, as I said even your presenter, which was supposed to take 15 minutes, took over 30. And I think folks who have something to say need to have the time in order for them to make their points.

Let me start first of all with the EIR. Though we were in fact part of the process, even ourselves, because enormity of the EIR document and the complexity of looking at it, and as I was talking to Brad today in terms of knowing the schedule, we were caught off guard in terms -- I'm talking about the committee -- in terms of not understanding, not being aware of the time line, it wasn't until last month that we found out was a week to go that the EIR comment period was to end. Our community felt that that was outrageous. We did, in fact, make that comment to Supervisor Molina's office. I think at that time staff looked at it and in fact gave a 30-day extension. Our position as a 30-day is still not enough if we look at enormity of the document of looking through the pages and pages of testimony as well as reports, that it needs to be extended. There needs to be more time. Sitting on the planning commission, even ourselves and being sensitive to community, we most often given extensions of not 30 days but 60 to 90 days, and that we feel that's much more appropriate.

With that in mind, let me address a few things, Brad, in terms of the EIR that I did in fact look at.

One of the things that disturbed myself and the committee is that when we're talking about alternatives, and you did in fact on the screen talk about comparisons and evaluations, we're very disappointed that the 750 alternative was not included in terms of evaluation because of the time that's past because of the various

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reports that actually support a minimum of 750 beds that should have at least had a cursory if not a full evaluation been part of that; but we feel that it is appropriate to have include that and that has to be evaluated. We feel that it still needs to be done, and I don't have any answers; but as a quick thing, that needs to be addressed. Especially since when we're talking about presently, this 946 beds that exist, and we are to talk about only about 950 and 600. It really is discussing things in a vacuum, and it really doesn't do it justice; so we think as a minimum, that needs to be done. Cont'd 2

A few other points that we look at and disturbs us. One is that in terms of the EIR when you're talking about the jail ward, and I don't know how that was evaluated, it's being proposed at the present time to be in the first floor. I guess our committee and I would say community in general would feel that is a threat to in fact, different communities. Being on the first floor is very easy for jail wards and people to get out. I think it's offering a very public menace to the families and people who live around in the area, and we don't think there was enough thought on that. There wasn't enough comment on that. 3

I think in terms of also when you're talking about 600-bed hospital, now I think one of the other speakers spoke on that about not having the specifics in terms of out sourcing the additional beds for to take care of the overrun of patients. We feel there needs to be at least additional discussion on the out sources. We don't understand why it wasn't discussed in the EIR. We feel that as an overall project when we're talking about a 600-bed hospital being smaller, and if there's agreement, that there would and needs to be addressing the additional patients and that one of, in fact, the ways of doing this is to out source it. Where is that discussion? Why isn't it on there? Why aren't they more specific? How is the patient care going to be taken on? 4

I think housing can be handled. It's going to be just clinics. We need 5

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additional details. All those details were not done. In addition to that, in a point that I think that really was bothering us, again like I said, we have been around since the beginning. From what I remember, there was housing that was taken away, from my recollection, I may be wrong in the numbers, but I thought 47 or 48 properties were taken, Brad. At that time when those properties were taken or displaced, 167 families that lived in the particular area. One of the mitigation measures that I remember was that there was at least going to be that number of housing replaced, one-for-one, 47, 48, or whatever. Again in the EIR, I didn't see where it was addressed at all. Also it's important because once this particular housing is replaced again, the families that were displaced, has first rights to come back to live in the area to be able to feel that they are still a part of the community again. These things are not addressed and there are many other examples, but I don't want to, in the interest of time as you were saying, Brad, that these are the some of the major things that were very bothersome to us and as a committee, we plan to continue to give you additional comments but these are some of the things.

What I would like to do is I know some of our committee members had to leave, but if there are other committee members that are here please stand up so at least we know who is here. Frank, I know is here. I think we have another person here. I know other people were going, but on that level, those will be my comments on the EIR. We will expand that, so I would like to make a few more comments as a community member being in and around the area. Is that appropriate? Is that okay?

MR. BOLGER: Sure if it would be possible to wrap it up in another minute or so, Don.

MR. TOY: Let me try my best on that. When we're talking about -- when you're speaker was talking about analysis and things that we have here, I would put the 6

analysis on in that unclear category; and again I don't think that it is purposely done. But because of the volume and voluminous materials and you being experts and understanding what you're talking about, I as a lay person, do not. For instance, when you were making even comparisons in your chart: The 600 bed, the 950 bed, and no action, I don't know what the heck you're talking about. When you say "no action". Is that status quo? Where does that go? What are we doing with that? Things like that are very unclear to myself as a lay person. Cont'd 6

I think some of the other points that we're talking about, when you're talking about air quality that there's no -- there's no effects, I think, that needs to be gone into. What do you mean by "no effects"? I mean there's a lot of effects in our minds it can go onto. 7

When we're talking about "no long-term impacts" on minorities and low-income patients, that's ludicrous in our mind. We think that there will be because with the less number of beds that's available, it would obviously affect where we're going. 8

When you were talking about things like traffic and that because the hospital is smaller, there's going to be less impact and no impact. We would disagree with you there also. Just because smaller doesn't necessarily mean it's going to be less impact because of the patient needs and because maybe some of our folks not understanding and knowing. There may be more impacts. There may be more cars that want to come earlier, that want to line up, that want to get access; and you know, that may not happen. 9

And in the same regards, their seems to be not enough, again, patient access; and I point to that now, because the outreach hasn't been done. If you look here, and I'll be one of the first to add myself, I am part of somewhat of the system, and

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it hurts me and it breaks my heart when I see a meeting of this importance that we do have more community people, and why is that? And for me, it's because either we're not outreaching correctly, we're not getting the word out. In China Town, for instance, I know many of our people when I called in to see if translation, I heard that there was going to be Spanish translation, but Chinese there was not; so they're not going to come and they're not going to go. So I don't think there was that type of an access that were going on. 9

A few last things that I looked at. When you're talking about noise and except for prior approval or special approval, there won't be any activity between five and seven. I guess my question would be: What type of guidelines are you talking about? What are the loops that the people would have to run through before you get that prior approval? 10

When you're talking about 55 or 59 D.B.A.s, what does that mean? You guys are experts, you know, does that mean it's as noisy as a train going by? A whistle that comes up. Does is it mean truck and diesels? There's things that are very, very unclear; and other things like your hospital will be open during the duration. I would assume that this six-, seven-year project in building -- how does that affect the patients that are going to be there? Are their mitigation measures and thoughts about that? But these will be some of the comments, and as you said in the interest of time I won't go on, but it's very bothersome, and I hope you would do that.

I guess one last point is that when you're going through this particular type of presentation, I think your presenter eluded to the fact that there are handouts. I didn't see any handouts, and I don't know if I missed or what. It would have been helpful to have the handouts ready for us to look at and to follow through. 11

So with that many mind, I think that you guys have a lot of things hopefully

to help us clarify so that we can follow and be much more a part of the process. Thank you.

MR. BOLGER: Thank you, Don. Handouts are available. George, can you raise your hand? Handouts are available -- and over here -- can I have a show of hands of other folks who are hoping to speak tonight? Okay. That's terrific.

Estela, why don't you start a list; and if you folks could just write your names down on her list that way she can call you in the order you are identified on the list that way we can work our way through the rest of the public comment. Thank you.

MS. TARANGO: Thank you. Good evening. Thanks for whoever turned the podium around. I was really disappointed not seeing our council person Mr. Pacheco's face throughout his presentation. Whoever turned it around, thanks again.

My name is Diana Tarango. I'm a community resident, long-time community resident; and my issue here is a very important one. It's regarding the housing issue. And I remember in 1991, our supervisor, Gloria Molina, walked door to door. She did it herself and door to door to the residents of the community, and she listened to our deep concerns about wanting to protect the number of houses.

In the original EIR done for the 946-bed hospital, promises were made to replace the 80 houses. That was because a number of us residents contacted legal aid, and legal aid negotiated this mitigation with County Council. The new Environmental Impact Report does not mention the loss of the 80 housing units or the mitigation to replace them. Please include this comment in the writing in the new EIR. The impact of removing the 80 families and 80 units of affordable housing and the County's proposed mitigation which was to build replacement housing within five-mile radius. It's very important to the community to feel that this is going to be addressed,

because at this point in time, the EIR has not done anything about it. Thank you very much.

MS. LOWE: Good evening, ladies and gentlemen. My name is Sharon Lowe, and I'm a resident of El Sereno. I'm the attorney that was formerly at legal aid that negotiated with the County specifically for the language for one-to-one replacement housing.

I just received the copy of this Environmental Document yesterday afternoon. I look around this room, and I recollect the number of participants from the community who spoke as well as submitted written testimony when this project was initially proposed. It was quite extensive. I think is remissed of the project proponents to not have sent or contacted any of us who have submitted prior comments in writing or oral testimony. You have that list. You have our addresses. You have our numbers. It is very easily to contact us. 1

I make a living at reviewing such documents, and it's a little hard to read a 242-page document in one night. Granted, I speed read. As technical as it is, it was difficult for me to do; and I'm sure that the rest of the community is still looking at it in all and trying to understand what is in it.

I can tell you outright what is blatantly not in it. And what is blatantly not in it are the sincere efforts and hard work that took to place back in 1993-94 on the part of Supervisor Molina and her staff and members of the community to address gross inadequacies raised in our comments in the original draft Environmental Impact Report.

It was really a pleasure in April of '94 to finally see a final Environmental Impact Report and actually see in written form sensitive and responsive language reflecting the concerns and needs of the impact of the communities. However, last

evening and today when I preliminarily read this document for a reconfigured and redesigned LAC+USC Medical Center Replacement Project, I cannot express such pleasure. On the contrary, I'm appalled by the total disregard for these past efforts to finally achieve environmental justice for the communities of Northeast and East Los Angeles.

The document that is presently before the public for review is a flagrant and blatant insult to our communities. None of the language regarding mitigation environmental justice was included in the original EIR/EA, and subsequently adopted and certified by the Board of Supervisor in April of 1994 with respect to the issue of adverse impact on the loss of low-income housing to Northeast and East Los Angeles exist in the present draft. In fact this document is totally devoid of the mitigation monitoring plan. I'd like to see it. I heard up -- I saw it up here in one line. I think we need to see what's actually going to happen on that. I'd like to know the implementation schedule on that too. I hope I see it before the next comment period.

In addition, five and a half years have past now and the only acknowledgment in this document of the demolition and elimination of nearly half of what remained of the neighborhood of Marengo Terrace is found at the bottom of page 2 of this 242-plus page document. It merely states that the County acquired eight acres of residential land consisting of a city block bounded by Zonal, Marengo, Chicago, and Cummings Streets. No mention is made of the loss of a neighborhood of residents, a loss of affordable housing stock, nor mention of the actual numbers of dwelling units and households removed and displaced, nor mention -- nor mention of the loss of an elementary school across the street on Berenice, Berenice School. No mention is made. Why is that? What I refer to now existing conditions, well I'm sorry, County. This community has been at war against a lot of projects and will continue to

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fight for the rights of these communities.

County now wants us to treat the present proposed project as an entirely new project; and therefore, turns around and tells us in one line that this is merely an existing condition of the project. As an environmental justice attorney and a resident, I find significant and substantial legal fault with this position.

The project is nothing more than a substantially and significantly revised project. That is, it's the same owner, same objectives, same liabilities and responsibilities to the community. This project was, an continues to be, the cause of the loss of affordable housing stock in Northeast and East Los Angeles. It cannot summarily shirk its liabilities and responsibilities to mitigate the significant adverse impact with the mere statement that the vacant city block which we saw is an existing position of the presently proposed revised project. This is not a stand-alone environmental review document but rather should be a draft environmental assessment and a draft subsequent Environmental Impact Report; and therefore, all previously and still applicable approved mitigation of the originally proposed project must be incorporated into the present environmental review document. To not do so is a clear act of bad faith and an open invitation for litigation and further delays to this much needed healthcare project.

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At the end of the April 1994 public hearing, I requested that the document be amended as it related to relocation assistance program plan mitigation measure. At that time, I stated that in order for this proposed mitigation measure to be fully adequate, then it should reflect the intent of the applicable laws governing relocation of displaced residents which is a legislative attempt to render the adversely impact displaced residence whole again. And at the minimum to as great an extent as feasiblely possible, I requested the County the specific language. County hears and

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acknowledges the significant adverse impact on the approximate 205 households that would be displaced which the proposed project, and further acknowledges the severe hardship this will have on these displaced residents some of whom have been displaced by the County and other governmental entities more than once in their lives. And therefore, it is the intent of the County to adopt an adequate mitigation measure in the form of its relocation assistance program plan for the proposed project which will be customized, applied, and implemented in a sensitive manner to render the residents as a whole is feasiblely possible according to their individual needs and situations.

I'm proud to say that thanks to the Supervisor's office, Supervisor Molina, and her staff have been working to that end. However, when we look at this document, we find all of a sudden, it's gone. It's no longer in writing. We're supposed to trust you. Well, looking at this document, you give us no reason to trust you.

To the best of my recollection, the three written amendments, which I won't go into in detail today, were adopted by the Board in April of 1994. However, as I stand here tonight, I recognize that those efforts, which was a clear compromise and a clear showing of good faith, brought about and negotiated with our elected representative and the County bureaucrats. I don't see any of that tonight. I don't see anymore good faith nor compromise, but rather I see a clear and unequivocal bad faith and total disregard for the communities of Northeast Los Angeles. These flagrant omissions and the lack of mitigation monitoring and implementation plan must be immediately addressed and corrected. Otherwise litigation and further animosity can be expected.

Our communities have not forgotten Chavez Ravine nor the other past destructions of our neighborhoods by redevelopment and the multitude of freeways that crisscross Northeast and East Los Angeles.

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And we will not forget Marengo Terrace and the County's prior adopted and certified commitment to replace affordable housing stock on a one-to-one basis among small scattered sites for both low-income tenants and homeowners in the prioritized communities of Highland Park, Lincoln Heights, El Sereno, City Terrace, Boyle Heights, and East Los Angeles, and that the source of identified funding was the City of Industry Housing Trust Fund. This mitigation as well as others that were previously approved must be included in this current environmental review document.

As I sat here tonight, I saw you mention hazardous materials; and I have 4 to just shortly comment that I pulled out my old records, my old comment, and I found that an original draft Environmental Impact Report, you mentioned underground, your predecessors; because I'm sure you didn't even look at the old Environmental Document. If you're the same, then what you did was chuck it off and throw it out the window which we totally disagree with.

There you stated that there were underground storage tanks located beneath the project. You identified at least five underground storage tanks clusters with a total of 21 separate U.S. underground storage tanks. However, at that time you told us, and we raised this contradiction that it was okay. The pressure was fine and you checked it. However, we had an earthquake in 1994. I don't see an analysis here and granted if it is there, I missed it in my brief reading in the 242-page document. So I would want to know where those hazardous materials were underground -- and I'm sure there was an impact since the buildings were destroyed. I think the tanks probably got hit on the underground as well, but they are not addressed or analyzed as hazardous materials. At least it wasn't up there on the screen. Maybe it's somewhere lost in that 242-page document, and I will submit additional written comments. Thank you.

MS. LEON: Steve Kasten, chairman for Lincoln Heights, Chamber of

Commerce.

MR. KASTEN: Thank you. My name is Steve Kasten. I'm a business person in Lincoln Heights at 2718 North Broadway. I'm the immediate past president of Commerce, former honorary mayor of Lincoln Heights. And currently I'm the chairman of Lincoln Heights Chamber of Commerce Environmental Beautification Business Corridor Committee.

Ladies and gentlemen, I come before you as the former chairman of the Coalition Against the Prison in East Los Angeles which was established in 1985.

I was strongly disappointed to learn that 14 years later, the County Department of Public Works continues to ignore the East and Northeast communities and their elected representatives.

You are probably not aware that we became environmental experts throughout our eight-year battle which kept the state prison out of East Los Angeles community. However, you're aware that the local community has a problem with your proposal to place the LAC+USC Medical Center Jail Ward on the first floor and immediately adjacent to the only residential neighborhood that will face the new hospital. 1

Despite warnings you received about the sensitivity of such an issue, not only did you maintain the same recommendation and location of the jail ward, but you ignored and did not include any mitigation whatsoever in the Environmental Impact Report.

It is unfortunate for you that this community is well trained, well versed, and well informed now about its rights under local, state, and federal environmental laws. It is unfortunate for you that this East Los Angeles community is responsible for a section now called "Environmental Justice" that is now required in all Environmental

Impact Reports.

It is, therefore, under such rights that we insist upon a mitigation plan to be included in the Environmental Impact Report for the jail ward.

1. What will the 15-foot buffer include? Will it be properly lit? Does the City allow a 15-foot buffer, and how did you ensure it is indeed a safe buffer and not an attractive nuisance for neighbors who live across the street from the hospital.

2. What is the traffic flow for residents on Chicago Street?

3. How will you protect the neighbors from potential prisoner escapees? How and where will prison inmates be brought in, and how will they be transported out of the hospital? What time of the day will this occur? Who is responsible for escapes, LAPD or the Sheriff's Department?

Please respond to these questions and include them in your final EIR. Our communities deserve no less. Thank you.

MR. SANDOVAL: Hello. My name is Oscar Sandoval. I'm here representing Ultimate Health Services, and I'm also here as a social worker who's been working in this community for quite a long time now.

Basically, what I was going do say has already been said, but I wanted to pose one question: Why is it that the County keeps on saying that a 600 bed is adequate? You have the community. You have professionals. You have scholars telling you that a 600 bed will not do it. Why are you stuck on 600?

I'm not here to talk about environmental issues. I'm not an expert on it, but when I saw that document, I opened it up, and the first thing that I saw was 600 beds. That's ideal. I'm sorry. It's not. Look at the community. Hear them. Hear us. Your document is seriously flawed. Fix the numbers, and make it look or make it represent what the community needs really are. Thank you.

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MR. TEENSMA: Hi. My name is Paul Teensma. I'm with the City of L. A. Department of Public Works, Bureau of Engineering, Environmental Management Group. 1

The comments I have are really nuts and bolts comments on this project. The first comment I have is the EIR/EA address the issue of reuse of General Hospital and indicates in there will not be -- we cannot determine the reuse for the hospital at this point. I wanted too make sure that we all understand that the construction of the new facility may have an impact such that the reuse of General Hospital may have some limits to its reuse. I don't know what those limits might be right now. I just want to make sure that we are aware of that. The infrastructure supporting the campus can only handle so much development on the campus, and that is an issue that needs to be considered.

Regarding land use, the EIR indicates that virtually the entire project site has impervious surfaces such as buildings and pavement. Although that's generally true that most of the project area is covered, not all of it is. Some of it is landscaped. Some of it is the formal residential area which presumably I'm not familiar -- I'm not from this community, and I'm only now becoming familiar with this community. I don't know how much of it was landscaped or how much of it was completely paved over, but I'm assuming that some of it was landscaped. That would create areas for ground water infiltration were the ground water penetrates into the soil. And from the indications of EIR/EA, I'm not clear on exactly how much of the area will now be covered with impervious surfaces and what the comparison is to the former situation before the neighborhoods were demolished. This isn't an issue that can be addressed adequately. This is an issue that we just need to quantify it and publish it to make sure that the numbers make sense from an engineering perspective. 2

The next issue to address is erosion. The EIR addresses erosion in some capacities, but I don't feel it adequately addressed the erosion during construction. Erosion of soils, especially regarding stock piles, the EIR indicates that there will be some soil stock piles during construction, and I don't feel that they were adequately addressed on how we would deal with that. These are issues that can be mitigated, but I think we need to explain that a little more carefully. 3

Regarding the sanitary sewers, we need to look at which sewer lines will be used for the new construction. Because it is a smaller facility, certainly the system, in general, can accommodate a smaller facility whether it's the 600 bed or the larger facility. It can accommodate the flow, but the restrictions may be in engineering terms of which lines are going to be connected to. 4

The issue of how much land is covered in impervious surfaces affects the storm sewers. And the draft document indicated that the new construction would be compatible, but it doesn't support that conclusion; and I think that there could be some more support to make it a more palatable acceptance by engineers from the City of Los Angeles.

The big issue that I want to address, and I will keep this short, is ground water; and I do not feel that the EIR adequately addressed this issue. In the appendices there was a report from Dames and Moore based on a 1993 estimate from a pump test that indicated that 100 gallons per minute might have to be withdrawn from the soils to build this facility. To put that into perspective, and this may be a little bit crude, but 100 gallons per minute is approximately equal to 63 toilet flushes per minute. It's also equal to one-half acre foot per day of water that would have to be extracted. That means that it would flood an acre with six inches of water. That is how much water would need to be extracted to keep water potentially from penetrating into 5

the building or buildings when they're constructed. This is not an engineering obstacle that's impossible to deal with, but this may have an impact on what would we do with the water once we have it out of the ground. And I don't feel that issue, what would we do with the water once it's out of the ground, has been addressed very well.

Also, if we're going to de-water, there's a potential for creating a cone of depression. I don't know if it's going to influence the drinking water wells in the area. I don't know if it might -- possibly, the cone of depression might possibly create a mechanism by which dirty water from other sites in the area may be drawn towards this area where the pumping occurs.

Briefly glancing through the appendices, I saw that there was one relatively insignificant on-site release of hydrocarbons. I don't know if that could be affected. I think that needs to be looked into.

Also, for example, there are other sites in the neighborhood. Within a one-mile radius, there were 16 leaking underground storage tanks. I don't know if those might be affected by de-watering at the facility. I think that needs to be addressed.

I made some conclusion on the issue of de-watering. I think the final document needs to include a discussion of ground water gradient. Which way is the ground water really flowing? Dames and Moore indicated that there were piezometers placed in the ground to monitor ground water levels, but I don't see a report from Dames and Moore indicating what those ground water levels are. I think an Aquifer test might be useful. I think there may be other ways around that. But I think we need to see how much of a cone of depression there would be, if any, and how that might affect other wells in the area and other possible contamination at other sites.

I guess the last thing I wanted to say on that is what is the worst case

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scenario in for pumping volumes in water? I don't think that's been addressed. We have had a report in 1993. Ground water levels, as I understand it, have risen since 1993. That means there could be more water. Also, ground water levels could continue to rise; and I think we need to look more carefully at how much the ground water levels could rise, what kinds of materials the ground water is in, and what's the case scenario for pumping volumes.

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The storm water systems and sanitary sewer systems here are limited because this area is an old community that's been developed real heavily, and there may not be the capacity for this much de-watering. And I'm not saying there is not that much capacity. I just think this issue must be addressed more carefully. And that's it for my comments.

MS. LEON: Lillian Kawasaki.

MR. BOLGER: Thank you. I'm hoping that future speakers might be able to keep their comments down to the three-minute recommendation. We're not going to eliminate anything, but I want to make sure we have plenty of time for everybody in the community to make their comments. Thank you.

MR. MAN: I'm Alex Man, chairman of the Friends of Hazard Park, in the Hazard Park Group. We have been in existence for 30 years in this community. And I would like to make some comments on this draft EIR.

A little bit of history, these are aerial photographs taken 1948, 1955, and 1968. And what it shows is the -- when the hospital was fairly new in '48, it was surrounded by homes. By '55, parking lots were leading into the residential areas.

MR. TOY: You need to speak into the microphone.

MR. MAN: By 1968 homes within the area surrounded by Mission Road,

Valley, Soto, and Marengo now are almost totally gone with the exception of some houses on Playground Street and houses on Chicago and the streets adjacent to a few houses that are still up on the hill overlooking Cummings Street.

Now this is a story of a community that's dealing with a hospital octopus. And the history of this has to be looked at as well as looking at the deficiencies of the EIR. And one of the interesting things about this history is that seven families who sold their properties to the County on upper Cummings overlooking at the top of the slope where the pine forest is around the Water and Power reservoir, a beautiful place, and I urge you to go into that forest. It's a wonderful spot. It's like being up in the Sierras. Those people sold their homes, and now we found out that the County doesn't need that land. It's surplus. It's going to be sold, and this is to people some of whom is the third time they've been displaced.

People there have been displaced at Chavez Ravine. Others been displaced by the five freeways that have gone through this region. This is something I think the EIR is very deficient in dealing with, because looking for housing information in there, it was so lacking in that. It really should be an embarrassment to the staff that puts this together. I think their professional credibility is about zilch. Zero. 1

It's going to be surplus land acreage on the western side of the 78 acres at Marengo and Mission. Several acres, they don't know just how much, but what it appears to be that has happened is land has been -- the people are being displaced really in order to make room for commercial development. The community -- and of them who are involved in this were here. They're gone now. But this is a case of Dracula overlooking the blood bank; and unfortunately, there are more civil servants here tonight than there are citizens, as Ms. Lowe pointed out, reflects on the manner in which the County staff has dealt with the public. 2

Further, getting into more detail about the EIR, I'd like to point out that the present particular air pollution level in this area is one of the highest in the city, and we have many children and adults. The children -- a lot of asthmatic kids in this neighborhood. Hospital carries a very heavy load on respiratory diseases, and we have many elderly who have emphysema; but this is just glossed over in the draft EIR, and it's something that we can expect these sickness to increase because the amount of dust generated doing construction is going to exacerbate what is already a serious public health problem, and this is -- this is ignored. 3

Now we had dust from doing the construction of the parking garage on Marengo Street. Several mothers complained bitterly to the people running the project that their children had developed asthma, serious asthma, during the course of this construction and could never, at any point, get the County people who were supposed to be overseeing the project to take measures to suppress the dust. So the EIR does not deal with who is responsible specifically for dealing with things like diesel exhaust which is a particulate that causes cancer. None of this is given a specific assignment; so the folks who worked on this document, I think, really ought to go back and do it over again. 4

There's no mitigation measures for the gasoline spill that occurred on hospital property that went into the ground water. There were two occasions like that where substantial amounts of gasoline went into the high water table around here. That's another very serious oversight; and I think too, if there's going to be surplus land at Marengo and Mission, why should people be displaced either at present -- and the interesting thing is that the document does not say how many families they anticipate to be subjected to displacement. Is there going to be some displacement? No displacement? How much family dislocation will occur? 5

Storm water volume is not dealt with adequately, and we are dealing with a building that's going to be on a slope -- building's on a slope and the volume and the speed with which this water will flow down will be very substantial. 6

Now, I would urge everybody, particularly community people, to submit comments. I have a document. It's really a guideline for showing how to answer an EIR, and if you should want to get it, I don't have enough extra copies with me tonight. You can leave a message on my answering machine, and I would happily send you a copy.

The thing that -- I think the thing that grieves me most is that we don't have community here in numbers; and I think it's a failure by the staff to really make an effort to do this. But as it stands, this Environmental Impact Report is not in compliance with CEQA requirements for possible and feasible mitigation measures as per Section 21000 of the California Public Resources Code, and a supplement EIR is needed pursuant to the Public Resources Code Section 21157. 7, and I hope this goes into the record, or do you have to have it in writing? 7

MR. BOLGER: It's in the record.

MR. MAN: So this is a piece of history that we shouldn't forget, and we don't need to have it repeated again. 500 families surrounded Hazard Park at one time and it kept two elementary schools going. That area has the real estate has been sucked up by the USC Medical School, by the expansion of the County General Hospital, by the construction of the juvenile hall; and this community continues to take these kinds of rapacious actions sitting down. It's going to be very hard to say to the rest of the city, "Yes. We like to be treated with respect," because if you don't fight back to preserve your community, you don't get respect. People don't feel you've earned it, and that's the thing that has to be understood and has to be corrected and we 8

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can correct it.

I'm proud to say that our committee, the Hazard Committee, we are the only community group -- I'm an outsider. I used to work for Tony Rios at the CSO, so I have long experience here; and I've chaired this committee now for 30 years, but we are the only committee that stopped an eminent domain action by the government. Others could stop it with the right kind of community organization. That park wouldn't be there now if we hadn't fought them, and we defeated the Federal Government in their eminent domain actions. And this community can do the same, but it takes leadership, not only from the political end, but from the people in the community. Thank you very much.

MS. LEON: Lillian Kawasaki.

MS. KAWASAKI: Good evening. I'm the general manager of the Environmental Affairs Department for the City of Los Angeles. And like many of you, I just found out about this meeting in this very afternoon. And so I don't have prepared comments, but I will provide to you detailed comments.

I think it was just explained going through the draft EIR/EA process that this is a very complex and difficult thing for the community and actually agencies to understand. And I think that despite the fact that we know that there is a critical need for hospital facilities, that does not obviate the more critical need that you have to do this in a way that provides meaningful and full participation of the community. 1

It is essential, therefore, that there be adequate time for review of the Environmental Document as with said not only to comply with the state laws, that is the CEQA, but also with NEPA, the National Environmental Policy Act. It's very unfortunate that FEMA is not here today, because I think that some of the evaluations that were somewhat glossed over today are not adequate under NEPA. For example, the

Environmental Justice evaluation is something that's done under the executive order, the President's Executive Order 12898. There are guidelines that came from the White House Council Environment Quality on how you do appropriate environmental justice analysis. I can tell with my very cursory review that that was not followed and would ask you to go back and look at that.

I also am disappointed to hear that you have not want accept comments on the alternatives. CEQA and NEPA are very clear that the public is to comment on those very alternatives and so again ask that you go back and revisit that evaluation.

On cumulative -- project specific impacts others have covered -- on cumulative impacts, it appears that what you're saying is we're going to differ dealing with the General Hospital in the reuse areas for some other time. You cannot do that under CEQA. CEQA says you not only have to look at the project specific impacts, but you must also look at the cumulative impacts. And I don't think that that is not a foreseeable future. We're talking about a reuse plan that I think is foreseeable, and that that needs to be included in the evaluation.

I won't even discuss the mitigation. As I mentioned I have not done the evaluation, but we will come back and certainly have additional mitigation, but I would also urge you -- and this is something that is important -- don't go just from impacts to mitigation. What you really should be doing is how can you redesign, reevaluate this project in a way that you avoid the impacts; and only if you cannot avoid them, minimize them. Then do you deal with the issue of mitigation. These are peoples lives and the homes we are talking about.

Also I would like to say that without an adequate Environmental Document, you listed a whole bunch of agencies, and you called them responsible agencies. That means agencies that have to use the same Environmental Document

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besides the County. The City of Los Angeles would be one of those responsible agencies. It would be extremely difficult for us to use that document as a basis upon which to issue our approvals and entitlements if the City doesn't feel that it's adequate both under CEQA and NEPA.

And given the upcoming holidays, I would really urge as many of you have, please provide additional comment time, public comments, and provide additional community meetings. Thank you.

MS. LOCKWOOD: Thank you. We were actually remissed in mentioning that we do have a FEMA representative this evening -- and Anjana Mepani who is representing FEMA this evening.

MS. LEON: Jay Patel.

MR. PATEL: My name is Jay Patel. I'm the assistant manager at the Marengo Inn. One thing that you forgot to mention is there's an impact of residents on Marengo which someone forgot to mention. 1

And also the buffer on Chicago, I don't know what that is exactly, but on Marengo, there's probably going to be a problem with that; because if there's nothing on Marengo, there's going to be a lot of graffiti and so forth on the properties which especially with the properties that were there just demolished a couple of months ago. They were there. They looked bad. They made the community look bad, and I don't know what's up with that.

And also I just heard about the jail ward on the first floor which I think is ridiculous. I don't know who thought of that plan. Someone must have been drinking beer or something; but it should be on the top floor or between floors and not on the first floor unless you're not going to fortify it like a jail. And that's it. Thank you. 2

MS. LEON: Ross Valencia.

MR. VALENCIA: I don't even know if I need a microphone. There's so many of us in here. You know when I was a little boy, and I was one once, I used to go to school to be instructed. I would be a smart guy by paying attention to the teacher and doing my homework. Somebody somewhere along the line or some bodies maybe didn't do their homework.

And I respect all of the previous speakers, but we're losing sight of the one major reason for this project. And what it is, in case you haven't recognized it, a matter of life and death, because who's going to take care of us besides the medical profession when that major catastrophe is going to hit, and it is going to hit. Maybe not tomorrow. Maybe not next year. Maybe even before the project is started. 1

What we have been saying to all of the planners, all of the designers, all of the upper echelon, with all of the buzz words they use between themselves, is we want a 950-bed hospital or more. In fact it should be more like 1500-bed facility. And then the answers come back, there isn't enough money. Well, how much money is at least 1,700 lives worth that could easily die when that earthquake comes? I want answers. Why? Because of money? Well, how come we can so easily at the upper echelon put out bonds, put out extra taxes, get grants to construct the kind of facility that the whole doggone City of Los Angeles needs, not just the east side. So I say where are the rest of the people in the City of Los Angeles? What are they doing? Are they saying, "Well, that's just a little old hospital on the east side of town where they take care of the poor or the pee poor," pardon the expression. Where are the people that are supposed to be doing the right thing for society as a whole? Not just for those in poverty conditions, not just for those on the east side, but for the whole County of Los Angeles? I don't know what it's going take to get some people to wake up and acknowledge the fact that the majority of this community along that I believe a major 2

part of the City of Los Angeles wants a facility that will take care of us when we're in deep deep trouble.

What's the police department going to do? We talk about environmental impacts. If that's an area plays out, then we wind up with a major earthquake here, who's going to police us? Where are the fire departments?

And we talk about raising money to build this facility in this Environmental Impact Report. No one addressed or even thought about the merchants and the financial stresses and strains that are going to take place in this community. And I'm not talking about immediate across the street. I'm talking about the whole community. Because sick people come in to this area to visit their friends and family, and spend money in this area. They buy gasoline on their way in and gasoline on their way out. They go to restaurants. They buy gifts. They buy flowers. Nothing has been said about the Environmental Impact Report on the economic conditions of this community regarding this facility. And I would like to hear somebody address that somewhere along the line. And of course taking in all of the expertise that was given to you by previous speakers, by George, somebody has to be held accountable. Somewhere along the line, somebody's got to respond to these very, very important questions and conditions that are detrimental to the health and safety and longevity of the people in the City of Los Angeles. Thank you.

MS. LEON: Howard Watts.

MR. WATTS: This document was not distributed until many, many minutes later. This document should have been distributed immediately, so the public would be able to know what was going to come on the screen.

Another thing, it's obvious the ad showed up in the November 3 L. A. Times talking about this meeting tonight. When I got here, there was no access to the

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disabled. None at all. And yet the ad said there was accessibility at this school. This has been that way for a long, long time with this school. I have to go in the side door to try to get into the darn building, and then I find these elevators were locked; and then I have to wait until custodian people came to open that door, and then open the lock for the elevators.

Now, let's get into some other issues. This cannot be the only meeting in this area. We can use it in every school in this city. All you have to do is ask the Board of Education or the staff that you want to use every single school for these meetings. Not just this one. This one is so far out of the way. It is unbelievable, and you try to get here by bus. There is no crosswalks on these streets here. None. And when I get down to the Board of Education, I'm going to make sure that they either close this school down until those crosswalks are available for the public getting off the buses.

I want to get into the issue of air quality. This group, Environmental Science Associates, you need to describe yourself a lot better in this document. You also have to say what kind of dust will occur when you start building or somebody in the development group starts building this new hospital. What kind of compliance with dust levels? Water site to keep dust levels low. Maintain equipment to reduce all missions. Wish equipment before leaving the site.

Noise reducing factors. This is a major problem in any development. I happen to feel this hospital as it was before the earthquake was probably the best hospital for everybody in this city and even outside the city. I had asked a person who had come to this hospital over and over again because her heart gave out on her. And obviously, I tried to get her down here tonight, but she couldn't make it. She actually had to go to the hospital quite regularly because of heart problems. I'm sorry that she couldn't make it. I could tell you that I'm glad she didn't make it, not the crowd that we

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got here. It's not enough. We should have a thousand people waiting to see what's going on. This is disgraceful. Totally disgraceful, and I don't know who's involved with this problem, but I would say we should fire this environmental group. It has done a horrible job, and whoever else you work with. You need to get out of here and let somebody else step in and make it a 950 hospital bed, not 600.

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Gloria Molina has fought against the Board of Supervisors against this so-called 600-bed hospital. Whether she's going to be able to get that taken care of, I don't know. But I want to say one thing, if this group does not go to the Board of Education and ask for every one of the schools in this city to be used so that the general public has an opportunity to hear and see what every one of these things have got do with you, you need to go to the school board also and the staff. Janica Hayes is the president of the Board. Go to those people. Get my area in Hollywood and ask to use (inaudible) High, Ramona Elementary, Santa Monica Elementary. Get in the area. Make sure you find out who is going to go a long ways away like I did tonight from Hollywood or downtown L. A. and to get over here.

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I want you to think what you're doing, and I want this community too start rising up, rising up big and proper. This is just disgraceful as to the process that has happened here tonight. And I think it needs to have a lawsuit filed against your group and any other person that was involved in scheduling this meeting right here. Thank you very much.

I'm not going to have my last say here. I'll have it at the Board of Education when I need to when I can ask them to have you fired if that's who it needs to be in the County of Los Angeles.

I'm going to make sure that the County has something to say about you people being the ones in charge of this environmental assessment. You've done a

horrible job, and not only that, this thing -- this should have been distributed as soon as we got into here.

The EIR that I have asked for it to be sent to me through the mail is not available for the people in this auditorium right now. And as thick as it is, we need everybody aware that EIR – and it's needed -- and it's going to happen if we have to go to the Federal Government to get it done through FEMA and through the Governor of the State of California. Thank you very much. No, I'm not going to say thank you. We don't need to thank you. You don't need it. You need to be fired.

MS. LEON: Arturo Herrera.

MR. HERRERA: Good evening. My name is Arturo Herrera, Boyle Heights resident. I'm a member of MELAR, Mothers of East L.A. Resurrection, and a member of Boyle Heights Residents Homeowners of Association.

This matter just seems to be -- the head speaker just here from Boyle Heights and El Sereno – and yet this, this hospital is utilized by everybody in the County outside of these boundaries and yet you don't see those people that utilize this hospital here fighting with us for this big set of 950 beds.

And in reference to what Howard said, I don't think the people outside this boundary is getting the news about the size of hospital that it wants to be given to us here in our community. But it seems that only we are the ones that are going to utilize this hospital. The prior meeting a young lady got up here and said that if a catastrophe happens, the fluent people are going to be utilizing the hospital with the 600 beds and us are going to be out in the street laying down in the gurnies or makeshift tent hospitals out in the outside. Yet, we're the ones who are fighting, and if this goes through, we are going to get the short end of the stick -- excuse the expression. And I think this issue should be shared throughout the County of L. A.

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because the majority of people do come and use this hospital, because of the trauma center you have, which is very highly recommended throughout the city. And I think this issue should be shared with outside communities to get their views of how much bigger hospital we need here.

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Another thing is that the EIR, the prison ward hospital, you have it down on the first floor. I suggest they put a lot of emphasis into the prison hospital -- the last meeting they talked about it. I think they should move it out of here, take it out of here and put it in the Twin Towers. Don't count these beds that are going to be moved out of here. Give these beds to the good people, not to the prisoners. Get them out of here. We don't need them.

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As you heard the president of Lincoln Heights, we're aware already of what prisons are, and we fought for it. One of the advocates who participated in that -- we fought and we won. We're tired of prisons. Why do we want a prison here? The concern is more about the prisoners. Sure I know their human beings, but why give them the red treatment carpet? Throw them out there where they belong in Twin Towers and don't count these beds to the community.

If you're going to give us beds, 600 beds, don't give them to the prisoners in that community. Get them out of here. Give us what's good. If you're going to give us 600 beds, don't include the prisoners here. That is very detrimental to our community. That's poison to our community when you say prison. We're tired of that. We're inundated throughout our community with prisons already.

Now their concern is about the prisoners, about their health. You got a lot of places where you can put them and give us the 600 beds that we do need here in our community. Thank you very much.

MS. LEON: Jorge Cabrera.

MR. CABRERA: Good evening everyone. My name is Jorge Cabrera, Jr., and a resident of Hillside Village and a member of the Hillside Village Property Owners Association. We were a group of 800 to 900 hundred single-family homes and properties, and our community of Hillside Village. Our current population is 6000 residents in our community, Hillside Village.

We would agree that 600 beds are inadequate for our community. Like Ross Valencia pointed out, in a major catastrophe, the 600-bed capacity is not adequate for a major earthquake catastrophe. 750 beds would be more adequate. 1

And reference to your Environmental Impact Report, I concur that the jail ward on the first floor is ridiculous. What were you thinking of? This has to be emphasized. Thank you and good night. 2

MS. LEON: Laura Pizaña.

MS. PIZAÑA: Good evening. My name is Laura Pizaña, and I reside at 126 Cheesbroughs Lane, Los Angeles, California 90063.

You know, for having a hospital built in our community, and your EIR which we weren't able too get a copy of tonight because we have to go to the library; and by the big crowd we have here tonight, I'm sure we're going to have hundreds of people getting to the EIR document tomorrow.

It's disgusting and disgraceful to see that you have more people here that are professionals than an entire community. I don't know what kind of outreach you're doing, but it's not working. It's disgustful to see that this is going to impact the lives of residents in East Los Angeles, and they do not have a say so or are not aware of it or weren't made aware of it for certain reasons. Obviously, from what I hear, you have a lot of deficiencies in your EIR, and I'll make sure I'll read it, and I'll be back to point out whatever I think is inappropriate. 1

As far as I'm concerned, the 600 bed, I definitely agree with the people that have spoken here tonight. It is ridiculous. In a major major catastrophe here -- I know this is supposed to be a beautiful -- kind of a Chicago Hope East L.A. hospital trauma center, and that's fine and dandy. We need to upgrade our hospital here, but we need to have more than 600 beds. You, yourself, said in this document that you passed out tonight side that the average is 770 beds. Where are you planning to put a 170 people that are going to come here to require medical care and are not going to have the beds here? Are you going to send them out to Beverly Hills, Century City Hospital, or what were we doing? Because it's totally ridiculous and uncalled for. I think that we need a 950 beds, and I totally concur with Mr. Valencia who testified before. I actually think we should have a 1500-bed hospital. We need to start putting people's healthcare, people's well being before financial gain. 2

And I honestly think this is a disgraceful way to sit here and have two or three or five or ten community people that have actually cared for this community that have actual concerns regarding what's going to be built here.

Now, I think we're lacking definitely when it comes to outreach. So I strongly suggest that if you have a problem meeting your criteria, to get out and talk to people, because you're afraid you're in Boyle Heights, East L.A. Why don't you talk to some of your community members? See what they can do to help you inform this community, because obviously, you know, I'm the first person relocated when it came to MTA. And I can tell you something, it wasn't a fun thing. 3

You have already displaced 205 families for this hospital. You displaced another 120 for a metro that never came here. This is ridiculous. People need to be aware of what's going on and how it's going to affect their lives. And I honestly think that you better start looking at other ways to outreach this community.

Cont'd. 3

And also you put it in the L. A. Times. That is fine and dandy. This is a Spanish speaking community, and it needs to go into Spanish speaking newspapers like La Opinion, for example. Okay? You need to get it on the community calendars on the Channel 34, 52, 22, 11, 9, whatever. All the channels. All the media. Everybody needs to be alert and they need to know. And this does not only affect Boyle Heights or East Los Angeles, it affects everybody that comes into this community for healthcare.

So I strongly suggest that you postpone or take a additional comments when you have a community -- when you have a room that is so filled here that they all want to testify on behalf of this issue and this hospital. And I strongly support that we should have a 950 bed if not 1500. Thank you.

MS. LEON: At this time I have no one else on the list. So if you would like to give your testimony, you can come up.

MS. DIAZ: My name is Nadine Diaz. I'm a third generation constituent of Boyle Heights. I work here at USC Medical Center as a researcher, project specialist. I've done five years researching cancer, and now I'm working in asthma, Children's Asthma Study.

I am thoroughly appalled at the fact that the outreach was not done appropriately. And I would like to know where both of you live.

MR. BOLGER: I live in Long Beach.

MS. DIAZ: And where do you live?

MS. LOCKWOOD: In West L.A.

MS. DIAZ: In West L.A. And the other developers back there, where do you live? Where do you live?

MR. KREIMANN: I live in Pico Rivera.

MS. DIAZ: And what is your name?

MR. KREIMANN: Santos.

MS. DIAZ: Okay. So all of you are from the outside? And you're coming in. Well, it's like this: We're the hosts and you're the guests. And if we don't get more than 950 beds, we will kindly ask you to leave our community. If you think that this is the way to do outreach, we can organize very quickly a mass movement to get what we want. And we want 950 beds or more because this issue is an issue that pertains to the haves and the have nots.

And like I said before at the last meeting, believe it or not, I do come from a family who was born and raised in East L.A., and believe it or not, my father is a doctor. He holds two titles and has even shared concern that the people in this community have been basically throw-away people because why? We're poor. Why? Because we don't have the money to pay for healthcare, but I need inform you that healthcare is not a privilege. It's a right. And we all deserve healthcare. 1

In regards to the prison, the area for the prisoners, you can put them in Beverly Hills or Hancock Park or San Marino. We don't need it here. I have a question for you, the lady from Westwood. Would you like that in your community? Why don't we put the prison ward in Westwood. I think it's more appropriate. It would provide more balance.

In regards to fighting the East L.A. so-called prison that was almost going to be build here. We will organize against this project unless we do not get 950 beds.

MS. LEON: Okay. No one else? At this time, Brad.

MR. BOLGER: Thank you very much for your comments. Again, I'm really pleased we had this opportunity to make the presentation of the Environmental Document. Get your comments and clearly we will be putting together the County

responses to be incorporated into the final Environmental Document which will also be provided in all -- we have a list of libraries. We have all of our elected officials. It will be sent to those locations as it was almost two and a half months ago on this particular document. And we will make sure everybody gets an opportunity to reread -- prior to those comments -- prior to the Board meeting which is currently scheduled for February.

Thank you very much for your time. Question?

SPEAKER: Will that document be distributed in a timely manner not like your report?

MR. BOLGER: Yes. The answer is yes.

SPEAKER: Mr. Becerra's people received it a day before, sir. That's why I am asking.

MR. BOLGER: Yes. The answer is yes.

MS. DIAZ: One more question: Since Los Angeles represents a diversity of many different people of many different languages, this EIR report better be in all languages not just English.

SPEAKER: English, Spanish, Vietnamese, Chinese -- just to name a few.

MR. BOLGER: Thank you.

(9:00 p.m. the hearing was concluded.)

STATE OF CALIFORNIA)

)

COUNTY OF LOS ANGELES)

I, Kathy Michicoff, Certified Shorthand Reporter, No. 12105, hereby certify that the attached transcript of public hearing is a correct copy of the original transcript of proceedings taken before me on November 17, 1999, as thereon stated.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my ability.

Executed this 29th day of November, 1999, at Alhambra, California.

Kathy Michicoff

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Nick Pacheco

Comment Number	Response
1.	Comment noted the comment period was extended.
2.	See response to comment B.001-3.
3.	A pedestrian bridge from Marengo Parking building to the new hospital site is being designed and will be included in the construction document as additive/alternative.
4.	See response to comment B.001-4.
5.	The County is funding numerous upgrades to City infrastructure. The overhead power poles along Marengo will be placed underground, improving the appearance along the street. The County is funding new conduit, feeders, and the installation, as well as engineering, for the power undergrounding. The County is providing for the design and construction of new domestic water lines from Cummings/Charlotte streets to Chicago/Marengo. The County is also funding the improvements to the collector street between Zonal and Marengo, including removing a non-conforming section of the street to a depth of 15 feet below present grade. Signalization, including ATSAC systems, are being proposed for the intersections of Chicago/Marengo and Kingston/Marengo. Curb, gutter, sidewalk, street tree, and street lighting are being upgraded by the County as well. By City Ordinance Nos. 171922 and 17923 and Resolution No. 96-0726, a Street Damage Restoration Fee is being imposed on the County for cutting and trenching the streets. Therefore, the County is also providing for the maintenance of the streets along with the walkway, street tree, and lighting.
6.	Please refer to Letter B.001, Comment 3.
7.	Comment noted. The extension was granted. Another Public presentation is planned for the proposed project.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Gerry Hertzberg

Comment Number	Response
1.	Comments noted.
2.	See response to comments B.001-1, 2.
3.	See response to comment B.001-4.
4.	See response to comment B.001-5 and B.009-2.
5.	A pedestrian bridge from Marengo Parking building to the new hospital site is being designed and will be included in the construction document as an additive/alternative. See response to comment B.001-7. See Letter B.001-5.
6.	In the present LAC+USC there is a jail unit that currently contains 39 licensed beds, an emergency admitting area and a clinic area. This unit is located on the 13th floor of General Hospital. Presently, prisoners are brought to the hospital by ambulance, police car or bus (for the clinics). They come to the facility at the public emergency entrance where there is no Sally Port or special security available. The shackled or handcuffed prisoners are taken through public corridors to the elevator by Sheriff Deputies. The elevator to the 13th floor is not keyed for limited access and may be used by the public. The architectural team worked with LAC+USC during the early design phase to evaluate various locations to ensure the appropriate placement for medical services, including the jail ward services. The final selection placed the jail ward on the first floor. This location incorporates the mutual concerns of the internal and external community. It ensures that the transportation of this population is under maximum security and minimal exposure both outside and inside the facility. There are no other patients on this floor of the Inpatient Tower. The jail ward Sally Port entrance is located within the loading dock area and not visible from the adjacent neighborhoods, as it is about 12 feet below Chicago Street. Buses or cars enter the Sally Port, which is controlled by the Sheriff, once the vehicle is in the Port the door is closed before patients are out of the vehicle. The space for unloading the custody patients is completely enclosed and not visible from the outside. Patients moving in and out of the jail ward or Sally Port are shackled or handcuffed and escorted at all times by Sheriff Deputies.

The entire jail unit design will meet full jail security standards including bars on the inside of the windows.

Please refer to Letter C.009, Comment 1.

7. Due to limited resources, County DHS must prioritize its objectives and make some difficult decision. It is anticipated that all transfers will be accepted for patients requiring higher level specialty services that are geographically available only at LAC+USC MC.

8. See response to comment B.001-10.

9. Comments noted.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Robert Splawn

Comment Number	Response
1.	See Letter B.001-1, 2, 8.
2.	Comment noted. The Draft EA/EIR discusses the various environmental impacts of the proposed project as required under CEQA and NEPA. CEQA and NEPA do not distinguish between public sector and private sector impacts.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Al Deininger

Comment Number	Response
1.	See Letter C.001-2.
2.	See Letter C.003-2-5.
3.	See Letter C.003-6.
4.	See Letter C.003-7.
5.	Comment noted. Commenter did receive a copy of the EIR.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Kim Tachiki and Janet Lim representing Congressman Xavier Becerra

Comment Number	Response
1.	Comment noted. Comment period was extended as requested.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Don Toy

Comment Number	Response
1.	Comment noted. The comment period was extended.
2.	A 750 bed hospital would fall within the range of alternatives addressed in the EIR. A separate analysis is not necessary.
3.	In the present LAC+USC there is a jail unit that currently contains 39 licensed beds, an emergency admitting area and a clinic area. This unit is located on the 13th floor of General Hospital. Presently, prisoners are brought to the hospital by ambulance, police car or bus (for the clinics). They come to the facility at the emergency entrance where there is no Sally Port or special security available. The shackled or handcuffed prisoners are taken through public corridors to the elevator by Sheriff Deputies. The elevator to the 13th floor is not keyed for limited access and may be used by the public. The architectural team worked with LAC+USC during the early design phase to evaluate various locations to ensure the appropriate placement for medical services, including the jail ward services. The final selection placed the jail ward on the first floor. This location incorporates the mutual concerns of the internal and external community. It ensures that the transportation of this population is under maximum security and minimal exposure both outside and inside the facility. There are no other patients on this floor of the Inpatient Tower. The jail ward Sally Port entrance is located within the loading dock area and not visible from the adjacent neighborhoods, as it is about 12 feet below Chicago Street. Buses or cars enter the Sally Port, which is controlled by the Sheriff, once the vehicle is in the Port the door is closed before patients are out of the vehicle. The space for unloading the custody patients is completely enclosed and not visible from the outside. Patients moving in and out of the jail ward or Sally Port are shackled or handcuffed and escorted at all times by Sheriff Deputies. The entire jail unit design will meet full jail security standards.
4.	See Letter B.001-1,2,8.
5.	See response to comment B.001-4.
6.	"No action" refers to the No Project Alternative as described on p. 43 in the Draft EA/EIR.

7. The Draft EA/EIR presents a detailed discussion of air quality impacts, see Section 4.6 of the Draft EA/EIR.

8. As stated on p.151 of the Draft EA/EIR, LAC+USC Medical Center facility is located in an area with a high minority population. Other than short-term construction impacts, no significant impacts have been identified for any environmental topic. According to NEPA Law and Litigation § 8:49, temporary environmental effects, including temporary disruption due to construction activities, "are not significant effects that require an environmental impact statement." Therefore, no construction-related impacts to Environmental Justice are anticipated. Operational impacts (as documented in other sections of this EA/EIR) are not anticipated to cause impacts to any community, thus no impacts to environmental justice are anticipated.

9. Comment noted.

10. As stated on p.174 of the Draft EA/EIR, environmental noise is usually measured in A-weighted decibels (dBA). A decibel (dB) is a logarithmic unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level measured in decibels. A dBA is a decibel correct for the variation in frequency response of the typical human ear at commonly encountered noise levels. In general, people can perceive a three-dBA difference in noise levels; a difference of 10 is perceived as a doubling of loudness. An acoustical scale of typical noise levels of familiar sources can be found in Exhibit 31 on p.175 of the Draft EA/EIR. The proposed project would comply with applicable noise standards; and exceptions would be subject to enforcement agency approvals.

11. Comment noted.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Diana Tarango

Comment Number	Response
1.	See response to comment B.001-4.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Sharon Lowe

Comment Number	Response
1.	See response to comment B.001-4.
2.	See response to comment B.001-4.
3.	See response to comment B.001-4.
4.	The Draft EA/EIR states on the first paragraph of p.134 that a Phase I Environmental Site Assessment was completed on January 1999 to determine the potential for environmental contamination on the project site. This assessment, which was conducted by Dames & Moore, included a review of available records, maps and photographs from public and private sources, a site visit, and a review of agency records. A copy of this report is included in the Appendix of the Draft EA/EIR and is summarized on p. 134-143. The locations of the underground storage tanks and hazardous materials are also included in this summary.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Steve Kasten

Comment Number	Response
1.	See responses to comment B.001-3 and D.001-Don Toy-3.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Oscar Sandoval

Comment Number	Response
1.	See response to comment B.001- 1, 2.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Paul Teensma

Comment Number	Response
1.	Comment noted. See response to comment B.001-6.
2.	Please refer to Letter B.007, Comment 2.
3.	Please refer to Letter B.004, Comment 5.
4.	Please refer to Letter B.007, Comment 5.
5.	Please refer to Letter B.008, Comment 4.
6.	Please refer to Letter B.008, Comment 1.
7.	A supplemental geotechnical report that describes additional testing that has been performed to locate abandoned underground tanks. Initial geotechnical reports indicated that a service station and towing yard existed on the southeast portion of the site at one time. The County conducted additional tests to determine the presence of tanks. The results are in the April 13, 1999 Phase II Subsurface Investigation report by Dames & Moore. The Dames & Moore letter of February, 2000 provides further information about the condition of the site at the former service station and references remedial action in the April 13th report. Both the report and letter are available for review at the County of Los Angeles.
8.	Please refer to Letter B.008, Comments 1 and 4.
9.	Please refer to Letter B.008, Comment 1.
10.	Please refer to Letter B.007, Comment 9-10.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Alex Man

Comment Number	Response
1.-2.	Comment noted. See response to comment B.001-4.
3.	The Draft EA/EIR identified the construction of the proposed project as an adverse impact to local pollutant levels, particularly PM_{10}, as it would contribute to the continued exceedance of the state standards. However, as shown in Tables 20 and 22, PM_{10} emissions during the entire construction period would remain below the threshold of significance. Also, please refer to responses to Letter A.004.
4.	Comment noted. The Draft EA/EIR includes mitigation measures to address and minimize air pollutant emissions during construction to the maximum extent feasible.
5.	See Response to Comment D.001-7, Teensma.
6.	Please refer to Responses to Letter B.008-1, and B.008-4.
7.	Comment noted.
8.	Comment noted.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Lillian Kawasaki

Comment Number	Response
1.	The EA/EIR addresses the issue of potential impacts to environmental justice; no impacts were found.
2.	Comment noted.
3.	See response to comment B.001-6. As stated on p.232 of the Draft EA/EIR, the replacement project would not cause significant cumulative impacts that would substantially exceed the cumulative impacts identified in the 1994 EIR. Additionally, Table 35, found on p.233 of the Draft EA/EIR, lists all anticipated cumulative projects in the vicinity.
4.	Comment noted.
5.	Comment noted.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Jay Patel

Comment Number	Response
1.	See response to comment B.001-10.
2.	The architectural team worked with LAC+USC during the early design phase to evaluate various locations to ensure the appropriate placement for medical services, including the jail ward services. The final selection placed the jail ward on the first floor. This location incorporates the mutual concerns of the internal and external community. It ensures that the transportation of this population is under maximum security and minimal exposure both outside and inside the facility. There are no other patients on this floor of the Inpatient Tower. The jail ward Sally Port entrance is located within the loading dock area and not visible from the adjacent neighborhoods, as it is about 12 feet below Chicago Street. Buses or cars enter the Sally Port, which is controlled by the Sheriff, once the vehicle is in the Port the door is closed before patients are out of the vehicle. The space for unloading the custody patients is completely enclosed and not visible from the outside. Patients moving in and out of the jail ward or Sally Port are shackled or handcuffed and escorted at all times by Sheriff Deputies. The entire jail unit design will meet full jail security standards including bars on the inside of the windows. Please refer to Letter C.009, Comment 1.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Ross Valencia

Comment Number	Response
1.	Comment noted.
1.	See response to comment B.001-1, 2.
3.	See the Socioeconomic Issues/Environmental Justice Section on p.147-152 in the Draft EA/EIR.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Howard Watts

Comment Number	Response
1.	Comment noted.
2.	Comment noted. See discussion on p.153-173 of the Draft EA/EIR.
3.	Comment noted.
4.	Comment noted.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Arturo Herrera

Comment Number	Response
1.	Comment noted.
2.	The Twin Towers facility does not meet hospital structural standards. It does not have acute inpatient care beds or the necessary diagnostic and treatment facilities. The present jail unit has 39 beds. The Replacement Hospital will only have 24 beds. In both cases patients needing ICU, CCU, maternity or burn care will be "out-posted" with the general patient population and under Sheriff Deputy surveillance. The architectural team worked with LAC+USC during the early design phase to evaluate various locations to ensure the appropriate placement for medical services, including the jail ward services. The final selection placed the jail ward on the first floor. This location incorporates the mutual concerns of the internal and external community. It ensures that the transportation of this population is under maximum security and minimal exposure both outside and inside the facility. There are no other patients on this floor of the Inpatient Tower. The entire jail unit design will meet full jail security standards including bars on the inside of the windows. Please refer to Letter C.009, Comment 1.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Jorge Cabrera

Comment Number	Response
1.	See Letter B.001; #1, 2, 8. See Letter C.008; #3.
2.	The present jail unit has 39 beds. The Replacement Hospital will only have 24 beds. In both cases patients needing ICU, CCU, maternity or burn care will be "out-posted" with the general patient population and under Sheriff Deputy surveillance. The architectural team worked with LAC+USC during the early design phase to evaluate various locations to ensure the appropriate placement for medical services, including the jail ward services. The final selection placed the jail ward on the first floor. This location incorporates the mutual concerns of the internal and external community. It ensures that the transportation of this population is under maximum security and minimal exposure both outside and inside the facility. There are no other patients on this floor of the Inpatient Tower. The jail ward Sally Port entrance is located within the loading dock area and not visible from the adjacent neighborhoods, as it is about 12 feet below Chicago Street. Buses or cars enter the Sally Port, which is controlled by the Sheriff, once the vehicle is in the Port the door is closed before patients are out of the vehicle. The space for unloading the custody patients is completely enclosed and not visible from the outside. Patients moving in and out of the jail ward or Sally Port are shackled or handcuffed and escorted at all times by Sheriff Deputies. The entire jail unit design will meet full jail security standards including bars on the inside of the windows. Please refer to Letter C.009, Comment 1.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Laura Pizana

Comment Number	Response
1.-3.	See Letter B.001; #1, 2, 8.
3.	The County has made every effort to inform the community of the project and its environmental documents i.e. copies of the DEIR/EA was placed for review in the local public libraries, an extended review period was provided (9/17/99 through 1/14/2000) and advertisement for it was placed in LA Times, LA Opinion and Eastside Sun newspapers; KMEX and KTLA TV Stations. Also, copies of the DEIR/EA were sent to the local officials/representatives and agencies for review and comment. A public meeting was held to present the DEIR/EA and to receive comments.

Letter D.001: Department of Public Works, Los Angeles County, Public Hearing, November 17, 1999 Nadine Diaz

Comment Number	Response
1.	The present hospital has 39 jail beds. The Replacement Hospital will only have 24 jail beds. In both cases patients needing ICU, CCU, maternity, or burn care will be "out-posted" with the general patient population and under Sheriff Deputy surveillance. Title 15 of the California Code also Section 4011 and 4011.5 of the Penal Code require that prisoners must receive medical care. The architectural team worked with LAC+USC during the early design phase to evaluate various locations to ensure the appropriate placement for medical services, including the jail ward services. The final selection placed the jail ward on the first floor. This location incorporates the mutual concerns of the internal and external community. It ensures that the transportation of this population is under maximum security and minimal exposure both outside and inside the facility. There are no other patients on this floor of the Inpatient Tower. The jail ward Sally Port entrance is located within the loading dock area and not visible from the adjacent neighborhoods, as it is about 12 feet below Chicago Street. Buses or cars enter the Sally Port, which is controlled by the Sheriff, once the vehicle is in the Port the door is closed before patients are out of the vehicle. The space for unloading the custody patients is completely enclosed and not visible from the outside. Patients moving in and out of the jail ward or Sally Port are shackled or handcuffed and escorted at all times by Sheriff Deputies. The entire jail unit design will meet full jail security standards including bars on the inside of all windows. Please refer to D.001-3.

STAFF-INITIATED TEXT CHANGES/ERRATA

Title page: FEMA's address is changed to (new text is bolded) "Parsons **East** Annex, Third Floor, 75 N. **Fair Oaks** Avenue, Pasadena, CA 91103". This change is also made on page 241 and on the cover of the Appendices.

Title page: The FEMA P.A. I.D. # is corrected to incorporate the dash (new information underlined) " 037-91033".

Page 2: The following is added to the second sentence of the second paragraph: The proposed facility would be located adjacent to General Hospital, **which is located at 1200 N. State Street in the City of Los Angeles.**

Page 7: The following sentence is added as the first sentence of the first paragraph on p.7 of the Draft EIR.

> The purpose of the action alternatives presented in this EA/EIR is to ensure that alternatives that may enhance environmental quality or may have less detrimental effects on the environment have been considered.

Page 7: The first sentence of the first paragraph on p.7 of the Draft EA/EIR is revised as follows (changes are bolded). This change can be found in the second sentence of the first paragraph of p.7.

> **The need for the project** is to continue patient care, educational, research, and community service programs at LAC+USC Medical Center while at the same time replacing existing damaged facilities, and constructing a replacement facility.

Page 12: The sixth sentence of the first paragraph on p.12 of the Draft EA/EIR is revised as follows (changes are bolded).

> Implementation of the No Project Alternative may result in the loss of the facility's license, **by the Office of Statewide Health Planning and Development,** which would result in the closure of the facility at the latest by 2008 (as a result of State seismic upgrade program, SB 1953).

Page 15: The following sentence is added to the second mitigation measure on this page of the Summary Table:

> **The diagnostic center portion of the new hospital would be built using base isolation technology to lessen the shaking and vibration experienced during an earthquake.**

Page 18, Response 5, is revised as follows:

PM_{10} emissions associated with demolition of several structures have been included in Table C-1 and 20. Please see the revised tables in response to comment #2 above. ~~However, because a~~

~~Geotechnical Investigation Phase 2 cannot be performed until the demolition of existing structures, the quantity of excavated materials cannot be determined at this time; it is necessary to undertake extensive geophysical surveys to further interpret the subsurface characteristics of the project site and to provide appropriate design recommendations that would eb incorporated by the proposed replacement project. Therefore, fugitive dust emissions from earth disturbing activities cannot be estimated at this time. When this information becomes available.~~ **Approximately 340,000 cubic yards of earth will be removed from the project site over an approximate 15 month period. Based on** the emission rate of 26.4 pounds per acre per day (as presented in the CEQA Air Quality Handbook) **used to estimate PM_{10} emissions generated by earth disturbing activities and emissions from construction equipment and workers travel the PM10 emissions will be about 46 pounds which would be well below the SCAQMD's threshold of 150 pounds per day.**

Page 20: The following mitigation measure is added as the second measure on this page of the Summary Table:

> The County shall prepare a reuse plan for any building made vacant as a result of the replacement project, including environmental review, prior to reoccupancy.

Page 23: The following mitigation measure is added to page 23 of the summary table:

> **LAC+USC Medical Center will devise a Procedure whereby when transferring patients due to lack of capacity a priority is given to transferring these patients to a facility closer to their homes. Also, contracts will be put in place with area private hospitals to provide beds for those patients that cannot be serviced in the existing County facilities.**

Page 26: The following is added at the end of the first mitigation measure on this page of the Summary Table:

> The proposed project shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles **to the extent they are consistent with the State Fire Code**.

Page 26: The following change is made to the third mitigation measure on this page of the Summary Table:

> Automatic fire sprinklers ~~may~~ **shall** be required throughout any new structure. ~~Additionally, the fire sprinklers may be required for reuse of the existing General Hospital.~~

Page 27: The following change is made to the first mitigation measure on this page of the Summary Table:

> The project shall comply with ~~City of Los Angeles Fire Department~~ **State Fire Code** requirements, including possible improvements to the water system of the area to provide a 9,000 gpm fire-flow.

Page 33: The fourth mitigation measure is changed as follows:

~~It is anticipated that the project will comply with the Secretary of the Interior's Standards for Rehabilitation. The County shall coordinate with SHPO in this effort.~~**FEMA, SHPO and the County have executed a Memorandum of Agreement covering the replacement and reuse of General Hospital. The Memorandum of Agreement includes stipulations for the development of an adaptive reuse plan and/or the Mothballing of the General Hospital Acute Care Center in accordance with the U.S. Department of the Interior's Preservation Brief 31, Mothballing Historic Buildings.**

Page 42: The following change is made to the second sentence in the second paragraph:

"These include**, but are not limited to**, the main entry vestibule and lobby,..."

Page 47: The following is added before the heading Landscaping/Open Space:

The County is planning for a pedestrian bridge across Marengo Street (see Figure 4, dotted bridge alignment); the bridge will be provided if funding is available.

Page 47: First sentence of the last paragraph, the reference to a "15" foot landscaped buffer is changed to "15 foot to 35 foot".

Page 53: The following sentence is added as the last sentence of the fourth paragraph:

Employee attrition and relocation would take place over eight years.

Page 52, Starting with first full paragraph response is revised as follows:

The following tables summarize CDC housing development projects for ownership and rental units within 10 miles of the Medical Center following certification of the EIR in 1994 that satisfy the EIR replacement housing mitigation measure. ~~Refer to Exhibit A that describes in detail the Board/CDC project authorization and completion date for each low income housing development.~~

Summary of completed Ownership/Single Family Units - Low Income

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	29	116	0	0
3 Bedrooms	68	204	31	99
2 Bedrooms	6	12	0	0
1 Bedroom	0	0	0	0
0 Bedroom	0	0	0	0
	103	332	31	99

Summary of completed Rental/Multi Family Units - Very Low Income

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	27	108	0	0
3 Bedrooms	46	138	19	57
2 Bedrooms	56	112	55	110
1 Bedroom	82	82	0	0
0 Bedroom	0	0	0	0
	211	440	74	167

Summary of **projected** Ownership/Single Family Units **to be completed by December 2001** - Low Income (including those already completed)

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	~~17~~ **35**	~~68~~ **140**	0	0
3 Bedrooms	~~63~~ **68**	~~189~~ **204**	31	93
2 Bedrooms	~~2~~ **6**	~~4~~ **12**	0	0
1 Bedroom	0	0	0	0
0 Bedroom	0	0	0	0
	~~82~~ **109**	~~261~~ **356**	31	93

Summary of **projected** Rental/Multi Family Units **to be completed by December 2001** - Very Low Income (including those already completed)

	CDC Developments		EIR Mitigation Requirements	
	Units	Bedrooms	Units	Bedrooms
4 Bedrooms	~~20~~ **27**	~~80~~ **108**	0	0
3 Bedrooms	~~136~~ **155**	~~408~~ **465**	19	57
2 Bedrooms	~~134~~ **169**	~~268~~ **338**	55	110
1 Bedroom	~~266~~ **445**	~~266~~ **445**	0	0
0 Bedroom	~~175~~ **106**	~~175~~ **106**	0	0
	~~731~~ **902**	~~1197~~ **1462**	74	167

Page 60: The Exhibit shall read as follows:

Exhibit 11 (Alternative 3) 950-Bed Alternative

Page 64, Response 5, First paragraph is revised as follows:

The total project site is approximately 1,040,000 sf. The baseline conditions at the site contained 231,829 sf of pervious material, pervious being defined as ~~buildings, surface parking, walkways, and other solid materials~~ **landscaped area or areas** allowing the penetration of water into soil. The proposed replacement project will contain 343,900 sf of pervious materials. There is a net result of an additional 112,071 sf of pervious material and a decrease in stormwater runoff. The County is also providing gravel infiltration beds in the surface parking lot west of the new Outpatient Building. This would add ~~an~~ additional ~~10,000 sf of~~ pervious area to the aforementioned ~~additional~~ pervious material. ~~if calculated at 100% pervious, with the introduction of the gravel infiltration beds.~~

Page 72 and List of Acronyms: The following is added:

California Division of Mines and Geology (CDMG).

Page 78: The following sentence is added to the second mitigation measure:

The diagnostic center portion of the new hospital would be built using base isolation technology to lessen the shaking and vibration experienced during an earthquake.

Page 78: The following changes are made to the second and last sentences of the third mitigation measure:

> This plan will include a review of operational capability from at least ~~of~~ three of the following viewpoints:.... ~~The diagnostic center portion of the new hospital would be built using base isolation technology to lessen the shaking and vibration experienced during an earthquake.~~

Page 78: The following changes are made to the third and fourth sentences of the fourth mitigation measure:

> ~~If the disturbed zone is greater than about 12 inches in depth, in-place compaction will be difficult. Upon completion of proofrolling and any required overexcavation,~~ **If in-place compaction is not practical,** fills and backfills may be placed in accordance with the recommendations presented in the following sections.

Page 79: The following change is made to the third sentence of the fourth mitigation measure:

> Heavy construction equipment, building materials and excavated soils should not be allowed near the top of ~~all~~ **any** excavations.

Page 81: The following change is made to the first sentence of the last mitigation measure:

> As required under ~~Section 3317 of the UBC~~ **the California Building Code**, and due to the complex foundations requirements, all earthwork and foundation construction should be monitored by a qualified engineer/technician.

Page 89, Response 10, first paragraph is revised as follows:

An existing and proposed runoff conditions were simulated using the Los Angeles County Rational Method (the entire hydrological modeling analysis is available for review at the project site). The stormwater runoff from the proposed developed area, including the ~~constant~~.**maximum theoretical** 22 cfs flow from the proposed under slab sub-drain system, is less that the storm runoff from the existing medical center campus condition. The Marengo storm sewer system should therefore receive less runoff from the proposed developed area than from the existing condition.

Page 95: The following is added to the last sentence in the last paragraph:

> The project site is **in Zone X[1] and is** located outside of any FEMA designated floodplain and is not adjacent to any watercourses.
>
> /1/ City of Los Angeles, FIRM # 060137-075D, Map 7698.

Page 107, Response 3 is revised as follows:

A health risk assessment for operation of the loading dock is not necessary. The dock is located approximately ~~120~~ **234** feet from the residences; ~~there~~ this would ~~be a distance of~~ ~~50~~ **include 15-35** feet **of landscaping.** ~~between the loading dock wall and the residences across Chicago Street.~~ It is anticipated that loading activity would be similar to or less than the existing activity dispersed throughout the day. A 20-foot wall would be erected along the eastern boundary of the

loading dock to serve as 1) a retaining wall since the loading dock area would be depressed and would be approximately 12 feet lower than Chicago Street, and 2) an eight-foot barrier between the loading dock and the residences across Chicago Street. Activity at the dock would not result in **noticeable** change in risk at homes along Chicago Street.

~~Please refer to Letter B.009, response to comment #7.~~

Page 111: The following change is made to the second mitigation measure:

> The County shall prepare a reuse plan for any building made vacant as a result of the replacement project, including environmental review, prior to reoccupancy.

Page 146: The following changes are made to the second and third sentences of the first mitigation measure:

> Prior to contaminated soil removal, available off-site disposal options, which may include recycling/treatment or ~~landfilling~~ **disposal in a landfill**, shall be evaluated. ~~Generally, the~~ **The** excavated materials should be temporarily stockpiled and covered with plastic sheeting at a pre-designated location on the site.

Page 147: The following sentence is added to the last paragraph:

> **Under NEPA, there must be a significant impact on the physical or natural environment for an EIS to be required. Environmental Justice issues by themselves do not change the prevailing legal thresholds for that determination.**

Page 148: The following sentences are added as the last sentences of the first paragraph on p.148 of the Draft EA/EIR:

> **According to the 1990 Census, approximately 74% of the units are rented, which is above the County (51.8% of occupied housing unity) and City (60.6% of occupied housing units) ratios. Additionally, incomes of the residents in the project are substantially lower than county-wide averages; the 1992 median income for affected residents is estimated at $30,000 per year for a family of four, while the 1992 Los Angeles County median income for a family of four is estimated at $42,000 per year. Further, although the median income for affected residents is $30,000 per year, the mean income is only $17,280 per year.[1]**
>
> **/1/ Los Angeles County, Internal Services Department, Relocation Plan for LAC+USC Medical Center Replacement Hospital Project, June 1992.**

Page 151-152: The text starting after the title "Potential Impacts of Alternatives", through the bottom of p. 152 is replaced with the following language:

> POTENTIAL IMPACTS OF ALTERNATIVES
>
> Since the LAC+USC Medical Center Facility is located in an area with a high minority population and a significant proportion of the population is below the poverty level, any change in the facility operation has the potential to affect these communities. The Northeast and Boyle Heights Community Planning Area (CPA) neighborhoods surrounding the LAC+USC Medical Center are currently affected by ongoing operations

at the LAC+USC Medical Center which currently generates air emissions, noise, visual impacts, land use, and traffic. The impact on these issue areas of the three alternatives is treated elsewhere in this analysis and has been shown to be minimal. Thus, impacts on minority and low-income populations of the area would not change substantially.

The temporary impacts due to construction activities, according to NEPA Law and Litigation § 8:49, "are not significant effects that require an environmental impact statement." These impacts have also been addressed elsewhere and have been found to not be significant. Beyond the impacts mentioned to this point, the two areas with the greatest potential for impact to these communities relate to the change in available medical service and the loss of available jobs. These two areas are addressed in the discussion of each alternative.

Alternative 1 – No Project Alternative

Under this alternative, the LAC+USC Medical Center would remain in disrepair and would close in 2008 at the latest. The LAC+USC Medical Center is a county-owned facility and as such is the primary provider of health care services to the poor and minority populations of the surrounding community. If the LAC+USC Medical Center is closed, the emergency services, for which the LAC+USC Medical Center is major county-wide provider, would be significantly reduced not only throughout the community, but the county as well. If the LAC+USC Medical Center is closed, patients could have to travel to another facility. The nearest County facility, King/Drew Medical Center, is approximately 15 miles away. The primary users of LAC+USC Medical Center are the poor (19%) and minority populations (90%). In addition, the neighborhood employment that this facility provides would also be lost or displaced to areas beyond this local community. While there would be no significant construction impacts from the No Action Alternative, the health service and employment loss from closing the facility would likely have significant impacts on low-income and minority populations.

Alternative 2 – 600-Bed Replacement Facility Alternative (Proposed Alternative)

Operation under Alternative 2 would result in generally less air, noise, and traffic impacts compared to existing conditions. Construction of the new facility would result in short-term impacts to air quality, noise, and traffic. The Proposed Alternative would not further (beyond what has already occurred) displace existing housing or businesses. No long-term significant physical impacts would occur and residents along Chicago Street and in the LAC+USC Medical Center vicinity would not be affected by the physical improvements outlined by this alternative. There is the potential for the reduction of available medical services under this alternative. The lower number of beds would be balanced by changing healthcare industry trends, improved medical treatment technology, shorter length stays and continued shifts to outpatient care. The county plan shows available beds in other county facilities and private hospitals that could absorb the projected excess requirement that arises for beds. Therefore, while fewer beds might be an adverse impact, the means has been identified to reduce that impact below significance. Approximately 25% of the patient population of the Medical Center comes from beyond the immediate service area of the Medical Center. In considering the transfer of excess patients it has been demonstrated (in the April 1998 Plan to Consolidate, Integrate and Expand DHS Health Delivery System, by Zaretsky) that many of these patients could be located in a facility closer to their home, thus mitigating the

impact of relocating these patients. The other area of potential adverse impact relates to jobs lost by downsizing the facility. There is a projected loss of about 1,870 jobs for this alternative (from over 7,000 to 5,130 employees), considerably less than with the No Action Alternative. Since this proposal has a horizon of 6 to 8 years, there is ample time for the reduction in jobs to be handled by normal attrition, and transfers to other County facilities, thereby not adversely impacting the Center's employees.

Alternative 3 – 950-Bed Replacement Facility Alternative

Although this project is bigger than the Proposed Alternative it is smaller than the existing facility. The potential effects on the minority and low-income communities would be of the same nature as those described in Alternative 2, but in differing degrees. The short term impacts would be greater because of the increased size. The long-term impacts could potentially be somewhat less than the Proposed Alternative because of the larger capacity except that County funds are not available to operate a facility of this size.

Mitigation

To assure that the impacts to health services minority and low-income populations are held below a significant level the following mitigation measures should be taken:

- LAC+USC Medical Center will devise a procedure whereby when transferring patients due to lack of capacity a priority is given to transferring these patients to a facility closer to their home. Also, contracts will be put in place with area private hospitals to provide beds for those patients that cannot be served in the existing county facilities.

This mitigation measure does not replace or nullify any mitigation measures that were required to address environmental justice impacts (for example the required housing mitigation) resulting from actions by LAC+USC Medical Center prior to the earthquake of 1994.

Page 151: The following sentence is added as the third sentence in the second paragraph:

The loss of jobs for residents in the area is expected upon closure of the hospital in 2008.

Page 151: The following sentence is added as the fourth sentence of the second paragraph on p.151 of the Draft EA/EIR:

However, the surrounding community is only a small component of the population served by the hospital.

Page 151: The following change is made to the fifth sentence of the second paragraph of the Draft EIR:

While this could present a hardship to a small fraction of the population served by the Medical Center, the County could contract for healthcare facilities at a closer location.

Page 151: The following change is made to the sixth sentence in the second paragraph:

The No Project Alternative would have less **temporary** impacts because construction would not occur.

Page 151: The seventh sentence of the second paragraph on p.151 of the Draft EA/EIR is revised as follows (changes are bolded). This change can be found in the eighth sentence of the second paragraph of p.151.

This alternative would have similar operational impacts to the surrounding neighborhood as compared to the operational impacts of build alternatives until General Hospital closes, **since under all alternatives General Hospital would remain open until 2008.**

Page 151: The third sentence of the last paragraph is revised to state:

A substantial loss of jobs is expected upon closure of the hospital in 2008.

Page 151: The following is added as the last sentences of the first paragraph on p.151 of the Draft EA/EIR.

Operational impacts (as documented in other section of this EA/EIR) are not anticipated to cause impacts to any community, thus no impacts to environmental justice are anticipated. Under all alternatives, medical services would continue to meet demand; the County would continue or improve upon the existing level of care.

Page 152: The third sentence of the first paragraph on p.152 of the Draft EA/EIR is deleted.

Page 152: The following sentence is added at the end of the first paragraph:

The No Project Alternative in which General Hospital would be closed would result in significantly greater adverse impacts to low-income and minority populations than either of the two build alternatives.

Page 152: The following sentence is added as the second to last sentence in the third paragraph:

The greater availability of outpatient services proposed under this alternative is anticipated to result in positive impacts to low-income and minority populations.

Page 176: The second paragraph on p.176 of the Draft EA/EIR has been revised as follows (changes are bolded):

Alternative 2 would result in generally less air, noise, and traffic impacts compared to existing conditions. Construction of the new facility would **result in impacts** to air quality, noise and **traffic for up to six years (although most impacts would occur during foundations and building construction, anticipated to last about four years).** The Proposed alternative would not displace existing housing or businesses. **This alternative would result in the closure of the existing General Hospital and other buildings would remain vacant until a reuse plan is identified**. No long-term significant impacts would occur and residents along Chicago Street and in the LAC+USC Medical Center vicinity would not be affected by the physical improvements outlined under this alternative. Therefore, **although construction impacts would occur up to six years**, no significant effect is anticipated on Environmental Justice.

Page 176: The following sentence is added as the fourth sentence of the second paragraph on p.176 of the Draft EA/EIR.

> **Noise generated by the existing cooling towers will not be noticeable above background levels.**

Page 201: The following is added at the end of the first mitigation measure:

> The proposed project shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles **to the extent they are consistent with the State Fire Code**.

Page 202: The following change is made to the first mitigation measure:

> Automatic fire sprinklers ~~may~~ **shall** be required throughout any new structure. ~~Additionally, the fire sprinklers may be required for reuse of the existing General Hospital.~~

Page 202: The following change is made to the third mitigation measure:

> The project shall comply with ~~City of Los Angeles Fire Department~~ **State Fire Code** requirements, including possible improvements to the water system of the area to provide a 9,000 gpm fire-flow.

Page 221: The following change is made to the last sentence of the first paragraph:

> Therefore, the Marengo Street Gateway ~~appears~~ **has been determined** eligible for National Register listing..

Page 221: The following change is made to the last sentence of the second paragraph:

> As a result of loss of central gatepost and iron gates (unknown date), this gateway lacks integrity and ~~appears~~ **has been determined** ineligible for National Register listing.

Page 221: The following change is made to the last sentence of the third paragraph:

> Due to inconsistent architectural character and incompatible relamping, these lamp posts ~~appear~~ **have been determined** ineligible for National Register listing.

Page 221: The following change is made to the last sentence of the fourth paragraph:

> Accordingly, street configuration, excluding the roadway surface, curbs, and gutter, ~~appears~~ **has been determined** eligible for National Register listing.

Page 224: The following sentence is added as the last sentence of the third paragraph:

> **FEMA and SHPO have subsequently determined the street lights to be ineligible for National Register listing.**

Page 225: The following change is made to the last four sentences in the first paragraph:

~~Alternative 2~~**The Proposed 600 Bed Alternative** may result in **the partial demolition and** temporary closure of State Street during construction within the project site. ~~The configuration would however remain.~~ Given the nature **and integrity** of the resource, the **extent of alterations to the existing configuration being limited to new curb cuts and driveways, the closure of State Street being temporary, and the reconstruction of demolished character-defining features, the Proposed Alternative is not anticipated to result in an adverse effect.**~~limited period of time it would be removed and the ability to reconstruction its important character defining features, it was determined that the Proposed Alternative would have no adverse effect. Accurate reconstruction of the configuration of North State Street would allow for new curb, gutter and roadway surface and curb cuts as necessary.~~

Page 230: The last bullet is changed as follows:

~~If needed, the County shall consult with SHPO to make the undertaking less harmful and possibly enter into a Memorandum of Agreement to accommodate historic preservation concerns as described in Section 106 of the National Historic Preservation Act.~~**FEMA, SHPO and the County have executed a Memorandum of Agreement covering the replacement and reuse of General Hospital. The Memorandum of Agreement includes stipulations for the development of an adaptive reuse plan and/or the Mothballing of the General Hospital Acute Care Center in accordance with the U.S. Department of the Interior's Preservation Brief 31, Mothballing Historic Buildings.**

Page 240: The following sentence is added as the final sentence in the second paragraph:

A special effort was made to contact members of the surrounding community by mailings and public meetings.

Page 241: The following is added to the Federal Emergency Management Agency list of report preparers on p.241 of the Draft EA/EIR.

Anjana Mepani, Technical Advisor

The Air Quality emissions analysis is added as Appendix C2. The memorandum of agreement between SHPO and FEMA has been signed and is added as Appendix I.

The following footnote is added on p. 95 of the Draft EA/EIR:

/1/ City of Los Angeles, Firm # 060137-075D, Map 7698

The following tables C-1 and C-2 were omitted from the Draft EA/EIR.

TABLE C-1: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 2)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Demo Peds/Psychiatric							
(6 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Mobile Crane/b/	1	8	5.40	1.20	5.70	0.69	0.49
Wheeled Loader	2	8	9.15	3.99	30.24	2.91	2.74
Dump Truck/c/	--	8	14.39	1.53	33.29	3.63	2.04
Backhoe/b/	1	8	5.40	1.22	13.52	1.14	1.11
Concrete/CMB Crusher/b/	1	8	5.40	1.22	13.52	1.14	1.11
Demolition of Peds/Psychiatric (PM10 only)			0.00	0.00	0.00	0.00	12.50
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			130.82	31.01	105.71	9.51	27.08
Quantity in Exceedance of limits			-419.18	-43.99	**5.71**	-140.49	-122.92
Demo Muir/Grad							
(5 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Mobile Crane/b/	1	8	5.40	1.20	5.70	0.69	0.49
Wheeled Loader	2	8	9.15	3.99	30.24	2.91	2.74
Dump Truck/c/	--	8	14.39	1.53	33.29	3.63	2.04
Backhoe/b/	1	8	5.40	1.22	13.52	1.14	1.11
Concrete/CMB Crusher/b/	1	8	5.40	1.22	13.52	1.14	1.11
Demolition of Muir/Grad (PM10 only)			0.00	0.00	0.00	0.00	8.63
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			130.82	31.01	105.71	9.51	23.21
Quantity in Exceedance of limits			-419.18	-43.99	**5.71**	-140.49	-126.79
Demo Parking Structure #6/#12							
(5 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Mobile Crane/b/	1	8	5.40	1.20	5.70	0.69	0.49
Wheeled Loader	2	8	9.15	3.99	30.24	2.91	2.74
Dump Truck/c/	--	8	14.39	1.53	33.29	3.63	2.04
Backhoe/b/	1	8	5.40	1.22	13.52	1.14	1.11
Concrete/CMB Crusher/b/	1	8	5.40	1.22	13.52	1.14	1.11
Demolition of Parking Structures (PM10 only)			0.00	0.00	0.00	0.00	28.00
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			130.82	31.01	105.71	9.51	42.58
Quantity in Exceedance of limits			-419.18	-43.99	**5.71**	-140.49	-107.42
Site Utility Relocation							
(5 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Mobile Crane/b/	1	8	5.40	1.20	5.70	0.69	0.49
Wheeled Loader	2	8	9.15	3.99	30.24	2.91	2.74
Dump Truck/c/	--	8	14.39	1.53	33.29	3.63	2.04
Backhoe/b/	1	8	5.40	1.22	13.52	1.14	1.11
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			125.42	29.79	92.19	8.37	13.46
Quantity in Exceedance of limits			-424.58	-45.21	-7.81	-141.63	-136.54

TABLE C-1: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 2) - (Continued)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Mass Excavation and Shoring (11 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Mobile Crane/b/	1	8	5.40	1.20	5.70	0.69	0.49
Wheeled Loader	3	8	13.72	5.98	45.37	4.36	4.11
Dump Truck/c/	--	40	71.97	7.65	166.45	18.15	10.22
Motor Grader	1	8	1.21	0.32	0.43	0.69	0.49
Mobile Drill Rig/b/	1	8	5.40	1.22	13.52	1.14	1.11
Concrete Truck/b//c/	2	0.5	0.67	0.15	1.69	0.14	0.14
Concrete Pump/b/	1	8	5.40	1.22	13.52	1.14	1.11
Water Truck/b/	1	8	5.40	1.22	13.52	1.14	1.11
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			200.24	40.82	269.63	27.45	25.86
Quantity in Exceedance of limits			**-349.76**	-34.18	**169.63**	-122.55	-124.14
Outpatient Foundations (7 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Mobile Crane/b/	1	8	5.40	1.20	5.70	0.69	0.49
Dump Truck/c/	--	8	14.39	1.53	33.29	3.63	2.04
Backhoe/b/	1	8	5.40	1.22	13.52	1.14	1.11
Welding machine/b/	1	8	5.40	1.20	5.70	0.69	0.49
Concrete Truck/b//c/	--	2.5	1.69	0.38	4.23	0.36	0.35
Concrete Pump/b/	1	8	5.40	1.22	13.52	1.14	1.11
Water Truck/b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift (175 hp)	1	8	4.16	1.36	12.32	0.00	0.74
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			138.32	31.19	111.23	8.78	14.53
Quantity in Exceedance of limits			-411.68	-43.81	**11.23**	-141.22	-135.47
Outpatient Steel Erection; Diagnostic/Inpatient Foundation (3 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Tower Crane/b/	1	8	5.40	1.20	5.70	0.69	0.49
Dump Truck/c/	--	32	57.57	6.12	133.16	14.52	8.18
Concrete Truck/b//c/	--	7.5	5.06	1.15	12.68	1.07	1.04
Concrete Pump/b/	1	8	5.40	1.22	13.52	1.14	1.11
Exterior Hoist/b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift (175 hp)	5	8	20.80	6.80	61.60	0.00	3.72
Welding machine/b/	3	8	16.20	3.60	17.11	2.06	1.46
Water Truck/b/	1	8	5.40	1.22	13.52	1.14	1.11
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			212.31	44.38	280.24	21.76	25.31
Quantity in Exceedance of limits			-337.69	-30.62	**180.24**	-128.24	-124.69

TABLE C-1: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 2) - (Continued)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Outpatient Exterior Finishing; Diagnostic/Inpatient Steel Erection (7 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Tower Crane/b/	5	8	27.00	6.00	28.52	3.44	2.44
Exterior Hoist/b/	5	8	26.99	6.11	67.60	5.70	5.57
Concrete Truck/b//c/	--	5	3.37	0.76	8.45	0.71	0.70
Concrete Pump/b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift (175 hp)	6	8	24.96	8.16	73.92	0.00	4.46
Welding machine/b/	3	8	16.20	3.60	17.11	2.06	1.46
Water Truck/b/	1	8	5.40	1.22	13.52	1.14	1.11
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			200.40	48.93	232.08	14.20	23.94
Quantity in Exceedance of limits			-349.60	-26.07	**132.08**	-135.80	-126.06
Outpatient Interior Finishing; Diagnostic/Inpatient Exterior Finishing (16 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Tower Crane/b/	5	8	27.00	6.00	28.52	3.44	2.44
Exterior Hoist/b/	5	8	26.99	6.11	67.60	5.70	5.57
Forklift (175 hp)	6	8	24.96	8.16	73.92	0.00	4.46
Welding machine/b/	3	8	16.20	3.60	17.11	2.06	1.46
Water Truck/b/	1	8	5.40	1.22	13.52	1.14	1.11
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			191.63	46.94	210.11	12.34	22.13
Quantity in Exceedance of limits			-358.37	-28.06	**110.11**	-137.66	-127.87
Diagnostic/Inpatient Interior Finishing (14 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Tower Crane/b/	5	8	27.00	6.00	28.52	3.44	2.44
Exterior Hoist/b/	5	8	26.99	6.11	67.60	5.70	5.57
Forklift (175 hp)	6	8	24.96	8.16	73.92	0.00	4.46
Welding machine/b/	3	8	16.20	3.60	17.11	2.06	1.46
Water Truck/b/	1	8	5.40	1.22	13.52	1.14	1.11
Construction Workers trips/d/			91.08	21.85	9.43	0.00	7.08
Estimated emissions			191.63	46.94	210.11	12.34	22.13
Quantity in Exceedance of limits			-358.37	-28.06	**110.11**	-137.66	-127.87

/a/ Diesel powered equipment only.
/b/ Assumes misc exhaust emissions factors.
/c/ Equation for trucks per hour = (number of trips per day x number of miles per trip)/average speed (mph)
/d/ URBEMIS 7G, using EMFAC7G emissions factors, was used to estimate construction workers trips emissions.

SOURCE: Table A9-8-A, SCAQMD, 1993.

TABLE C-2: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 3)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Outpatient Building: Site Utility Relocation							
D&T Building: Site Utility Relocation							
Central Plant: Site Utility Relocation							
(11 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Large Front End Loaders	2	8	9.15	3.99	30.24	2.91	2.74
Forklift /b/	2	8	10.80	2.44	27.04	2.28	2.23
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Dump Trucks /c/	10 trips/day	40 miles/trip	7.37	2.58	15.15	2.82	2.91
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			174.74	44.22	113.61	10.29	20.73
Quantity in Exceedance of limits			-375.26	-30.78	**13.61**	-139.71	-129.27
Outpatient Building: Install shoring soldier beams							
D&T Building: Install shoring soldier beams							
Central Plant: Install shoring soldier beams							
(3 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Large Crane /b/	1	8	5.40	1.22	13.52	1.14	1.11
Front End Loaders	1	8	4.57	1.99	15.12	1.45	1.37
Back Hoes /b/	1	8	5.40	1.22	13.52	1.14	1.11
Welding Machine /b/	1	8	5.40	1.22	13.52	1.14	1.11
Drill Rig /b/	1	8	5.40	1.22	13.52	1.14	1.11
Concrete Pump /b/	1	8	5.40	1.22	13.52	1.14	1.11
Concrete Trucks /c/	5 trips/day	40 miles/trip	3.69	1.29	7.58	1.41	1.45
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			171.88	42.16	104.44	8.56	19.00
Quantity in Exceedance of limits			-378.12	-32.84	**4.44**	-141.44	-131.00
Outpatient Building: Mass Excavation & Foundation							
D&T Building: Mass Excavation & Foundation							
Central Plant: Mass Excavation & Foundation							
(2 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Large Front End Loaders	3	8	13.72	5.98	45.37	4.36	4.11
Water Trucks	1	8	14.39	1.53	33.29	3.63	2.04
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Large Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Dump Trucks /c/	125 trips	40 miles/trip	11.06	3.87	22.73	4.23	4.36
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			197.39	49.03	169.61	16.78	25.59
Quantity in Exceedance of limits			-352.61	-25.97	**69.61**	-133.22	-124.41

TABLE C-2: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 3) - (Continued)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Outpatient Building: Steel Erection							
D&T Building: Steel Erection							
Central Plant: Steel Erection							
(6 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Crane /b/	2	8	10.80	2.44	27.04	2.28	2.23
Forklift /b/	1	8	5.40	1.22	13.52	1.14	1.11
Welding Machine /b/	6	8	32.39	7.33	81.12	6.84	6.68
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Dump Trucks /c/	40 trips	40 miles/trip	29.50	10.33	60.62	11.28	11.63
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			225.51	56.53	223.48	23.82	34.50
Quantity in Exceedance of limits			-324.49	-18.47	**123.48**	-126.18	-115.50
Outpatient Building: Exterior Finishing							
D&T Building: Exterior Finishing							
Central Plant: Exterior Finishing							
(6 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Crane /b/	2	8	10.80	2.44	27.04	2.28	2.23
Forklift /b/	2	8	10.80	2.44	27.04	2.28	2.23
Welding Machine /b/	4	8	21.59	4.89	54.08	4.56	4.45
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Flatbed Trucks /c/	30 trips	60 miles/trip	33.19	11.62	68.19	12.69	13.08
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			223.80	56.60	217.53	24.09	34.84
Quantity in Exceedance of limits			-326.20	-18.40	**117.53**	-125.91	-115.16
Outpatient Building: Interior Finishing							
D&T Building: Exterior Finishing							
Central Plant: Equipment Installation							
(2 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Crane /b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift /b/	2	8	10.80	2.44	27.04	2.28	2.23
Welding Machine /b/	4	8	21.59	4.89	54.08	4.56	4.45
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Flatbed Trucks /c/	20 trips	40 miles/trip	14.75	5.16	30.31	5.64	5.81
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			199.96	48.92	166.13	15.90	26.45
Quantity in Exceedance of limits			-350.04	-26.08	**66.13**	-134.10	-123.55

TABLE C-2: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 3) - (Continued)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Outpatient Building: Interior Finishing							
D&T Building: Interior Finishing							
Central Plant: Equipment Installation							
(8 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Forklift /b/	2	8	10.80	2.44	27.04	2.28	2.23
Welding Machine /b/	4	8	21.59	4.89	54.08	4.56	4.45
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Flatbed Trucks /c/	40 trips	40 miles/trip	29.50	10.33	60.62	11.28	11.63
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			209.31	52.87	182.92	20.40	31.16
Quantity in Exceedance of limits			-340.69	-22.13	**82.92**	-129.60	-118.84
Inpatient Tower: Site Clearance and Demolition							
D&T Building: Interior Finishing							
(6 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Crane /b/	2	8	10.80	2.44	27.04	2.28	2.23
Hoe-Rams /b/	2	8	10.80	2.44	27.04	2.28	2.23
Large Front End Loaders	4	8	18.30	7.98	60.49	5.81	5.48
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Forklift /b/	1	8	5.40	1.22	13.52	1.14	1.11
Welding Machine /b/	2	8	10.80	2.44	27.04	2.28	2.23
Dump Trucks /c/	30 trips	40 miles/trip	22.12	7.74	45.46	8.46	8.72
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			225.64	59.47	241.77	24.53	34.85
Quantity in Exceedance of limits			-324.36	-15.53	**141.77**	-125.47	-115.15
Inpatient Tower: Shoring and Excavation							
D&T Building: Interior Finishing							
(4 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Crane /b/	2	8	10.80	2.44	27.04	2.28	2.23
Large Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Front End Loaders	4	8	18.30	7.98	60.49	5.81	5.48
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Drill Rig and Tie Back Rig	2	8	10.80	2.44	27.04	2.28	2.23
Forklift /b/	1	8	5.40	1.22	13.52	1.14	1.11
Dump Trucks /c/	200 trips/day	40 miles/trip	147.49	51.63	303.08	56.39	58.15
Flatbed Trucks /c/	20 trips/day	40 miles/trip	14.75	5.16	30.31	5.64	5.81
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			365.76	108.52	529.70	78.10	90.09
Quantity in Exceedance of limits			-184.24	**33.52**	**429.70**	-71.90	-59.91

TABLE C-2: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 3) - (Continued)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Inpatient Tower: Shoring and Excavation (2 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Large Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Front End Loaders	2	8	9.15	3.99	30.24	2.91	2.74
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Drill Rig and Tie Back Rig	2	8	10.80	2.44	27.04	2.28	2.23
Dump Trucks /c/	200 trips	40 miles/trip	147.49	51.63	303.08	56.39	58.15
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			325.66	95.71	428.58	66.14	78.20
Quantity in Exceedance of limits			-224.34	**20.71**	**328.58**	-83.86	-71.80
Inpatient Tower: Foundations (5 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Front End Loaders	2	8	9.15	3.99	30.24	2.91	2.74
Concrete Pump /b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift	2	8	10.80	2.44	27.04	2.28	2.23
Dump Trucks /c/	10 trips/day	40 miles/trip	7.37	2.58	15.15	2.82	2.91
Dump Trucks /c/	10 trips/day	20 miles/trip	3.69	1.29	7.58	1.41	1.45
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			183.83	46.73	134.71	12.84	23.29
Quantity in Exceedance of limits			-366.17	-28.27	**34.71**	-137.16	-126.71
Inpatient Tower: Steel Erection (9 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Large Crane /b/	2	8	10.80	2.44	27.04	2.28	2.23
Crane /b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift /b/	2	8	10.80	2.44	27.04	2.28	2.23
Welding Machine /b/	20	8	107.97	24.44	270.41	22.80	22.27
Back Hoes /b/	4	8	21.59	4.89	54.08	4.56	4.45
Flatbed Trucks /c/	15 trips	60 miles/trip	16.59	5.81	34.10	6.34	6.54
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			309.77	74.01	440.33	39.40	49.45
Quantity in Exceedance of limits			-240.23	-0.99	**340.33**	-110.60	-100.55
Inpatient Tower: Exterior Finishing (3 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Large Crane /b/	2	8	10.80	2.44	27.04	2.28	2.23
Crane /b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift /b/	4	8	21.59	4.89	54.08	4.56	4.45
Welding Machine /b/	6	8	32.39	7.33	81.12	6.84	6.68
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Flatbed Trucks /c/	15 trips/day	75 miles/trip	20.74	7.26	42.62	7.93	8.18
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			238.34	58.35	259.56	25.03	35.50
Quantity in Exceedance of limits			-311.66	-16.65	**159.56**	-124.97	-114.50

TABLE C-2: ESTIMATED CONSTRUCTION EQUIPMENT EMISSIONS (ALTERNATIVE 3) - (Continued)

			POLLUTANT (lbs/day)				
			CO	HC	NOx	SOx	PM
AQMD Thresholds			550	75	100	150	150
Inpatient Tower: Exterior Finishing and Interior Finishing (6 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Large Crane /b/	2	8	10.80	2.44	27.04	2.28	2.23
Crane /b/	1	8	5.40	1.22	13.52	1.14	1.11
Forklift /b/	10	8	53.98	12.22	135.21	11.40	11.14
Welding Machine /b/	14	8	75.58	17.11	189.29	15.96	15.59
Back Hoes /b/	2	8	10.80	2.44	27.04	2.28	2.23
Fireproofing Hoppers /b/	4	8	21.59	4.89	54.08	4.56	4.45
Flatbed Trucks /c/	15 trips	75 miles/trip	20.74	7.26	42.62	7.93	8.18
Flatbed Trucks /c/	15 trips/day	40 miles/trip	11.06	3.87	22.73	4.23	4.36
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			346.57	84.22	525.67	49.78	59.91
Quantity in Exceedance of limits			-203.43	**9.22**	**425.67**	-100.22	-90.09
Inpatient Tower: Interior Finishing (13 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Forklift /b/	6	8	32.39	7.33	81.12	6.84	6.68
Welding Machine /b/	8	8	43.19	9.78	108.17	9.12	8.91
Fireproofing Hoppers /b/	4	8	21.59	4.89	54.08	4.56	4.45
Flatbed Trucks /c/	15 trips/day	40 miles/trip	11.06	3.87	22.73	4.23	4.36
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			244.85	58.64	280.24	24.75	35.02
Quantity in Exceedance of limits			-305.15	-16.36	**180.24**	-125.25	-114.98
Inpatient Tower: Landscaping (5 months)							
Type of Equipment /a/	# of pcs	# hrs/day					
Backhoes /b/	4	8	21.59	4.89	54.08	4.56	4.45
Scraper	2	8	20.02	4.52	61.35	7.40	6.48
Dump Trucks /c/	6 trips/day	25 miles/trip	2.77	0.97	5.68	1.06	1.09
Construction Workers trips/d/			136.62	32.77	14.14	0.00	10.62
Estimated emissions			181.00	43.15	135.25	13.02	22.64
Quantity in Exceedance of limits			-369.00	-31.85	**35.25**	-136.98	-127.36

/a/ Information on construction equipment used provided by Turner Construction Company

/b/ Assumes same emission rate as miscellaneous diesel-powered equipment.

/c/ Number of trips is based on total truckload estimates as supplied by Turner Construction Company, average trip length assumed to be 40 miles per trip.

/d/ URBEMIS &G, using EMFAC7G emissions factors, was used to estimate construction workers trips emissions.

(--) Denotes negligible emission of pollutant did not exceed AQMD threshold limits.

SOURCE: SCAQMD, CEQA Air Quality Handbook, April 1993.

9.0 MITIGATION MONITORING AND REPORTING PROGRAM

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INTRODUCTION

As of January 1, 1989 the California Environmental Quality Act Requires a Mitigation Monitoring and Reporting Program (MMRP). This program has been prepared in compliance with the requirements of Section 21081.6 of the California Environmental Quality Act (CEQA). The Final Environmental Impact Report (EIR) for the project as described in the project description identifies the significant environmental impacts associated with the project and specifies a series of measures designed to mitigate adverse impacts to the environment. The MMRP describes the procedures the applicant will use to implement the mitigation measures adopted in connection with the approval of the project and the methods of monitoring and reporting on such action. Monitoring refers to the observation of mitigation activities at the project site, in the design of plans or in the operation of programs. Reporting refers to the communication of the monitoring results to the County and other designated agencies. A Monitoring/Reporting Program is necessary only for impacts which would be significant if not mitigated.

The project applicant, the County of Los Angeles, shall be obligated to provide documentation to the appropriate monitoring agency and the appropriate enforcement agency as provided for herein. All departments listed below are within the County of Los Angeles unless otherwise noted. The entity responsible for the implementation of all mitigation measures shall be the Department of Health Services (DHS) unless otherwise noted.

PURPOSE

This Mitigation Monitoring and Reporting Program has been prepared in conformance with Section 21081.6 of the California Environmental Quality Act. It is the intent of this program to:

1. Verify satisfaction of the required mitigation measures of the EIR;
2. Provide a methodology to document implementation of the required mitigation;
3. Provide a record of the Monitoring and Reporting Program;
4. Identify monitoring responsibility;
5. Establish administrative procedures for the clearance of mitigation measures;
6. Establish the frequency and duration of monitoring and reporting;
7. Utilize existing review processes wherever feasible.

ADMINISTRATIVE PROCEDURES

The County's existing planning, engineering, review and inspection processes will be used as the basic foundation for MMRP procedures, and will also serve to provide the documentation for the reporting program (All associated reports and documentation shall be open for inspection by the public, responsible agencies and others).

Reporting consists of establishing a record that a mitigation measure is being implemented. This will involve the following steps.

1. Reports shall be issued annually commencing 12 months following EIR certification.

2. Remedial actions to correct non-compliance shall extend monitoring and reporting as necessary to assure compliance. Remedial action reports will be issued within 10 days of completion of such remedial action.

3. Evidence such as verification forms, letters, signatures, and initials, shall be maintained as an appendix to annual reports.

4. Annual reports and appendices will be on file with Fernando Vizcarra, Project Director, and will be publicly available to all interested parties.

5. All reporting forms indicating non-compliance with any required mitigation measure of the EIR shall be issued within 5 working days of discovery to the County's project director.

Once construction is initiated, the County will hold meetings on a monthly basis to allow residents and businesses impacted by the project an opportunity to report on the potential non-compliance of any mitigation measure. A log of issues and their remedial actions, as well as those identified from contact with the project office, will be shared monthly with the Replacement Facility Advisory Council.

MONITORING PROCEDURES

The project development process generally falls into three phases relevant to the MMRP:

1. Design,
2. Construction,
3. Operation.

Directly related to these phases of development are three implementation mechanisms:

1. The incorporation of mitigation measures into the project design,
2. The incorporation of mitigation measures into construction contracts,
3. The implementation of mitigation measures by administrative action.

Mitigation measures such as building setback restrictions and landscaping requirements are made conditions of building permit approval. Mitigation measures such as highway design, plumbing specifications and sewer programs provide requirements for the design of the project. This type of mitigation measure is generally implemented through the incorporation of the mitigation measure into the project design.

Mitigation measures such as truck hauling route restrictions, dust control methodology and work hour restrictions provide guidance for the construction phase of the project. This type of

mitigation measure is generally implemented through the incorporation of the mitigation requirement into the language of the construction contract documents.

Recommendations for on-going traffic management, landscape irrigation and recycling programs are examples of mitigation measures that require administrative action to implement during the life of the project. This type of mitigation measure is often implemented through administrative action in operation contracts, leases, creation of associations and covenants and agreements.

Generally, the monitoring of the implementation of mitigation measures occurs during and at the completion of the implementation phase, prior to the commencement of the next phase of the development process. For example, those mitigation measures implemented in the design phase of the project will be monitored during and at the end of the design phase, prior to commencement of the construction phase of development. Those measures implemented in the construction phase through the incorporation of mitigation measures into construction contract documents are monitored prior to the start of construction activities and during the construction activities. Prior to the start of construction activities, a monitoring check will be completed to assure that the contract documents include all necessary mitigation provisions. The on-site monitoring of mitigation measures will also occur during the construction activities. Construction phase project monitoring checklists and signature sheets will be utilized to assure that appropriate implementation, as well as timely monitoring, have taken place.

The timing of monitoring for mitigation measures to be implemented through administrative action will vary depending on the nature of the measure.

MONITOR/MONITORING TEAM

It will be the Project Director's responsibility to prepare the monitoring reports with support of the construction manager, County staff and consultants.

ENFORCEMENT

Under CEQA, the ultimate discretion and responsibility for making determination with respect to potential environmental effects rests with the lead agency.

Mitigation Monitoring and Reporting provisions under CEQA do not grant monitors or agencies any additional police powers to enforce compliance with mitigation measures. The Mitigation Measures Report is an informational document upon which the County may act to enforce compliance. The Monitor will act as a reporter of information on compliance based on the terms set forth in this Mitigation Monitoring and Reporting Program. If a failure to mitigate or comply with mitigation measures is reported by the Monitor, the County will act to require correction of such failure.

The County may not require the use of alternative means to mitigate adverse effects of the project if a mitigation measure proves to be ineffective unless such alternative measures are adopted by the County Board of Supervisors pursuant to CEQA. Ineffective mitigation measures may be eliminated from future mitigation packages for subsequent phases of the project that may generate similar adverse affects on the environment.

PROGRAM MODIFICATION

After review and approval by the Board of Supervisors, minor changes to the Mitigation Monitoring and Reporting Program are permitted but can only be made by the Department of Health Services. This flexibility is necessary in light of the prototype nature of the Program and the need to protect the environment with a workable program. No changes will be permitted unless the Mitigation Monitoring and Reporting Program continues to satisfy the requirements of Section 21081.6 of the California Environmental Quality Act as determined by the County.

The Mitigation Monitoring program is presented herein. Each required mitigation measure is listed and categorized by impact area, with an accompanying discussion of:

- the agency or agencies responsible for implementation;
- the schedule for monitoring the measure(s);
- verification procedure.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
GEOTECHNICAL			
Mitigation measures for Alternative 2 and 3 are as follows:			
Comply with the seismic provisions of the Office of Statewide Health Planning and Development and the appropriate California Building Code.	PDT	Construction document review, final site inspection.	Approval of construction document by OSHPD and issuance of building permit by County Building and Safety.
The proposed project will meet the requirements of the Health and Safety Code, Section 15000 of the 1972, Hospital Seismic Safety Act, so that the critical services provided with the new Medical Center may remain operational after a seismic event. The proposed project will include emergency generators, and other back-up systems. The diagnostic center portion of the new hospital would be built using base isolation technology to lessen the shaking and vibration experienced during an earthquake.	PDT	Construction document review, final site inspection.	Approval of construction document by OSHPD and issuance of building permit by County Building and Safety.
As an emergency care facility, an emergency plan shall be completed per California Division of Mines and Geology regulations. This plan will include a review of operational capability from at least three of the following viewpoints: loss of life; physical building damage; loss of medical supplies; and loss of hospital functions due to disruption to utilities. Development of an emergency response and	PDT	Prior to issuance of certificate of occupancy.	Approval of Emergency Plan by the State Fire Marshal.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
evacuation plan for project structures and dissemination of that information to occupants would reduce the potential for human injury. To assist in response to a seismic event, the emergency response and building-specific evacuation plan should be posted on each occupied floor of buildings at the site.			
Following site stripping and any required overexcavation, all areas are to receive fill or to be used for the future support of structural loads, be proof rolled with a rubber-tire loader or other heavy equipment to locate any soft or loose zones. All loose/soft or otherwise unsuitable areas should be removed or compacted in-place. If in-place compaction is not practical, fills and backfills may be placed in accordance with the recommendations presented in the following sections	PDT	Contract specification; during site grading and excavation activities.	Inspection approval by registered geologist.
Fills and backfills should be placed in loose lifts not exceeding 8 inches in thickness and moisture conditioned as required to achieve near-optimum moisture content. Structural fills and backfills should be compacted to at least 95 percent of the maximum dry density per ASTM D-1557.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
If granular soils are encountered in the excavations, these materials should be stockpiled for possible reuse as backfill behind basement walls and over and around foundations	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
All imported fill and backfill soils should be predominantly granular, less than 3 inches in any dimension and be free of organic and inorganic debris. All fill and backfill materials should be observed and tested by the geotechnical engineer prior to their use in order to evaluate their suitability.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
All fill slopes should be constructed at 2(h): 1(v) or flatter. Benching should be performed during construction of all fill slopes with existing ground surface 5(h): 1(v) or steeper. All fill slopes should be compacted to 95 percent of the maximum dry density and in accordance with applicable County building codes	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
All excavations must comply with the current CAL/OSHA requirements. All cuts greater than 5 feet in depth should be sloped and/or shored. Heavy construction equipment, building materials and excavated soil should not be allowed near the top of any excavations.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Excavation in bedrock may be cut vertically to a depth of up to 5 feet. Temporary excavations deeper than 5 feet in the bedrock may be sloped at ¾(h): 1(v) or flatter to a maximum height of 10 feet. Flatter slopes will be required if clean and/or loose sandy soils or zones of adverse bedding are encountered along the slope face	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
Temporary excavations deeper than 5 feet in alluvium should be sloped at 1½(h): 1(v) or flatter up to a maximum depth of 10 feet. Flatter slopes will be required if clean and/or loose sandy soils are encountered along the slope face. In alluvium, steeper cuts may be utilized for excavations less than 5 feet deep, depending on the strength and homogeneity of the soils as observed in the field	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
If the available space will not permit sloping or benching of the excavations, a temporary shoring system will be required. It is assumed that the temporary shoring will be in place for a few weeks only. If it is planned to keep excavations open for longer periods, up to several months, then it might be more appropriate to assume the earth pressure recommendations for permanent shoring. Shoring systems typically consist of a soldier pile and lagging retention system; either	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
tied-back, internally braced, or cantilevered. The shoring system is expected to require several tiers of tiebacks or braces. Augered earth anchors installed by continuous-flight, hollow-stem augers, with a high-strength steel bar or cable (tendon) inserted into the drilled hole, and then tremied with grout, would be appropriate for the project.			
The temporary shoring system should be designed to resist lateral earth pressures plus additional horizontal pressures imposed by foundations of adjacent structures	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
Soldier piles must extend below the excavation bottom to provide lateral resistance by passive soil pressure and incorporate a factor of safety of at least 1.5.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
Based on the loading data provided for the Replacement Project an allowable bearing pressure of 6,000 psf may be used for spread footings established in the native, moderately weathered bedrock or competent alluvium	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
materials. Footings should be a minimum of 2 feet wide and established at a depth of at least 2 feet below the lowest adjacent final grade.			
Mats should be established at a minimum depth of 2 feet below the lowest adjacent finished grade or be provided with a minimum 24-inch deep by 18-inch wide thickened edges for additional confinement and to prevent water infiltration under the mat.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
Drilled, cast-in-place piers may be required in areas where access precludes proper site preparation, for support of pedestrian bridges and for other purposes.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
Presence of predominately granular materials in the alluvium and bedrock units should be anticipated. Due to presence of these soils, pier construction may require special provisions to prevent or control caving of the drilled shafts. Such provisions may involve the use of casing, or wet methods using bentonitic or polymer slurries	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Use grade beams/tie beams between pile caps to provide additional lateral resistance and to maintain foundation alignment and integrity	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
All drilled pier construction should be performed in accordance with ACI 336.1-91, "Standard Specifications for Construction of Drilled Piers."	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
All floor slabs should be supported on improved subgrade consisting of a minimum of 6 inches free-draining material.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
A moisture barrier is recommended under all floor slabs in areas to be covered with moisture-sensitive floor coverings. A 10-mil plastic or vinyl membrane may be used for this purpose and should be placed between two layers of moist sand, each at least 2 inches thick, to protect the membrane during construction			Inspection approval by registered geologist.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Subgrade soils shall be compacted to 95 percent of the maximum dry density per ASTM D-1557, for a minimum of 12 inches.	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
The ground surface of the site should be adequately sloped to direct water away from the building and foundations. Areas where water could pond adjacent to the building in planters, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Area drains should not be placed next to or in contact with the building. The ground surface should be adequately sloped away from structures toward the area drains. Roof drainage should be controlled and directed to proper drainage devices in an acceptable manner	PDT	Contract specification, during grading operations and foundation excavation.	Inspection approval by registered geologist.
Standard construction practices and concrete mixes may be used for concrete in contact with the site soils using Type II cement. Underground piping may require cathodic protection, epoxy coating and/or wrapping	PDT	Contract specification, during grading operations and foundation excavation.	Testing/inspection approval.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Geotechnical aspects of the project will be reviewed by a geotechnical firm during the design process to include assistance to the design team in providing specific recommendations for special cases and reviewing the foundation design	PDT	Prior to construction.	Review and approval of design, testing/inspection approval by registered geologist.
As required under the California Building Code, and due to the complex foundation requirements, all earthwork and foundation construction should be monitored by a qualified engineer/technician. As such, the validity of the recommendations contained in this report is contingent upon monitoring of the following: - Site preparation -- site stripping, overexcavation, and recompaction; - All shoring installations; - All drilled cast-in-place pier installations; - All foundation excavations; - Placement of all compacted fills and backfills; and - Construction of slab and pavement subgrades.	PDT	Prior to & during construction and grading operations	Inspection approval.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
LAND USE			
Mitigation Measures (Alternatives 2 &3)			
The County shall properly maintain and secure General Hospital to avoid disrepair and criminal activity as identified in mitigation measures in Section 4.12, Cultural Resources.	PDT	Six months after vacation of hospital and semi-annually thereafter.	Written documentation by monitor.
The County shall prepare a reuse plan for any vacant building as part of the replacement project, including environmental review, prior to reoccupancy.	PDT	Prior to reoccupancy	Documentation by monitor.
A landscape buffer of a minimum of 15 feet shall be maintained at the periphery of the LAC+USC Medical Center along Chicago Street.	PDT	On project design; project completion	Documentation by monitor.
The cooling towers on the campus periphery along Chicago Street shall be designed to ensure that they are not visible to residences along Chicago Street.	PDT	Completion of Project design.	Documentation by monitor.
Development shall be designed to ensure that vehicular and pedestrian access points are oriented toward the LAC+USC Medical Center, away from the community.	PDT	Completion of Project design.	Documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Development shall be designed to minimize impacts of light and glare on adjacent residential uses to the east.	PDT	On project approval	Documentation by monitor.
TRAFFIC/CIRCULATION/PARKING			
Mitigation Measures (Alternative 2)			
The following improvement is recommended as the appropriate measure required to mitigate the potential impact at the intersection of Kingston Avenue and Marengo Street: • Signalization of this intersection would accomplish several objectives which would improve traffic conditions in the area. The driveway for emergency walk-in patients is located across Marengo Street at Kingston Avenue. Signalization of the intersection would improve the safety for all pedestrians accessing the parking structure from the north side of Marengo including those using the emergency room. A signal warrant analysis, which is fully documented in Appendix B of the Traffic Study, was conducted at this location indicating that several warrants would	LADOT	Prior to construction	Inspection approval by LADOT.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
be satisfied justifying the implementation of this proposed improvement.			
PUBLIC HEALTH AND SAFETY/HAZARDOUS MATERIALS			
Mitigation Measures (Alternatives 2 & 3)			
When encountered during excavation, removal of all refined and crude oil-containing soil shall be performed in accordance with applicable regulations concerning the handling and disposal of such materials. Prior to contaminated soil removal, available off-site disposal options, which may include recycling/treatment or deposit in landfill, shall be evaluated. The excavated materials should be temporarily stockpiled and covered with plastic sheeting at a pre-designated location on the site. If necessary, additional sampling and testing of stockpiled materials may be required for final classification and disposal.	PDT	During grading/excavation operations.	Field inspection & written documentation by monitor.
In areas where crude oil-containing materials were discovered, all on-site excavations shall be monitored for the potential presence of methane gas and soil contamination. The monitoring shall be performed as part of an excavation plan which should be prepared to allow excavations to proceed in an environmentally and technically	PDT	Completion and excavation plan, during grading operations.	Field inspection & written documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
safe manner with minimal interruptions and delays. The plan should describe the safe handling and/or removal of contaminated and potentially contaminated materials during excavation.			
SOCIO-ECONOMIC ISSUES/ENVIRONMENTAL JUSTICE			
Mitigation Measures			
LAC+USC Medical Center will devise a procedure whereby when transferring patients due to lack of capacity a priority is given to transferring these patients to a facility closer to their home. Also, contracts will be put in place with area private hospitals to provide beds for those patients that cannot be served in the existing county facilities.	PDT	Contract specifications.	Documentation by Monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
AIR QUALITY			
Mitigation Measures (Alternatives 2 & 3)			
Project Construction			
General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. Construction activities shall be phased and scheduled to avoid emissions peaks to the extent practical.	PDT	Contract specifications during grading & construction operations.	Periodic field inspections by monitor.
General contractors shall maintain regular maintenance and tune-ups on their construction equipment to maintain equipment emissions of NO_x, CO, ROC, and PM_{10} to the minimum.	PDT	Contract specifications during grading & construction operations.	Periodic field inspections by monitor.
The following measures shall be implemented to reduce particulate and dust emissions:			
- During construction, the site shall be watered appropriately and all equipment cleaned to reduce particulate and dust emissions.	PDT	Contract specifications during grading & construction operations.	Periodic field inspections by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
- The contractor shall install a wheel wash station to remove all debris from earth trucks prior to entering public streets.	PDT	Contract specifications during grading & construction operations.	Periodic field inspections by monitor.
- Silt shall be controlled by providing hard surfaces on any construction roads, sweeping streets, and washing trucks leaving the site.	PDT	Contract specifications during grading & construction operations.	Periodic field inspections by monitor.
- Construction traffic shall be prohibited along the portion of Zonal Avenue between San Pablo and Charlotte Streets. (This is the area in front of Francisco Bravo Medical Magnet High School). Also construction truck traffic shall be prohibited from using residential streets. The contractor shall install signs prohibiting construction traffic and advise all subcontractors and workers of the restrictions.	PDT	Contract specifications during grading & construction operations.	Periodic field inspections by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
- Dirt runoff and spills on traveled roadways shall be washed or swept as needed during construction.	PDT	Contract specifications during grading & construction operations.	Periodic field inspections by monitor.
NOISE			
Mitigation Measures (Alternatives 2 & 3)			
Project Construction			
Construction activities that generate high levels of noise shall be scheduled between 8 a.m. and 6 p.m., Monday through Friday and 9 a.m. to 5 p.m. on Saturdays.	PDT	Contract specifications; daily during grading & construction.	Grading plan check; field inspection by monitor.
Noisy construction activities shall be scheduled in shifts, where practical, to avoid high noise levels caused by operating several pieces of equipment simultaneously.	PDT	Contract specifications during grading & construction operations.	Grading plan check; field inspection by monitor.
The project contractor will be required to use power construction equipment with state of the art noise shielding and muffling devices to reduce noise levels associated with construction equipment operation.	PDT	Contract specifications during grading & construction operations.	Grading plan check; field inspection by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Operation			
Noise barrier of up to 10 feet in height at project site along Chicago Street.	PDT	Contract specifications during grading & construction operations.	Grading plan check; field inspection by monitor.
Loading and staging areas on-site shall be kept away from noise sensitive land uses.	PDT	Contract specifications during grading & construction operations.	Grading plan check; field inspection by monitor.
PUBLIC SERVICES AND UTILITIES			
Mitigation Measures (Alternatives 2& 3)			
Fire			
The proposed project shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles to the extent they are consistent with the State Fire Code.	PDT; State Fire Marshall; City of Los Angeles Fire Department (LAFD)	Construction documents review; prior to issuance of building permit.	Jurisdictional approval documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Definitive plans and specifications shall be submitted to the Office of Statewide Health, Planning and Development's Office of Fire Marshal and requirements for necessary permits shall be satisfied prior to any new construction.	PDT and State Fire Marshall	Construction documents review.	Jurisdictional approval documentation by monitor.
Automatic fire sprinklers shall be required throughout any new structure.	PDT; State Fire Marshall;	Construction documents review; prior to issuance of building permits.	Jurisdictional approval documentation by monitor.
Adequate off-site public fire hydrants are required. Private fire hydrants may be required. All portions of any non-residential building must be within 300 feet of an approved fire hydrant. Their number and location would be determined after the Fire Department's review of the plot plan.	PDT; State Fire Marshall; LAFD	Construction documents review; prior to issuance of building permits.	Jurisdictional approval documentation by monitor.
The project shall comply with State Fire Code requirements, including possible improvements to the water system of the area to provide a 9,000 gpm fire-flow.	PDT; State Fire Marshall; LAFD	Construction documents review; prior to issuance of building permits.	Jurisdictional approval documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Access for Fire Department apparatus and personnel to and into all structures shall be required. Plans shall be submitted to the Los Angeles Fire Department which show the interior layout of the proposed hospital.	PDT; State Fire Marshall; LAFD	Construction documents review; prior to issuance of building permits.	Jurisdictional approval documentation by monitor.
The design, location, operation, and maintenance of any gates shall be to the satisfaction of the Fire Department.	PDT; State Fire Marshall; LAFD	Construction documents review; prior to issuance of building permits.	Jurisdictional approval documentation by monitor.
Private streets on-site shall conform to LA County Department of Public Works standards. However, where fire lanes are required, the pavement width shall be a minimum 20' to 28' as allowed by code. The passenger drop-off area must be widened if parking is allowed. Fire lanes shall terminate in a cul-de-sac or other approved turning area.	PDT or Los Angeles County Department of Public Works	Construction documents review; prior to issuance of certificate of occupancy.	Jurisdictional approval documentation by monitor.
The new building shall be fully sprinklered, will have fire-rated corridors, will incorporate smoke barriers, and shall have a water storage vault with pumps to supply water to sprinklers in case of a disruption in water supply.	PDT; State Fire Marshall; LAFD	Construction documents review; prior to issuance of certificate of occupancy.	Jurisdictional approval documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
The Fire Department shall have access to all buildings, and normally all exterior walls will be within 150' of a fire lane. However, because the new building will be sprinklered, the permitted distance between fire lanes and all portions of the building is increased to 300 feet.	PDT; State Fire Marshall; LAFD	Construction documents review; prior to issuance of certificate of occupancy.	Jurisdictional approval documentation by monitor.
Public and private roadways shall not exceed 15% in grade.	PDT; State Fire Marshall; LAFD; Los Angeles County Department of Public Works	Construction documents review; prior to issuance of certificate of occupancy.	Jurisdictional approval documentation by monitor.
All new fire lanes shall be a minimum of 20 feet to 28 feet in width, as allowed by code, with the exception of a temporary lane between the south face of the existing Outpatient Department and the edge of the shoring, which shall be 21 feet. To mitigate this, LAC+USC proposes larger than required staging areas at each end of the 21 foot segment.	PDT; LAFD	Plan review; Prior to building permit.	Plan Approval by OSHPD and LAFD; included as condition of building permit.
A new fire lane shall be provided east of General Hospital where none currently exists. New approved turn-arounds shall be provided south of General Hospital.	PDT; LAFD	Plan review; Prior to building permit.	Plan approval by OSHPD and LAFD; included as condition of building permit.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Fire lanes shall be signed and shall remain clear.	PDT; State Fire Marshall; LAFD	Plan review; prior to issuance of certificate of occupancy; post-occupancy.	Plan approval by OSHPD and LAFD; included as condition of certificate of occupancy; included in annual report to be prepared by DHS.
As the old buildings (that are to remain) are vacated, all furniture, papers, boxes, etc., shall be removed from the structures to prevent fire hazards.	PDT; LAFD	Mothballing	Documentation by monitor.
Police			
Parking areas may be controlled by an electronic card-key gate in conjunction with a closed circuit television system.	PDT	Plan review of construction documents.	Documentation by monitor.
Entryway, elevators, lobbies, and parking areas shall be well illuminated and designed with minimum dead space to eliminate areas of concealment.	PDT	Plan review of construction documents.	Documentation by monitor.
Ornamental shrubbery shall not be planted in a way that provide cover for persons.	PDT	Plan review of construction documents.	Documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Upon completion of the project, the sponsor shall provide the Hollenbeck Area commanding officer with a diagram of the project. The diagram shall include access routes, unit numbers, and any information that might facilitate police response.	PDT	Prior to issuance of certificate of occupancy	Verification from LAPD that diagram has been received prior to issuance of certificate of occupancy.
County shall maintain appropriate security measures at General Hospital.	PDT	Mothballing	DHS shall provide documentation of all security measures.
Schools			
None required.			
Telephone			
Off-site improvements are not required.			
Water			
Automatic sprinkler systems should be set to irrigate landscaping during early morning hours or during the evening to reduce water losses from evaporation. Additionally, care must be taken to reset sprinklers to water less often in cooler months and during the rainfall season so that water is not wasted by excessive landscape irrigation.	PDT	Construction / Post occupancy; included as condition of landscaping/ maintenance contract.	Inspection by DHS.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Installation of water saving devices, which also serve to reduce wastewater generation, shall be included in project design. These shall include at a minimum; low-flow showers, toilets, and faucets.	PDT	Plan review; prior to issuance of certificate of occupancy. Construction documents; prior to issuance of building permit.	Condition of certificate of occupancy.
Selection of drought-tolerant, low water consuming plant varieties shall be used where appropriate to reduce irrigation needs.	PDT	Plan review; prior to issuance of certificate of occupancy. Construction documents.	Condition of certificate of occupancy.
Special arrangements shall be made with the Department of Water and Power to make improvements to the water system to provide the required fire flow of 9,000 gpm.	PDT; LADWP	Construction documents. Plan review; prior to issuance of building permits; Prior to issuance of certification of occupancy.	Issuance of building permits and certificate of occupancy.
Sewers			
Off-site improvements are not required.			

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Storm Drains			
A conceptual drainage plan showing the project design for the conveyance of site runoff shall be approved by the County DPW prior to issuance of grading permits for the project site.	PDT; county engineer	Prior to issuance of building permits; prior to grading operations.	Approval of drainage plan prior to issuance of a grading permit; wastewater discharge permit; grading permit approval. Field inspection approval.
The project sponsor shall file a report with the County DPW and the Regional Water Quality Control Board (RWQCB) which complies with the National Pollution Discharge Elimination System (NPDES) Permit No. CA0061654.	PDT; County Public Works	Prior to grading and construction activities	Written confirmation from the RWQCB confirming compliance prior to issuance of grading permit.
All paved areas shall be designed to carry surface water to the nearest practical street or storm drain. Concentrated flows of water from parking areas shall not flow by gravity over any public property or pedestrian walkway, but shall be collected in an appropriate manner within the property confines and conducted under the sidewalk.	PDT	Plan review; prior to issuance of building permit.	Approval of drainage plan prior to issuance of building permit.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Timely removal and proper disposal of landscape debris, construction debris, fuel and chemical residue or other type of potentially harmful residue from areas susceptible to runoff shall be provided.	PDT	Included as condition of construction contract. Prior to grading; during grading, construction and post occupancy.	Field inspections by monitor.
During periods of rain or when water is used during construction, runoff shall be diverted from areas exposed by construction through the use of berms (sand bags) or other such devices to minimize stormwater contamination and prevent sediment-filled runoff from being deposited in County storm drains.	PDT	During grading & construction. Included as condition of construction contract.	Field inspections by monitor.
Parking area maintenance and sweeping shall be conducted regularly (without the use of water) to reduce the amount of pollutants entering the County storm drain system.	DHS	Prior to occupancy; post occupancy; included as condition of maintenance contract.	DHS monitor.
Hazardous materials shall be properly stored and located to prevent contact with precipitation or runoff. All receptacles containing toxic materials shall be protected from rainfall so that runoff from the project site does not contain contaminants. Effective monitoring and cleanup programs for spills and leaks of hazardous	PDT/DHS	Construction , post-construction.	Field inspection during construction. Included in annual report to be completed by DHS.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
materials shall be prepared and approved by the appropriate agencies (Fire Department, County Health Agency, etc.).			
Solid Waste			
The project shall be required to comply with the State's AB/939 resource reduction and recycling program.	PDT/DHS	Prior to occupancy; post-occupancy.	Approval of recycling program prior to issuance of Certificate of Occupancy; Building permit approval; included in annual report to be completed by DHS.
Any asphalt or pavement removed during construction shall be offered for sale for reuse in construction of other projects.	PDT	Construction.	Written documentation of scale or donation.
As mandated by the California Solid Waste Reuse and Recycling Access Act of 1991; by September 1993, development projects shall provide for an adequate storage area for collection and removal of recyclable materials.	PDT/DHS	At completion of construction.	Construction documents.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
WATER RESOURCES/WATER QUALITY			
Mitigation Measures (Alternatives 2 & 3)			
Permanent monitoring wells shall be installed within and around the perimeter of each building so that the groundwater levels can be monitored to evaluate the performance of the dewatering system. As dewatering of any deep excavation may affect adjacent structures, prior to the start of any dewatering, a baseline condition survey will be made of all adjacent foundations and structures. All signs of existing distress shall be recorded.	PDT	On completion of project.	Documentation by monitor.
The ground surface of the site should be adequately sloped to direct water away from the building and foundations. Areas where water could pond adjacent to the building in planters, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Area drains should not be placed next to or in contact with the building. The ground surface should be adequately sloped away from structures toward the area drains. Roof drainage should be controlled and directed to proper drainage devices in an acceptable manner.	PDT	Construction documents, during grading operations.	Inspection approval.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
The County shall require each contractor to develop a specific erosion control plan, that is compatible with the overall site general erosion control plan, and submit their plan for approval to the governing regulatory agency. The contractor's erosion control plan must comply with the California Stormwater Best Management Practices Handbook.			
BIOLOGICAL RESOURCES			
None required.			
CULTURAL RESOURCES			
Mitigation Measures (Alternatives 2 & 3)			
Historical Resources			
Future adaptive use/rehabilitation of General Hospital after decommissioning shall comply with the Secretary of the Interior's Standards for Rehabilitation (Standards, 36, Code of Federal Regulations (CFR) § 67.7). As provided in Section 106 regulations (36 CFR § 800.9 (c)(2)) compliance with the standards would have no adverse effect.	PDT	Prior to reuse	Documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
Prior to reuse the General Hospital shall be maintained and preserved, described in *Preservation Brief: Mothballing Historic Buildings*, measures would include among others: - *Document the architectural and historical significance of the building.* - *Prepare a condition assessment of the building.* - *Structurally stabilize the building, based on a professional condition assessment.* - *Exterminate or control pests, including termites and rodents.* - *Protect the exterior from moisture penetration.* - *Secure the building and its component features to reduce vandals, break-ins and natural disasters.* - *Provide adequate ventilation to the interior.* - *Secure or modify mechanical systems and utilities.* - *Develop and implement a maintenance and monitoring plan for protection (see Table 34).*	PDT/DHS	6 months after vacation.	Documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
The County shall comply with the standards under CEQA Guidelines (Title 14, California Code of Regulations, §15064.5 (b) (3)).			
FEMA, SHPO and the County have executed a Memorandum of Agreement covering the replacement and reuse of General Hospital. The Memorandum of Agreement includes stipulations for the development of an adaptive reuse plan and/or the mothballing of the General Hospital Acute Care Center in accordance with the U.S. Department of the Interior's Preservation Brief 31, Mothballing Historic Buildings.			
Archaeological Resources			
If cultural resources are exposed during grading a qualified archeologist shall be contacted to assess significance of the find. The immediate area of find shall be avoided until such assessment has been performed. If human remains are exposed the Los Angeles County coroner must be contacted immediately and the area of the find avoided until the coroner can assess the remains. Any such resources would be treated as unanticipated discoveries and would be subject to	PDT	During grading operations.	Documentation by monitor.

Mitigation Measures	Monitoring Responsibility	Monitoring Schedule	Verification of Compliance
additional Section 106 review and further mitigation may be required.			

APPENDICIES

LOS ANGELES COUNTY+ UNIVERSITY OF SOUTHERN CALIFORNIA (LAC+USC) MEDICAL CENTER REPLACEMENT PROJECT

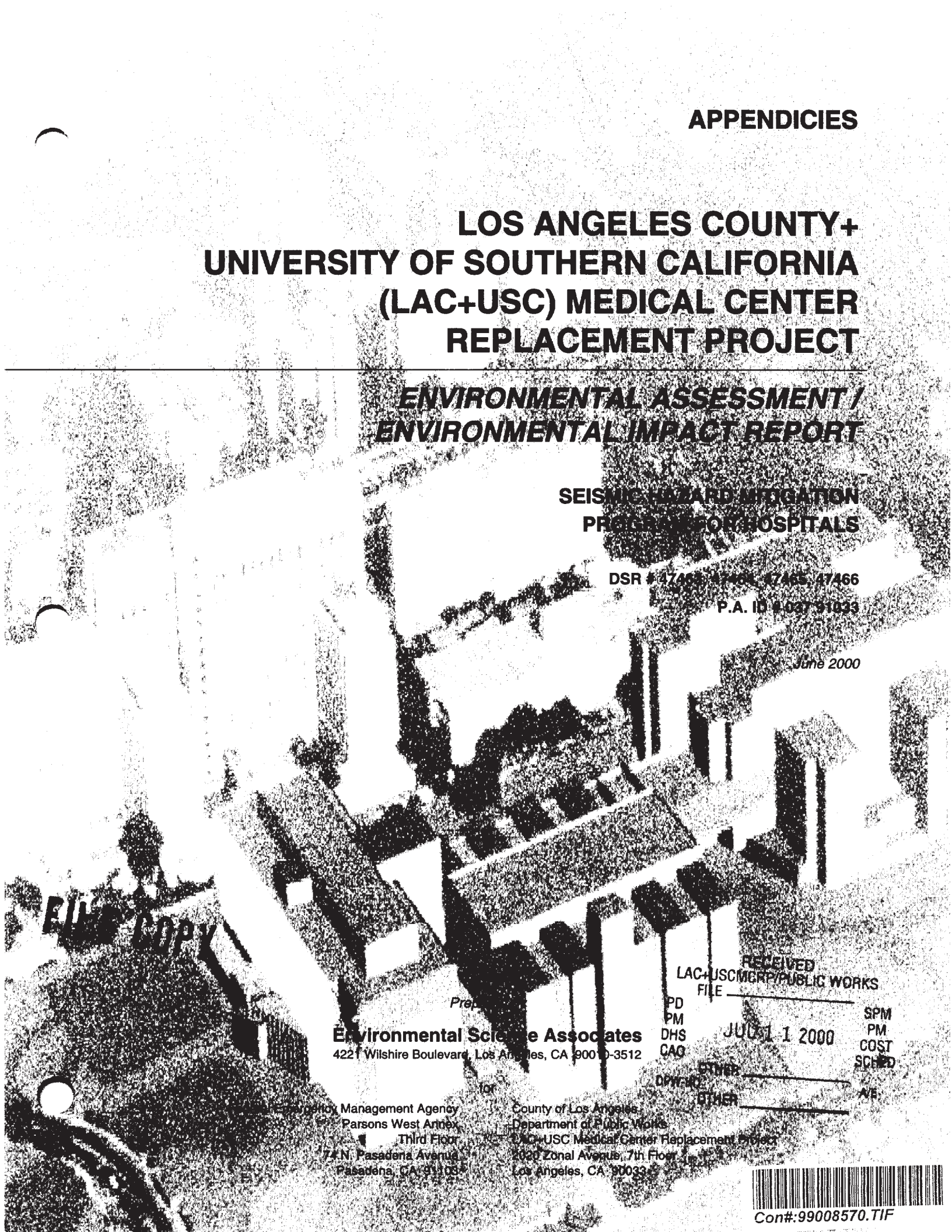
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

SEISMIC HAZARD MITIGATION PROGRAM FOR HOSPITALS

DSR # 47463, 47464, 47465, 47466

P.A. ID # 037-91033

June 2000



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Prep

Environmental Science Associates
4221 Wilshire Boulevard, Los Angeles, CA 90010-3512

for

Los Angeles County Metropolitan Transportation Authority
Parsons West Annex
Third Floor
74 N. Pasadena Avenue
Pasadena, CA 91103

County of Los Angeles
Department of Public Works
LAC+USC Medical Center Replacement Project
2020 Zonal Avenue, 7th Floor
Los Angeles, CA 90033

Con#:99008570.TIF

APPENDICES

DRAFT ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT
LOS ANGELES COUNTY/UNIVERSITY OF SOUTHERN CALIFORNIA
MEDICAL CENTER

Prepared for:

COUNTY OF LOS ANGELES

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APPENDIX A

NOTICE OF PREPARATION

LOS ANGELES COUNTY
+
UNIVERSITY OF SOUTHERN CALIFORNIA
MEDICAL CENTER

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT

Lead Agency:

Agency Name: **Los Angeles County - Public Works**
Street Address: **1200 North State Street, Box 121**
City/State/Zip: **Los Angeles, CA 90033**
Contact: **Brad Bolger, Project Director, (323) 226-4726**

The Los Angeles County Department of Public Works will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the probable environmental effects are contained in the attached materials. A copy of the Initial Study ___ is, _X_ is not, attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to __Brad Bolger, Project Director__ at the address shown above. We will need the name for a contact person in your agency.

Project Title: Los Angeles County + University of Southern California (LAC+USC) Medical Center Replacement Project

Project Applicant: Los Angeles County Department of Health Services

Project Location:

The LAC+USC Medical Center is located on approximately 87.5 acres of property bordered by Zonal Avenue to the north, Chicago Street to the east, Mission Road to the west, and Marengo Street to the south, within the City of Los Angeles. The site is approximately two miles east of downtown Los Angeles and is located immediately northeast of the Golden State (I-5) Freeway and the San Bernardino (I-10) Freeway interchange. Surrounding the Medical Center campus are land uses which include the USC Health Sciences campus on the north, a thin strip of

residential land uses on the east and commercial land uses on the south and west. (See Figure 1)

Project History:

In 1994, the County was considering a 950-bed project. The County of Los Angeles Department of Health Services proceeded with the design of a 950-bed replacement facility. The Los Angeles County Board of Supervisors certified an EIR for the 950-bed LAC+USC Medical Center Replacement Project on April 12, 1994. However, it became necessary to change the project as a result of the earthquake and financial considerations. In January 1994, four key LAC+USC Medical Center's facilities suffered significant structural damage as a result of the Northridge Earthquake. The County discovered extensive damage to LAC+USC facilities, which forced the closure of both the Pediatric and Psychiatric hospital buildings.

In 1996, FEMA provided funding for repair/replacement of damaged hospital buildings. The project that is now proposed would replace the current hospitals and outpatient buildings damaged in the earthquake and would reduce the number of hospital beds to 600. This Initial Study addresses the potential impacts of the 600-bed alternative.

Prior to the 1994 Northridge Earthquake, the campus consisted of over 128 buildings on the project site with a core of four hospitals: General, Women's, Psychiatric, and Pediatric. As discussed above, these four facilities sustained varying degrees of structural damage as a result the Northridge Earthquake, as well as continued deterioration due to old age. Other changes have occurred on and in the vicinity of the project site. Since certification of the 950-bed Replacement Project EIR the following changes have occurred:

- As a result of the earthquake, the Pediatric Pavilion and the Psychiatric Hospital were closed (red tagged) as they were considered unsafe for occupancy.
- The 3,000-space Marengo Parking Structure (#9) was completed, as analyzed in the previous EIR.
- As a result of the earthquake, the 1,200-space parking structure # 12 was closed for parking usage.
- 15.5 acres of residential land east of the site were acquired and are now County-owned property, the residences and commercial uses on that land were demolished as analyzed in the 1994 EIR. The County relocated residents and commercial businesses. The proposed site now encompasses the entire city block bounded by Cummings Street (which would be closed as part of this project), Marengo Street, Zonal Street and Chicago Street. Impacts (identified as significant in the previous EIR) associated with removal of these residential uses have occurred and are now part of the existing conditions for the 600-bed alternative.

As a result of FEMA involvement, environmental review will be required to comply with the National Environmental Policy Act (NEPA). This Initial Study is being prepared in accordance with the California Environmental Quality Act (CEQA) only. It is anticipated that a joint CEQA/NEPA document, either an Environmental Impact Report (EIR)/Environmental

Assessment (EA) or an EIR/Environmental Impact Statement (EIS) will be subsequently prepared. As discussed above, environmental review pursuant to CEQA has already been completed for a 950-bed alternative. The now-preferred 600-bed alternative (project) impacts would generally be lesser and included within the range of alternatives considered in the 1994 EIR. However, as a result of the passage of time (four years) and changes in circumstances of the project, as discussed above, as well as changes in site orientation and other issues associated with the project design, and because environmental review in accordance with NEPA is now required, it was decided to prepare a joint CEQA/NEPA environmental document.

Project Description:

The overarching objective of the proposed project is to maintain existing patient care, educational, research and community service programs at LAC+USC Medical Center while at the same time replacing existing damaged and obsolete facilities, constructing a replacement facility and creating new open space in a logical sequence. One of the key planning objectives of the County is to ensure that the replacement hospital will continue to function as the backbone of the County's safety net and as a major regional and community emergency/trauma and critical care provider.

The decision to build a 600-bed LAC+USC Medical Center replacement project was based on maintaining the critical balance between the health care needs of the community and the ability to finance and operate the hospital. Under the 600-bed alternative, LAC+USC would improve the existing medical services on campus by replacing and consolidating the five primary health care facilities with one new hospital. The replacement facility would be located directly southeast of the existing General Hospital structure and would contain 600 beds and would comprise a total of 1,469,565 Gross Square Feet (GSF). The proposed project would provide diagnostic and treatment services and outpatient specialty services. The proposed project would consist of three distinct buildings, an Inpatient Tower (644,564 GSF), a Diagnostic & Treatment Building (457,702 GSF), and an Outpatient Clinic Building (367,299 GSF). The project reflects the quantities and types of spaces projected to be required to meet future demand (anticipated to be for 175,000 emergency trauma visits per year, 350,000 specialty outpatient visits annually, and 600 inpatient beds at the LAC+USC Medical Center).

Generally access will be from Marengo and State Street; it is expected that there would be minimal hospital-related traffic on Chicago Street. A landscaped buffer zone is planned between LAC+USC Medical Center and Chicago Street, with the Inpatient Tower component set back sufficiently from adjacent properties.

The major entry orientation to the facility would be from the intersection of Marengo and State Street. This portal with its existing gates was built as part of the original General Hospital project and is the symbolic gateway to the LAC+USC Medical Center campus. At this location, a large entry plaza with drop off for the Outpatient Clinic Building, adjacent terrace and landscaped parking areas would combine to form a large open space.

An entry drive would proceed up the hill, providing access to parking areas, the Emergency Department drop-off, and the Inpatient Tower entry plaza. This plaza would be a significant outdoor space, providing a protected internal hub for circulation not only for the LAC+USC Medical Center Replacement Project and the Marengo Parking Structure, but also for the pedestrian traffic to and from the USC School of Medicine Campus.

Parking would be provided by the existing 3,000-space Marengo Parking Structure. The 1,200-space Parking Structure #12 would be rehabilitated. Other surface parking would be available on the western portion of the campus. A total of 4,200 parking spaces would be available upon project completion.

The existing General Hospital would remain in operation until completion of the Replacement Project. The existing facility may subsequently be reused in some way (reuse options were considered in the 1994 EIR). However, future reuse options have become extremely speculative at this time. On vacation of the structure, the County will properly maintain it until future reuse is decided upon.

Schedule

Given the scale and complexity of the project, the LAC+USC Medical Replacement Project will be phased in its implementation. Construction of the 600-bed facility will be conducted in five phases, beginning approximately in early 2000 and ending approximately around the year 2008.

Approvals Required

In addition to the County of Los Angeles, agencies which may have jurisdiction over portions of the project include, but are not limited to:

- Federal Emergency Management Agency
- Federal Aviation Administration
- State of California Department of Transportation
- Governor's Office of Emergency Services
- State Licensing
- Office of Statewide Health Planning and Development
- City of Los Angeles Fire Department
- Regional Water Quality Control Board – Los Angeles Region
- City of Los Angeles
- All other agencies responsible for any permits, actions or approvals necessary to implement the LAC+USC Medical Center Replacement Project.

Environmental Factors Potentially Affected:

The environmental factors below would be potentially affected by this project.

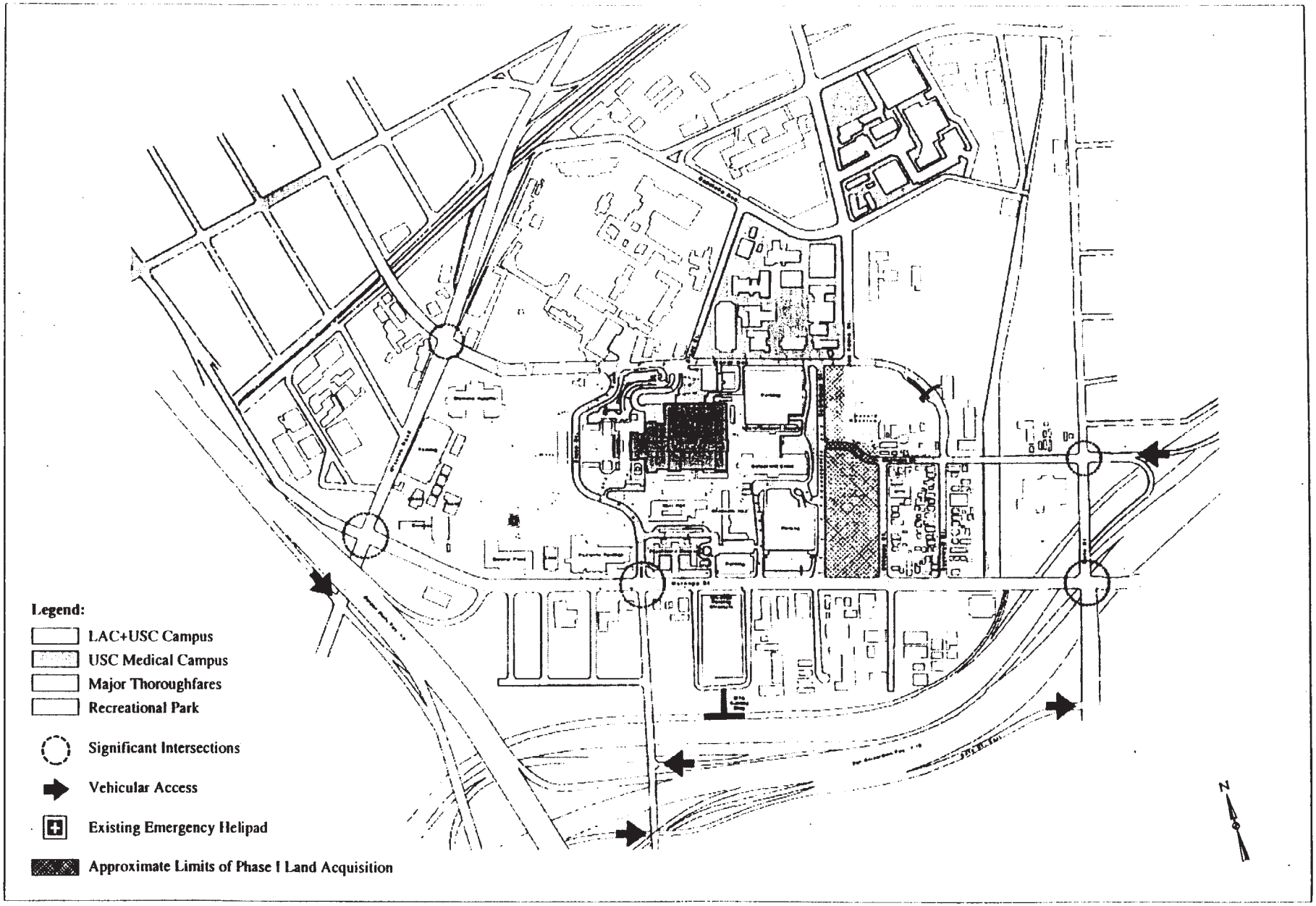
- Aesthetics
- Air Quality
- Cultural Resources
- Geology/Soils
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Transportation/Traffic

Bradford W. Bolger

Brad Bolger, Project Director
Los Angeles County
Department of Public Works

2-18-99

Date



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu, 1998.

Figure 1
Vicinity Map

APPENDIX B

INITIAL STUDY

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

Initial Study

November 23, 1998

ESA Environmental Science Associates

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SECTION 1

INTRODUCTION

The Los Angeles County Department of Public Works will be the Lead Agency for the Los Angeles County+University of Southern California (LAC+USC) Medical Center Replacement Project, under the California Environmental Quality Act (CEQA). The LAC+USC Medical Center, founded in 1878, serves as the "linchpin" of the County's health care delivery system, providing a wide range of health care services including inpatient, outpatient, trauma, and emergency services to a County population of more than nine million residents.

In the early 1990's, the Health Care Financing Administration (HCFA), the federal agency responsible for hospital and medical safety standards and the Office of Statewide Health Planning and Development (OSHPD), determined that the Critical Life Safety Systems of the existing LAC+USC Medical Center (fire detection, fire protection, emergency power, ventilation, etc.) were deficient in terms of system capacity, reliability and current code compliance. Also, buildings did not meet seismic safety standards. The Outpatient Clinic's Critical Life Safety Systems met most of the seismic safety standards but did not meet fire safety standards. HCFA agreed that the buildings could continue to function as health-care facilities as long as the Department of Health Services commited to and made progress towards replacing the existing facilities with a new hospital under a specific time schedule. The County of Los Angeles Department of Health Services proceeded with the design of a 950 bed replacement facility. An Environmental Impact Report (EIR) for the 950-bed LAC+USC Medical Center Replacement Project was certified by the Los Angeles County Board of Supervisors on April 12, 1994.

In January 1994, four key LAC+USC Medical Center's facilities suffered significant structural damage as a result of the Northridge Earthquake. The County discovered extensive damage to LAC+USC facilities, which forced the closure of both the Pediatric and Psychiatric buildings. In 1994, the County was prepared to implement the 950-bed project, however it became necessary to change the project as a result of the earthquake damage and financial consideration. Federal Emergency Management Agency (FEMA) agreed to provide funding for replacement of damaged buildings. The project that is now proposed would replace the current facility as well as those buildings damaged in the earthquake and would respond to projected healthcare requirements for area residents in the future. The 600-bed alternative would reduce the number of hospital beds to 600. This Initial Study addresses the potential impacts of the 600-bed alternative.

Prior to the 1994 Northridge Earthquake, the campus consisted of over 128 buildings on the project site with a core of four hospitals: General, Women's, Psychiatric, Pediatric and OPD. As discussed above, these four facilities sustained varying degrees of structural damage as a result the Northridge Earthquake, as well as continued deterioration due to old age. Other

changes have occurred on and in the vicinity of the project site. Since certification of the 950-bed Replacement Project EIR the following changes have occurred:

- The Pediatric Pavillion and the Pyschiatric Hospital were closed (red tagged) as they were considered unsafe for occupancy after the Northridge Earthquake.
- The 3,000-space Marengo Parking Structure (#9) was completed, as analyzed in the previous EIR.
- The 1,200-space parking structure # 12 was closed due to the Northridge Earthquake.
- 15.5 acres of residential land east of the site were acquired and are now County-owned property, the residences and commercial uses on that land were demolished as analyzed in the 1994 EIR. Residents and commercial businesses were relocated by the County. The proposed site now encompasses the entire city block bounded by Cummings Street (which would be closed as part of this project), Marengo Street, Zonal Street and Chicago Street. Impacts (identified as significant in the previous EIR) associated with removal of these residential uses have occurred and are now part of the exisitng conditions for the 600-bed alternative.

As a result of FEMA involvement, environmental review will be required to comply with the National Environmental Policy Act (NEPA). This Initial Study is being prepared in accordance with the California Environmental Quality Act (CEQA) only. It is anticipated that a joint CEQA/NEPA document, either an Environmental Impact Report (EIR)/Environmental Assessment (EA) or an EIR/Environmental Impact Statement (EIS) will be subsequently prepared. As discussed above, environmental review pursuant to CEQA has already been completed for a 950-bed alternative. The now-preferred 600-bed alternative (project) impacts would generally be less and included within the range of alternatives considered in the 1994 EIR. However, due to the passage of time (four years) and changes in circumstances of the project, as discussed above, as well as changes in site orientation and other issues associated with the project design, and because environmental review in accordance with NEPA is now required, it was decided to prepare a joint CEQA/NEPA environmental document.

Documents prepared pursuant to NEPA typically analyze, at equal level of detail, three alternatives, one being the No Project Alternative, one the "preferred alternative" or project and one other. Because the 950 bed alternative was at one time viable and could become viable/necessary in the future, the joint CEQA/NEPA document will consider that alternative as well as the now-preferred 600 bed alternative (and the no-project alternative).

Since the LAC+USC Medical Center is both the largest inpatient and outpatient service provider in the County's health care delivery system, extensive analyses have been conducted under multiple replacement scenarios ranging from 391-bed to 950-bed facilities. On September 15, 1998, the Board of Supervisors discussedthe possible future need for a 750-bed replacement facility. In consideration of these positions and while protecting the health care interests of the community and also protecting the financial viability of the County health care system, the Board directed the LAC+USC Medical Center Replacement Project - Project Management Team to design and build the 600-bed replacement hospital such that an

additional 150 beds could be accommodated on the project site, provided that, in addition to the County being able to secure SB 1732 funding, it is necessary that sufficient land, utilities, circulation and parking are available. The 750 bed alternative (600 bed replacement option with the 150 bed annex) would also be within the range of alternatives evaluated in the 1994 EIR, and will be within the range of alternatives to be evaluated in the joint CEQA/NEPA document to be prepared subsequent to this Initial Study.

The purpose of this Initial Study is to focus the issues to be addressed in the EIR (which will be a joint CEQA/NEPA document). This Initial Study analyzes impacts which will be clearly impacted in an insignificant manner by the project. All issues with potential to be significantly impacted by the project will be thoroughly evaluated in the EIR (joint CEQA/NEPA document).

DESCRIPTION OF THE PROJECT

The LAC+USC Medical Center is located on approximately 87.5 acres of property (including 15.5 acres of previously residential land to the east purchased in anticipation of the previously proposed 950-bed replalcement hospital), all owned by the County of Los Angeles. The project site is bordered by Zonal Avenue to the north, Chicago Street to the east, Mission Road to the west, and generally Marengo Street to the south (the 3,000 space parking structure is located south of Marengo), all within the City of Los Angeles (see Figure 1). The site is approximately two miles east of downtown Los Angeles and is located immediately northeast of the Golden State (I-5) Freeway and the San Bernardino (I-10) Freeway interchange. Surronding the Medical Center campus are land uses which include the USC Health Sciences campus on the north, a thin strip of residential land uses on the east and commercial land uses on the south and west.

The overarching objective of the proposed project is to maintain existing patient care, educational, research and community service programs at LAC+USC Medical Center while at the same time replacing existing damaged and obsolete facilities, constructing a replacement facility and creating new open space in a logical sequence. One of the key planning objectives of the County is to ensure that the replacement hospital will continue to function as the backbone of the County's safety net and as a major regional and community emergency/trauma and critical care provider.

Proposed Project (600-Bed Preferred Alternative)

The decision to build a 600-bed LAC+USC Medical Center replacement project was based on maintaining the critical balance between the health care needs of the community and the ability to finance and operate the hospital. Under the 600-bed alternative, LAC+USC would improve the existing medical services on campus by replacing and consolidating the five primary health care facilities with one new hospital. As shown in Figure 2, the replacement facility would be located directly southeast of the existing General Hospital structure and

INSERT FIGURE 1 – VICINITY MAP (Black & White)

INSERT FIGURE 2 – PREFERRED SITE PLAN (Black & White)

would contain 600 beds and would comprise a total of 1,469,565 Gross Square Feet (GSF). The proposed project would provide diagnostic and treatment services and outpatient specialty services. Table 1 summarizes the proposed mix of licensed beds. The proposed project would consist of three distinct buildings, an Inpatient Tower (644,564 GSF), a Diagnostic & Treatment Building (457,702 GSF), and an Outpatient Clinic Building (367,299 GSF). The project reflects the quantities and types of spaces projected to be required to meet future demand (anticipated to be for 175,000 emergency trauma visits per year, 350,000 specialty outpatient visits annually, and 600 inpatient beds at the LAC+USC Medical Center). The three proposed structures would be physically connected to provide easy access for both inpatients and outpatients coming to the Medical Center. The Diagnostic and Treatment Building will sit between the Outpatient Clinic Building and the Inpatient Tower. As a 600-bed hospital, the facility will remain a Level 1-Trauma teaching hospital accommodating an average of 510 inpatients per day. Ancillary services (such as Surgery, Radiology, Laboratory, and Special Procedures) will be easily accessible for both inpatients and outpatients coming to LAC+USC Medical Center.

Generally access will be from Marengo and State Street; it is expected that there would be minimal hospital-related traffic on Chicago Street. A landscaped buffer zone is planned between LAC+USC Medical Center and Chicago Street, with the Inpatient Tower component set back sufficiently from adjacent properties.

The major entry orientation to the facility would be from the intersection of Marengo and State Street. This portal with its existing gates was built as part of the original General Hospital project and is the symbolic gateway to the LAC+USC Medical Center campus. At this location, a large entry plaza with drop off for the Outpatient Clinic Building, adjacent terrace and landscaped parking areas would combine to form a large open space.

An entry drive would proceed up the hill, providing access to parking areas, the Emergency Department drop-off, and the Inpatient Tower entry plaza. This plaza would be a significant outdoor space, providing a protected internal hub for circulation not only for the LAC+USC Medical Center Replacement Project and the Marengo Parking Structure, but also for the pedestrian traffic to and from the USC School of Medicine Campus.

Parking would be provided by the existing 3,000-space Marengo Parking Structure. The 1,200-space Parking Structure #12 would be rehabilitated. Other surface parking would be available on the western portion of the campus. A total of 4,200 parking spaces would be available upon project completion.

The existing LAC+USC Medical Center would remain in operation until completion of the Replacement Project. It is likely that the existing facility, which is of solid construction, would subsequently be reused in some way (reuse options were considered in the 1994 EIR). However, future reuse options have become extremely speculative at this time. It is likely that the County will thoroughly evaluate reuse options closer to the anticipated vacation and availability of the structure. The building will likely be used for the "highest and best use"

TABLE 1: 600-BED ALTERNATIVE - BED DISTRIBUTION

Adult Intensive Care Unit	130
Adult Med/Surg ACU	~~298~~ 295
Burn Acute Care	10
Burn ICU	10
Jail	24
Pediatrics ICU	10
Pediatric Med/Surg ACU	~~22~~ 9
Neonatal ICU	40
Obstetrics	32
Psychiatric	24
	600

SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu

possible at the time. It is anticipated that on vacation of the structure, the County will properly maintain it until future reuse is decided upon.

Schedule

Given the scale and complexity of the project, the LAC+USC Medical Replacement Project will be phased in its implementation. Construction of the 600-bed facility will be conducted in five phases, beginning approximately in early 2000 and ending approximately around the year 2008.

Approvals Required

In addition to the County of Los Angeles, agencies which may have jurisdiction over the project include, but are not limited to:

- Federal Emergency Management Agency
- Federal Aviation Administration (approval of helipads) / CAL TRANS
- Governor's Office of Emergency Services
- State Licensing (Hospital license) and Certification
- Office of Statewide Health Planning and Development (Approval of Construction of Medical Center)
- City of Los Angeles Fire Departments (Project review)
- Regional Water Quality Control Board – Los Angeles Region (Project review; permit)

- City of Los Angeles (Street vacations; sewer permits, industrial waste, street widening)
- All other agencies responsible for any permits, actions or approvals necessary to implement the LAC+USC Medical Center Replacement Project.

SECTION 2

INITIAL STUDY CHECKLIST

The following Environmental Checklist and discussion of potential environmental effects were completed in accordance with Section 15063(d) 3 of the California Environmental Act Statutes and Guidelines, October 1998, to determine if the project may have any significant effect on the environment.

A brief explanation is provided for all determinations. A "No Impact" or "Less than Significant Impact" determination is made when the project will not have any impact or will not have a significant effect on the environment for that issue area, based on a project-specific analysis.

ENVIRONMENTAL CHECKLIST FORM

1.	Project Title:	**Los Angeles County+University of Southern California (LAC+USC) Medical Center Replacement Project**
2.	Lead agency name and address:	**Los Angeles County** **Department of Public Works** **1200 North State Street, Box 121** **Los Angeles, CA 90033**
3.	Contact person and phone number:	**Brad Bolger** **Director** **(323) 226-4726**
4.	Project location:	**1200 North State Street** **Los Angeles, CA 90033**
5.	Project sponsor's name and address:	**Los Angeles County – USC Medical Center** **Department of Healthe Services** **1200 North State Street** **Los Angeles, CA 90033**
6.	General plan designation:	**Public and Semi-Public Use**
7.	Zoning:	**Commercial and Limited Industrial**

8. Description of project: **The overarching objective of the proposed project is to maintain existing patient care, educational, research and community service programs at LAC+USC Medical Center while at the same time replacing existing damaged and obsolete facilities, constructing a replacement facility and creating new open space in a logical sequence. One of the key planning objectives of the County is to ensure that the replacement hospital will**

continue to function as the backbone of the County's safety net and as a major regional and community emergency/trauma and critical care provider. The decision to build a 600-bed LAC+USC Medical Center replacement project was based on maintaining the critical balance between the health care needs of the community and the ability to finance and operate the hospital. Under the 600-Bed Alternative, LAC+USC would improve the existing medical services on campus by replacing and consolidating the five primary health care facilities with one new hospital. The replacement facility would be located directly southeast of the existing General Hospital structure and would contain 600 beds and would comprise a total of 1,469,565 Gross Square Feet (GSF). The proposed project would provide diagnostic and treatment services and outpatient specialty services. Table 1 summarizes the proposed mix of licensed beds under the Preferred Alternative. The proposed project would consist of three distinct buildings, an Inpatient Tower (644,564 GSF), a Diagnostic & Treatment Building (457,702 GSF), and an Outpatient Clinic Building (367,299 GSF). The Preferred Alternative reflects the quantities and types of spaces projected to be required to meet future demand (anticipated to be for 175,000 emergency trauma visits per year, 350,000 specialty outpatient visits annually, and 600 inpatient beds at the LAC+USC Medical Center).

9. Surrounding land uses and setting. The LAC+USC Medical Center is located on approximately 72 acres of property, not including 15.5 acres previously purchased across the street from the hospital, all owned by the County of Los Angeles. The project site is bordered by Zonal Avenue to the north, Chicago Street to the east, Mission Road to the west, and Marengo Street to the south, within the City of Los Angeles. The site is approximately two miles east of downtown Los Angeles and is located immediately northeast of the Golden State (I-5) Freeway and the San Bernardino (I-10) Freeway interchange. Surronding the Medical Center campus are land uses which include the USC Health Sciences campus on the north, a thin strip of residential land uses on the east and commercial land uses on the south and west.

10. Other public agencies whose approval is required. In addition to the County of Los Angeles, regional and local entities and agencies which may have jurisdiction over the project include, but are not limited to:

- Federal Emergency Management Agency
- Federal Aviation Administration / CAL TRANS
- Governor's Office of Emergency Services
- State Licensing Certification
- Office of Statewide Health Planning and Development
- City of Los Angeles Fire Department
- Regional Water Quality Control Board – Los Angeles Region
- City of Los Angeles
- All other agencies responsible for any permits, actions or approvals necessary to implement the LAC+USC Medical Center Replacement Project.

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project.

- ☒ Aesthetics
- ☐ Biological Resources
- ☒ Hazards & Hazardous Materials
- ☐ Mineral Resources
- ☐ Public Services
- ☐ Utilities / Service Systems
- ☐ Agriculture Resources
- ☒ Cultural Resources
- ☒ Hydrology / Water Quality
- ☒ Noise
- ☐ Recreation
- ☐ Mandatory Findings of Significance
- ☒ Air Quality
- ☒ Geology / Soils
- ☒ Land Use / Planning
- ☐ Population / Housing
- ☒ Transportation / Traffic

DETERMINATION: (To be completed by lead agency)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

Printed Name _____ For _____

Environmental Impacts:

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. **Would the project:**				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	☐	☐	☒	☐

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY – (cont.):				
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IV. BIOLOGICAL RESOURCES -- (cont.):				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☒	☐	☐

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VI. GEOLOGY AND SOILS -- (cont.):				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VII. HAZARDS AND HAZARDOUS MATERIALS -- (cont.):				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VIII. HYDROLOGY AND WATER QUALITY -- (cont.):				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place housing within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IX. LAND USE AND PLANNING -- (cont.):				
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒
XI. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIII. PUBLIC SERVICES --				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XV. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XVI. UTILITIES AND SERVICE SYSTEMS -- (cont.):				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

SECTION 3

DISCUSSION OF ENVIRONMENTAL IMPACTS

The Los Angeles County Department of Public Works, acting as the lead agency, has determined that the LAC+USC Medical Center replacement project is not exempt from CEQA and has caused the preparation of an Initial Study. The following summary of responses are to the questions posed on the checklist presented in Section 2. As the checklist indicates, there may be impacts in certain environmental areas as discussed below. Therefore, the County has determined that an environmental impact report shall be prepared for the LAC+USC Medical Center Replacement Project. The project would also be subject to the National Environmental Policy Act (NEPA) because the project would receive FEMA funding. The now proposed 600-bed project (also referred to as the now-Preferred Alternative) will be assessed in a joint CEQA/NEPA document.

I. AESTHETICS

a) – c) The LAC+USC Medical Center is located in an urbanized, developed community. View corridors currently exist in all directions from the City. The existing hospital can be seen for miles around and is also considered a local landmark. The General Hospital building would continue to be a visible landmark, however, with the addition of the new hospital it would no longer be a singular structure visible against the skyline. The proposed hospital would alter the existing long-range views of the LAC+USC Medical Center campus. Together with the existing hospital, the proposed project would intensify the density on the existing campus and adjacent undeveloped parcel. The existing landscape would be altered with a new large structure with new landscaped grounds around the building and entrance. The 15.5 acres of previously residential/commercial land would be incorporated into the existing campus and would be altered by using Cummings and Charlotte Streets, access drives, auto and bus stops and a new parking facility. The placement of the new structures may result in light diffusing into the surrounding residential neighborhood as well as affecting motorist along Marengo Street and the Golden State Freeway (I-5). The relationship between the proposed project and the General Hospital as well as the surrounding area will be further analyzed in the EIR.

d) The new structure would add to light and glare in the area. However, the site is already developed and the additional lighting and glare would be minimal.

II. AGRICULTURAL RESOURCES

a) – c) The proposed project would replace an existing earthquake-damaged hospital facility with a new facility of smaller size just south of the existing structure on the same campus. No agricultural resources are located on or near the campus which has been

developed for over 50 years. The project site is located within an urbanized area. Therefore, there are no impacts on agricultural resources.

III. AIR QUALITY

a) – c) The project would be a smaller facility than currently exists. Overall emissions associated with this smaller facility are expected to be less than at present. Overall, the project is anticipated to result in improved air quality. Some redistibution of traffic may occur as a result of the project which could change the location of CO hotspots.

During the eight-year construction period, emissions in the area would be higher. Construction of the 600-bed alternative would generate short-term emissions of air pollutants, which may affect sensitive receptors, particularly the residences near the project site as well as the project site itself. Air contaminant emissions during worst-case period, i.e., during site preparation activities, would result from the use of construction equipment and construction worker vehicles. Site preparation activities would primarily consist of dozers, trucks, scrapers, loaders, graders, and backhoes. Construction would occur over an eight (8) year period. Each building component would be constructed in a different phase. Each phase would range from 12 to 26 weeks. Due to the extended use of heavy equipment and their associated dust generating activities, the initial grading and excavation operation would result in the highest daily pollutant generation. Construction of the 600-bed alternative is expected to exceed the SCAQMD threshold for NOX throughout each phase of construction.

As indicated above, construction emissions could impact local sensitive receptors, also redistribution of traffic could affect sensitive receptors. It is anticipated that mitigation measures will alleviate impacts. The EIR will address air quality issues in more detail.

d) An analysis of potential air quality impacts to sensitive receptors will be conducted in the EIR for the pollutants mentioned above. All quantitative analyses shall be performed in accordance with the procedures set forth by the SCAQMD and the California Air Resources Board.

e) Construction activities associated with implementation of the project would not emit objectionable odors in the project vicinity. Implementation of the project (post-construction) would include uses which would be similar in character and location to existing uses on and around the project site. As the existing uses on and around the project site do not generate objectionable odors, the creation of objectionable odors would not be anticipated by implementation of the project.

IV. BIOLOGICAL RESOURCES

a) – f) The LAC+USC Medical Center campus has been landscaped with common urban species of trees and shrubs. No endangered, threatened or rare species or their habitats currently exist on site. Virtually the entire campus is covered with impervious surfaces, such

as building and pavement. No locally designated natural plant, animal community or wetland exists on the campus due to its urban setting.

V. CULTURAL RESOURCES

a) The General Hospital structure was built in 1933 and would remain in use until the new hospital is constructed. After the relocation of all of the campus hospital departments, the General Hospital structure would be closed and maintained until funding becomes available for rehabilitation and a reuse option is decided upon; specific reuse of this building is extremely speculative and is not reasonably foreseeable. Potential impacts to the General Hospital will be explored further in the EIR.

b) – d) The LAC+USC Medical Center campus has been previously graded and developed. There are no known paleontological or archaeological resources on site, nor are there any human remains.

VI. GEOLOGY AND SOILS

a) There are no known geologic conditions, which would prevent development of the site. The project will include excavation on portions of the existing site. The existing site lies within close proximity to the Newport-Inglewood fault zone, the Whittier fault zone and the Norwalk fault zone.

i) The Los Angeles basin is situated in a seismically active region. The project would be subject to moderate to strong ground motion during an earthquake. The Pediatric Pavilion and Psychiatric Hospital sustained extensive damages in the Northridge earthquake and are currently closed. The proposed structure would be designed and constructed in conformance with applicable current building codes. There is no potential for surface fault displacement at the site.

ii) The project site is located within the seismically active Southern California region. All of Southern California is subject to some degree of ground shaking due to earthquakes.

iii) The project site is located within the seismically active Southern California region. Occupants and patrons of the proposed project could therefore be subject to seismic risks including ground failure and liquefaction. The effects of ground failure and liquefaction and the associated ground deformation can be mitigated with compliance with the seismic provisions of Title 24, Code of California Regulations, the most recent edition of the Uniform Building Code or with local seismic regulations, whichever requirements are more stringent to limit potential impacts due to fault rupture to acceptable

levels. With adherence to these standards, the proposed project would minimize the exposure of people to ground failure and liquefaction.

iv) The project site is currently developed and is surrounded by existing urban infrastructure consisting of roadways, structures and paved parking areas. The project site is not located adjacent to a hillside area and therefore is not within an area potentially susceptible landslides or mudflows.

b) – c) The proposed project site is currently developed and therefore is only minimally susceptible to the effects of erosion. However, on-site soils would be temporarily exposed to water and wind erosion during site preparation and excavation periods. With implementation of erosion controls imposed during the construction process, erosion would be minimized. No significant modifications to landform are proposed.

d) Existing surface soils would be disrupted due to the excavation and export of fill material for all new project buildings. The slopes existing on-site are well bedded with bedrock that prevents gross instability. It is not anticipated that expansive soils would be present. Appropriate geotechnical analysis and design would be implemented to reduce the shrink-swell potential of the soils that underlie the site.

e) The project site has all supporting infrastructure, including sewers, in place.

VII. HAZARDS AND HAZARDOUS MATERIALS

a) – c) Continued use of the site as a medical facility would involve the use of potentially hazardous substances. It is the nature of medical facilities, including the project, to handle and generate hazardous materials such as low level radioactive, biomedical and chemical substances. There is also the potential for encountering asbestos and lead based paint during demolition activities. Human health and safety issues are related to changes in hazardous material use, handling and waste generation as a result of the new facility. The EIR will address safety implications of changes in hazardous materials use at the new Lab facility and transportation to and from the site, both as related to the general public and the on site workers. The continued health and safety of local residents and visitors to LAC+USC Medical Center as well as employees during the extensive construction period will also be addressed in the EIR. Soil and groundwater monitoring at the site indicated that the site had been exposed to contamination from on-site and possibly off-site underground storage tank leaks. The Regional Water Quality Control Board (RWQCB) may require remediation of the soil and groundwater.

d) As identified and analyzed in the 1994 EIR, the LAC+USC Medical Center is included on the Coretese List, Resource Conservation Recovery Act Database and Leaking Underground Storage Tank List

e) – f) The project site is not located within an airport land use plan or within the vicinity of a private airstrip.

g) The proposed project is a phased project that would provide no loss of the medical facility and/or service capabilities during demolition and construction activities. As this is a phased project, emergency access and evacuation routes would be maintained at all times during construction and operation. In addition, the project would enhance emergency response by providing a seismically upgraded medical facility. Therefore, the project would have a beneficial effect upon emergency response and evacuation plans.

h) The proposed project is not located in or within close proximity of an area containing flammable vegetation. There is no flammable vegetation on the proposed site or on adjacent properties. Any landscaping included on-site, would be irrigated and therefore, would not be considered a fire hazard.

VIII. HYDROLOGY AND WATER QUALITY

a) – e) The project site is presently developed with impervious surfaces that drain into existing City storm drain infrastructure. The project would potentially incrementally decrease the volume of surface runoff as a result of the potential increase in permeable surfaces (i.e. inclusion of landscaped plaza, courtyard and additional landscaped buffer areas). However, the project could have the potential to alter drainage patterns on the site. The rate and amount of surface runoff may also potentially change temporarily during construction activities.

f) The proposed project would involve excavation for all new project buildings, that would have the potential to intercept existing groundwater supplies. The project would not involve direct additions or withdrawals, thus changing the quantity or quality of ground waters. It is not anticipated that the proposed project would result in any impacts to groundwater quality, however, further analysis may be necessary.

g) – i) The project site is not within an area of the City of Los Angeles that is subject to flooding. The site is located in a developed area with major existing storm drainage infrastructure in place. Storm drains in the area are designed to accommodate a maximum storm event.

j) Due to the distance of the project site to the Pacific Ocean, approximately 25 miles east of, and the elevation above mean sea level, there is virtually no risk of on-site hazard due to seiches or tsunamis. As discussed above, there is no risk of exposure of people to mudflows.

IX. LAND USE AND PLANNING

a) The 1994 EIR identified a significant impact to land use as a result of removing 15.5 acres of residential use and isolating a thin strip of remaining residential land use on

Cornwell. This impact has already occurred and is now part of the existing conditions. No further impacts to the community are anticipated.

b) The County General Plan land use designation for the existing campus is designated as a Public and Semi-Public use. This designation includes hospitals, public buildings, major transportation facilities, solid waste disposal sites, utilities, public and private educational institutions, religious institutions, detention facilities and fairgrounds. This classification provides for the continued operation, expansion and construction of new facilities to serve current and future County residents.

The City of Los Angeles has zoned the site C2-2, R3-2, M2-2 and R3-2. The C2-2 zone allows a variety of commercial activities including auto services, retail, churches and schools. R3-3 is a restricted density multiple dwelling zone that allows two-family apartment houses and other multiple dwellings. M2-2 is a light industrial zone designation that allows limited industrial manufacturing, mortuaries and agriculture.

The County's use of the land is not subject to regulation by the City's Zoning for the site and as such does not required a change in Zoning for approval. However the County is required to notify the city of its project and the City responds with regard to whether the project is in conformance with its zoning classifications.

The replacement facility would be consistent with the current land uses within the existing campus. The number of hospital beds would decrease from 1,450 beds to 600 beds. This alternative would also include the demolition of existing structures and the removal of parking spaces. However, a 3,000-space parking structure was constructed on the block bounded by Marengo, Brittania Streets and Kingston Avenue.

The 15.5 acres of land is zoned R3-2, multiple residential. The proposed land use would be inconsistent with the City's land use designation and zoning of the area. However, the County's use of the site supersedes the City's General Plan and Zoning Ordinance and as such does not require a change in land use designation or zoning designation for project approval.

The proposed project site is located in an area characterized by commercial, institutional and residential uses. The proposed project would replace an existing earthquake-damaged hospital facility with a new facility of comparable size and capacity at the same location. Although a strip of residential and commercial land uses exist within the immediate project area, the proposed project would be consistent with the existing character of the neighborhood, which has converted to medical and institutional uses over time. Consequently, the project's impact on adjacent uses would not be significantly different than what has existed in the area for many years.

b) The project site is not located within or near an area subject to, and is not in conflict with, any habitat conservation plan or natural communities conservation plan.

X. MINERAL RESOURCES

a) – b) The LAC+USC Medical Center is not located within an area of the region that is known to contain mineral resources. No impacts to mineral resources or constraints to the future use of such resources are anticipated as a result of the proposed project.

XI. NOISE

a) – d) Construction of all phases of development would intermittently generate high noise levels on and adjacent to the project site. Construction noise would potentially disturb local residents, employees, hospital patients and students from schools adjacent to the site, and visitors in the vicinity of the project site. Construction would occur over an appropriate eight (8) year period. Construction noise would be a short-term adverse effect of the project. Traffic generated noise levels in the vicinity of the project sites as a result of the proposed project are anticipated to remain within "normally acceptable" range for sensitive receptors in the project area. Any noise level increases associated with traffic redistribution in the project area are estimated to be imperceptible and would, therefore, result in an insignificant impact to the ambient noise environment. Noise impacts from helicopters would be intermittently significant (i.e., whenever takeoff or landing is necessary). However, the frequency of helicopter operation would be significantly lower than that of a full-purpose helipad. Additionally, it is anticipated that there would be no increased usage over existing usage due to the development of the project under this alternative.

e) – f) The project site is not located within an airport land use plan or within the vicinity of a private airstrip.

XII. POPULATION AND HOUSING

a) Overall employment at LAC+USC Medical Center site under the proposed project would decrease since the project would reduce the number of functional beds to 600. It is anticipated that the proposed project is not expected to result in patterns of substantial population growth in the project area.

b) – c) The 1994 EIR analyzed the removal of 55 residential units located on the 15.5-acre site. This displacement of existing residential housing and replacement housing was analyzed in the 1994 EIR. No further displacement is anticipated.

XIII. PUBLIC SERVICES

a) The City of Los Angeles Fire Department would provide fire protection and emergency medial services to the project site through four fire stations. The closest fire station is Station Number 2 located at 1962 East Brooklyn Avenue, Battalion 7 Headquarters (approximately .78 miles for the project site). The project site is located in the Los Angeles

Police Department Hollenbeck Area, Reporting District (RD) 443. The station is located at 211 East First Street, approximately 5 miles from the project site. The LAC-USC Medical Center facility has and would continue to maintain its own security police force. Public school services in the City of Los Angeles are provided by the Los Angeles Unified School District (LAUSD). The project site would be served by four elementary schools, one middle school, one high school, andBravo Medical Magnet High School located adjacent to the site. LAUSD also operates the East Los Angeles Occupational Center south of the project site along Marengo Street.

Fire Services

The Los Angeles Fire Department would require the water system for the proposed project to provide 9,000 gallons per minute (gpm) of fire flow. The closest Engine and Truck Company is Station Number 2, located approximately 0.78 miles from the entrance of the site. Even though the new hospital structure would meet all current fire codes, the existing General Hospital would remain on-site. This building may be a potential fire hazard due to the fact that the structure does not meet current fire standards, which include mandatory fire sprinklers. An increased demand for staffing at existing fire and/or additional fire protection facilities may result from implementation of the proposed project and related projects in the area.

Police Services

The proposed project would result in a downsizing of the facility. The new medical center facility would be designed to minimize entrances and exits to allow for tighter security, and would incorporate improved surveillance equipment. The project would also reduce the number of buildings requiring security. Additionally, the facility currently provides its own County Safety Police who would maintain the facility in the future. The Alternatives considered are not expected to impact local police services.

School Services

The proposed project is not anticipated to directly generate students that would have impacts on local schools. The overall project may result in fewer employees that are currently working at the facility, therefore, no indirect generation of additional students due to employees finding housing in this area is anticipated. Therefore, the project is not expected to impact local schools. However, the closure of Cummings and Charlotte Streets may impact bus routes to Bravo Medical Magnet High School.

Parks

The proposed project would not directly affect any parks or other recreational facilities, nor does the proposed project include any residential or other uses that typically generate

demand for recreational facilities. The proposed project would not eliminate any parkland or other recreational opportunities. Therefore, no impacts to parks are anticipated.

Other Public Facilities

Project operations would utilize and, to some extent, affect other public facilities including maintenance of public roads. However, wear and tear on City streets resulting from project construction and traffic is not expected to be excessive or beyond normal use.

XIV. RECREATION

a) – b) Under state planning law, impacts on parks and other recreational facilities are addressed and mitigated under the provisions of the Quimby Act which imposes a land dedication requirement, or in-lieu payment, on new residential subdivisions. The Quimby Act specifically excludes non-residential, commercial and industrial subdivisions from this requirement. The proposed project would replace an existing earthquake-damaged hospital facility with a new facility of comparable size and capacity at the same location, and would not entail the subdivision of land, or involve the development of residential units. The proposed project would not directly affect any parks or other recreational facilities, nor does the proposed project include any residential or other uses that typically generate demand for recreational facilities. The proposed project would not eliminate any parkland or other recreational opportunities. Therefore, no impacts to parks are anticipated.

XV. TRANSPORTATION/TRAFFIC

a) – b) Even though the project proposes the replacement of the existing medical facility and a reduction in the number of in-patient beds, vehicular movement volumes are potentially susceptible to change as a result of closing Cummings and Charlotte Streets. The continued operation of the existing medical facility, coupled with project construction and potential temporary realignment of State Street, are likely to generate additional vehicular movement and could be potentially significant. The EIR will include an traffic impact and circulation analysis along with special studies on the permanent closure of Cummings and Charlotte Streets and the temporary realignment of State Street, including cumulative impacts. The project is not anticipated to impact intersections identified in the Congestion Management Program.

c) Implementation of the project would not result in alterations to air traffic as the project site is not adjacent or proximate to such transportation facilities. Helicopter operations would continue similar to present operations.

d) The proposed project does not involve any unusual safety design features, nor are there currently any existing safety hazards in the vicinity of the proposed project site. The project would utilize existing streets and pedestrian ways for access. However, during construction the project will require the closure of Cummings and Charlotte Street and

temporary realignment of State Street to accommodate construction and demolition activities. Any closure of streets or sidewalks would be done in accordance with City of Los Angeles policies and procedures.

e) The proposed replacement medical facility would utilize existing streets and access points for both vehicles and pedestrians. However, during construction the project will require the closure of Cummings and Charlotte Streets and potentially temporary realignment of State Street to accommodate construction and demolition activities. Any closure of streets or sidewalks would be done in accordance with City of Los Angeles policies and procedures. During all phases of development of the proposed project access, including emergency access, will remain clear and unobstructed as required by fire code.

f) Project implementation would change the demand for parking facilities, and available parking would change. The LAC+USC Medical Center already increased the number of off-street parking spaces through development of Marengo Parking Structure, and rehabilitation of Parking Structure #12 is proposed. Further analysis of the parking demand impacts shall be performed in accordance with applicable traffic and parking analysis guidelines in the EIR.

g) The proposed project would include measures to support transportation policies.

XVI. UTILITIES AND SERVICE SYSTEMS

a), b) and e) Wastewater treatment (sewer) service to the project site is provided to the County of Los Angeles with the City of Los Angeles. Conveyance infrastructure is managed, operated, and maintained by the Utilities Division of the City's General Services Department. Sewer flow is treated at the City of Los Angeles Hyperion Treatment Plant located approximately 25 miles southwest of the project site. As a result of its reduced size, the project would likely result in reduced demand for wastewater treatment.

c) Virtually the entire project site is currently covered with impervious surfaces such as buildings and pavement. The proposed project uses would not be expected to increase overall storm water runoff due to the increase of permeable surfaces proposed on-site. Although existing storm drainage infrastructure is expected to be adequate to handle flows from the project site, the project may alter storm water flows in the area, thereby requiring localized improvements to storm water conveyance infrastructure

d) The City of Los Angeles is responsible for supplying water to all properties located within the City of Los Angeles, including LAC+USC Medical Center. Project implementation could potentially reduce on-site demand for water as a result of its reduced size and greater efficiency. Infrastructure for the existing facility is adequate to handle a much larger facility. The project proposes a reduction in square footage and in the number of beds. No regional impacts would occur as a result of the proposed project.

f) Waste collection within the project site will continue to be contracted with a private company to pick up and transport refuse to one of several landfills located in southern California. Project waste generation is anticipated to be less than at present due to the reduced size of the facility.

g) LAC+USC Medical Center will continue to comply with all federal, state and local statutes and regulations to solid waste.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

a) As with many land use projects, the proposed project would have a general potential to degrade the quality of the environment. However the proposed project is located in an urbanized area which has no habitat value for fish, and provides no habitat for wildlife species not typically found in an urban environment. Opportunistic species would be expected to utilize the proposed project in a similar manner as the existing facility. The proposed project would not cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce the range of any plant or animal species. In addition, the project would have no potential to eliminate an important example of a major period of California history or prehistory.

b) The proposed project could potentially generate additional traffic, emissions, noise, and other impacts that may be individually limited, but cumulatively considerable. The analysis of project impacts will include a discussion of the combined effect of the project plus related projects. Mitigation of cumulative impacts, beyond those due to the project alone, would be addressed, although such mitigation is beyond the responsibility of the project itself.

c) Demolition, construction, and operation of the project could potentially generate impacts related to additional motor vehicle traffic, hazardous materials, air emissions and noise. Such impacts may directly or indirectly cause adverse effects on human beings. The impacts identified in the Initial Study have the potential to degrade the environment. In some instances, these impacts will be short-term, while others may be long-term. The quantitative and qualitative significance of the impacts will be further assessed in the EIR (joint CEQA/NEPA document) for the LAC+USC Medical Center replacement project.

SECTION 4

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APPENDIX C

DRAFT TRAFFIC STUDY

DRAFT

TRAFFIC STUDY FOR THE LAC + USC MEDICAL CENTER REPLACEMENT PROJECT 600-BED ALTERNATIVE

APRIL, 1999

PREPARED FOR

ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

PREPARED BY

KAKU ASSOCIATES
A Corporation

DRAFT

TRAFFIC STUDY FOR THE LAC + USC MEDICAL CENTER REPLACEMENT PROJECT 600-BED ALTERNATIVE

April, 1999

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I. INTRODUCTION

This report documents the results of a study conducted by Kaku Associates, Inc. to evaluate the potential circulation impacts of the proposed Los Angeles County + University of Southern California (LAC + USC) Medical Center Replacement Project 600-Bed Alternative. This traffic study, which is being prepared as part of an overall environmental impact report (EIR), is an update of a study previously conducted for the project and completed in December, 1993. The previous traffic study assumed a 950-bed hospital and the total re-use of the existing general hospital. This study is directed at a smaller facility which is described below.

BACKGROUND AND ASSUMPTIONS

It should be noted that the 1993 document was approved and was the basis for entitlement allowing for the implementation of several elements of the previous Phase I plan. Certain elements of the previous plan are still being implemented using the previously approved EIR document as the basis for its entitlement. This current traffic study document incorporates all the findings of the previous EIR, which will be included in the overall current environmental document as base data.

Study Area

The previous document addressed a larger 950-bed facility and analyzed 16 intersections. A total of 3 intersection were found to be impacted by the previous 950-Bed Alternative, I-10 WB off-ramp/State Street, US-101 NB on-ramp/State Street and Marengo Street/Kingston Avenue. Since this project is smaller (i.e., 600 beds) and will have less medical activity in each element of the facility than the 950-bed facility, it will also generate less traffic. Therefore, it can safely be assumed that the proposed project would not impact any additional intersections over and above those that were expected to be impacted by the previous project. The initial scope of analysis for this study was limited to these three intersections. The study area was expanded to include

the intersections of Pomeroy Avenue/State Street, Marengo Street/State Street and Marengo Street/Brittania Street. These locations were added because of the completion of the 3000-space parking structure on Marengo Street between Kingston Avenue and Brittania Street and the creation of the new intersection of Pomeroy/State to facilitate access to this parking facility.

New Traffic Counts

The current conditions are an interim condition with the status of various elements of the medical facility in constant flux. The implementation of several additional elements of the previous plan is likely to occur during the process of review and approval for this document. Therefore, it was determined that the collection of new traffic counts to serve as existing conditions would be an inaccurate and constantly changing characterization of these conditions. Therefore, the counts conducted in 1993 for the original document were used and modified to reflect the effect of the that changes that have occurred (e.g., the completion of the 3000-space parking structure) to serve as "existing conditions" for this document.

Cumulative Base Conditions

The traffic counts prepared in the 1993 document for the Year 2002 Cumulative Base assumed an annual ambient growth rate of 1% per year and also added traffic from a large list of cumulative projects. The traffic in the area actually did not change significantly from 1993 to 1999 and many of the projects on the cumulative projects list never occurred or have been eliminated from future lists. Therefore, the Year 2002 traffic forecasts for the Cumulative Base from the previous report are very conservative and would be similar to Year 2007 forecasts if prepared today.

PROJECT DESCRIPTION

The LAC + USC Medical Center is a Los Angeles County Medical Center facility, currently located on approximately 72 acres of property owned by the County of Los Angeles within the limits of the City of Los Angeles. The county medical center property is bisected by State Street

and generally bordered by Zonal Avenue on the north, Cummings Street on the east, Marengo Street on the south and Mission Road on the west. The medical center is immediately north of the San Bernardino (I-10) freeway and east of the Golden State (I-5) freeway.

The ultimate plans for the LAC + USC Medical Center is to redistribute some services to other facilities in the county and improve medical facilities at the its present location by vacating/ demolishing some existing buildings and constructing a new facility on the site. The total replacement at this location will be about 600 beds (the hospital currently maintains approximately 1,450 functional beds). Figure 1 illustrates the project boundary for LAC + USC Medical Center Replacement Project 600-Bed Alternative.

The LAC + USC Medical Center Replacement Project 600-Bed Alternative consists of the following elements:

- Hospital providing 600 beds with 645,000 square feet
- Outpatient care unit with 198,700 square feet of space
- Diagnostic and Treatment Services with 278,700 square feet
- Administrative services with 102,500 square feet
- Office space with 82,400 square feet
- Central Plant (underground)

Table 1 summarizes the functional square footage summary for the proposed medical center indicating a comparison with existing conditions.

The plan includes a 3,000 space parking garage (which was constructed and in current operation) on the south side of Marengo Street between Brittania Street and Kingston Avenue, and several additional surface parking lots scattered throughout the medical center campus. Figure 2 illustrates the proposed medical center site plan. It can be seen that as part of the project plan, it will be necessary to vacate Cummings Street between Charlotte Street and Marengo Street. Cummings Street would remain open between Charlotte Street and Zonal Avenue with Charlotte Street connecting Cummings Street to Chicago Street.

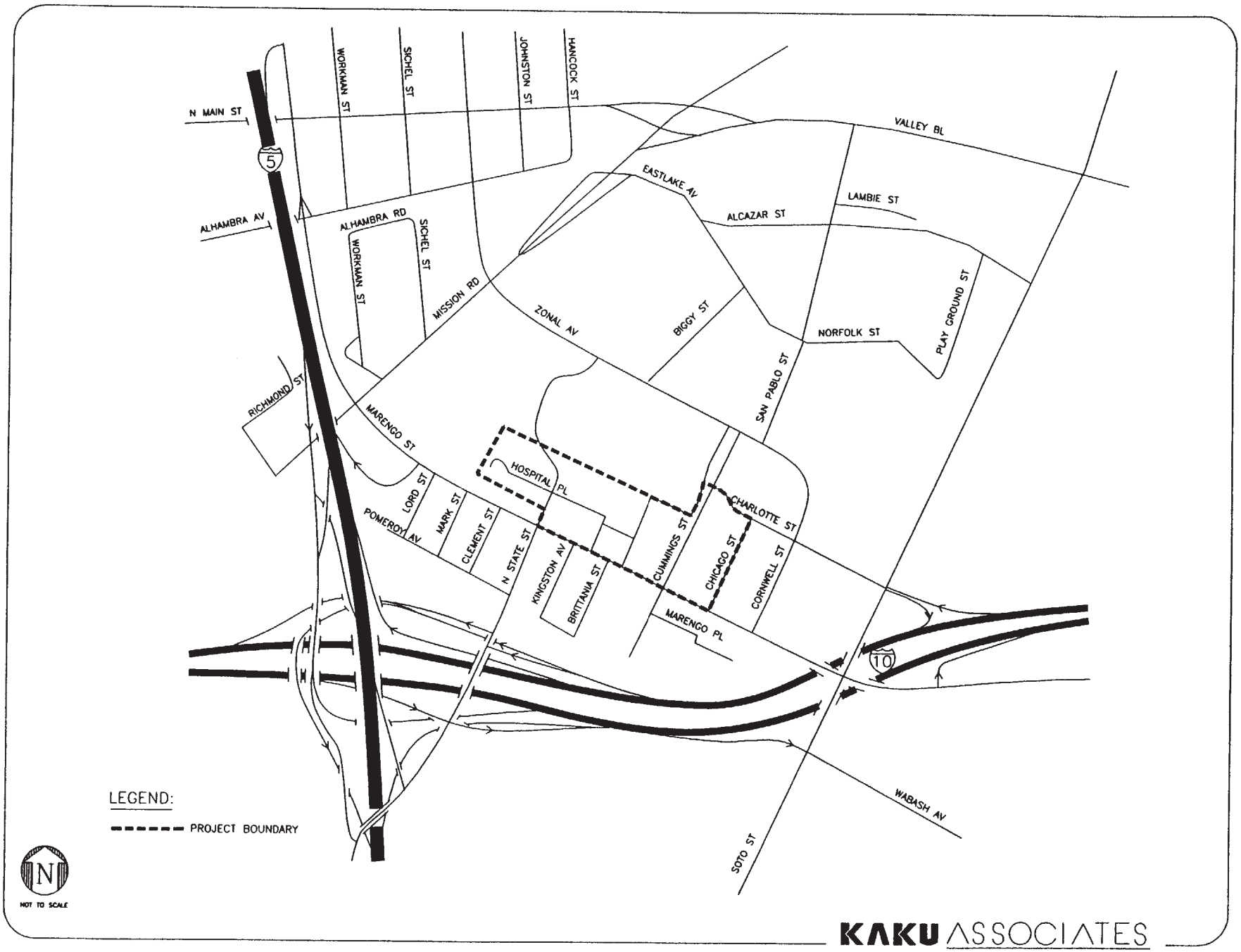

FIGURE 1
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT 600-BED ALTERNATIVE STUDY AREA

TABLE 1
LAC + USC MEDICAL CENTER
TABULATION OF SPACE BY FUNCTION

Function	Existing (square feet)	Replacement Project 600-Bed Alternative (square feet)	Net Change (square feet)
Inpatient Services	498,767	391,647	-107,120
Outpatient Services	254,911	198,646	-56,265
Ancillary Services	388,820	389,286 [a]	466
Administrative Services	363,495	102,526	-260,969
General Services	370,242	82,409	-287,833
Academic Administration	108,829	0	-108,829
Education	266,727	0	-266,727
Research Programs	127,647	0	-127,647
Miscellaneous Other	15,415	0	-15,415
Total Department Gross	2,394,853	1,164,514	-1,230,339
Total Grossing Factors [b]	754,296	306,953	-447,343
Total Building Gross Area	3,149,149	1,471,467	-1,677,682

Note:

[a] Includes 278,695 s.f. of Diagnostic Treatment Services, 36,000 s.f. of Central Plant, and 74,591 s.f. of Base Isolation.

[b] Inlcudes circulation, structural, and mechanical.

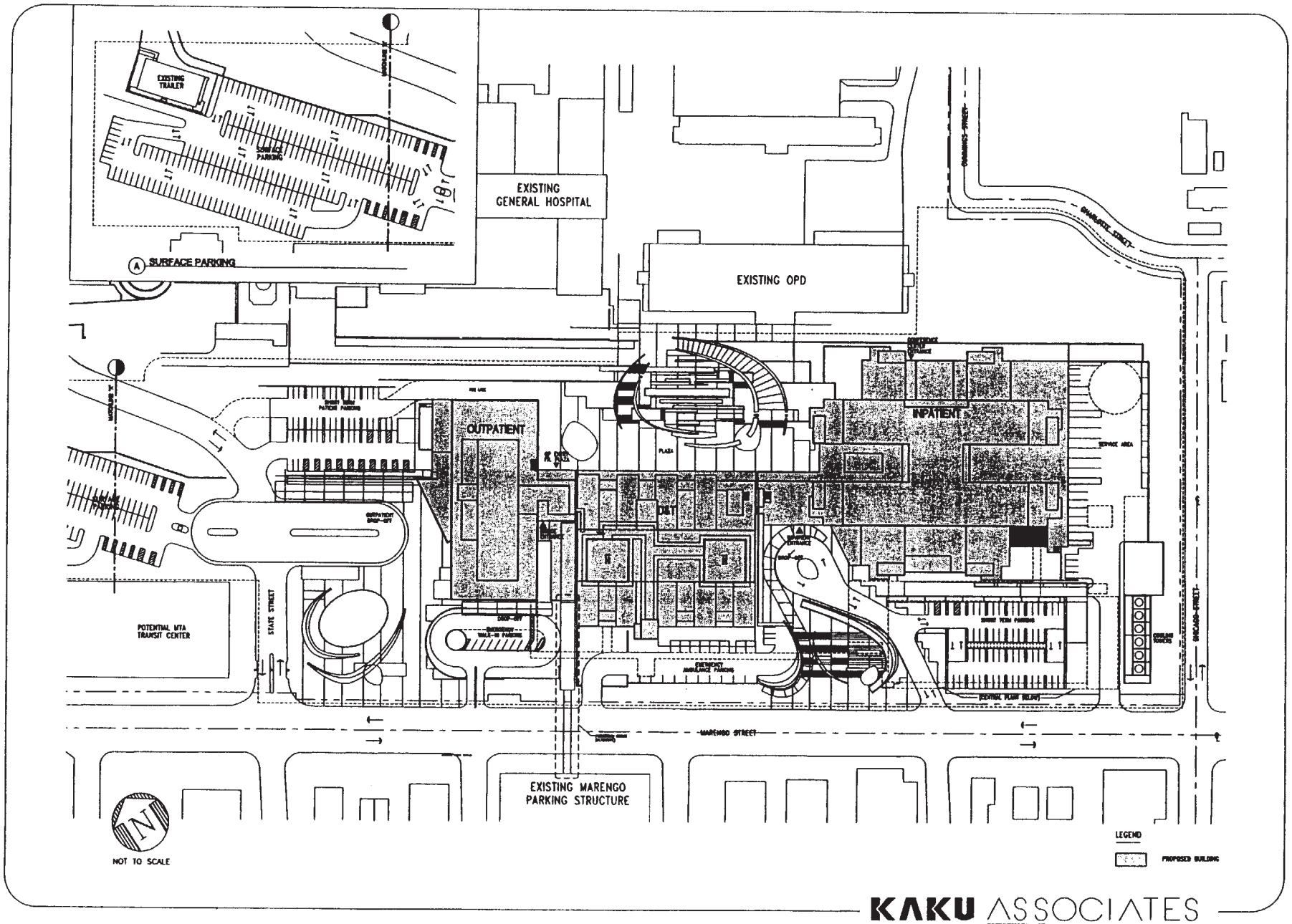

FIGURE 2

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT 600-BED ALTERNATIVE SITE PLAN

STUDY SCOPE

The original scope for this study was developed in conjunction with the staffs of the City of Los Angeles Department of Transportation and the Los Angeles County Department of Public Works, Traffic and Lighting. The base assumption, technical methodologies and geographic coverage of the study were all identified as part of the study approach.

The scope of analysis for the original study assumed a study area that included 14 intersections within the local street system and interface with the regional freeway ramps. The results of the previous analysis indicated that the medical center portion of the project under the 950 Bed Alternative is projected to have a significant impact at 3 of these intersections:

- Brittania Street and Marengo Street
- State Street and US 101 Northbound On-ramp
- State Street and I-10 Westbound Off-ramp

It was determined that the scope of work for this study should address, as a minimum, these three intersections. The drop-off and pick-up locations to the medical center have been revised and it would be logical to include the intersections that would be affected by the proposed drop-off and pick-up locations, which are as follows: Kingston Avenue/Marengo Street, State Street/ Marengo Street, and Pomeroy Avenue/State Street.

The current program for the LAC + USC Replacement Project 600-Bed Alternative, as shown on Table 2, is dramatically lower than the previous 950-bed program which was previously studied. Due to the fact that the outpatient and inpatient activity is lower with the current Replacement Project 600-Bed Alternative, the remaining eight intersections would not require analysis since those intersections were already analyzed under the 950-Bed Alternative and were determined to not be significantly impacted by the 950-Bed Alternative. Therefore, the scope of work for this study includes the six locations mentioned above and illustrated in Figure 3.

The scope of work for this study will develop future forecasts for the following three scenarios:

- Existing Conditions - The analysis of existing conditions, which provides a basis for the remainder of the study, includes an assessment of land uses and street and roadway operating conditions.

TABLE 2
LAC + USC REPLACEMENT PROJECT PROGRAM

Activity	Current Program	Previous Program
Number of Beds	600	950
Occupied Inpatient Beds per day	510	810
Outpatients per year	380,000	650,000
Walk-in ER patients per year	130,000	245,000
Admissions, Inpatients per year	47,000	69,000
Discharged Patients per day	130	240
Public Transport Vans per day	30	40

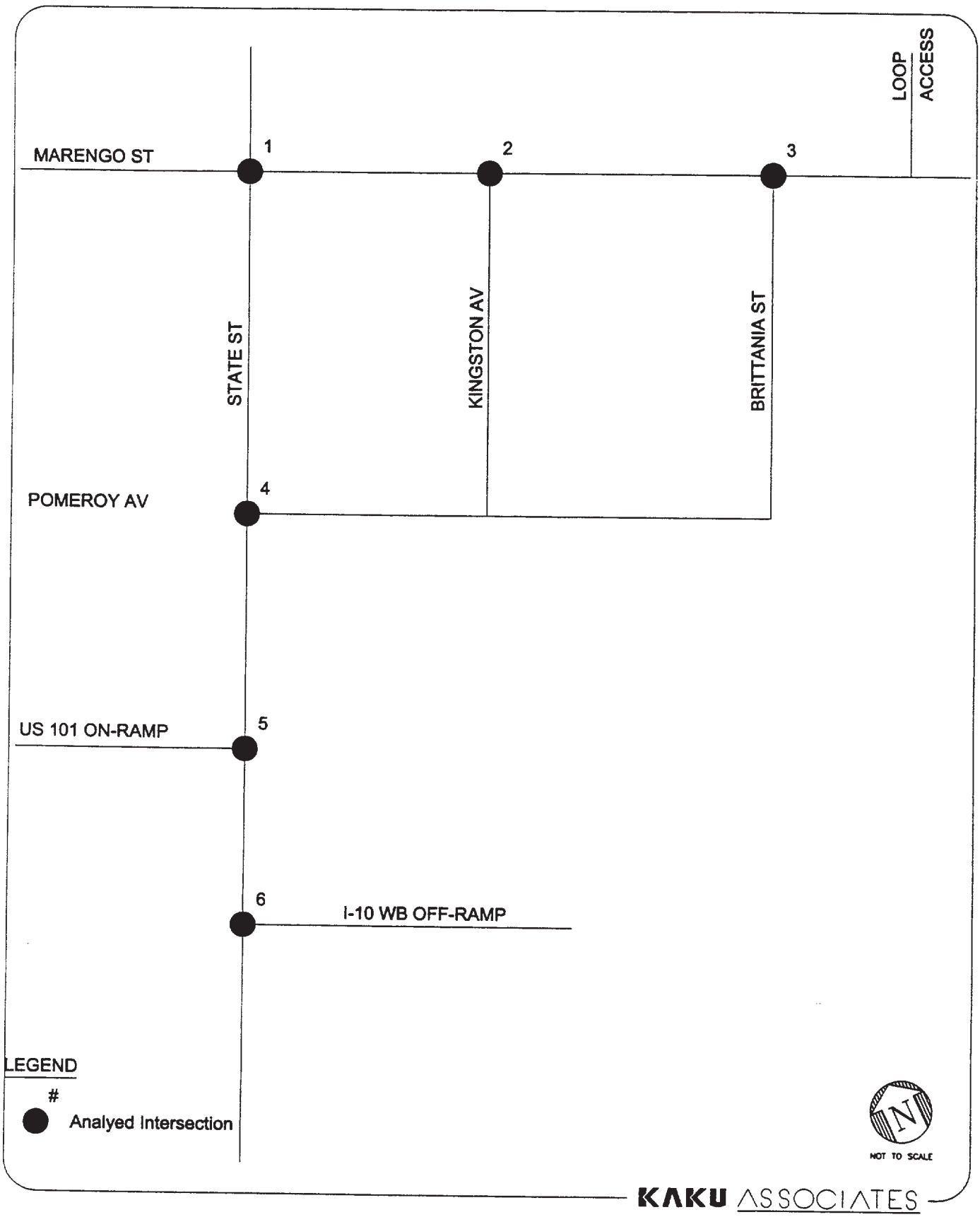

FIGURE 3
ANAYZED INTERSECTIONS

- Cumulative Base Year 2007 Conditions - Future traffic conditions will be projected for the year 2007 without the proposed project. This scenario provides the base of analysis for future conditions without the project.

- Cumulative Plus Project Year 2007 - This assesses future conditions with the completion of the proposed project.

This report is divided into eight chapters. Chapter I includes the introduction. Chapter II describes the existing circulation system, traffic volumes, and traffic conditions within the study area. The methodologies used to forecast future traffic volumes are described in Chapter III. Chapter IV presents an assessment of potential traffic impacts for the cumulative plus project scenario. Chapter V presents the recommended traffic mitigation measures. Circulation and access under the 600-Bed Alternative are described in Chapter VI. Chapter VII presents the projected construction activity for 600-Bed Alternative. A summary of the analyses and study conclusions are included in Chapter VIII.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions within the study area. The assessment of conditions relevant to this study includes a description of the adjacent land use, an inventory of the street system, the current transit services in the study area,the traffic volumes on these facilities, and operating conditions of the fourteen study intersections.

EXISTING STREET SYSTEM

Primary regional access to the LAC + USC Medical Center is provided by the San Bernardino Freeway (I-10), which runs in an east-west direction south of the project site and the Golden State Freeway (I-5), which runs north-south west of the project. Additional regional access is also provided by the Santa Ana Freeway, which runs in a northwest-southeast direction.

The study area is bounded by Zonal Avenue to the north, Marengo Street to the south, Mission Road to the west, and Cornwell Street to the east. A brief description of the streets serving the study area follows:

- Zonal Avenue - Zonal Avenue is an east-west street located north of the Medical Center. Between Mission Road and State Street, Zonal Avenue provides four travel lanes divided by a continuous left-turn lane. From State Street to San Pablo Street, two travel lanes divided by a striped double yellow median are present. Metered parking is available along Zonal Avenue and a traffic signal is present at Mission Road. East of San Pablo Street, Zonal Avenue bends southward and becomes Cornwell Street. The primary land use to the north and south of Zonal Avenue is the LAC + USC Medical Center. However, towards its eastern terminus exists open space and a high school.

- Marengo Street - Marengo Street is an east-west street running south of the project site. There are four travel lanes available divided by a continuous left-turn lane. Metered parking is available along portions of Marengo Street. The intersections with Mission Road, State Street, Brittania Street, and Cummings Street are signalized. Within the study area the following land use elements exist adjacent to Marengo: the existing Medical Center, commercial uses, and residential units.

- San Pablo Street - San Pablo Street is a two lane, north-south street. A striped double yellow median divides the lanes and parking is available along both sides of the street. Currently, the southern terminus of San Pablo Street occurs at Zonal Avenue. The primary land use adjacent to San Pablo Street currently are USC medical center facilities.

- Cummings Street - Cummings Street is a two lane street traveling in a north-south direction. A striped double yellow median is present and parking is available on both sides of the street. Currently the northern terminus of Cummings Street occurs at Zonal Avenue. However, under future conditions with the project, Cummings Street will be vacated between Charlotte Street and Marengo Street. Currently the LAC + USC Medical Center exists to the west of Cummings Street and to the east is open space and residential dwelling units east of the project site boundaries.

- Cornwell Street - Cornwell Street is a north-south street which bends westward north of Charlotte Street and becomes Zonal Avenue. Cornwell Street provides two lanes divided by a striped median. Parking is provided on the west side of the street. Residential dwelling units currently exist adjacent to Cornwell Street.

- Chicago Street - Chicago Street is a north-south local street providing two travel lanes. Chicago Street primarily serves the residential area north of Marengo Street and terminates at Charlotte Street. Parking is available on the east side of the street.

- Charlotte Street - Charlotte Street is an east-west street providing two travel lanes. The western terminus of Charlotte Street occurs at Cummings Street while the eastern terminus occurs at the I-10 WB on/off ramps. Parking is permitted on both sides of the street throughout the study area.

- Kingston Avenue - Kingston Avenue is a north-south local street providing two travel lanes. Traffic flow on Kingston Street is one-way in the southbound direction. Parking is permitted on the both sides of the street. The adjacent land use consists of residential uses to the west and LA County facilities/parking to the east.

- Brittania Street - Brittania Street is a north-south street providing two travel lanes. Traffic flow is one-way in the northbound direction. Parking is allowed on the both sides of the street. LA County facilities/parking lots are located to the west of Brittania Street.

- State Street - State Street is a private county-owned north-south street which cuts through the campus. This roadway provides two travel lanes between Zonal Avenue and Marengo Street, and widens to four travel lanes south of Marengo Street. The intersections with Marengo Street, Pomeroy Avenue, and I-10 westbound off-ramp are signalized. Parking is allowed on some portions of State Street north of Marengo Street.

- Soto Street - Soto Street is a north-south street providing four travel lanes north of Marengo Street. South of Marengo Street, the roadway provides three northbound lanes and two southbound lanes. Soto Street provides a continuous left-turn lane. Parking is allowed on the east side of the street, just south of Marengo Street, but is prohibited during the afternoon peak hour. The intersections with Charlotte Street and Marengo Street are signalized.

- Pomeroy Avenue - Pomeroy Avenue is an east-west local street with residential land uses fronting it. Pomeroy is a narrow roadway serving two-way traffic between Kingston Avenue and State Street.

Diagrams of the existing lane configurations at the analyzed intersections are contained in Appendix A.

EXISTING TRANSIT SERVICE

Currently there is substantial transit service to the study area. Several Metropolitan Transit Authority (MTA) bus lines serve the LAC + USC Medical Center and surrounding area. The El Monte Busway serves the Medical Center. Additionally, the MTA's Commuter Rail Line currently runs along the existing rail lines just south of the study area. Figure 4, illustrates each of the existing transit lines that are currently operating within the study area. The existing transit service include the following lines:

- Line 70 - Los Angeles-El Monte via Garvey Avenue local line - This line serves downtown Los Angeles. This line originates in El Monte and travels primarily along Garvey Avenue towards downtown Los Angeles. Near the project site bus stops are located on Marengo Street.

- Line 71 - Los Angeles City Terrace-Sybil Brand Institute local line - This line serves downtown Los Angeles. Line 71 originates in the City Terrace area of L.A. and travels along Marengo Street within the study area. This line also enters the Medical Center campus, with a bus stop at the Outpatient Clinic.

- Line 250 - Boyle Avenue-State Street local north/south line - This line originates south of the study area and serves bus stops at the LAC/USC Busway Station and the LAC/USC Outpatient Clinic.

- Line 251 - Lincoln Heights-Watts local north/south line - This line serves the study area off of Marengo and State Streets.

- Line 253 - Euclid Avenue - Evergreen Avenue local north/south line - Line 253 originates southeast of the study area and serves bus stops at the LAC/USC Busway Station and the LAC/USC Outpatient Clinic.

- Line 254 - 120th Street-Huntington Park local north/south line - Line 254 originates near the Watts area and serves bus stops at the LAC/USC Busway Station and the LAC/USC Outpatient Clinic.

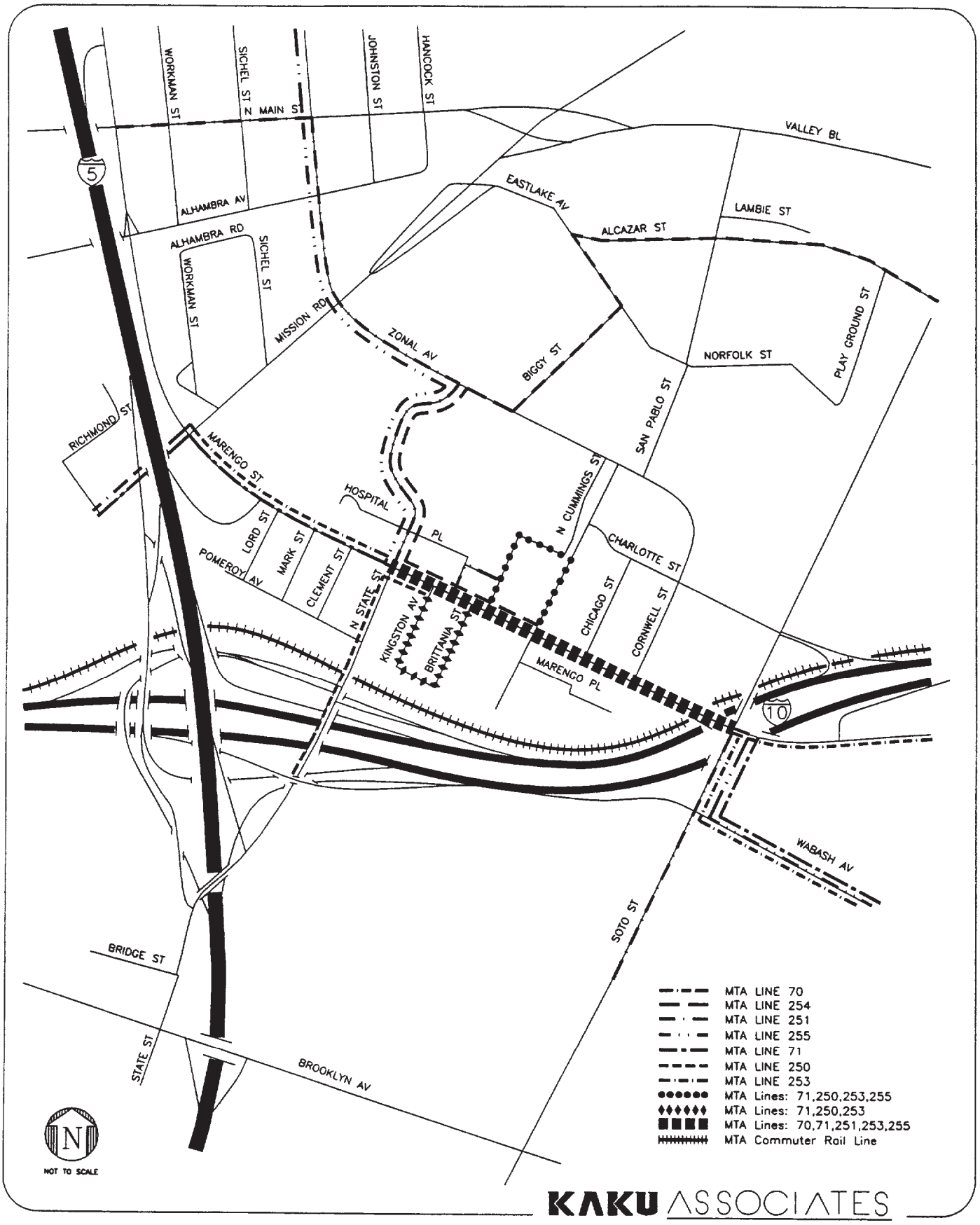

FIGURE 4
EXISTING MTA TRANSIT LINES

- Line 255 - Griffin Avenue-County Hospital-Rowan Avenue local north/south line - Line 255 serves the local area to the north and south of the study area. This line travels along Marengo and State Streets and stops at the LAC/USC Outpatient Clinic.

- El Monte Busway - This is a high occupancy vehicle facility (buses and carpools only) which operates between El Monte and downtown Los Angeles within the San Bernardino Freeway. A busway station is provided one block south of the Medical Center. As mentioned above this busway station is served by Lines 250, 253, and 254.

- MTA Commuter Rail Line - This is a heavy rail transit line which operates along existing railroad right-of-way along the San Bernardino Freeway. Currently the Commuter Rail Line, near the project study area, operates from San Bernardino County to downtown Los Angeles. The nearest stations are located at California State University, Los Angeles, and Union Station.

The proposed project will result in the need to modify transit lines 71, 250, 253, 254, and 255. These lines currently serve the Outpatient Clinic off of Cummings Street. This Outpatient Clinic will be relocated to Marengo Street and State Street. Although the transit lines identified above would need to be modified slightly, it is not anticipated that the project would create any significant impacts on the transit system since the proposed project is not expected to result in an increase in transit usage by visitors or employees. Chapter III describes the future traffic estimates in further detail.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections present the existing intersection peak hour traffic volumes, a description of the methodology utilized to analyze the intersection traffic conditions, and the resulting level of service conditions at each of the study intersections for existing conditions.

Existing Traffic Volumes

Morning and afternoon peak hour traffic counts were conducted during September of 1993. These volumes were adjusted to reflect the various changes that have occurred since the counts were conducted. These changes include the 5+ years that have passed since the counts were conducted as well as the completion of the parking garage on Marengo Street.

The 1993 traffic volumes for the six analyzed intersection were adjusted to Year 1999 traffic levels by using a growth factor of 1 percent per year for a total of 6 percent. Additional traffic adjustments were made to reflect the effect of the closure of the parking structure, Lot 12, and the completion of the 3,000 space Marengo parking structure. The resulting morning and evening peak hour traffic volumes which represent existing conditions in 1999 are illustrated in Figure 5.[1]

Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is the typically recognized minimum acceptable level of service in both the City and County of Los Angeles. Level of service definitions are included in Tables 3 and 4 for the two different level of service analysis methodologies employed in this study. The list of study intersections, shown below, indicates the type of traffic control currently in use.

- Brittania Street and Marengo Street - T-Intersection, signalized
- Kingston Avenue and Marengo Street - T-Intersection, unsignalized
- State Street and Marengo Street - signalized
- State Street and Pomeroy Avenue Extension - T-intersection, signalized
- State Street and US 101 Northbound On-ramp - T-Intersection, unsignalized
- State Street and I-10 Westbound Off-ramp - T-Intersection, signalized

The "Critical Movement Analysis-Planning" (Transportation Research Board, 1980) method of intersection capacity analysis was used to determine the intersection volume to capacity (V/C) ratio and corresponding level of service for the turning movements and intersection characteristics at the four signalized intersections in the study area. Table 3 defines the ranges of V/C ratios and corresponding levels of service for signalized intersections.

The "Two-Way Stop Control" (Transportation Research Board, 1994) method was used to conduct intersection capacity analyses for the two unsignalized intersections. This methodology provides an estimate of the vehicle delay and a corresponding level of service for each of the constrained

[1] No new counts were conducted since interim conditions at the LAC + USC medical center are not stable. To portray traffic levels during stable conditions, it is appropriate to factor up the previous counts which reflected normal operating conditions.

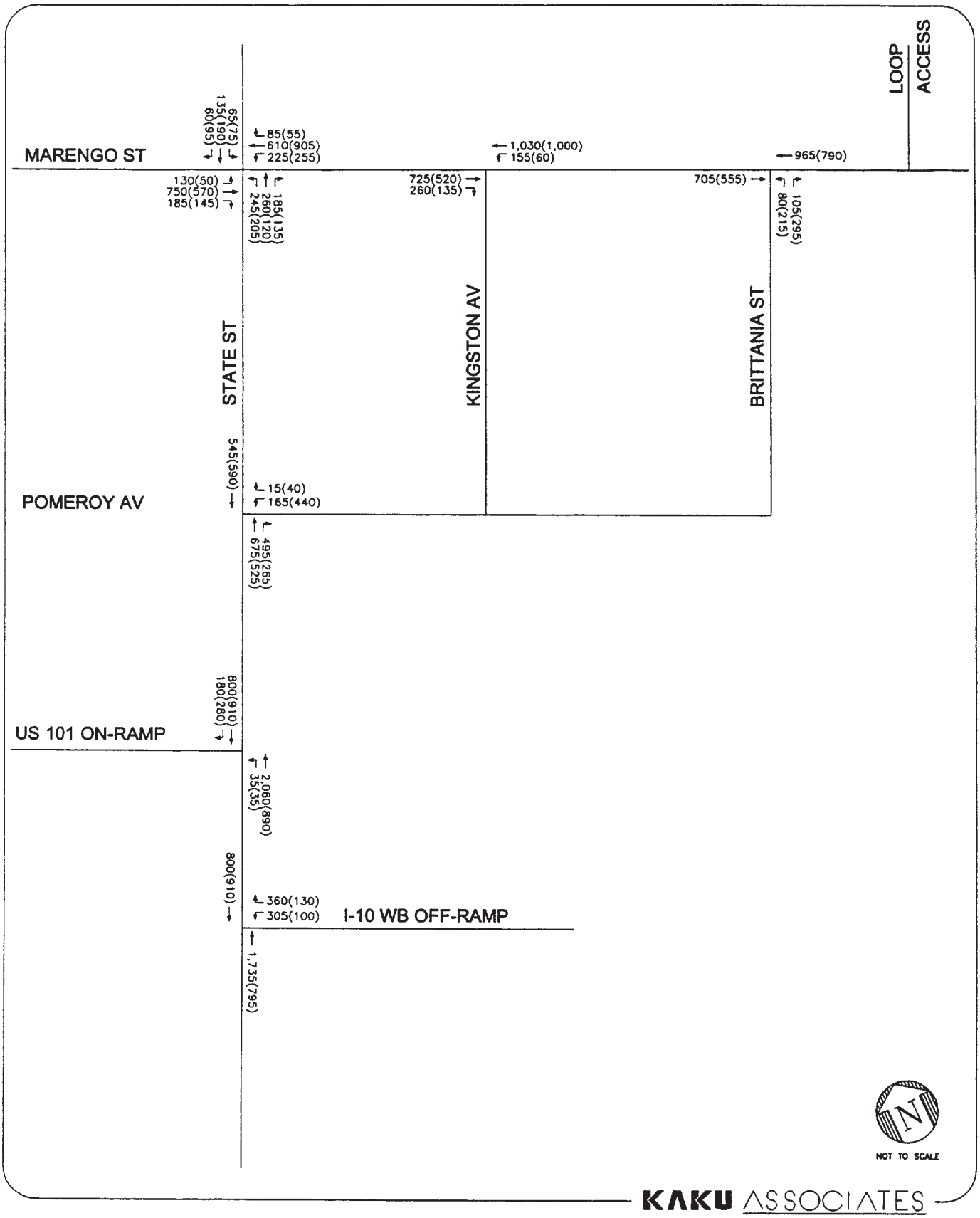

FIGURE 5
EXISTING YEAR 1999 PEAK HOUR TRAFFIC VOLUMES

TABLE 3
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>0.900 - 1.00	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, 1980.

TABLE 4
LEVEL OF SERVICE DEFINITIONS FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Average Vehicle Delay (seconds)
A	0 to 5
B	>5 to ≤10
C	>10 to ≤20
D	>20 to ≤30
E	>30 to ≤45
F	>45

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209, Third Edition*, 1994.

movements at the unsignalized intersections. The level of service for the most constrained movement is then reported. The level of service is related to the vehicle delay as indicated on Table 4.

Existing Levels of Service

Table 5 summarizes the existing weekday morning and evening peak hour V/C ratio or average delay and corresponding level of service at each of the existing six study intersections. As can be seen, all of the analyzed intersections are currently operating at LOS C or better during the morning and afternoon peak hours, except for the State Street and I-10 westbound off-ramp intersection which operates at LOS D during the morning peak hour.

TABLE 5
EXISTING (YEAR 1999) INTERSECTION LEVELS OF SERVICE

INTERSECTION	AM Peak Hour		PM Peak Hour	
	V/C or Delay	LOS	V/C or Delay	LOS
1. State Street & Marengo Street	0.774	C	0.698	B
2. Kingston Avenue & Marengo Street [1]	10.1	C	5.1	B
3. Brittania Street & Marengo Street	0.391	A	0.461	A
4. State Street & Pomeroy Avenue	0.499	A	0.559	A
5. State Street & US 101 NB On-Ramp [1]	7.5	B	10.1	C
6. State Street & I-10 WB Off-Ramp	0.817	D	0.390	A

Note:

[1] The intersection is unsignalized. Value shown represents vehicle delay (seconds) for the most constrained approach movement at the intersection. Vehicle delay for the

III. FUTURE TRAFFIC PROJECTIONS

In order to properly evaluate the potential impact of the proposed project on the local street system, it was necessary to develop estimates of future traffic conditions both with and without the project. Traffic projections for the Cumulative Base scenarios (representing future conditions without the proposed project) were developed along with forecasts for the Cumulative Plus Project scenarios (representing future conditions with the project).

CUMULATIVE BASE PROJECTIONS

The Cumulative Base traffic projections include two elements: growth in the existing traffic volumes to reflect the effects of overall regional growth in traffic within the study area; and traffic generated by specific projects located within, or in the vicinity of, the study area. These two factors are described below.

Areawide Traffic Growth

The City of Los Angeles has estimated that the traffic in the study area has historically increased at a rate of about one percent per year. Future increases in the background traffic volumes due to regional growth and development are expected to continue at this one percent per year growth rate. The expected completion of the proposed project is anticipated for 2007. Based on this completion date, the existing traffic volumes were adjusted upward by an additional 8 percent to reflect the areawide regional growth.

Traffic Generation of Cumulative Projects

Forecasts of the Cumulative Base traffic volumes were developed by adding the traffic expected to be generated by cumulative developments in the area to the existing traffic volumes with their

adjustment for areawide regional growth. The list of cumulative projects was obtained from the *Circulation Study for the LAC + USC Medical Center, December 1993,* which was developed from information provided by the City of Los Angeles. The list is summarized in Table 6 while Figure 6 illustrates the general locations of the cumulative projects.

The trip generation rates utilized for the cumulative projects are shown in Table 7. The rates shown are from the Fifth Edition of the Trip Generation manual by the Institute of Transportation Engineers (ITE) or are a variation of the ITE rates (in accordance with LADOT procedures, some of the projects near downtown are estimated to generate trips based on 90% of the ITE rate).

Table 6 indicates that, on a typical weekday, the 23 related projects are expected to generate an overall total of approximately 91,170 daily trips, of which 5,270 would occur during the morning peak hour and 8,285 during the evening peak hour.

Traffic Distribution

The geographic distribution of traffic generated by developments such as those included in the analysis is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of the population from which the employees and potential patrons of the proposed developments are drawn, and the location of the projects in relation to the surrounding street system. The general distribution pattern developed for use in this study is depicted on Figure 7.

It should be noted that the majority of the cumulative projects are located near Downtown Los Angeles. Thus, the distribution pattern is primarily driven by these projects.

Cumulative Base Year 2007 Traffic Projections

Utilizing the estimated trip generation and the trip distribution pattern developed above, the traffic generated by the cumulative developments was assigned to the future 2007 street network and

TABLE 6
TRIP GENERATION OF CUMULATIVE PROJECTS

Map No.	Name	Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	N. Main Swap Meet	Swap Meet	89 ksf	6,550	95	55	150	305	300	605
		Retail	114 ksf	7,670	110	65	175	360	355	715
		Office	4 ksf	120	15	0	15	5	10	15
				14,340	220	120	340	670	665	1,335
2	N. Spring Retail	Retail	51 ksf	4,180	65	35	100	195	190	385
3	Dynasty Center	Retail	40 ksf	3,990	60	35	95	185	180	365
4	988 N. Hill Street	Office	240 ksf	2,720	335	40	375	60	295	355
		Restaurant	552 st	3,630	140	140	280	175	150	325
				6,350	475	180	655	235	445	680
5	Market Place	Office	119 ksf	1,440	175	20	195	30	160	190
		Retail	106 ksf	6,600	95	55	150	310	305	615
		Restaurant	16 ksf	3,290	125	125	250	140	120	260
		Bank	9 ksf	1,270	30	15	45	70	85	155
				12,600	425	215	640	550	670	1,220
6	B.C. Plaza	Office	29 ksf	490	60	5	65	10	55	65
		Retail	29 ksf	2,900	45	25	70	135	130	265
				3,390	105	30	135	145	185	330
7	County Jail Expansion (1)	Detention	1,065 ksf	3,360	590	270	860	80	100	180
8	Olvera Street Hotel	Hotel	300 rm	2,610	120	80	200	125	105	230
9	El Pueblo International	Restaurant	45 ksf	9,240	355	350	705	395	335	730
		Office	67 ksf	930	110	15	125	20	105	125
				10,170	465	365	830	415	440	855
10	Holiday Inn	Hotel	294 rm	2,560	115	80	195	120	105	225
11	N. Main & Macy	Hotel	80 rm	700	35	20	55	30	30	60
12	701 N. Main	Motel	80 rm	820	20	35	55	30	20	50
		Retail	84 ksf	5,700	80	50	130	265	265	530
				6,520	100	85	185	295	285	580
13	Hanan Development	Retail	17 ksf	2,100	30	20	50	95	95	190
14	845 N. Broadway	Retail	92 ksf	6,040	90	50	140	280	280	560
		Restaurant	15 ksf	1,450	15	0	15	80	35	115
				7,490	105	50	155	360	315	675

TABLE 6 (Continued)
TRIP GENERATION OF CUMULATIVE PROJECTS

Map No.	Name	Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
15	1025 Soto Street	Hotel	60 rm	520	25	15	40	25	20	45
16	788 N. Broadway	Hotel	130 rm	1,130	50	35	85	55	45	100
17	Doheney Eye Hospital	Hospital	102 ksf	1,710	85	35	120	30	75	105
18	2310 Barlow	Residential	51 du	330	5	20	25	20	10	30
19	Auto Dealership	Retail	15 ksf	2,180	35	20	55	100	100	200
		Parking	253 sp	1,770	150	20	170	25	145	170
				3,950	185	40	225	125	245	370
20	417 Casanova	Residential	54 du	350	5	25	30	25	10	35
21	Trade School Expnsn	School	250 std	330	40	0	40	25	10	35
22	3707 Baldwin Street	Apartment	80 du	520	5	35	40	35	15	50
23	4001 Mission Road	Residential	279 du	1,810	25	115	140	120	55	175
		Daycare	2 ksf	160	15	15	30	15	15	30
				1,970	40	130	170	135	70	205
	Total			**91,170**	**3,350**	**1,920**	**5,270**	**3,975**	**4,310**	**8,285**

Note:

(1) Trip generation for detention center was obtained from Men's Central Jail Expansion EIR.

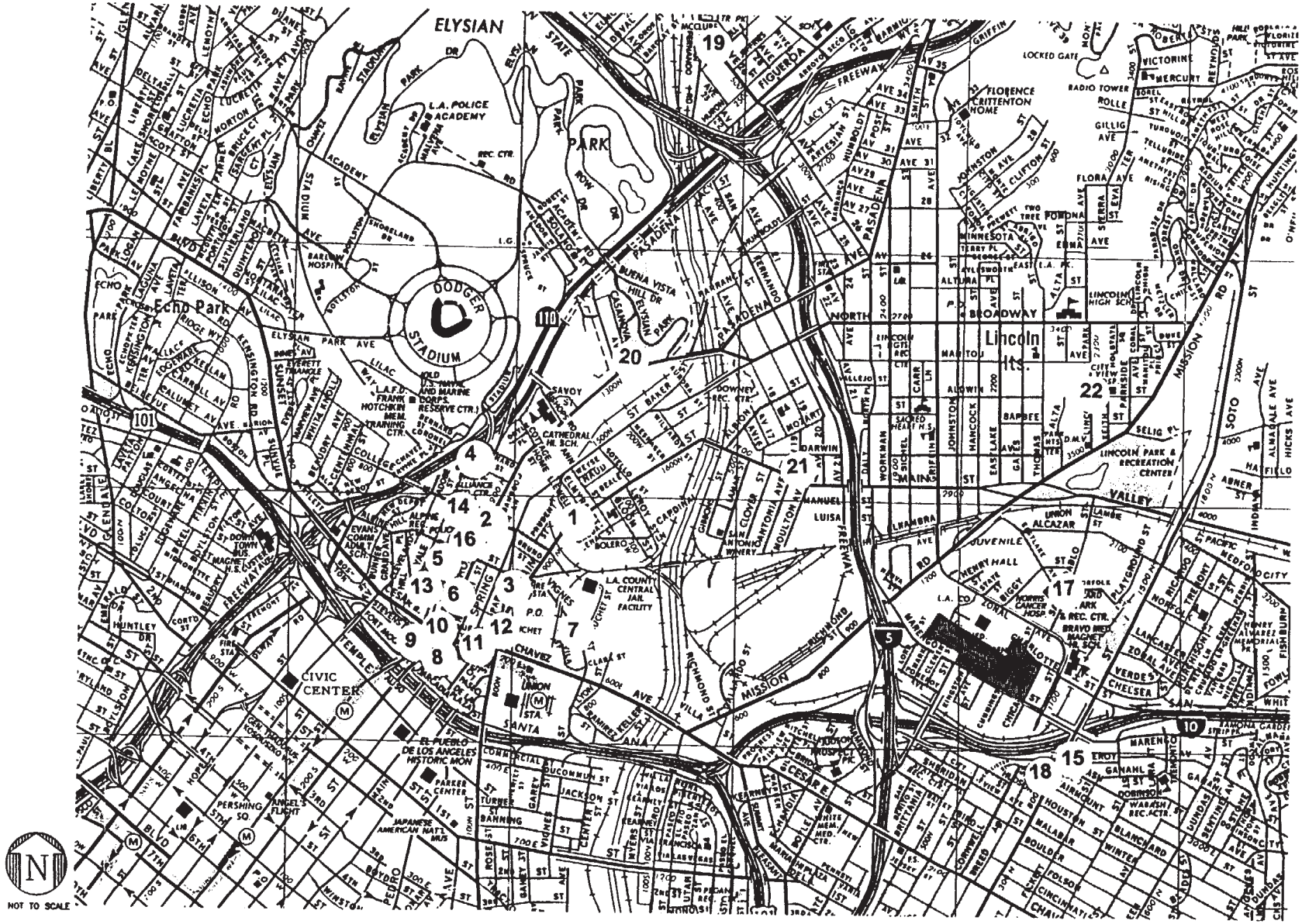

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FIGURE 6
LOCATION OF CUMULATIVE PROJECTS

TABLE 7
AVERAGE WEEKDAY TRIP GENERATION RATES FOR CUMULATIVE PROJECTS

Land Use	Average Daily Rate	AM Peak Hour			PM Peak Hour		
		Rate	%In	%Out	Rate	%In	%Out
Office (2) (Trips per 1,000 gfa)	(1)	(1)	89%	11%	(1)	17%	83%
Retail (2) (Trips per 1,000 gla)	(1)	(1)	63%	37%	(1)	50%	50%
Apartment (Trips per du)	6.47	0.51	17%	83%	0.63	68%	32%
Hotel (Trips per room)	8.70	0.67	60%	40%	0.76	54%	46%
Quality Restaurant (Trips per 1,000 gfa)	96.51	0.92	94%	6%	7.66	70%	30%
High Turnover Sit Down Restaurant (Trips per 1,000 gfa)	205.36	15.70	50%	50%	16.26	54%	46%
High Turnover Sit Down Restaurant (Trips per seat)	6.57	0.51	50%	50%	0.59	54%	46%
Bank (Trips per 1,000 gfa)	140.61	4.89	64%	36%	17.35	44%	56%
Motel (Trips per room)	10.19	0.66	37%	63%	0.60	56%	44%
Recreational (Health Club) (Trips per 1,000 gfa)	17.14	0.30	46%	54%	4.30	60%	40%
Senior Housing (Trips per du)	3.30	0.17	45%	55%	0.28	56%	44%
Condominium (Trips per du)	5.86	0.44	17%	83%	0.55	66%	34%
Parking (3) (Trips per space)	7.0	0.67	87%	13%	0.67	16%	84%
Trade School (Trips per student)	1.33	0.16	97%	3%	0.14	75%	25%
Daycare (Trips per 1,000 gfa)	79.26	15.17	54%	46%	15.56	46%	54%
Hospital (Trips per 1,000 gfa)	16.78	1.16	71%	29%	1.05	30%	70%
Hospital (4) (Trips per bed)	11.7	1.07	72%	28%	1.22	34%	66%

TABLE 7 (Continued)
AVERAGE WEEKDAY TRIP GENERATION RATES FOR CUMULATIVE PROJECTS

Land Use	Average Daily Rate	AM Peak Hour			PM Peak Hour		
		Rate	%In	%Out	Rate	%In	%Out
Single Family Residential (Trips per dwelling unit)	9.55	0.74	26%	74%	1.01	65%	35%
Low-Rise Apartment (Trips per dwelling unit)	6.59	0.47	20%	80%	0.58	66%	34%
Fast Food w/ Drive-Thru (Trips per 1,000 gfa)	632.12	55.56	51%	49%	36.53	52%	48%

Notes on Trip Generation Rates:

(1) Office and retail rates vary according to the size of the development. Trip generation for general office buildings were calculated using the following formulas:

Daily Rate: $Ln(T) = 0.756\ Ln(X) + 3.765$

AM Rate: $Ln(T) = 0.777\ Ln(X) + 1.674$

PM Rate: $Ln(T) = 0.737\ Ln(X) + 1.831$

Trip generation for retail shopping centers were calculated using the following formulas:

Daily Rate: $Ln(T) = 0.625\ Ln(X) + 5.985$
(where X is less than 570,000 sf)
$Ln(T) = 0.756\ Ln(X) + 5.154$
(where X is greater than 570,000 sf)

AM Rate: $Ln(T) = 0.589\ Ln(X) + 2.378$

PM Rate: $Ln(T) = 0.637\ Ln(X) + 3.553$
(where X is less than 600,000 sf)
$Ln(T) = 0.725\ Ln(X) + 2.987$
(where X is greater than 600,000 sf)

Ln = Natural logarithm
T = Two-way volume of traffic (total trip-ends)
A = Area in 1,000 gross square feet of leasable area

(2) Office and retail trip generation for projects in areas adjacent to the CBD (Little Tokyo) reduced to 90% of ITE rates, as per LADOT
(3) Rates developed from coversations with the LADOT staff.
(4) ITE, "Trip Generation, 6th Edition, 1997.

Sources:
Institute of Transportation Engineers, "Trip Generation (5th Edition)," 1991. Unless otherwise noted.
San Diego Association of Governments (SANDAG), "Traffic Generators", January 1990.

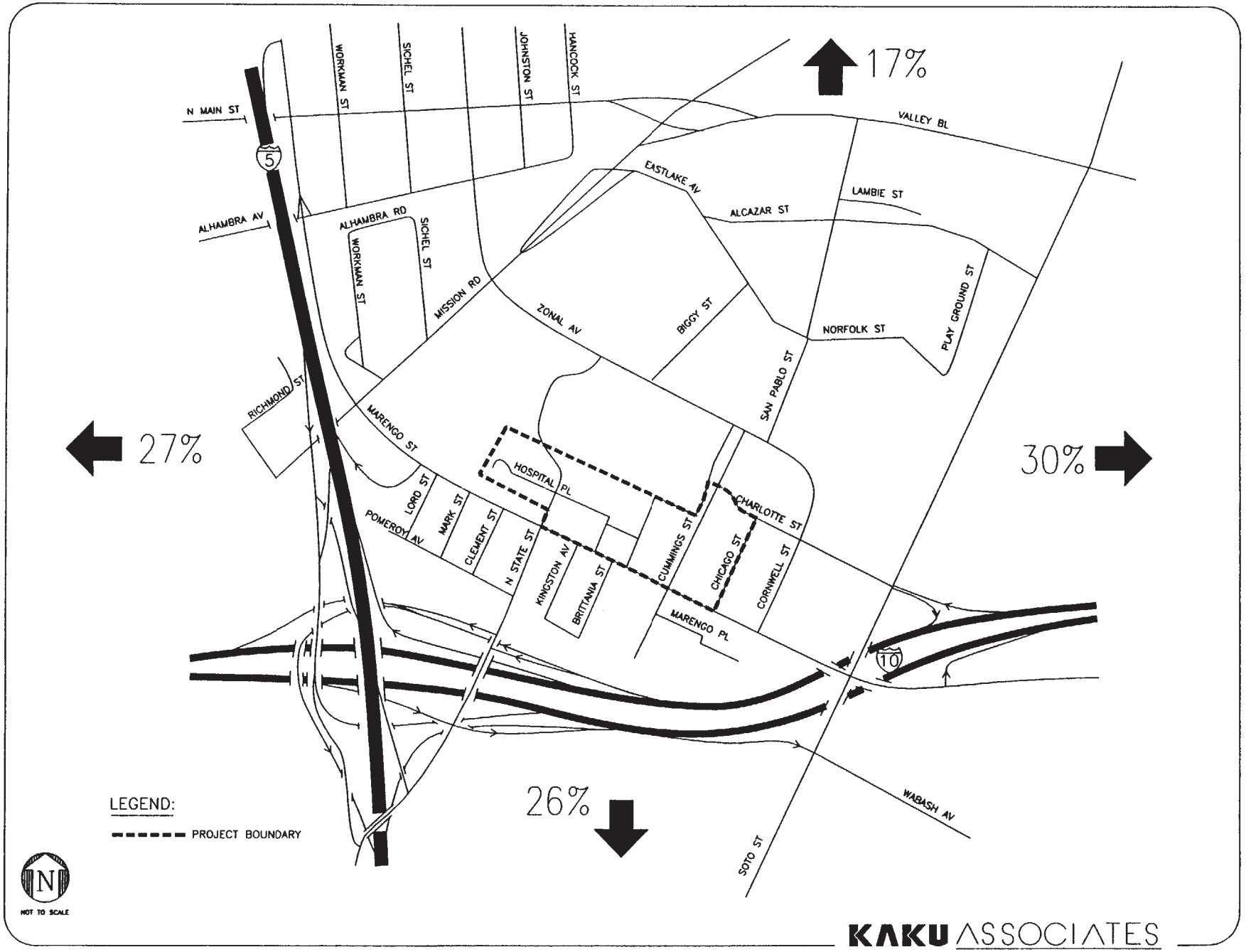


FIGURE 7
CUMULATIVE PROJECT TRAFFIC DISTRIBUTION

then added to the existing traffic volumes with their adjustment for areawide growth. The resulting traffic volumes at the analyzed intersections are shown on Figure 8 and represent Cumulative Base Year 2007 conditions reflecting future conditions without the proposed project.

CUMULATIVE PLUS PROJECT TRAFFIC PROJECTIONS

Because the proposed project consists of reducing the number of hospital beds from 1,450 to 600, the LAC + USC Medical Center Replacement Project 600-Bed Alternative, as shown on Table 8, is not expected to generate any additional trips after completion of the new medical center. In reality, the project would result in fewer trips in the area after its completion. Although the project would not create any new trips, it does include realigning and vacating streets, and relocation of parking, which would affect local traffic circulation patterns. Therefore, projections for the Cumulative Plus Project scenario were developed using the following steps and assumptions:

- The realignment of Cummings Street to the east with Chicago Street via Charlotte Street (as shown on Figure 2).
- The closure of parking facilities for a total loss of approximately 1,200 spaces due to the proposed Replacement Project 600-Bed Alternative site.
- Relocation of the Medical Center drop-off areas. As depicted on Figure 2, the outpatient drop-off would be located off of State Street and the inpatient/emergency drop-off and the main hospital drop-off would be located off of Marengo Street.

Therefore, the Cumulative Plus Project traffic projections include the following: existing traffic volumes adjusted by the areawide growth rate for the year 2007; traffic generated by the cumulative projects; and the shifted traffic due to the new circulation and parking system. The resulting projected Cumulative Plus Project peak hour intersection volumes are presented on Figure 9.

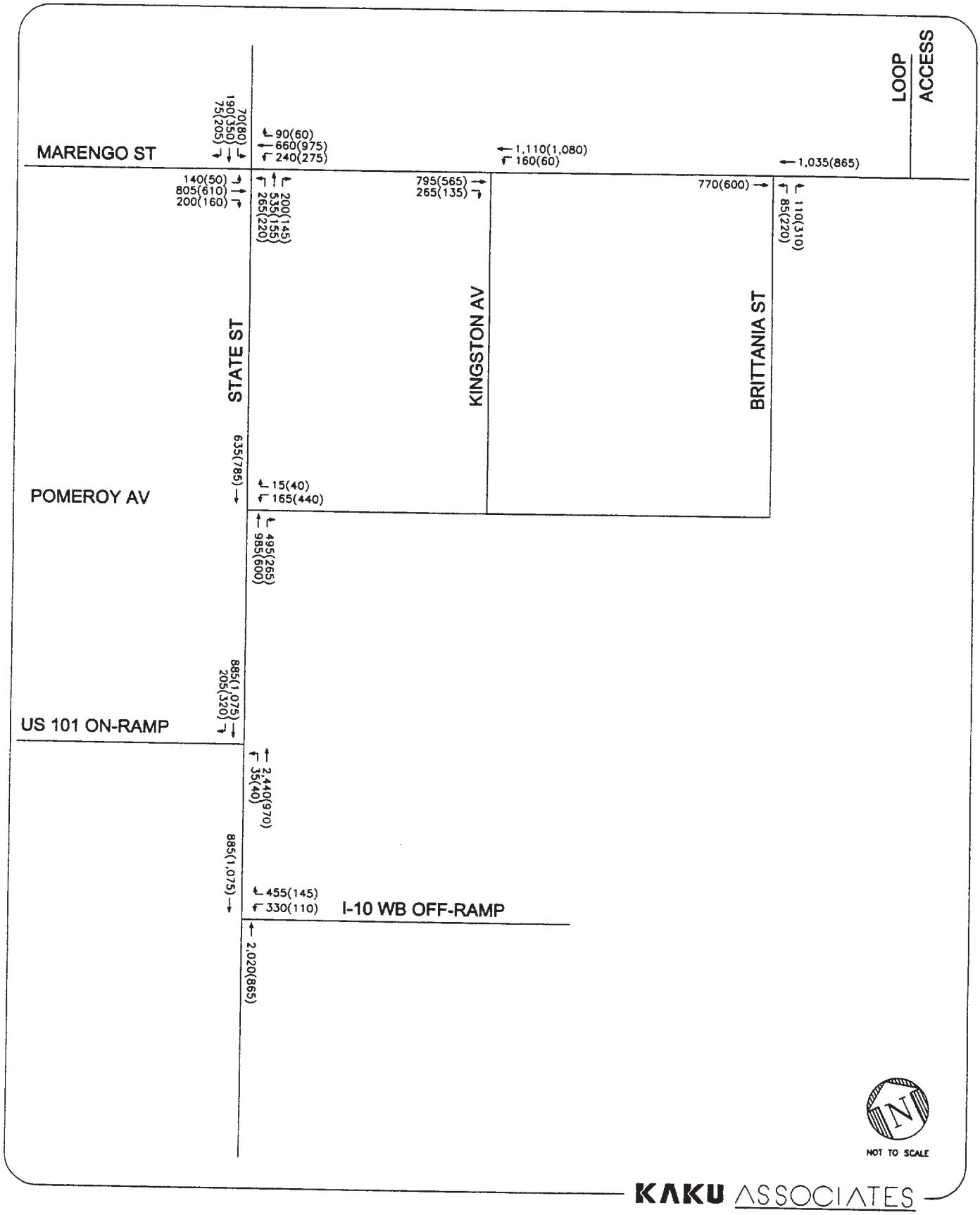


FIGURE 8
YEAR 2007 CUMULATIVE BASE PEAK HOUR TRAFFIC VOLUMES

TABLE 8

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT 600-BED ALTERNATIVE NET NEW TRIP GENERATION

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Existing Hospital	1,450 beds	17,070	1117	435	1552	601	1168	1769
Replacement Project 600-Bed Alternative	600 beds	7,060	462	180	642	249	483	732
Net change due to Replacement Project	-850 beds	-10,000	-655	-255	-910	-353	-684	-1,037
Total Credit for Displaced units [1]	n/a	-3,165	-91	-105	-196	-142	-123	-265
Total Replacement Project 600-Bed Alternative Trips		**-13,165**	**-746**	**-360**	**-1,106**	**-495**	**-807**	**-1,302**

Note:

[1] Source: Kaku Associates, "Circulation Study for the LAC + USC Medical Center, December 1993."

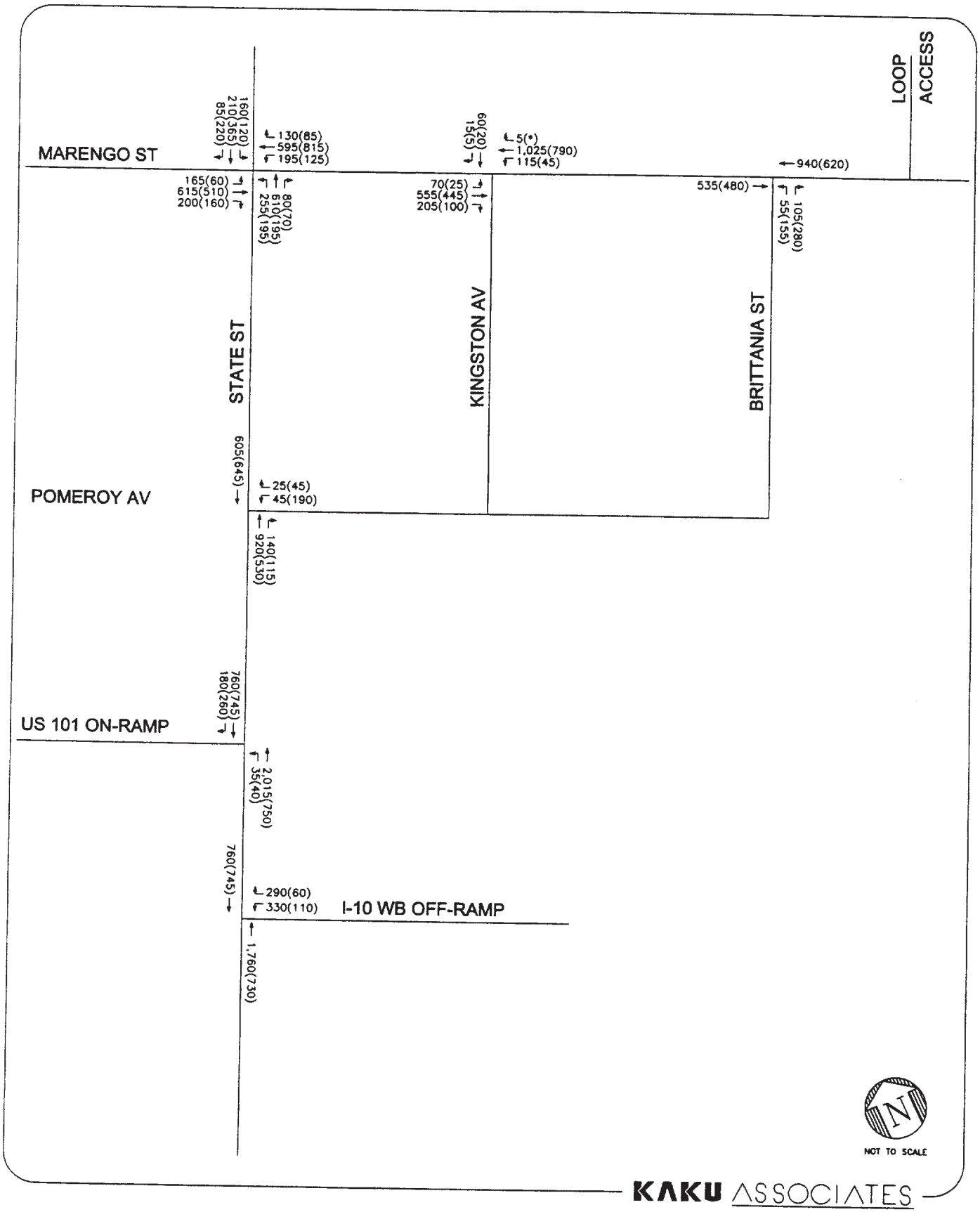


FIGURE 9
YEAR 2007 CUMULATIVE + PROJECT PEAK HOUR TRAFFIC VOLUMES

IV. TRAFFIC IMPACT ANALYSIS

This section presents an analysis of the projected Cumulative Base and Cumulative Plus Project traffic volumes to determine the potential impacts of development of the LAC + USC Medical Center Replacement Project 600-Bed Alternative on the local circulation system.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

In order to provide a quantitative basis for determining the significance of the impact of the project traffic at the various intersections in the study area, it is necessary to establish the criteria to be used in the analysis. For this study both City and County significant traffic impact criteria were utilized to determine potential project impacts. Because the potential impacts would occur on City facilities the significant impact criteria set forth by the City of Los Angeles was considered. In addition, being a County project the County of Los Angeles significant impact criteria was also considered. It should be noted that the City of Los Angeles and the County of Los Angeles have the same significant impact criteria.

City of Los Angeles/County of Los Angeles Criteria

The City of Los Angeles and County of Los Angeles have established standards which indicate that a project is considered to have a significant traffic impact if the increase in the V/C ratio, which can be attributed to the project, exceeds a specific threshold for each level of service. Using the LADOT and County of Los Angeles standard, a project impact would be considered significant if the following conditions are met:

Intersection Condition With Project Traffic		Project-Related Increase
LOS	V/C Ratio	in V/C Ratio
C	0.701 - 0.800	equal to or greater than 0.040
D	0.801 - 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Using these criteria, a project would not have a significant impact at an intersection if, for example, it is operating at LOS C after the addition of project traffic and the incremental change in the V/C ratio is less than 0.040. However, if the intersection is operating at a LOS F after the addition of project traffic and the incremental change in the V/C ratio is 0.010 or greater the project would be considered to have a significant impact at this location.

CUMULATIVE BASE TRAFFIC CONDITIONS

This section presents an analysis of potential traffic conditions under Cumulative Base conditions. The Cumulative Base traffic conditions represent future conditions without any of the currently proposed changes to the LAC + USC Medical Center. The Cumulative Base Year 2007 peak hour traffic volumes, illustrated on Figure 8, were analyzed to determine the V/C ratio and average delay for each of the analyzed intersections. As shown on the Table 9, four out of the six analyzed intersections during the morning peak hour and all six analyzed intersections during the afternoon peak hour are projected to operate at LOS D or better. The intersections of State Street/Marengo Street and State Street/I-10 westbound off-ramp are projected to operate at LOS E during the morning peak hour.

CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

The resulting Cumulative Plus Project peak hour traffic volumes were analyzed to determine the projected future operating conditions with the proposed LAC + USC Medical Center Replacement Project 600-Bed Alternative. The Cumulative Plus Project traffic projections presented earlier on Figure 9, were analyzed to determine the future operating conditions at the six study intersections. The results of the Cumulative Plus Project are presented in Table 9. As shown on the table, 4 of the 6 intersections would operate at LOS D or better during the morning peak hour and all of the analyzed intersections would at LOS D or better during the afternoon peak hour. The intersection of State Street and Marengo Street would still to operate at LOS E during the morning peak hour. The Kingston Avenue and Marengo Street intersection is projected to operate at LOS F during the morning peak hour.

TABLE 9
FUTURE CONDITIONS (YEAR 2007) WITH MITIGATIONS
INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Cumlative Base		Cumulative + Project				Cumulative + Project with Mitigations			
		V/C or Delay	LOS	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact
1. State Street & Marengo Street	AM	0.925	E	0.927	E	0.002	NO				
	PM	0.867	D	0.714	C	-0.153	NO				
2. Kingston Avenue & Marengo Street [1]	AM	12	C	260	F	n/a	YES	0.441	A	n/a	NO
	PM	6	B	23	D	n/a	YES	0.295	A	n/a	NO
3. Brittania Street & Marengo Street	AM	0.419	A	0.382	A	-0.037	NO				
	PM	0.493	A	0.393	A	-0.100	NO				
4. State Street & Pomeroy Avenue	AM	0.603	B	0.383	A	-0.220	NO				
	PM	0.582	A	0.357	A	-0.225	NO				
5. State Street & US 101 NB On-Ramp [1]	AM	9	B	7	B	n/a	NO				
	PM	14	C	8	B	n/a	NO				
6. State Street & I-10 WB Off-Ramp	AM	0.977	E	0.805	D	-0.172	NO				
	PM	0.430	A	0.321	A	-0.109	NO				

Note:

[1] The intersection is unsignalized. Value shown represents vehicle delay (seconds) for the most constrained approach movement at the intersection. Vehicle delay for the intersection would be lower.

Under Cumulative Base conditions, the Kingston Avenue and Marengo Street intersection is projected to operate at LOS C during the morning peak hour. With the addition of the LAC + USC Medical Center Replacement Project 600-Bed Alternative, the operating conditions at the Kingston Avenue and Marengo Street intersection deteriorates to LOS F.
Based on this analysis, it is determined that the proposed project would have a significant impact at the intersection of Kingston Avenue and Marengo Street.

CONGESTION MANAGEMENT PROGRAM

The County of Los Angeles has adopted a Congestion Management Program (CMP) to monitor and identify potential impacts of new development on the CMP roadway system. This roadway system is primarily comprised of the existing highway system in addition to regional arterials. The 1997 CMP sets forth guidelines for determining is a project has potential impacts upon the CMP system.

Within the study area, the adjacent highway system is within the CMP roadway system. This includes the San Bernardino Freeway (I-10), which runs in an east-west direction south of the project site and the Golden State Freeway (I-5), which runs north-south west of the project. Additional regional access is also provided by the Santa Ana Freeway, which runs in a northwest-southeast direction. It should be noted that no arterials within/near the study area are on the CMP roadway system.

As mentioned in Chapter III it was estimated that no new traffic would be generated by the proposed project and therefore no traffic impact analysis of the CMP system would be required.

V. PROJECT-RELATED MITIGATION MEASURES

The traffic impact analysis in the previous chapter determined that development of the LAC + USC Medical Center Replacement Project 600-Bed Alternative would create a significant traffic impact at the intersection of Kingston Avenue and Marengo Street. It is, therefore, necessary to identify an improvement that would mitigate this impact.

PROPOSED MITIGATION MEASURE

The following improvement is recommended as the appropriate measure required to mitigate the potential impact at the intersection of Kingston Avenue and Marengo Street:

- Kingston Avenue and Marengo Street - Signalization of this intersection would accomplish several objectives which would improve traffic conditions in the area. As illustrated in Figure 2, the driveway for emergency walk-in patients is located across Marengo Street at Kingston Avenue. Signalization of the intersection would improve the safety for all pedestrians accessing the parking structure from the north side of Marengo including those using the emergency room. A signal warrant analysis, which is fully documented in the appendix, was conducted at this location indicating that several warrants would be satisfied justifying the implementation of this proposed improvement.

EFFECTIVENESS OF MITIGATION MEASURES

Table 9 summarizes the result of the analysis assessing the effectiveness of the proposed improvement at the intersection of Kingston Avenue and Marengo Street. As indicated in the table, the impacted intersection would operate at LOS A during both peak hours if it were signalized thus fully mitigating the project impacts. No other improvement are necessary as a result of the addition of project traffic.

VI. CIRCULATION AND ACCESS

The proposed LAC + USC Medical Center Replacement Project 600-Bed Alternative site plan, as shown on Figure 2, contains various drop-off/pick-up locations for outpatients, inpatients, and emergency which also include short-term parking areas. The circulation and access for the 600-Bed Alternative are described in this section.

OUTPATIENT ACCESS

The outpatient drop-off/pick-up area is located on the east side of State Street north of Marengo. Short-term parking facilities are located to the north of the drop-off driveway and additional parking is located directly across from the drop-off driveway. There are approximately 274 parking spaces adjacent to the outpatient building. The drop-off area allows patients to be dropped off in front of the outpatient building with the ability to park nearby. Approximately 160 daily outpatients trips are projected with about 240 trips projected to occur during the a.m. peak hour and 160 trips projected to occur during the p.m. peak hour.

INPATIENT ACCESS

The inpatient drop-off area and short-term parking is located on the north side on Marengo Street along the inpatient tower and diagnostic/treatment buildings. The drop-off area is a loop system that allows drop-offs to occur with the ability to return to the parking area. The parking area contains approximately 61 parking spaces which would be for short-term parking. It is estimated that inpatient admission activity would be approximately 50 trips per day with most walk-in admissions through the emergency access area. Discharged patient activity, with approximately 170 trips per day, would occur outside of the AM and PM peak hours. Inpatient visitors are projected to generate approximately 430 daily trips, however, the visitor hours are not within the a.m. and p.m. peak hours.

EMERGENCY ACCESS

Emergency access is located on Marengo Street, south of the outpatient building. The emergency driveway is directly across Kingston Avenue Street which is the entry roadway for the 3,000 space Marengo parking structure. The emergency access is a circular loop that provides space for drop-offs and parking. Approximately 720 daily trips are projected to access the emergency driveway with approximately 108 trips occurring during the a.m. peak hour and 72 trips occurring during the p.m. peak hour. The emergency drop-off area provides 9 short-term parking spaces.

SERVICE VEHICLE ACCESS

Service vehicle access is available from a proposed driveway on Marengo Street just west of Chicago Street. The service access driveway runs along the east side of the inpatient building and would be the primary delivery point for the Replacement Project 600-Bed Alternative.

VII. CONSTRUCTION ACTIVITY

Construction activity for the proposed LAC + USC Medical Center Replacement Project 600-Bed Alternative would occur over a seven year period, during which peak activity would be for approximately 30 months. This section describes the 600-Bed Alternative construction trip generation under peak conditions and parking for construction workers.

600-BED ALTERNATIVE TRIP GENERATION DURING CONSTRUCTION

Based on data from Los Angeles County staff, it is estimated that the following construction trip generation represents the peak activity and would occur over a two and one half year period. As summarized in Table 10, trip generation estimates during construction include four types of construction truck activity and construction employee work trips. Each is described below.

- Dump Truck Activity - Peak activity by dump trucks is expected to occur between January 2001 to mid 2003. During this period, the maximum level activity would involve 80 dump truck loads on a daily basis at the site. The 80 dump truck loads would result in 160 daily truck trips, one trip into the site and one out of the site per dump load. It is estimated that this level of dump truck daily activity, i.e., 160 truck trips per day, would occur for approximately 125 non-consecutive days, with 20 trips projected to occur during the morning peak hour. The dump truck activity would start at approximately 6:00 a.m. and end by 2:30 p.m., resulting in no dump truck activity during the evening peak hour.

- Concrete Truck Activity - Concrete truck activity is estimated to average approximately 15 deliveries per day for a total of 30 truck trips per day. Concrete truck activity would start at approximately 6:00 a.m. and end by 2:30 p.m. with no p.m. peak hour activity. On days when large amounts of concrete are poured, there could be as many as 75 concrete trucks resulting 150 truck trips per day with 10 deliveries arriving during the morning peak hour. The peak times for concrete truck activity are included in Table 10.

- Steel Delivery Truck Activity - Three steel delivery trucks are projected to service the project during the peak periods of truck activity including activity for dump and concrete trucks. The steel delivery trucks arrive at the site between 4:00 a.m. and 6:00 a.m. in which they unload and leave during this time period. There would be six daily trips by the steel delivery trucks, but there would be no trips during the morning or evening peak hour.

TABLE 10
CONSTRUCTION TRIP GENERATION

Use	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Dump Trucks	160	10	10	20	-	-	-
Concrete Trucks	15	10	10	20	-	-	-
Steel Trucks	6	-	-	-	-	-	-
Other Misc. Trucks	50	4	4	8	-	-	-
Subtotal of Construction Trucks	231	24	24	48	-	-	-
Passenger Car Equivalents [1]	462	48	48	96	-	-	-
Employee Trips	600	-	-	-	-	-	-
Total Replacement Project 600-Bed Alternative Construction Traffic	1,062	48	48	96	-	-	-

Note:

[1] Passenger Car Equivalents (PCE) is a conversion of trucks to an equivalent number of passenger cars, which is 2.0 per truck.

- Miscellaneous Truck Activity - There would also be miscellaneous truck activity that would occur at the project site. It is estimated that approximately 50 daily miscellaneous trucks trips would occur during the 600-Bed Alternative with 10 trips occurring during the morning peak hour. There would be no truck activity during the evening peak hour since truck activity generally ends by 2:30 p.m..

- Employee Work Trips - It is estimated that 600 daily employee trips would be generated during the peak construction period. Because of the work schedule use for construction activity, none of these employee trips would occur during the morning or evening peak hours.

CONSTRUCTION PARKING

It is anticipated that the construction workers would park their vehicles in the 3,000-space parking structure located on the south side of Marengo Street between Kingston Avenue and Brittania Street during the Replacement Project 600-Bed Alternative. Parking would also be available for construction workers on vacant parcels of land located west of the construction site. The highest number of daily construction workers is projected to occur in 2003 when there would 500 daily employees.

Parking Structure 12, which has a capacity of 1,200 cars (located north of the Interns and Residents Dormitory), is currently red-tagged but may be repaired and used for construction parking.

A construction parking plan would be submitted to the City and County of Los Angeles before construction activity begins. The construction parking plan would identify the parking options and operations for construction employees. The amount of parking required is dependent on the number of estimated construction employee at the project site identified by the construction contractor.

VIII. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed LAC + USC Medical Center Replacement Project 600-Bed Alternative on the local circulation system. It also includes an assessment of the parking code requirements. This report, which is to become an integral element of an environmental document prepared for the revised project, is directed at the identification of potential impacts of a 600-bed facility, and depends upon and uses the results of a 1993 EIR conducted for a 950-bed medical center. The following summarizes the results of this analysis:

- A total of six intersections were analyzed within the study area for this project. All six of the analyzed intersections are currently operating at LOS D or better during both the morning and afternoon peak hours.

- The proposed project not only includes the development of the new medical center, it also includes the possible realignment/vacation of several local streets and the construction of several additional parking areas. The potential traffic impacts of these are addressed in the Cumulative Plus Project analysis.

- Analysis of the Cumulative Base conditions, representing future conditions without the proposed project, was performed for year 2007. The analysis indicates that all of the six analyzed intersections would operate at LOS D or better during the morning and afternoon peak hours.

- Analysis of the Cumulative Plus Project conditions indicates that the proposed project would have a significant impact at one of the analyzed intersections, Kingston Avenue and Marengo Street.

- If the project mitigation measures suggested in Chapter V were implemented, it is projected that the Replacement Project 600-Bed Alternative impacts would be mitigated to a level of insignificance.

REFERENCES

City of Los Angeles Planning and Zoning Code, 1989

County of Los Angeles Zoning Code, 1990.

Institute of Transportation Engineers, Trip Generation, 5th Edition, 1991.

Institute of Transportation Engineers, Trip Generation, 6th Edition, 1997.

Transportation Research Board, Highway Capacity Manual-Special Report 209, 1994.

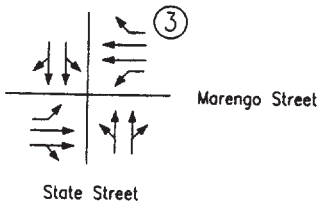
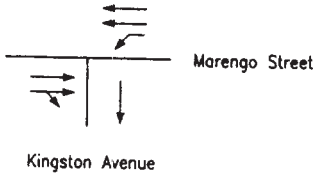
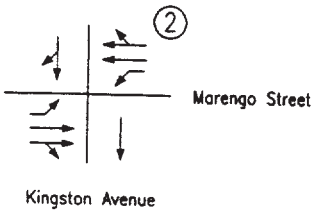
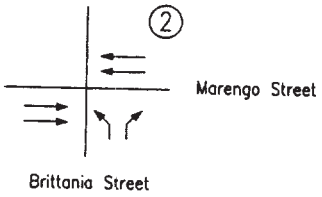
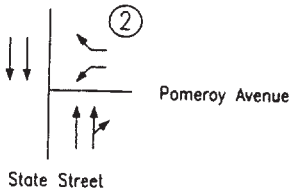
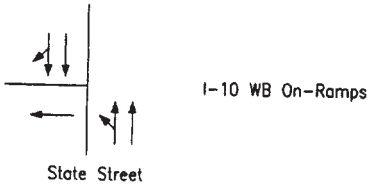
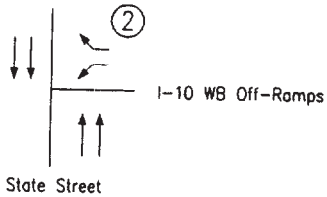
Transportation Research Board, Transportation Research Circular No. 212, Interim Materials on Highway Capacity, 1985.

Transportation Research Board, Transportation Research Circular No. 373, Interim Materials on Unsignalized Intersection Capacity, 1991.

APPENDIX A

INTERSECTION CONFIGURATIONS

INTERSECTION LANE CONFIGURATIONS

	Existing	Future with Project Mitigations
1. State Street & Marengo Street		SAME AS EXISTING
2. Kingston Avenue & Marengo Street		
3. Brittania Street & Marengo Street		SAME AS EXISTING
4. State Street & Pomeroy Avenue		SAME AS EXISTING
5. State Street & US 101 NB On-Ramp		SAME AS EXISTING
6. State Street & I-10 WB Off-Ramp		SAME AS EXISTING

Legend:

(#) Number of signal phases

APPENDIX B

SIGNAL WARRANT ANALYSIS

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: MARENGO
Minor Street: KINGSTON
Scenario: FUTURE + PHASE I - AM

Warrant Number and Name	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
1-Minimum Vehicular Volume	YES	NO	8th Highest Hour
2-Interruption of Cont. Traffic	YES	YES	8th Highest Hour
8-Combination of Warrants 1 & 2	YES	NO	8th Highest Hour
9-Four Hour Volume	YES	YES	4th Highest Hour
11-Peak Hour Volume	YES	YES	Peak Hour
Estimated Average Daily Traffic			
Minimum Vehicular Volume	NO	n/a	Daily
Interruption of Cont. Traffic	NO	n/a	Daily
Combination of Warrants	NO	n/a	Daily

TRAFFIC SIGNAL WARRANTS 1, 2 AND 8
(Based on Eigth Highest Hour of Traffic)

Major Street: MARENGO
Minor Street: KINGSTON
Scenario: FUTURE + PHASE I - AM
Urban/Rural: U (U=urban, R=rural)

WARRANT 1-MINIMUM VEHICULAR VOLUME

Number of Lanes on Each Approach	
Major Street:	2
Minor Street:	1
Vehicles Per Hour (8th Highest Hour)	
Major Street (Approach 1):	501
Major Street (Approach 2):	687
Major Street Left Turn (See Note 1):	70
Minor Street (Higher Volume App.):	46

WARRANT 1 SATISFIED? NO

WARRANT 2-INTERRUPTION OF CONTINUOUS TRAFFIC

Number of Lanes on Each Approach	
Major Street:	2
Minor Street:	1
Vehicles Per Hour (8th Highest Hour)	
Major Street (Approach 1):	501
Major Street (Approach 2):	687
Major Street Left Turn (See Note 1):	70
Minor Street (Higher Volume App.):	46

WARRANT 2 SATISFIED? YES

WARRANT 8-COMBINATION

No one warrant satisfied but following warrants fulfilled 80% or more:

Warrant 1 80% Fulfilled? NO
Warrant 2 80% Fulfilled? YES

WARRANT 8 SATISFIED? NO

Minimum Requirements

# of Lanes on Each Approach		Vehicles Per Hour (eigth highest hour)			
		Major Street (Total of Both Approaches)		Minor Street (Higher Volume Approach Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	500	350	150	105
>=2	1	600	420	150	105
>=2	>=2	600	420	200	140
1	>=2	500	350	200	140
Minimum Req.		600	#N/A	150	#N/A
Test Amount		1188	#N/A	116	#N/A

# of Lanes on Each Approach		Vehicles Per Hour (eigth highest hour)			
		Major Street (Total of Both Approaches)		Minor Street (Higher Volume Approach Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	750	525	75	53
>=2	1	900	630	75	53
>=2	>=2	900	630	100	70
1	>=2	750	525	100	70
Minimum Req.		900	#N/A	75	#N/A
Test Amount		1188	#N/A	116	#N/A

Warrants 1 and 2 Both 80% Fulfilled

NOTES:
1. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.
2. Adopted from: Caltrans, "Traffic Manual," December 1986, pages 9-1 through 9-7; and U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices," March 1986.

TRAFFIC SIGNAL WARRANTS 9 AND 11
(Warrant 9 Based on Fourth Highest Hour of Traffic; Warrant 11 Based on Peak Hour of Traffic)

Major Street: MARENGO
Minor Street: KINGSTON
Scenario: FUTURE + PHASE I - AM
Urban/Rural: U (U=urban, R=rural)

WARRANT 9-FOUR HOUR VOLUME

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (4th Highest Hour)			
Major Street (Approach 1):	710	Major Street Left Turn (See Note 1):	99
Major Street (Approach 2):	973	Minor Street (Higher Volume App.):	65
Major Street Total (Both Approaches):	1683	Minor Street Total:	164
Minimum Volume on Major Street to Satisfy Warrant (see Note 2):	390	Minimum Volume on Minor Street to Satisfy Warrant (see Note 2):	80
WARRANT 9 SATISFIED?	YES		

WARRANT 11-PEAK HOUR VOLUME

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	835	Major Street Left Turn (See Note 1):	117
Major Street (Approach 2):	1145	Minor Street (Higher Volume App.):	76
Major Street Total (Both Approaches):	1980	Minor Street Total:	193
Minimum Volume on Major Street to Satisfy Warrant (see Note 3):	510	Minimum Volume on Minor Street to Satisfy Warrant (see Note 3):	100
WARRANT 11 SATISFIED?	YES		

NOTES:
1. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.
2. From: Caltrans, "Traffic Manual," December 1986, Figure 9-2A.
3. From: Caltrans, "Traffic Manual," December 1986, Figure 9-2C.
4. Adopted from: Caltrans, "Traffic Manual," December 1986, pages 9-1 through 9-13; and U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices," March 1986.

APPENDIX C 1

TRAFFIC STUDY FOR 600-BED AND REUSE OF OUTPATIENT DEPARTMENT

RECEIVED
AUG - 5 1999
ENVIRONMENTAL SCIENCE ASSOC
LOS ANGELES

KAKU ASSOCIATES
A Corporation
Transportation Planning
Traffic Engineering
Parking Studies

memorandum

TO: Wendy Lockwood, ESA

FROM: Dick Kaku
Bruce Chow

SUBJECT: LAC + USC Medical Center Replacement Project Alternative

DATE: August 3, 1999 **REF:** 1172

The previous traffic study conducted in April 1999 as part of the environmental impact report (EIR) for the proposed LAC + USC Medical Center Replacement Project, analyzed a 600-Bed Alternative as the project description. The April 1999 traffic study, as amended, determined that traffic expected to be generated by the proposed project would not have any significant impacts on the local street system and, therefore, no mitigation measures would be required.

This memorandum has been prepared to document the results of a supplemental analysis conducted to assess the potential traffic impacts of a revised project alternative. The project alternative is identical to the Proposed Project described above with the exception that the alternative assumes the re-use of a portion of the existing outpatient building for a nursing school and the remainder for use as a medical office building.

Similar to the previous traffic study, the analysis of the Revised Project Alternative also analyzed six intersections including the following locations:

- State Street and Marengo Street
- Kingston Avenue and Marengo Street
- Brittania Street and Marengo Street
- State Street and Pomeroy Avenue
- State Street and US 101 NB on-ramp
- State Street and I-10 WB off-ramp

PROJECT DESCRIPTION

The proposed project in the previous traffic study consisted of the following elements:

- Hospital providing 600 beds with 645,000 square feet of service area
- Outpatient care unit with 198,700 square feet of space
- Diagnostic and Treatment Services with 278,700 square feet
- Administrative services with 102,500 square feet
- Office space with 82,400 square feet
- Central Plant (underground)

1453 Third Street, Suite 400
Santa Monica, CA 90401
(310) 458-9916 Fax (310) 394-7663

The revised project alternative analyzed in this traffic study includes each of the elements identified above along with the re-use of the existing outpatient building for the nursing school and medical office use. The re-use of the outpatient building also includes the following:

- Nursing School occupying 50,000 square feet
- Medical Office providing 162,000 square feet of space

Figure 1 illustrates the location of the revised project alternative in relation to the original project and each of its elements.

PROJECT TRIP GENERATION

Original Traffic Generation

The previous traffic study for the proposed project was based on the assumption that the number of inpatient hospital beds would be reduced from the existing level of 1,450 beds to the proposed level of 600 beds, and several building which are currently in operation would be vacated. Based on these assumption, it was determined that the traffic actually generated by the hospital would decrease. The projected trip generation for the proposed project would result in a net decrease of 13,165 daily vehicle trips, of which 1,106 vehicles per hour (vph) would occur during the AM peak hour and 1,302 PM vph would occur during the PM peak hour because of the reduction in hospital beds and other medical facilities. Although the implementation of the proposed project was expected to result in a net reduction in trip generation, forecasts of future traffic were prepared to ensure that the potential impact of the changes to the local circulation system which were an integral part of the project description were reflected in the analysis. The proposed project includes, as an integral element of its project description, the realignment and vacation of several streets and the relocation of several parking facilities. The forecasts of future traffic after the implementation of proposed project reflected the effect of both the reduction in hospital-generated traffic and the changes to the street system.

The changes to the street system which were included in the project description of the proposed project are described below.

Revised Project Traffic Generation

The implementation of the revised project alternative is also expected to result in a reduction in traffic in the area as well as a re-routing due to the changes to the street system. The reduction in hospital-generated traffic is expected to be less for the revised project alternative because of the proposed re-use of the outpatient building.

As summarized in Table 1, the trip generation estimates for the revised project alternative would result in fewer trips in the study area than currently exists, but the reduction would be less than under future conditions with the proposed project. The activities associated with the nursing school and the medical office uses would generate additional traffic resulting in a smaller

reduction in the existing traffic. The table indicates that revised project alternative would result in a net decrease of 6,395 daily trips in the area, of which 631 vph would occur during the AM peak hour and 620 vph during the PM peak hour. Future traffic forecasts were prepared for the revised project alternative, which included both the changes in local circulation from the proposed project and the re-use of the outpatient building.

CUMULATIVE BASE ANALYSIS

The analysis of Cumulative Base traffic conditions for the revised project alternative is based on the same assumptions as those used to conduct the April 1999 traffic study. Figure 2 illustrates the Cumulative Base traffic volumes for the six analyzed intersections which were developed using these assumption. As summarized in Table 2, the analysis of these future projected volumes indicates that four out of the six analyzed intersections are projected to operate at LOS D or better during the morning peak hour and all six during the afternoon peak hour. The intersections of State Street/Marengo Street and State Street/I-10 westbound off-ramp are projected to operate at LOS E during the morning peak hour under Cumulative Base conditions.

CUMULATIVE PLUS PROJECT ANALYSIS

As discussed above, the original traffic study was conducted incorporating several assumptions that would affect local circulation. These included the following:

- The realignment of Cummings Street to the east with Chicago Street via Charlotte Street, as illustrated in Figure 1.
- The closure of parking facilities for a total loss of approximately 1,200 spaces due to construction of the proposed project.
- Relocation of the Medical Center drop-off areas. As illustrated in Figure 1, the outpatient drop-off would be located off of State Street. The inpatient/emergency drop-off and the main hospital drop-off would be located off of Marengo Street.

Traffic Forecasts

The analysis of the revised project alternative also includes these same assumptions as well as the assumption that the staff and students of the proposed nursing school and the employees and patients of the proposed medical office would primarily park in Lot 12 located north of the existing outpatient building.

Using these assumption, traffic forecasts projecting Cumulative Plus Project traffic conditions for the revised project alternatives were developed. These future traffic volumes for the six analyzed intersections are illustrated on Figure 3.

Impact Analysis

The traffic volumes illustrated in Figure 3, the Cumulative Plus Project for the revised project alternative, were analyzed using the same methodologies and significance criteria used in the original study. The results, which are summarized in Table 2, indicate that if the City and County significant impact criteria are used, the revised project alternative would have a significant impact at the intersection of State Street and Marengo Avenue.

MITIGATION MEASURES

Proposed Improvement

As indicated, the proposed project is expected to have a significant impact at the intersection of State Street and Marengo Avenue. The measure recommended to mitigate this project impact is to implement the necessary improvements so that this intersection can be included in the City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system.

The City of Los Angeles has indicated that this improvement can be expected to increase the capacity at the State Street and Marengo Avenue intersection by 7 percent. This increase in the capacity of 7 percent is more than sufficient to mitigate the project impact at this location.

Mitigation Cost Estimation

The estimated cost to implement this proposed improvement is approximately $70,000 to $100,000, depending on the nature and condition of the existing signal equipment.

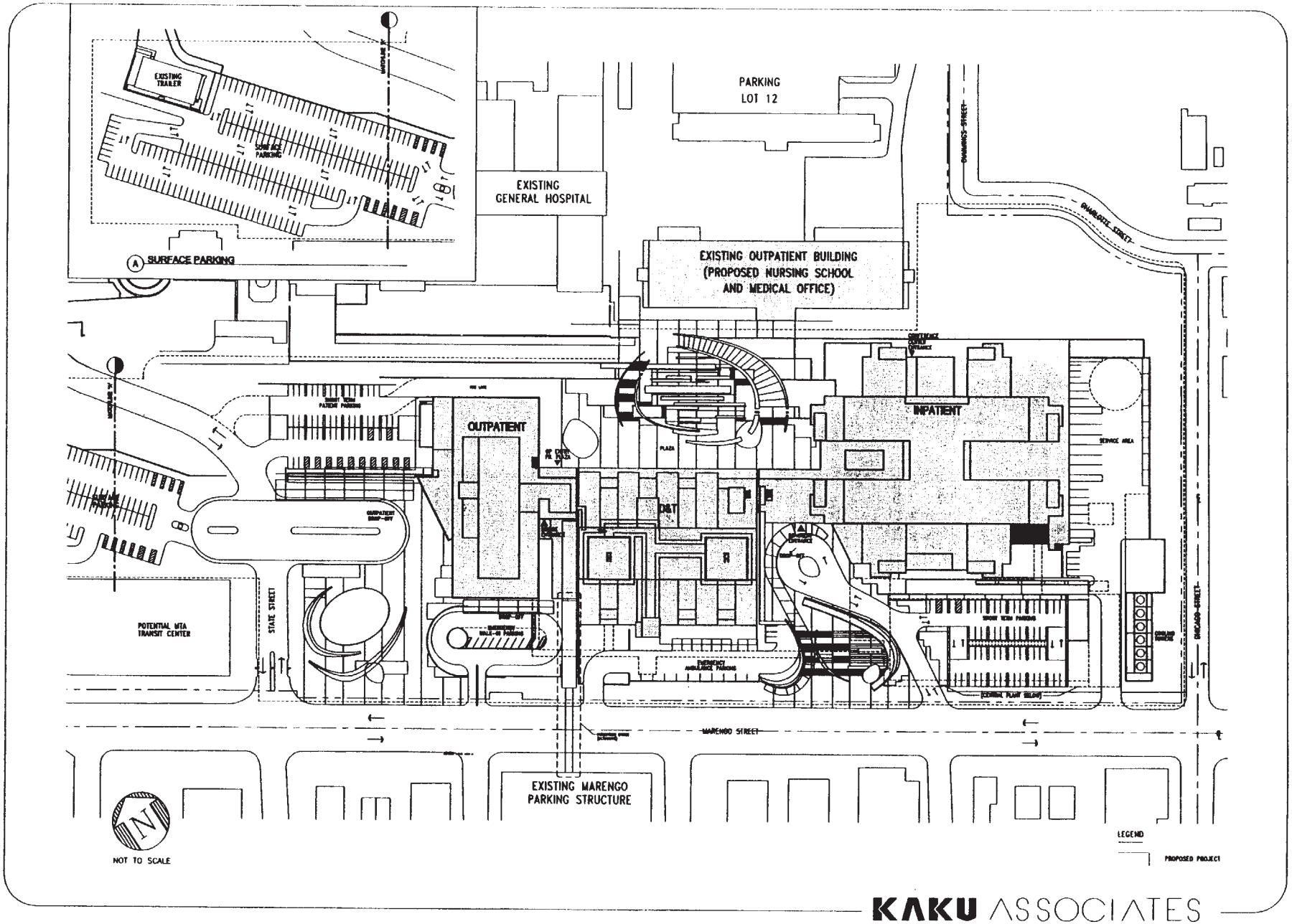


FIGURE 1
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT 600-BED ALTERNATIVE
AND RE-USE OF OUTPATIENT BUILDING

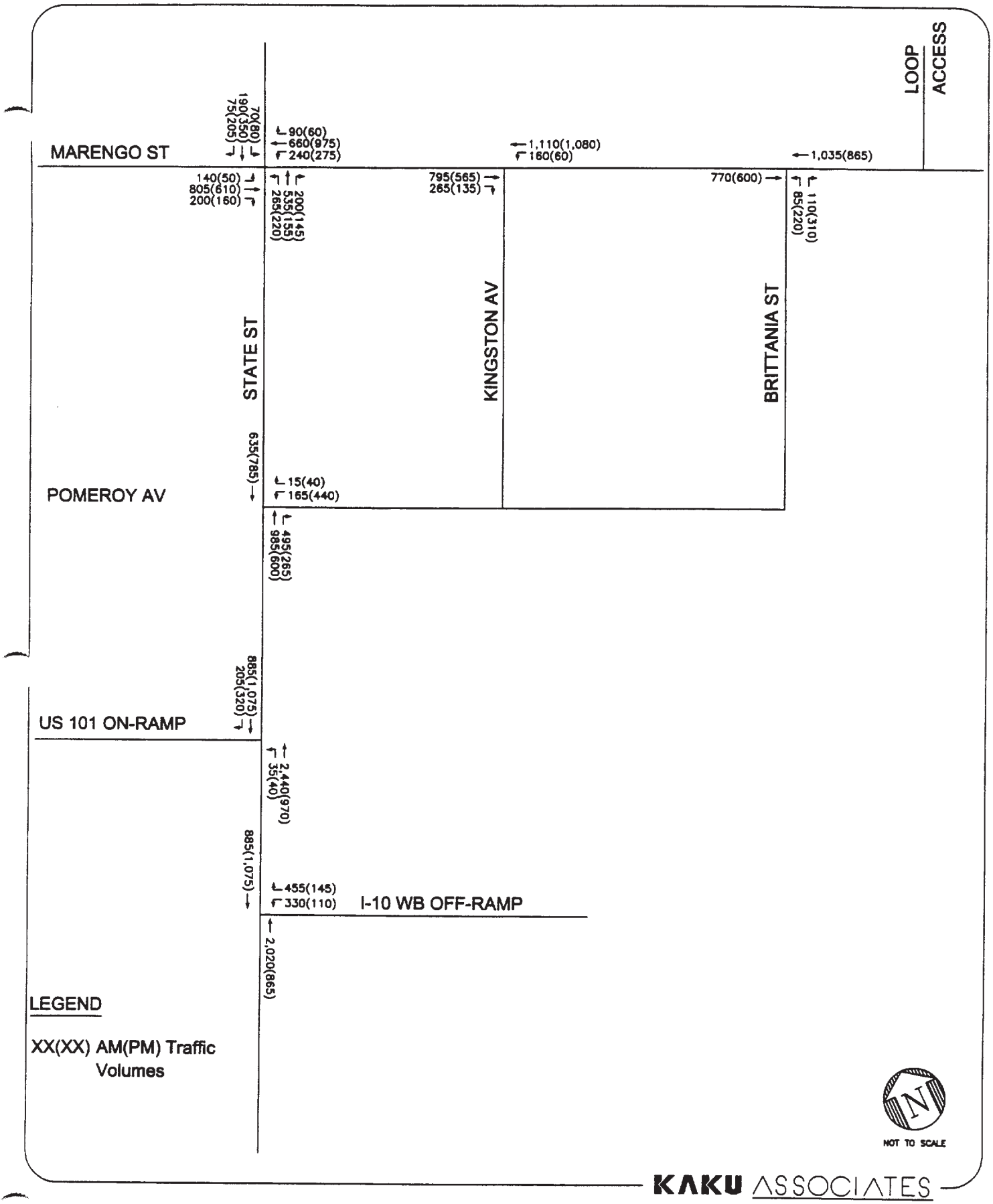


FIGURE 2
YEAR 2007 CUMULATIVE BASE PEAK HOUR TRAFFIC VOLUMES

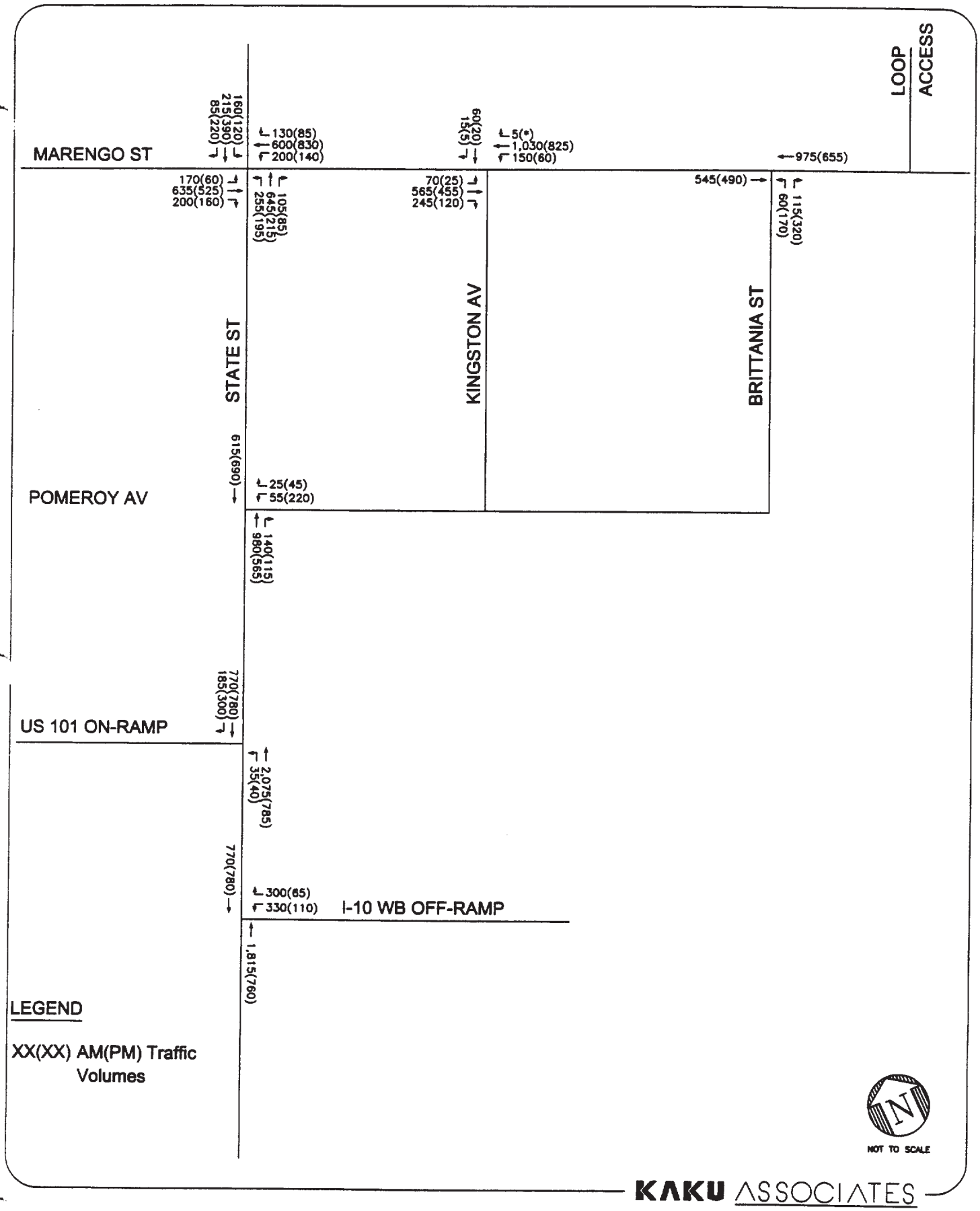


FIGURE 3
CUMULATIVE PLUS PROJECT ALTERNATIVE

TABLE 1
PROPOSED PROJECT AND PROJECT ALTERNATIVE NET NEW TRIP GENERATION

PROPOSED PROJECT

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Existing Hospital	1,450 beds	17,070	1117	435	1552	601	1168	1769
Replacement Project 600-Bed Alternative	600 beds	7,060	462	180	642	249	483	732
Net change due to Replacement Project	-850 beds	-10,000	-655	-255	-910	-353	-684	-1,037
Total Credit for Displaced units [1]	n/a	-3,165	-91	-105	-196	-142	-123	-265
Total Replacement Project 600-Bed Alternative Trips		-13,165	-746	-360	-1,106	-495	-807	-1,302

PROJECT ALTERNATIVE

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Project		-13,165	-746	-360	-1,106	-495	-807	-1,302
Re-use of Outpatient Building:								
New Medical Office	162,000 s.f.	5,850	315	79	394	160	433	593
Nursing School [a]	50,000 s.f.	920	65	16	81	51	38	89
Re-use of Outpatient Building Total	212,000 s.f.	6,770	380	95	475	211	471	682
Project Alternative Net Incremental Trips		**-6,395**	**-366**	**-265**	**-631**	**-284**	**-336**	**-620**

Note:

Trip Generation from Institute of Transportation Engineers (ITE), "Trip Generation, 6th Edition, 1997." Unless otherwise noted.

[a] Junior/Community College ITE trip generation rates used.

[1] Source: Kaku Associates, "Circulation Study for the LAC + USC Medical Center, December 1993."

TABLE 2
FUTURE CONDITIONS (YEAR 2007) WITH MITIGATIONS
INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Cumlative Base		Cumulative + 600 Bed Alternative & Re-use of Outpatient Building				Cumulative + 600 Bed Alternative & Re-use of Outpatient Building with Mitigations			
		V/C or Delay	LOS	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact	V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact
1. State Street & Marengo Street	AM	0.925	E	0.940	E	0.015	YES	0.870	D	-0.055	NO
	PM	0.867	D	0.806	D	-0.061	NO	0.736	C	-0.131	NO
2. Kingston Avenue & Marengo Street [1]	AM	0.461	A	0.444	A	-0.017	NO				
	PM	0.361	A	0.306	A	-0.055	NO				
3. Brittania Street & Marengo Street	AM	0.419	A	0.401	A	-0.018	NO				
	PM	0.493	A	0.433	A	-0.060	NO				
4. State Street & Pomeroy Avenue	AM	0.603	B	0.409	A	-0.194	NO				
	PM	0.582	A	0.378	A	-0.204	NO				
5. State Street & US 101 NB On-Ramp [1]	AM	0.883	D	0.739	C	-0.144	NO				
	PM	0.492	A	0.387	A	-0.105	NO				
6. State Street & I-10 WB Off-Ramp	AM	0.977	E	0.823	D	-0.154	NO				
	PM	0.430	A	0.333	A	-0.097	NO				

Note:
[1] The intersection, although not signalized, was analyzed as a signalized intersection in order to determine significant project impacts.

APPENDIX D

NATIONAL REGISTER ELIGIBILITY AND FINDINGS OF EFFECTS REPORT

NATIONAL REGISTER ELIGIBILITY AND FINDING OF EFFECTS REPORT LOS ANGELES COUNTY UNIVERSITY OF SOUTHERN CALIFORNIA MEDICAL CENTER REPLACEMENT HOSPITAL

1200 North State Street
Los Angeles, Los Angeles County, California

Prepared for

Environmental Science Associates

Prepared by

Mellon & Associates

February 1999

EXECUTIVE SUMMARY

Proposed project is intended to replace functions of Los Angeles County General Hospital-Acute Unit (General Hospital), determined National Register of Historic Places (National Register) eligible in 1994 by Federal Emergency Management Agency (FEMA) and State Historic Preservation Officer (SHPO). This report is intended to comply with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act (Section 106). It serves to document National Register eligibility of buildings and structures within the Area of Direct Impact (project site) and within boundaries of defined Area of Potential Effects (APE). Map describing the Area of Potential Effects (APE) and Area of Direct Impact is attached as Exhibit 1. In addition to identifying National Register eligibility, this report serves to assess effects of the proposed project on eligible historic resources and establish mitigation measures. If mitigation measures provided are applied, the project will have no adverse effect under Section 106 and impacts to historic resources are mitigated to a level of insignificance under CEQA.

NATIONAL REGISTER DETERMINATION OF ELIGIBILITY

The following buildings and structures appear eligible for listing in the National Register.

National Register Eligible Properties within the Area of Potential Effects		
Building/Structure	Date Constructed	Address
General Hospital-Acute Unit	1933	1200 N. State Street
Payroll Building	1933	1200 N. State Street
Quality Assurance Building	1933	1200 N. State Street
Entrance Forecourt	1933	1200 N. State Street
Configuration of North State Street	1933	1200 N. State Street
Marengo Street and Zonal Avenue Gateways (East, Center and West)	1933	1200 N. State Street
Vehicular/Pedestrian Tunnel/Tramway (from General Hospital underground through former Support Services Site connecting to Pharmacy Building)	1933	1200 N. State Street
Pharmacy Building	1917	1200 N. State Street
Old Administration Building	1910	1200 N. State Street

ASSESSMENT OF EFFECTS ON NATIONAL REGISTER ELIGIBLE PROPERTIES

Configuration of North State Street--Construction Period Effects. The project has direct impact on one National Register eligible property; Configuration of North State Street. Configuration of North State Street is integral to architectural setting, scale and character of General Hospital, and was conceived simultaneously with its design. Accordingly, street configuration, excluding the roadway surface, curbs and gutter, are eligible for National Register listing. State Street through the Area of Direct Impact (project site) will be relocated temporarily during construction and be reconstructed as part of project completion. Given the nature of the resource, the limited period of time it will be removed and ability to reconstruct its important character-defining features, this impact was determined to have no adverse effect. Accurate reconstruction of the Configuration of North State Street allowing for new curb, gutter and roadway surface, and curb cuts as necessary, is the required mitigation measure to be employed thus reducing impacts to a level of insignificance and permitting a finding of no adverse effect.

Marengo Street Gateway--Construction Period Effects. Marengo Street Gateway is potentially effected by adjacent construction activity. This gateway will be either placed out of service during the construction period or protected from inadvertent construction activity by full encasement in plywood barricades and placement of multiple steel bollards surrounding encased piers and other character-defining features. Given nature of the resource, limited period of time when it must be protected and ability readily to remove temporary construction protection, the impact will have no adverse effect. Protection of the gateway and all its character-defining features is the required mitigation measure to be employed reducing impacts to a level of insignificance and allowing for finding of no adverse effect.

General Hospital--Visual Effects. The project has an indirect impact on General Hospital-Acute Unit and its associated features including Payroll Building, Quality Assurance Building, Marengo Street and Zonal Avenue Gateways. These effects are all visual. The primary resource is General Hospital, approximately 20 stories in height, with its ground floor level situated atop a promontory. Campus development in the 1950s and 1960s south of General Hospital included construction of various buildings approximately 10 stories in height. The proposed project is located on the site of these buildings and of the same approximate height. The density of the project is somewhat greater than existing buildings on the project site, however its bulk is placed in the eastern portion of the project site, east of North State Street. Therefore, visual effect of the project is roughly the same as at present. The general configuration of the project with various projecting wings and setbacks reflects precedents in design of historic hospital but does not copy or mimic original design. Use of compatible materials, precast concrete or glass fiber reinforced concrete panels, establishes a rhythmic pattern of punched windows in a masonry facade. These elements combine to establish a respectful relationship between the historic hospital and the replacement hospital. As a result of the project's limited visual effect and regard for character-defining features of the historic hospital, the impact has no adverse effect. Use of projecting wings, setbacks, compatible materials and punched windows is required mitigation measure to be employed reducing impacts to a level of insignificance and allowing for finding of no adverse effect.

General Hospital--Reallocation of Funding Effects. The project also has an indirect impact on General Hospital-Acute Unit in that FEMA funds allocated to rehabilitation of the historic hospital are being reallocated to the replacement hospital. Under Section 106 regulations, the Federal undertaking, diverting rehabilitation funding, will effect General Hospital. When the replacement hospital opens as planned in 2007, General Hospital will be decommissioned as a hospital under Office of Statewide Health Planning and Development (OSHPD) authority. As result, its future adaptive use/rehabilitation will be subject to less stringent building codes. At the present time, we cannot accurately determine the range of possible adaptive uses. Relocation of users from various buildings within the Area of Direct Impact may include placement within General Hospital. Therefore, impacts must be considered during construction and subsequent to completion of the project. In order to mitigate any potential adverse effect relocation of uses from the Area of Direct impact and any future adaptive use/rehabilitation of General Hospital after decommissioning shall comply with the Secretary of the Interior's Standards for Rehabilitation (Standards, 36 Code of Federal Regulations (CFR) § 67.7). As provided in Section 106 regulations (36 CFR § 800.9 (c) (2)) compliance with the Standards has no adverse effect. Furthermore, compliance with the Standards under CEQA guidelines (Title 14, California Code of Regulations, §15064.5 (b) (3)) shall be considered mitigated to a level of less than a significant impact on the historic resource. Should adaptive use/rehabilitation of General Hospital be delayed in excess of one year from decommissioning as a hospital under OSHPD authority, it shall be mothballed according to provisions contained in the most recent issue of *Preservation Brief 31: Mothballing Historic Buildings* (U.S. Department of the Interior, National Park Service). As a result of compliance with the Standards for any adaptive use/rehabilitation of General Hospital either during construction for uses relocated from the Area of Direct Impact or after decommissioning as a hospital under OSHPD authority, and mothballing according to the noted Preservation Brief, as necessary, the impact will have no adverse effect. Use of the Standards and mothballing procedures reduces impacts to a level of insignificance allowing for the finding of no adverse effect.

ARCHAEOLOGICAL RESOURCES

The absence of prehistoric sites within a one-mile radius of the project merits a low archaeological sensitivity rating as described in the report by W.H. Bonner Associates dated January 27, 1999 attached as Appendix B. The project site has been previously developed in at least two phases: as a residential neighborhood and as part of Medical Center campus. A Phase I archaeological survey is not required. If cultural resources are exposed during grading a qualified archeologist should be contacted to assess significance of the find. The immediate area of find should be avoided until such assessment has been performed. If human remains are exposed the Los Angeles County coroner must be contacted immediately and the area of the find avoided until the coroner can assess the remains. Any such resources will be treated as unanticipated discoveries and will be subject to additional Section 106 review and mitigation measures may be required.

PREVIOUSLY EVALUATED HISTORIC PROPERTIES

50-year Old Buildings and Structures. The records search found the following previously identified resources.

Previously Evaluated National Register Eligible Properties	
Building/Structure	Address
General Hospital-Acute Unit	1200 N. State Street
Payroll Building	1200 N. State Street
Quality Assurance Building	1200 N. State Street
Street Lights	1200 N. State Street
Support Services Site	1200 N. State Street
Old Administration Building	1200 N. State Street

ANALYSIS OF PREVIOUSLY EVALUATED PROPERTIES

General Hospital. The original survey form for General Hospital-Acute Unit was prepared by Dennis Smith and Tom Sitton of the Los Angeles County Natural History Museum in 1976, attached as Appendix B. This form notes under paragraph 11. Surroundings: "other hospital-related facilities." In fact, a number of features are related directly to General Hospital-Acute Unit and were constructed concurrently therewith and therefore contribute to the historic character of the determined eligible property. These features include: Payroll and Quality Assurance Buildings (single-story buildings which flank the hospital entrance forecourt); Entrance Forecourt; Configuration of North State Street, and; Marengo Street and Zonal Avenue Gateways.

Support Services Site. The Support Services Site noted above, with exception of the Pharmacy Building and Pedestrian/Vehicular Tramway/Tunnel viaduct, was demolished in 1995.

Street Lights. The notation for Street Lights is inaccurate, in that no formal determination of eligibility was made, because no Federal undertaking existed in 1994 and only now is an official identification being carried out. This report determined Street Lights, referenced more accurately as North State Street Lampposts as ineligible for National Register listing due to their apparent construction in the 1950s and incompatibility of recent relamping.

SUMMARY OF NATIONAL REGISTER ELIGIBLE PROPERTIES WITHIN APE

The following summarizes contributing features on the Medical Center campus bounded by Mission Road (west), Zonal Avenue (north), Cummings/Chicago Streets (east) and Marengo Street (south). There are five buildings, two structures and two landscape features. With the

exception of the Pharmacy Building and Old Administration Building, all buildings and structures eligible for National Register listing were part of the original design and construction of General Hospital-Acute Unit.

National Register Eligible Properties within APE			
Building/Structure	Date Constructed	Building/ Structure/ Landscape	Address
General Hospital-Acute Unit	1933	Building	1200 N. State Street
Payroll Building	1933	Building	1200 N. State Street
Quality Assurance Building	1933	Building	1200 N. State Street
Entrance Forecourt	1933	Landscape	1200 N. State Street
Configuration of North State Street	1933	Landscape	1200 N. State Street
Marengo Street and Zonal Avenue Gateways (East, Center and West)	1933	Structure	1200 N. State Street
Vehicular/Pedestrian Tunnel/Tramway (from General Hospital underground to former Support Services and connecting to Pharmacy Building)	1933	Structure	1200 N. State Street
Pharmacy Building	1917	Building	1200 N. State Street
Old Administration Building	1910	Building	1200 N. State Street

AREA OF POTENTIAL EFFECTS BOUNDARY

Boundary of the Area of Potential Effects (APE) includes properties potentially effected by the replacement hospital. Proposed boundary incorporates all of the superblock bounded by Zonal Avenue to the north, North Cummings Street to the east, Marengo Street to the south, and Mission Road to the west. In addition to medical center campus, the APE boundary incorporates all properties east to the former Pacific Electric Railway right-of-way and south to the San Bernardino (I-10) and Golden State (I-5) Freeways. Within the APE are residential and commercial properties, many of which are 50 years of age and will be surveyed to determine National Register eligibility. Map describing Area of Potential Effects (APE) and Area of Direct Impact is attached as Exhibit 1.

SURVEY METHODOLOGY

The Area of Direct Impact was surveyed at an intensive level and the APE was surveyed at a reconnaissance level. Historic photographs and Sanborn Fire Insurance maps were reviewed.

For resources within the Area of Direct Impact, original drawings and building permits, when available, were reviewed and resources inspected.

AREA OF DIRECT IMPACT SURVEY

Area of Direct Impact for the replacement hospital is defined as project site and corresponds to "limit of contract" described in the 50% Schematic Design drawings. Project site is generally bounded by General Hospital on the north, North Chicago Street on the east, Marengo Street on the south and North State Street on the west. North Cummings Street between Charlotte Street on the north and Marengo Street will be vacated and incorporated into project site. A total of eight buildings and five structures exist within the Area of Direct Impact. Two structures directly associated with General Hospital, namely Marengo Street Gateway and Configuration of North State Street, are site features constructed concurrently with original hospital, retain integrity and are National Register eligible. None of the buildings are 50 years of age, and three structures appear ineligible for National Register listing. The following chart lists buildings and structures, summarizes construction dates, and National Register eligibility.

Brief Summary of National Register Eligibility
Buildings and Structures within Area of Direct Impact

Building/Structure	Architect/ Contractor	Construction Date	National Register Eligible
1. Psychiatric Hospital	Wilson Williams	1951	No
2. Graduate Hall	Wilson-Williams	1953, 1955	No
3. Pediatric Pavilion	Wilson-Williams	1955	No
4. Muir Hall	Wilson-Williams	1962	No
5. Pedestrian and Vehicular Tramway and Utility Tunnel Systems	Unknown	1951-1962	No
6. Modular Buildings and Trailers	Unknown	after 1965	No
7. Parking Structure 11	Fellows & Associates	1964	No
8. Parking Structure 6	Portable Parking Structures, International	1971	No
9. Marengo Street Gateway	Allied Architects	1933	Yes
10. Hospital Place Gateposts	Allied Architects	1933	No
11. Configuration of North State Street	Allied Architects	1933	Yes
12. North State Street Lampposts	Unknown	c. 1950s (?)	No
13. Shopping Center, 2057-2067 Marengo St.	Eddy Liu	1984	No
14. Burger King Restaurant, 2033-2055 Marengo St.	EP Clarke, Architect	1985	No

PREVIOUSLY UNEVALUATED PROPERTIES ON MEDICAL CENTER CAMPUS

Other 50-year old buildings and structures on the Medical Center Campus appear ineligible.

Balance of 50-Year Old Buildings and Structures on Medical Center Campus		
Building/Structure	Date Constructed	Address
North State Street Lampposts	1950s (?)	1200 N. State Street
Hospital Place Gateposts	1933	1200 N. State Street
Thrift Shop	1912, 1920s (?)	1200 N. State Street
Mission Road and Marengo Street Fence	c. 1910	1200 N. State Street

BRIEF HISTORY OF MEDICAL CENTER CAMPUS/HISTORIC CONTEXT

Los Angeles County Hospital was established in an adobe home in 1858 by the Sisters of Charity. In 1878, the Los Angeles County (County) Board of Supervisors purchased 37.72 acres of land on Mission Road in Boyle Heights.[1] The land was acquired for construction of a County Hospital and Poor Farm, and first hospital building constructed within a few months of wooden materials and almost no planning. Expansion of hospital campus has since progressed successively eastward with acquisition of additional land and vacation of neighboring streets.

Construction began in 1897 to replace inadequate wooden buildings with larger, brick buildings. In 1900, electric lighting was installed, followed in 1902 by the first elevator. By 1904, there was a telephone system with an annunciator, intercom, and call-bells. A contract was awarded to a San Francisco-based architect, William Mooser,[2] for design of four new buildings which were completed in 1904. In 1909, a contract was let for construction of a new administration building. Designed by Hudson & Munsell, this is currently the oldest extant building.[3] These buildings were all constructed of brick with classically-inspired details.

Between 1920 and 1930, County population doubled and the hospital was forced to expand. Overflow patients were housed in corridors connecting some buildings or in makeshift wards. County Hospital patients stricken with tuberculosis and other highly contagious illnesses were

[1]Boyle Heights was originally a vineyard owned by Andrew A. Boyle. After his death in 1870, the land was sold to Louis Lewin and Charles Jacoby who subdivided it and named the area "Boyle Heights."

[2]William Mooser was the son of William Mooser, Senior (1834-1896) a pioneer San Francisco architect. Working under the firm name, William Mooser & Company after his father's death, William Mooser went on to design such notable Southern California landmarks as the Santa Barbara County Courthouse (1929) and the Eastern Star Home (1930).

[3]Frank D. Hudson and William A. Munsell were in partnership from 1901 until the early 1930s. Among their best known works were the County Hall of Records (1907, demolished) and the County Historical and Art Museum at Exposition Park (1912).

isolated in the largest building constructed during this period, the first Communicable Diseases Building (1924), designed by County architect Montrose Warn.[4]

Widespread prosperity and pressing need for more beds initiated planning in 1922 for a new, larger, and modern hospital. Upon completion, the new facility would eclipse the small scale of 19th century campus buildings located along Mission Road. A bond measure for construction was passed in 1923 and the Board of Supervisors selected Allied Architects Association[5] to design the new hospital. Additional property was purchased and annexed to the campus for construction of an Acute Unit, as General Hospital was called at the time. Development plans called for construction of a state-of-the-art high-rise hospital tower set on a promontory overlooking downtown Los Angeles, with extensive terracing and reconfiguration of North State Street into a formal vehicular drive leading uphill to the hospital entrance. Construction originally projected to cost about $5,000,000 reached nearly $13,000,000 when completed in late 1933.[6]

Post World War II was a period of rapid growth and development. With increasing population, Los Angeles County Hospital was forced to expand and provide additional services. Many new buildings were constructed, which required demolition of the earliest hospital buildings. Added property was purchased south and east of General Hospital annexing several residential blocks to the hospital campus. Construction of Psychiatric Hospital (1951), Graduate Hall (1953/1955), Pediatric Pavilion (New Communicable Diseases Unit, 1955), Osteopathic Hospital (AKA Women's and Children's Hospital, 1959), Muir Hall (1962), Outpatient Building (1963), and Intern-Resident Dormitory (1965) took place. Improvements to the campus thereafter were generally limited to modular buildings and trailers placed where space allowed, including roof terraces of General Hospital.

The period 1968-1978 brought some favorable developments. One achievement was change in name in July 1968 from Los Angeles County Hospital to Los Angeles County/University of Southern California (LAC+USC) Medical Center. This new name recognized all existing facilities of USC's Health Sciences campus and School of Medicine, located across Zonal Avenue, were available to serve the hospital. After 1968, General Hospital underwent further physical improvements, including smaller wards for patients, redecoration, new lighting, and high-speed elevators.[7]

---

[4]Montrose Warn was variously referenced on drawings in the 1920s as "Architect Assistant" and as "Architect." It seems he served under Karl W. Muck, County Architect during this period. The beginning and ending dates of either of these two architects service to the County is not known, nor is any further information about them. Warn and Muck are deserve commendation for extraordinary design work their office produced in the 1920s and 1930s.

[5]The "Committee of Design" was composed of Edwin Bergstrom, Myron Hunt, William Richards, Pierpont Davis, and Sumner P. Hunt.

[6]The new hospital, also known as the Acute Unit, Unit 3 or later as General Hospital, received its first patients in December 1933 and was formally dedicated on April 16, 1934.

[7]Elevator tower addition was completed in 1972.

The Northridge Earthquake on January 17, 1994 caused extensive damage resulting in closure or demolition of many individual campus buildings.

AREA OF DIRECT IMPACT SURVEY DETAIL

This report serves to document National Register eligibility of buildings and structures within the Area of Direct Impact defined as project site and corresponds to "limit of contract" described in the 50% Schematic Design package. The project site is generally bounded by General Hospital on the north, North Chicago Street on the east, Marengo Street on the south and North State Street on the west. North Cummings Street between Charlotte Street on the north and Marengo Street will be vacated and incorporated into the project site. Map describing Area of Direct Impact is attached as Figure 1. Historic and contemporary photographs are included as Appendices C and D.

All buildings within the Area of Direct Impact were constructed after 1950 and therefore not 50 years of age. General Hospital was determined National Register eligible in 1994 by consensus between FEMA and SHPO. Two site features dating from original construction contribute to historic character of General Hospital and appear eligible for National Register listing, namely Marengo Street Gateway and Configuration of North State Street. One other site feature, also constructed concurrently with General Hospital, Hospital Place Gateposts, lack integrity and appear ineligible for National Register listing. Modular buildings and trailers placed after 1965 appear ineligible as well.

Hospital Buildings:

Psychiatric Hospital, Graduate Hall, Pediatric Pavilion and Muir Hall, Pedestrian and Vehicular Tramway and Utility Tunnel Systems, Parking Structures 6 and 11. Each of these buildings resulted from design collaboration by architects Adrian Wilson and Paul R. Williams. None of these buildings or structures has attained 50 years of age and none appears to meet exceptional importance criterion (National Register Criteria Consideration G). Wilson-Williams designed buildings at County Hospital are generally undistinguished and do not meet exceptional importance criteria for National Register eligibility. The Pedestrian and Vehicular Tramway and Utility Tunnel Systems of the campus were extended to serve new buildings. Involvement by prominent Southern California architect Paul R. Williams requires additional comment. After World War II, Williams worked in association with various Los Angeles architects on large-scale institutional projects, including Adrian Williams (Los Angeles Courthouse, 1955), Albert C. Martin and Welton Becket (Federal Office Building, Los Angeles, 1960s), and Pereira & Luckman and Welton Becket (Terminal Facilities and Theme Building, Los Angeles International Airport, 1960s). Unlike the hospital buildings, several of these projects may be viewed as significant.

Structures:

Marengo Street Gateway. Two structures consist of reinforced concrete piers, one set with decorative wrought iron gates, the second, missing gates for which hinges are present and its central gatepost. The gateway located on the north side of Marengo Street was constructed concurrently with General Hospital and completed in 1934. This gateway consists of poured-in-place concrete piers which have been overpainted, though were originally intended to be exposed board-formed concrete. The piers have decorative wrought iron gates and lamps, retain their architectural integrity, and form a creative entrance gateway to the campus. This gateway continues themes established in design of General Hospital, completing architectural and landscape composition which reconfigured North State Street in 1934. It projects an arrival sequence leading from Marengo Street to the hospital forecourt atop a promontory upon which the hospital stands. The Marengo Street gateway retains its architectural integrity, falls within the period of significance, and is a structure which contributes significantly to General Hospital. Therefore, the Marengo Street gateway appears eligible for National Register listing as part of the General Hospital complex.

Hospital Place Gateposts. Located north of Marengo Street on the east side of North State Street, gateposts consist of poured-in-place concrete piers which have been overpainted, similar to the Marengo Street gateway. These were constructed concurrently with General Hospital, but altered in 1951 by removal of a central gatepost dividing traffic on the same plan as Marengo Street Gateway. As a result of loss of central gatepost and iron gates (unknown date) this gateway lacks integrity and appears ineligible for National Register listing.

North State Street Lampposts. The third structure consists of several lamp posts lining North State Street. These are decorative cast stone standards detailed with fluting and dentils surmounted by a lamp. The cast stone standards are compatible with stylized architectural character of General Hospital, but may not have been placed during the period of significance and no records associated with construction date of these site features was found. Due to inconsistent architectural character and incompatible relamping, these lamp posts appear ineligible for National Register listing.

North State Street. Configuration of North State Street is integral to architectural setting, scale and character of General Hospital, and was conceived simultaneously with its design. Accordingly, street configuration, excluding the roadway surface, curbs and gutter, appears eligible for National Register listing.

Commercial Buildings:

Burger King Restaurant and Shopping Center. These commercial properties have no historic association with the hospital complex, were constructed in the 1980s, are undistinguished, and appear ineligible for National Register listing. Following vacation of North Cummings Street, these Marengo Street buildings along with vacant property to the north will be incorporated into the medical center superblock.

The following chart provides a detailed summary of National Register eligibility of buildings and structures within the Area of Direct Impact.

Detailed Summary of National Register Eligibility
Buildings and Structures within Area of Direct Impact

Building/Structure	Architect/ Contractor	Construction Date	National Register Eligible
1. Psychiatric Hospital (AKA Psychiatric Building and New Psychopathic Building), 1934 Hospital Place	Adrian Wilson-Paul R. Williams, Architects, Associated	1951[8]	No
2. Graduate Hall (AKA Graduate Hall, Graduate Nurses' Residence and currently Psychiatric Hospital)	Wilson-Williams	1953, 1955[9]	No
3. Pediatric Pavilion (AKA Communicable Disease Building, New Communicable Diseases Unit and Communicable Disease and Children's Hospital), 1129 North State St.	Wilson-Williams	1955[10]	No
4. Muir Hall (AKA Nurses' Residence and Muir Hall and Nurses' Dormitory)	Wilson-Williams	1962[11]	No
5. Pedestrian and Vehicular Tramway and Utility Tunnel Systems	Unknown	1951-1962[12]	No
6. Modular Buildings and Trailers[13]	Unknown	after 1965	No
7. Parking Structure 11	Fellows & Associates	1964[14]	No
8. Parking Structure 6	Portable Parking Structures, International	1971[15]	No

[8]Martin, Helen Eastman. *The History of the Los Angeles County Hospital (1878-1968) and the Los Angeles County-University of Southern California Medical Center (1968-1978)*. (Los Angeles: University of Southern California Press, 1979) pp. 169-170, p. 252 describe first occupancy August 29, 1951. Architectural drawings dated April 1, 1949.

[9]Martin, pp. 173-174, p. 252 describe first occupancy April 17, 1953. Architectural drawings dated August 21, 1951, as-built drawings dated December 2, 1953. Nurses' Residence Expansion drawings dated 1955, utility tunnel drawings dated 1960.

[10]Martin, pp. 171-173, p. 252 describe first occupancy April 20, 1955. Architectural drawings dated June 4, 1952, as-built drawings dated May 1, 1955.

[11]Martin, p. 241, p. 252 describe dedication May 31, 1962.

[12]Each tunnel/tramway extension is associated with construction of a building to which it connects.

[13]These modular buildings and trailers are not described as buildings or structures due to temporary and mobile nature.

[14]Dedication plaque on garden wall at northwest corner of Marengo and Cummings Streets.

[15]Original drawings dated March 22, 1971.

Detailed Summary of National Register Eligibility Buildings and Structures within Area of Direct Impact			
9. Marengo Street Gateway	Allied Architects Association of Los Angeles	1933[16]	Yes
10. Hospital Place Gateposts	Allied Architects	1933[17]	No
11. Configuration of North State Street	Allied Architects	1933[18]	Yes
12. North State Street Lampposts	Unknown	c. 1950s (?)	No
13. Shopping Center, 2057-2067 Marengo St.	Eddy Liu	1984[19]	No
14. Burger King Restaurant, 2033-2055 Marengo St.	EP Clarke, Architect	1985[20]	No

AREA OF POTENTIAL EFFECTS SURVEY

Reconnaissance survey of the Area of Potential Effects consisted of windshield photographic analysis attached as Appendix E. The Medical Center campus is well represented in survey; the previously unevaluated adjacent commercial and residential neighborhood requires additional discussion. Based on a review of the photographic analysis, inconsistent infill buildings, demolition and/or substantial alteration of vast majority of 50-year old buildings have caused an overall lack of integrity within the APE's off-campus environment. As a result of these changes over time, there is no National Register eligible separate property or district.

[16]Bond issue May, 1923, cornerstone laid December 7, 1930, first occupancy December 12, 1933 of General Hospital (Los Angeles General Hospital-Acute Unit).

[17]Bond issue May, 1923, cornerstone laid December 7, 1930, first occupancy December 12, 1933 of General Hospital (Los Angeles General Hospital-Acute Unit).

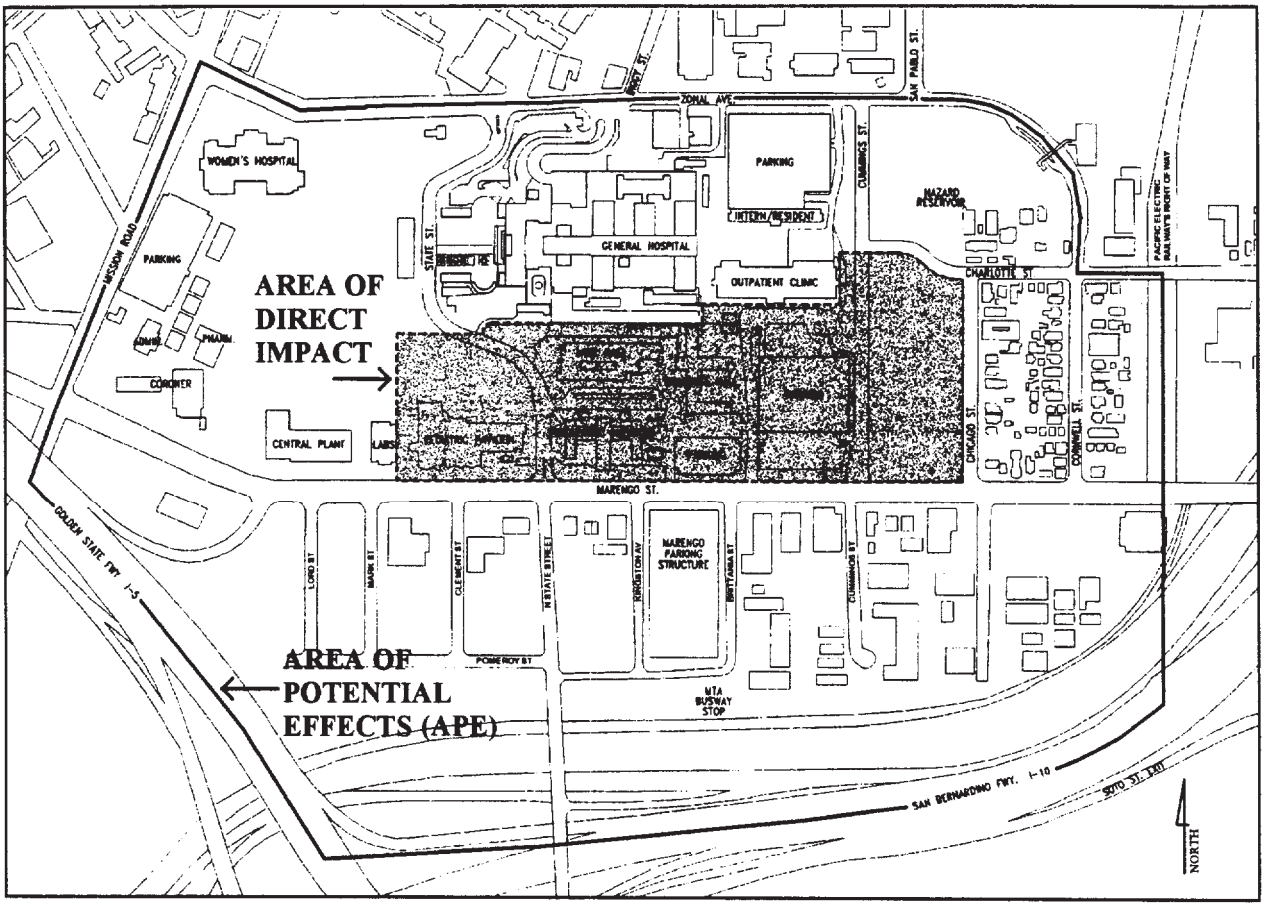
[18]Bond issue May, 1923, cornerstone laid December 7, 1930, first occupancy December 12, 1933 of General Hospital (Los Angeles General Hospital-Acute Unit).

[19]Original building permit dated January 20, 1984.

[20]Original building permit dated March 27, 1985, certificate of occupancy dated June 13, 1985.

Exhibit 1

Area of Potential Effects (APE) and Area of Direct Impact Map



Base Map Source: LAC+USC Medical Center, Existing Vicinity Plan (Sheet A0.01) showing "limit of contact" (shaded area) dated 10/30/98 prepared by Hellmuth Obata Kassabaum+Lee Burkhart Liu

Appendix A

Archaeological Records Search
by W.H. Bonner Associates (1999)

W.H. Bonner Associates

Archaeofaunal Studies
Archaeological Surveys
Historical & Genealogical Research

15619 Ogram Avenue
Gardena, California 90249-4445

(310) 675-2745
whbonner@aol.com

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JAN 27 1999
ENVIRONMENTAL SCIENCE ASSOC.
LOS ANGELES

26 January 1999

Manuel Gurrola
Environmental Science Associates, Inc.
4221 Wilshire Boulevard, Suite 480
Los Angeles, California 90010-3512

RE: Records Search for Los Angeles County / USC Medical Center Replacement Hospital, 1200 N. State Street, Los Angeles; Los Angeles Quadrangle.

Dear Mr. Gurrola,

As per your request of 8 January 1999, we have conducted a records search at the Southern California Coastal Information Center at U.C.L.A. for the above specified parcel. The property is located in the City of Los Angeles, and is bordered by Zonal Street on the north, Chicago Street on the east, Marengo Street on the south and Mission road on the west. This search included a review of all recorded historic and prehistoric archaeological sites within a one-mile radius of the project location, as well as a review of all known relevant cultural resource survey and excavation reports. In addition, we have checked our file of historic maps, the California State Historic Resources Inventory (1998), the National Register of Historic Places (1998), the listing of California Historical Landmarks (1990), the California Points of Historical Interest (1992) and the City of Los Angeles Register of Historic Cultural Monuments (1994). The following is a discussion of our findings for the project location.

Due to the sensitive nature of cultural resources, archaeological site locations are not released.

PREHISTORIC RESOURCES:

The following prehistoric archaeological site has been identified within a one-mile radius of the project location: **None.**

The following historic archaeological site has been identified within a one-mile radius of the project location: **None.**

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS:

The following surveys and/or excavations have been conducted within the APE of the project location: **ONE: 3907. This project included the APE.**
(Welch, Illeana
1978 Historic Property Survey: Unit 1-Mission Road: Zonal Avenue to Marengo Street, Unit 2-Mission Road: Golden State Fwy to Macy Street and Unit 3-Mission Road at Macy Street)

HISTORIC RESOURCES:

Inspection of historic maps -- Pasadena (1900) 15' series and the Los Angeles (1928) 6' series -- indicated that the subject parcel, part of the rancho city lands of Los Angeles land grant, was moderately developed in 1900, with LA city street grid, over 30 structures and three roads (Mission Road, Marengo Street, and Zonal Avenue). By 1928 the area was fully developed with a street grid, numerous structures including the County Hospital Complex.

The California State Historic Resources Inventory (HRI) (1998) lists the following historic properties within the APE of the project location: **SIX.**
1200 N.State Street: General Hospital, Main Bldg/Acute Unit
1200 N.State Street: Payroll Building
1200 N.State Street: Quality Assurance Utilization Building
1200 N.State Street: Street Lights
1200 N.State Street: Support Services Site
1200 N.State Street: Old Administration Building

The National Register of Historic Places (1976) lists the following properties located within the APE of the project location: **NONE.**
The General Hospital has been determined eligible for listing as a separate property. The other structures have been determined eligible for listing as a contributor by consensus determination.

The California Historical Landmarks (1990) of the Office of Historic Preservation, California Department of Parks and Recreation, lists the following Landmarks located within the APE of the project location: **NONE.**

The California Points of Historical Interest (1992) of the Office of Historic Preservation, California Department of Parks and Recreation, lists the following properties located within the APE of the project location: **NONE.**

The City of Los Angeles Register of Historic Cultural Monuments(1994) list s the following properties located within the APE of the project location: **NONE.**

RECOMMENDATIONS

The absence of prehistoric sites within the one-mile radius of the project location rates a **LOW** archaeological sensitivity rating. The APE has been previously surveyed or excavated. The presence of numerous historical structures, including National Register eligible sites, within the APE warrants a **HIGH** historical

sensitivity rating. Based upon the sensitivity ratings and the proposed project parameters, we recommend the following:

If ground disturbance is planned, (1) A Phase I archaeological survey is not required. (2) If cultural resources are exposed during grading a qualified archaeologist should be contacted to assess the significance of the find. The immediate area of the find should be avoided until such assessment has been performed. (3) If human remains are exposed the Los Angeles County coroner must be contacted immediately and the area of the find avoided until the coroner can assess the remains. (4) If alteration or destruction is proposed to structures more than fifty years old, the structures should be historically assessed prior to approval of project plans.

These recommendations are determined by the low archaeological sensitivity rating of the parcel, previous surveys of the subject property, and the high density of historical resources within the APE of the site.

If you have any questions regarding our results or the recommendations presented herein, please feel free to contact our office at (310) 675-2745.

Sincerely,

Wayne H. Bonner

Wayne H. Bonner, C. Phil., SOPA Archaeologist
W.H. Bonner Associates

STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	C	#PR	OTHREG	CHL#	PROP-#	ONP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
1231 N SPRING ST	N SPRING ST RESIDENCE	LOS ANGELES	U		B				064842	PROJ.REVW.	HUD860725v	08/12/86	2	AC
149 N ST ANDREWS PL	WILSHIRE BRANCH LIBRARY	LOS ANGELES	M		B				064999	HIST.RES.	DOE-19-94-0377-0000	08/27/94	2S2	
										PROJ.REVW.	HRG940202Z	08/27/94	2S2	
										PROJ.REVW.	HUD861118E	05/08/87	7K	
1514 N ST ANDREWS PL	ST. ANDREWS BUNGALOW COURT	LOS ANGELES	P	1919	B	15				HIST.RES.	NPS-87001024-0000	05/19/87	1S	AC
									112433	NAT.REG.	19-0248	03/19/98	1S	
										HIST.RES.	NPS-98000244-9999	03/19/98	1S	C
										TAX.(NPS)	537.9-19-0182	03/31/93	2S	C
										TAX.CERT.	537.9-19-0182	03/05/93	3S	C
1514 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					PROJ.REVW.	HUD871214Q	01/04/88		
									115434	HIST.RES.	NPS-98000244-0001	03/19/98	1D	C
1516 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115435	HIST.RES.	NPS-98000244-0002	03/19/98	1D	C
1518 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115436	HIST.RES.	NPS-98000244-0003	03/19/98	1D	C
1520 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115437	HIST.RES.	NPS-98000244-0004	03/19/98	1D	C
1522 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115438	HIST.RES.	NPS-98000244-0005	03/19/98	1D	C
1524 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115439	HIST.RES.	NPS-98000244-0006	03/19/98	1D	C
1526 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115440	HIST.RES.	NPS-98000244-0007	03/19/98	1D	C
1528 N ST ANDREWS PL	1528-1530 ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115441	HIST.RES.	NPS-98000244-0008	03/19/98	1D	C
1532 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115442	HIST.RES.	NPS-98000244-0009	03/19/98	1D	C
1534 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115443	HIST.RES.	NPS-98000244-0010	03/19/98	1D	C
1536 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115444	HIST.RES.	NPS-98000244-0011	03/19/98	1D	C
1538 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115445	HIST.RES.	NPS-98000244-0012	03/19/98	1D	C
1540 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115446	HIST.RES.	NPS-98000244-0013	03/19/98	1D	C
1542 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115447	HIST.RES.	NPS-98000244-0014	03/19/98	1D	C
1544 N ST ANDREWS PL	ST ANDREWS BUNGALOW	LOS ANGELES	P	1919	B					NAT.REG.	19-0248	03/19/98	1D	C
									115448	HIST.RES.	NPS-98000244-0015	03/19/98	1D	C
200 N ST LOUIS ST	BOYLE HEIGHTS METHODIST CHURCH, LA FR	LOS ANGELES	P	1901	B					NAT.REG.	19-0248	03/19/98	1D	C
216 N STATE ST		LOS ANGELES	U	1902	B				021035	HIST.SURV.	0053-0216-0000		3S	
									114124	HIST.RES.	DOE-19-97-0067-0000	04/23/97	6Y2	
1200 N STATE ST	GENERAL HOSPITAL - ACUTE UNIT, GENERA	LOS ANGELES	C	1927	B					PROJ.REVW.	FTA940429A	04/23/97	6Y2	
									021034	HIST.RES.	DOE-19-94-0480-0000	05/31/94	2B	
										PROJ.REVW.	HRG940202Z	05/31/94	2B	
1200 N STATE ST	PAYROLL BUILDING	LOS ANGELES	C		B					HIST.SURV.	0053-0215-0000		3S	
									097824	PROJ.REVW.	HRG940202Z	09/30/94	2D2	
1200 N STATE ST	QUALITY ASSURANCE UTILIZATION BLDG	LOS ANGELES	C		B					HIST.RES.	HRG-314	09/30/94	2D2	
									097825	PROJ.REVW.	HRG940202Z	09/30/94	2D2	
1200 N STATE ST	STREET LIGHTS; LOS ANGELES COUNTY GEN	LOS ANGELES	C		B					HIST.RES.	HRG-315	09/30/94	2D2	
									097826	PROJ.REVW.	HRG940202Z	09/30/94	2D2	
1200 N STATE ST	SUPPORT SERVICES SITE	LOS ANGELES	C		B					HIST.RES.	HRG-316	09/30/94	2D2	
									097827	PROJ.REVW.	HRG940202Z	09/30/94	2D2	
1200 N STATE ST	OLD ADMINISTRATION BUILDING	LOS ANGELES	C		B					HIST.RES.	HRG-317	09/30/94	2D2	
									097823	PROJ.REVW.	HRG940202Z	09/30/94	2D2	
										HIST.RES.	HRG-0313	09/30/94	2D2	

Appendix B

Original Survey Form (1976)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

HISTORIC RESOURCES INVENTORY

(State use only)
Ser 19-00253 Site ___ Mo. ___ Yr. ___
UTM ___ Q 110C NR 3S SHL ___
Lat ___ Lon ___ Era ___ Sig ___
Adm ___ T2 ___ T3 ___ Cat ___ HABS ___ HAER ___ Fed ___
UTM 11/388500/3769280

IDENTIFICATION

19-0053-2

1. Common name: GENERAL HOSPITAL - ACUTE UNIT
2. Historic name, if known: General Hospital - Acute Unit
3. Street or rural address 1200 North State Street
   City: Los Angeles ZIP: 90033 County: Los Angeles
4. Present owner, if known: County of Los Angeles Address: 222 North Grand Avenue
   City: Los Angeles ZIP: 90012 Ownership is: Public [X] Private [ ]
5. Present Use: hospital Original Use: hospital
   Other past uses:

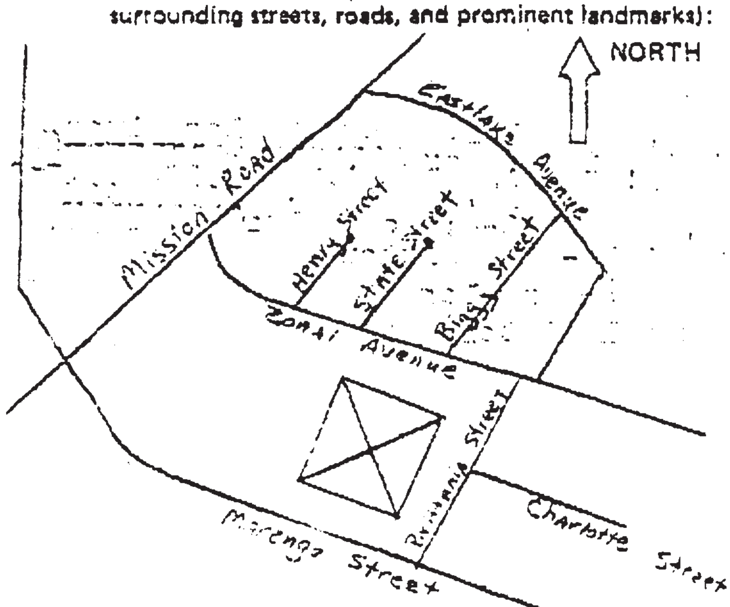
DESCRIPTION

6. Briefly describe the present physical appearance of the site or structure and describe any major alterations from its original condition:

This is a thirteen story plus two basements structure made of structural steel and reinforced concrete. Its shape is that of an "H" with a smaller cross-shaped wing attached to one side of the "H". The floors of the wings are set-back, the cross bar of the "H" being the tallest element. Its architectural style is a vertically-oriented, 1930's type, though functionalism is paramount to design here.

The acute ward appears basically the same today but many new out-buildings have been built to ease the load on the main facility.

7. Locational sketch map (draw and label site and surrounding streets, roads, and prominent landmarks):



8. Approximate property size:
   Lot size (in feet) Frontage 670
   Depth 405
   or approx. acreage ___
9. Condition: (check one)
   a. Excellent [ ] b. Good [X] c. Fair [ ]
   d. Deteriorated [ ] e. No longer in existence [ ]
10. Is the feature a. Altered? [X] b. Unaltered? [ ]
11. Surroundings: (Check more than one if necessary)
   a. Open land [ ] b. Scattered buildings [ ]
   c. Densely built-up [X] d. Residential [ ]
   e. Commercial [ ] f. Industrial [ ]
   g. Other [X] hospital-related faciliti
12. Threats to site:
   a. None known [X] b. Private development [ ]
   c. Zoning [ ] d. Public Works project [ ]

OTE: The following (Items 14-19) are for structures only.

14. Primary exterior building material: a. Stone ☐ b. Brick ☐ c. Stucco ☐ d. Adobe ☐ e. Wood ☐
f. Other ☒ steel frame and reinforced concrete

15. Is the structure: a. On its original site? ☒ b. Moved? ☐ c. Unknown? ☐

16. Year of initial construction 1927 This date is: a. Factual ☒ b. Estimated ☐

17. Architect (if known): Allied Architects Association (Bergstrom, M. Hunt, S. Hunt, Wm. Richards, Pierpont Davis)

18. Builder (if known): Weymouth Crowell Company

19. Related features: a. Barn ☐ b. Carriage house ☐ c. Outhouse ☐ d. Shed(s) ☐ e. Formal garden(s) ☐
f. Windmill ☐ g. Watertower/tankhouse ☐ h. Other ☒ medical buildings i. None ☐

SIGNIFICANCE

20. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site when known):

When constructed, the acute ward was the largest single hospital unit in the United States (and possibly the world), costing over thirteen million dollars, using twelve thousand tons of structural steel and covering thirty one acres of floor space. It took six years to build and boasted the world's largest institutional kitchen. The enormity of this hospital is an accurate gauge of the tremendous population increase experienced in the county in the 1920's. It continues to function today as the major county medical facility and the home of the USC Medical School.

21. Main theme of the historic resource: (Check only one): a. Architecture ☐ b. Arts & Leisure ☐
c. Economic/Industrial ☐ d. Exploration/Settlement ☐ e. Government ☐ f. Military ☐
g. Religion ☐ h. Social/Education ☒

22. Sources: List books, documents, surveys, personal interviews, and their dates:
Architectural Digest, Vol. 7, No. 3, 1929, Page 135. Los Angeles Times, January 8, 1928, Part V, Page 3; April 15, 1934, Part I, Pages 11 and 13. Pictorial California, Vol. 12, No. 2, Spring 1937, Page 10. Southwest Builder and Contractor, August 1, 1930, Pages 32-4; September 26, 1930, Page 23.

23. Date form prepared: 9/1996 By (name): Dennis Smith - Tom Sitton
Address: 900 Exposition Boulevard City Los Angeles ZIP: 90007
Phone: (213) 746-0410 x241 Organization: Natural History Museum

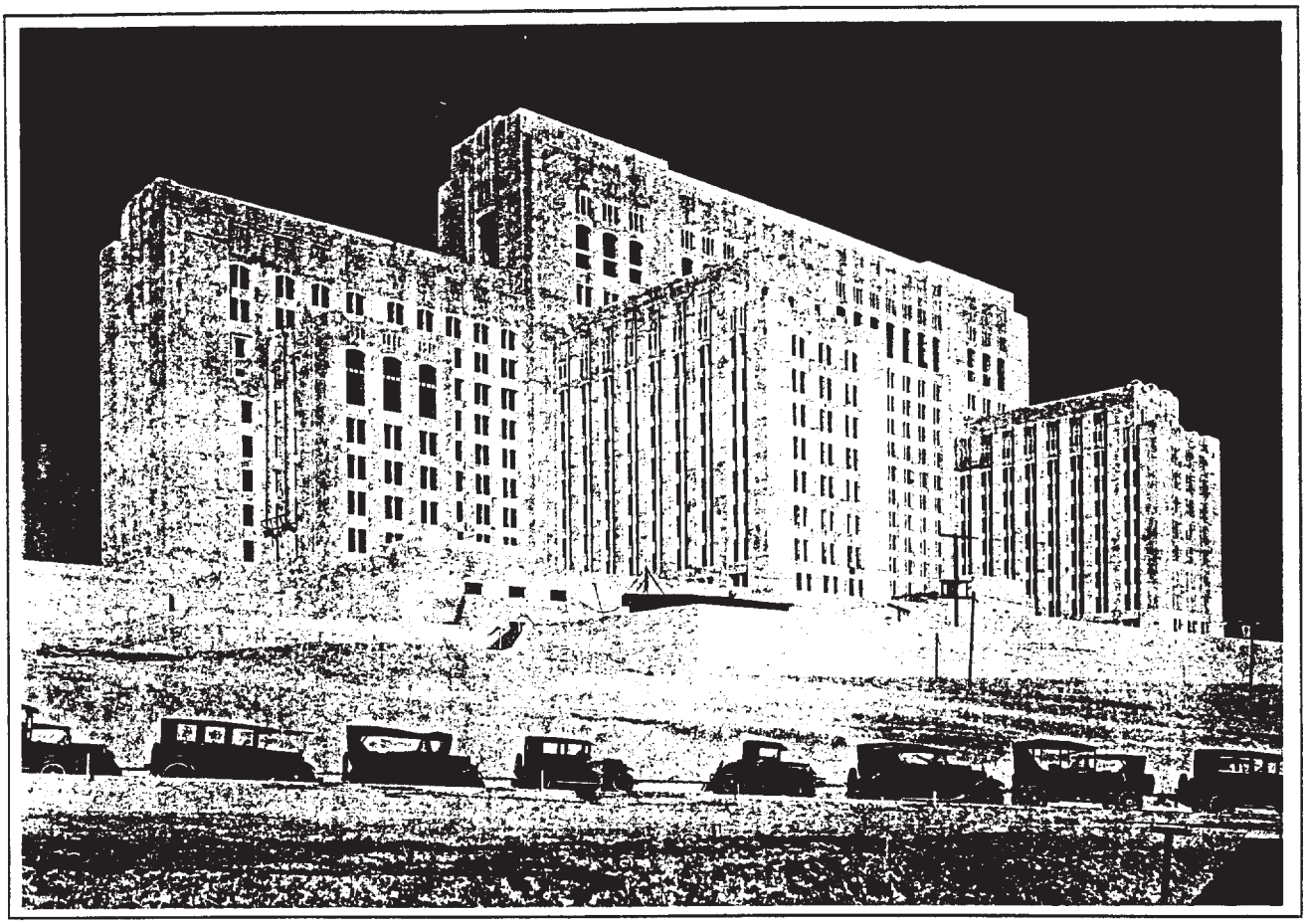
(State Use Only)

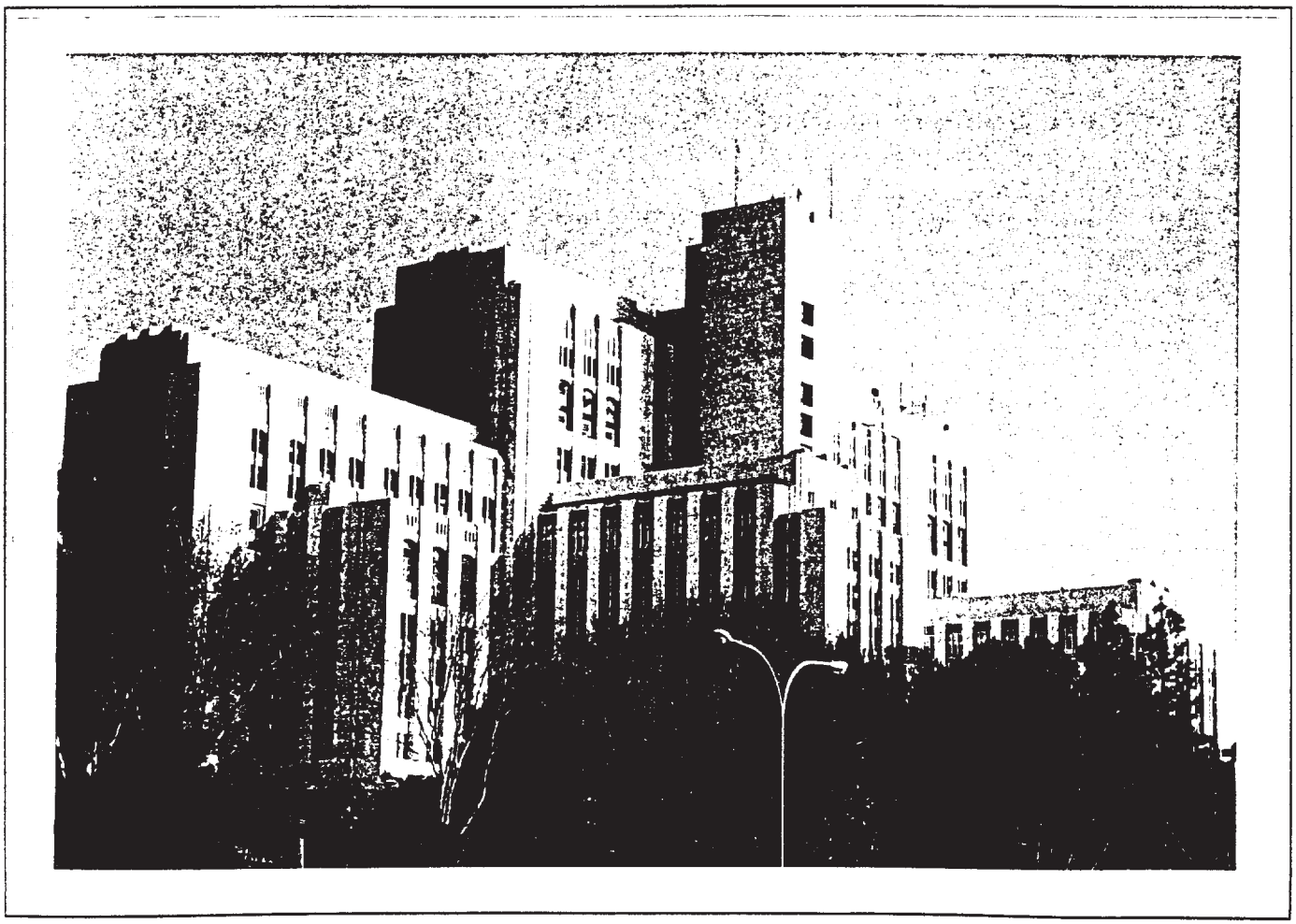
Appendix C

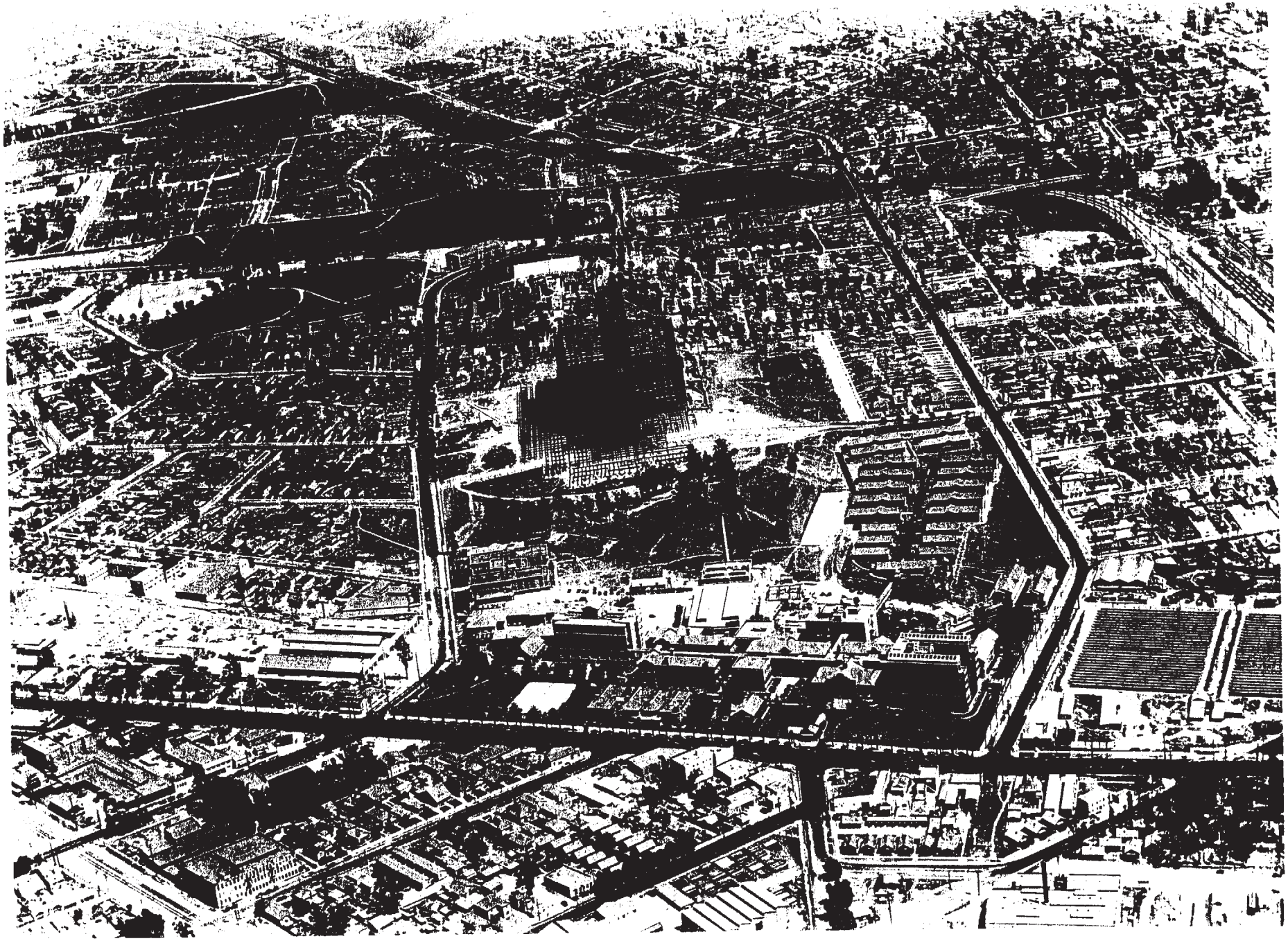
Historic Photographs of APE

These historic views show the medical center campus in context with surrounding neighborhood as well as details of buildings and structures on campus.

No.	Description	Date	Repository
A.	Overall view from southwest looking northeast at General Hospital (top frame); contemporary view (bottom frame).	1931	Dick Whittington Collection; Department of Special Collections, University of Southern California Library; contemporary view Mellon & Associates
B.	View from west looking east.	c. 1928	Security Pacific National Bank Collection; Los Angeles Public Library (LAPL)
C.	View from southeast looking northeast.	1/16/30	Spence Airplane Photos; LAC+USC Medical Center, Medical Photography (LAC+USC)
D.	View from south looking north.	11/15/40	Fairchild Collection; UCLA Department of Geography, Air Photo Archives (UCLA)
E.	View from south looking north.	5/6/41	Fairchild Collection; UCLA
F.	View from northeast looking southwest.	10/8/51	Fairchild Collection; UCLA
G.	View from southwest looking northeast.	4/15/55	Spence Collection; UCLA
H.	View from south looking north.	3/24/59	Spence Collection; UCLA
I.	View from northeast looking southwest.	3/24/59	Spence Collection; UCLA
J.	View from southwest looking northeast.	c. 1959	LAC+USC
K.	View from east looking west.	3/17/64	Spence Collection; UCLA
L.	View from southwest looking northeast.	c. 1965	LAC+USC
M.	View form northwest looking southeast.	c. 1965	LAC+USC
N.	View from northeast looking southwest.	10/7/69	Spence Collection; UCLA
O.	View from southwest looking northeast (top frame); view from northeast facing southwest (bottom frame).	c. 1915	LAC+USC
P.	View from northeast facing southwest.	c. 1920	LAC+USC
Q.	View from south facing north.	1924	LAPL
R.	View from southwest facing northeast.	5/24/26	LAPL
S.	View from south facing north.	c. 1972	LAC+USC
T.	View from west facing east.	c. 1965	LAC+USC
U.	View from southeast facing northwest.	c. 1965	LAC+USC
V.	View from north facing south.	c. 1972	LAC+USC







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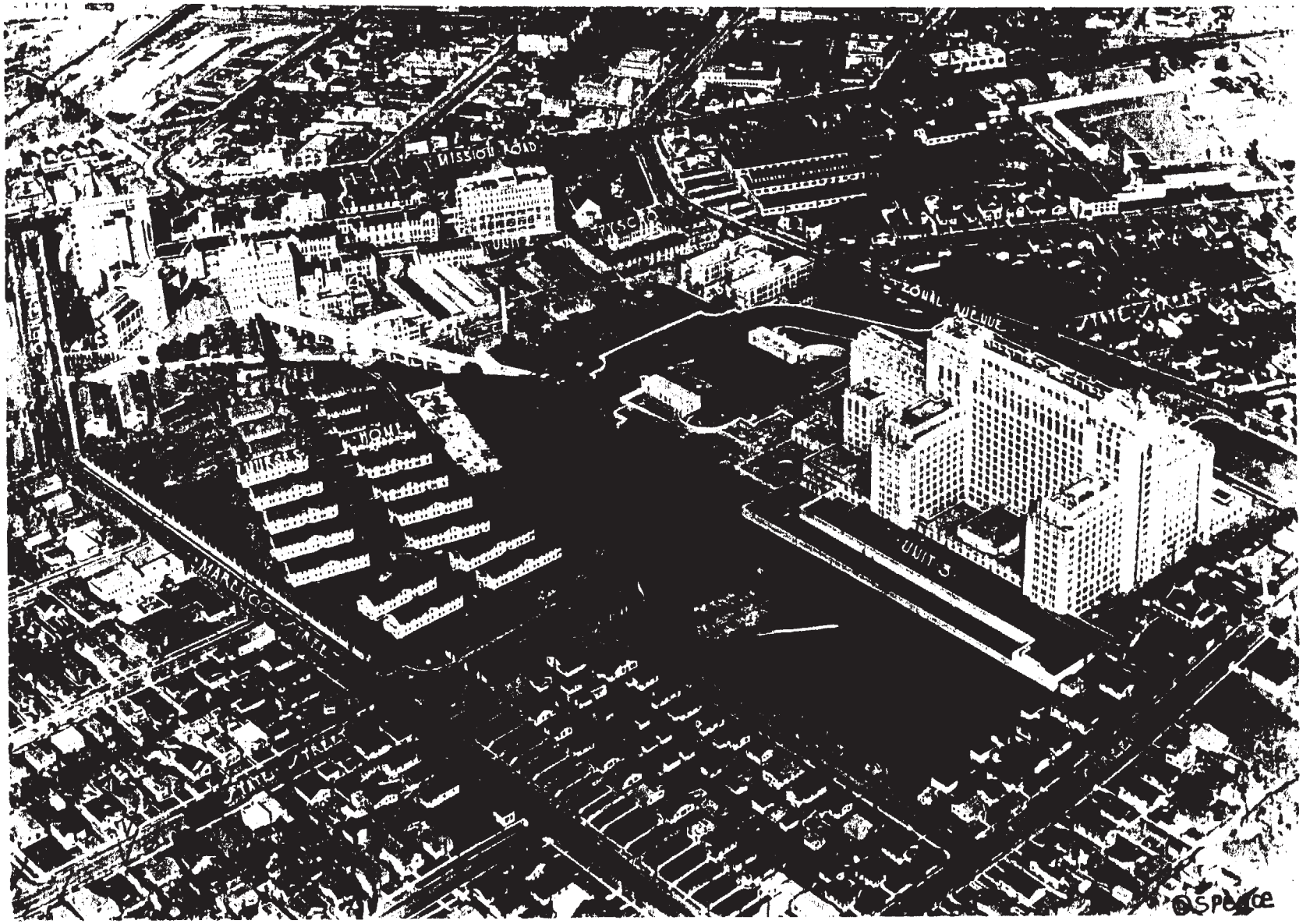

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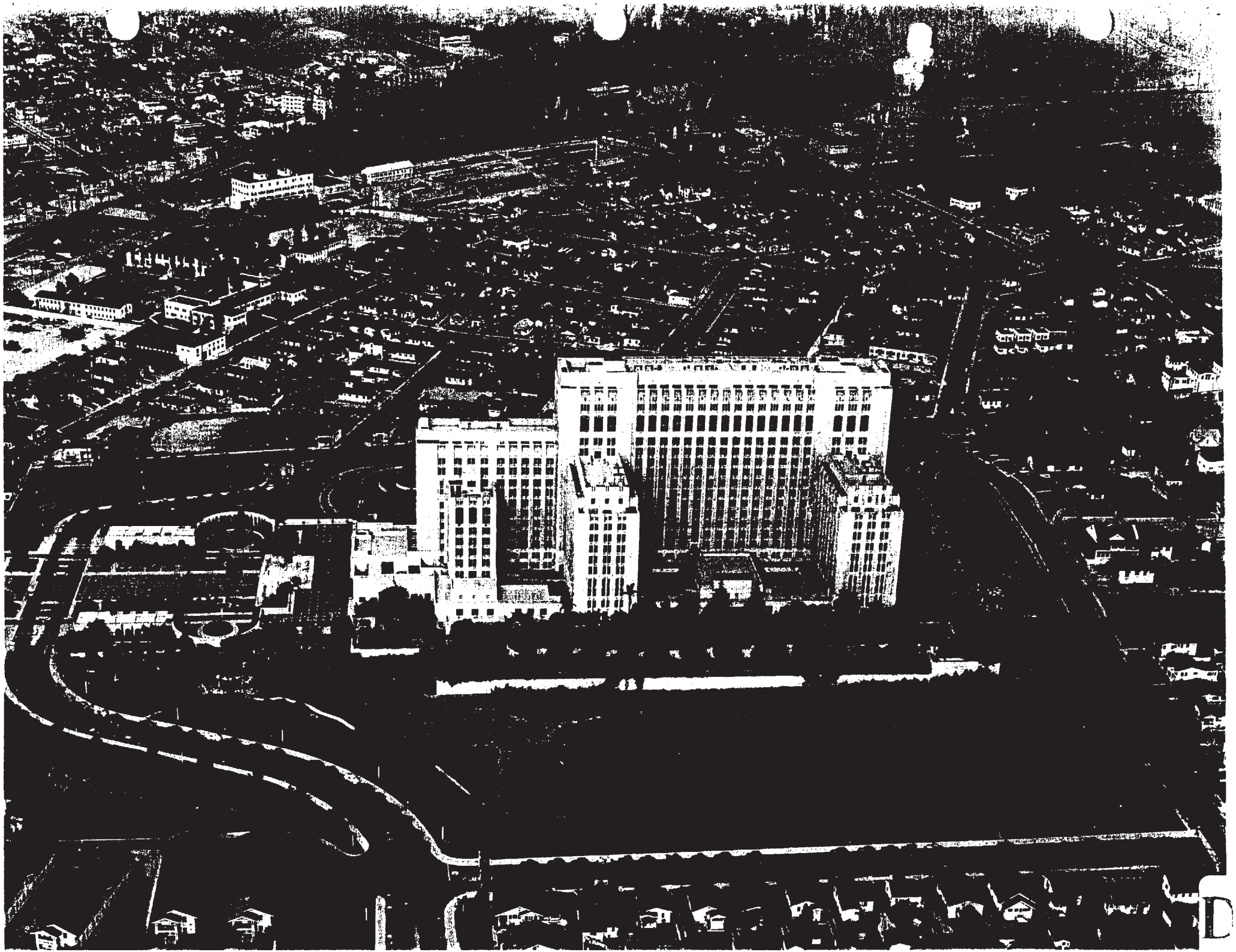
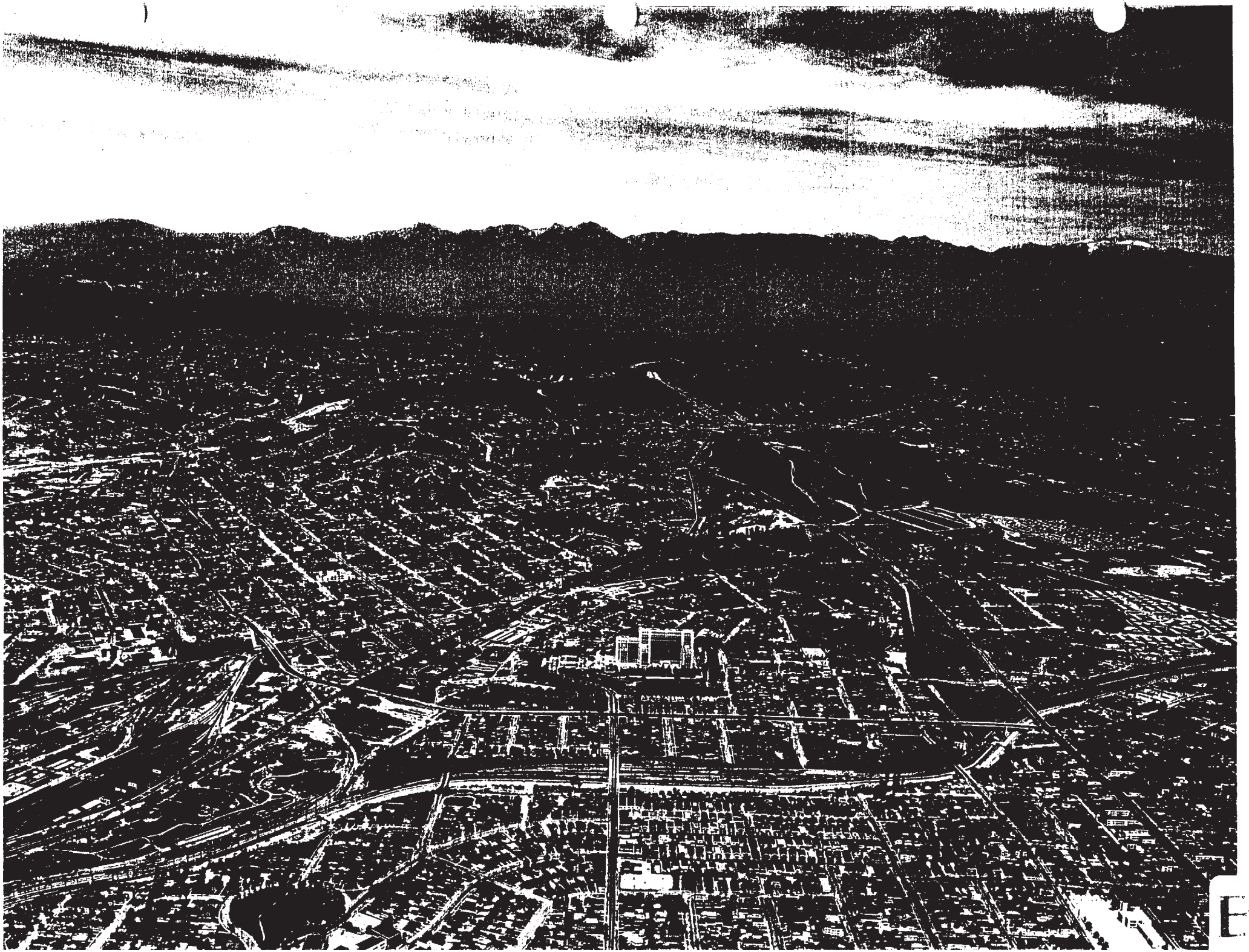
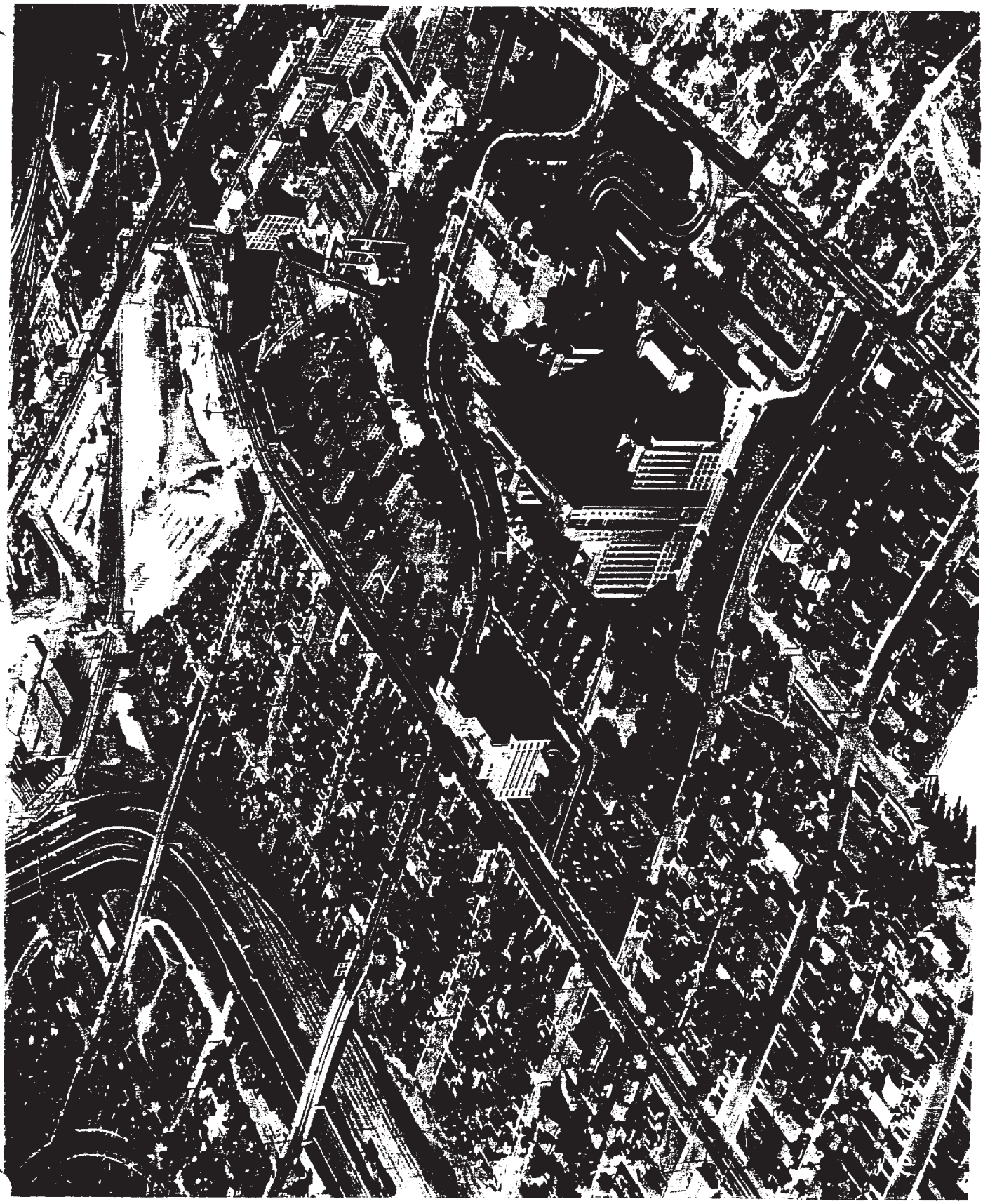
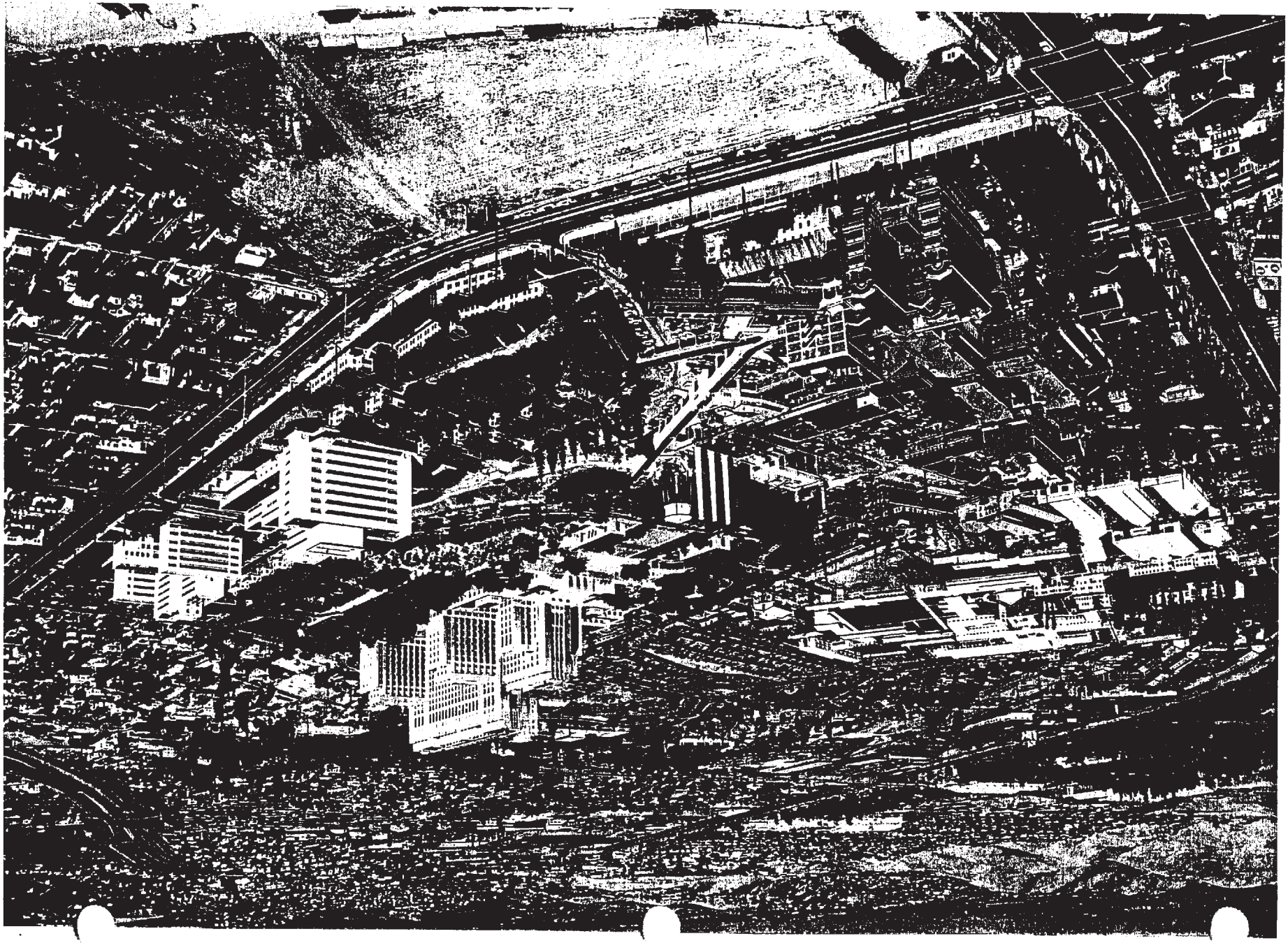
AERIAL VIEW OF THE LOS ANGELES COUNTY GENERAL HOSPITAL, JANUARY 16, 1930.

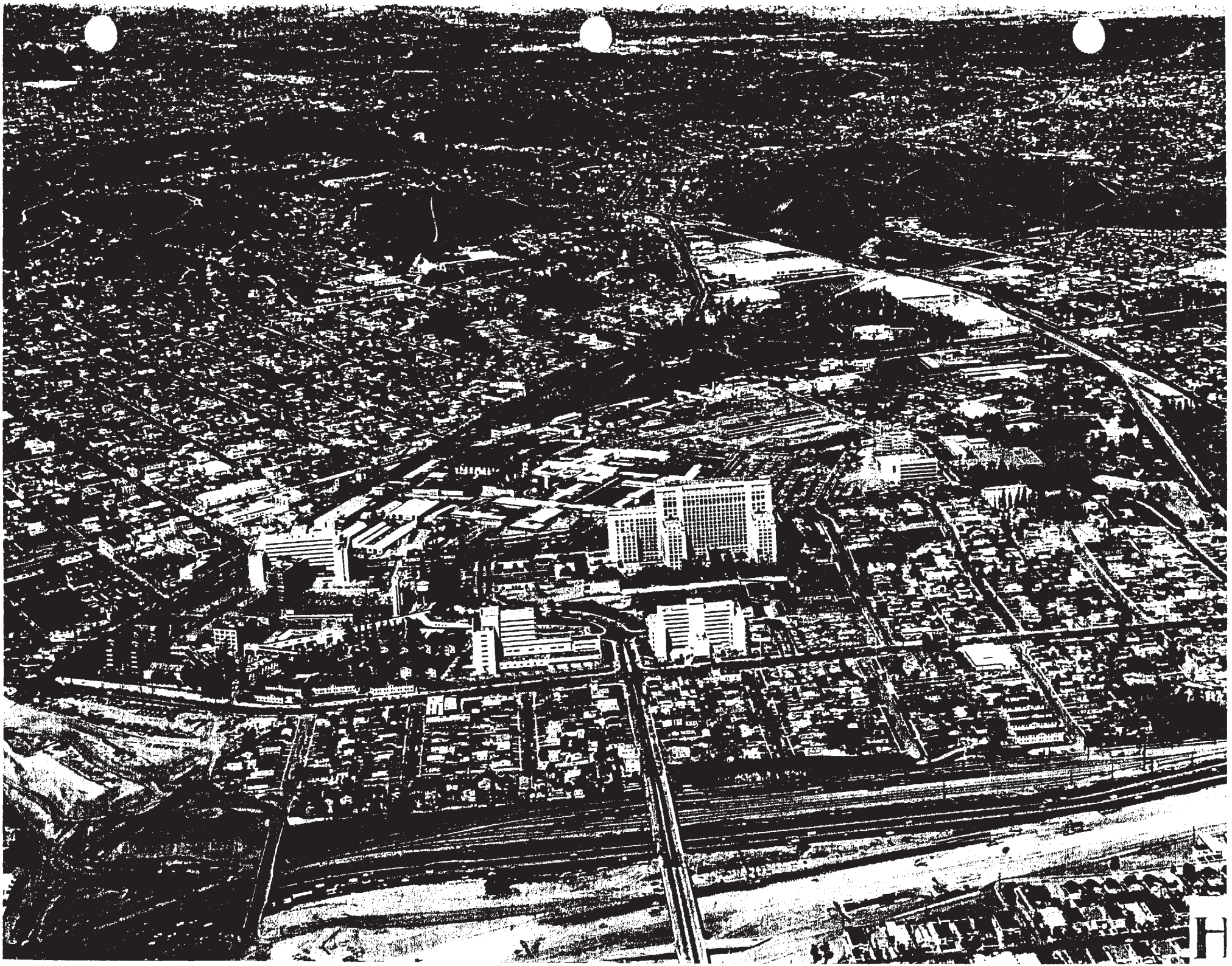
Compare with the plot plan on opposite page. This photo shows clearly the old hospital comprising Units One and Two and the new hospital under construction, or Unit Three. State Street was formerly the rear or east boundary of the old hospital. Now it is re-located as a curving private entrance drive through the hospital grounds resulting from the consolidation of the old hospital area of 35.71 acres with the new hospital site of 20.20 acres. The maximum emergency capacity of the three units will be over 5,000 beds.

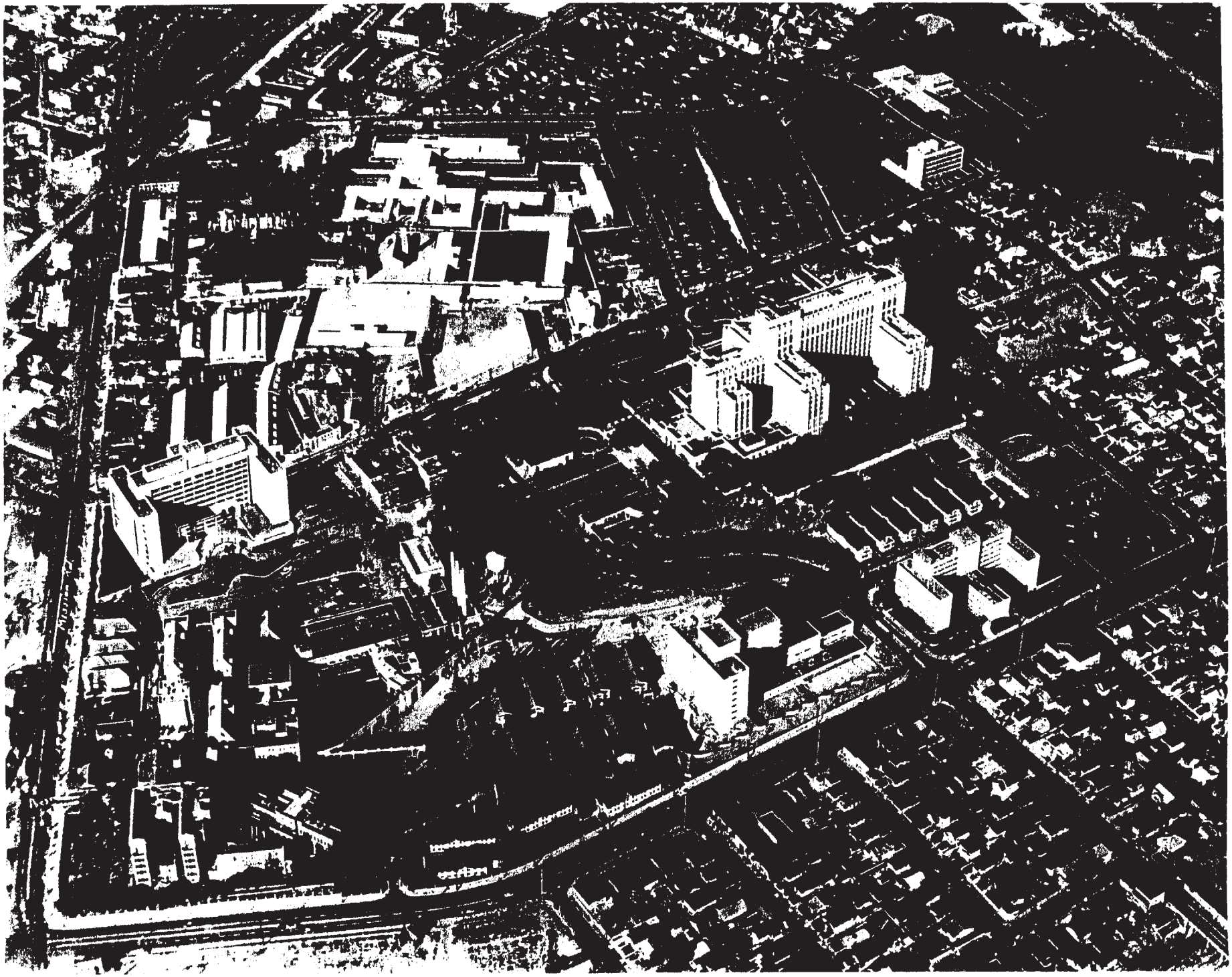


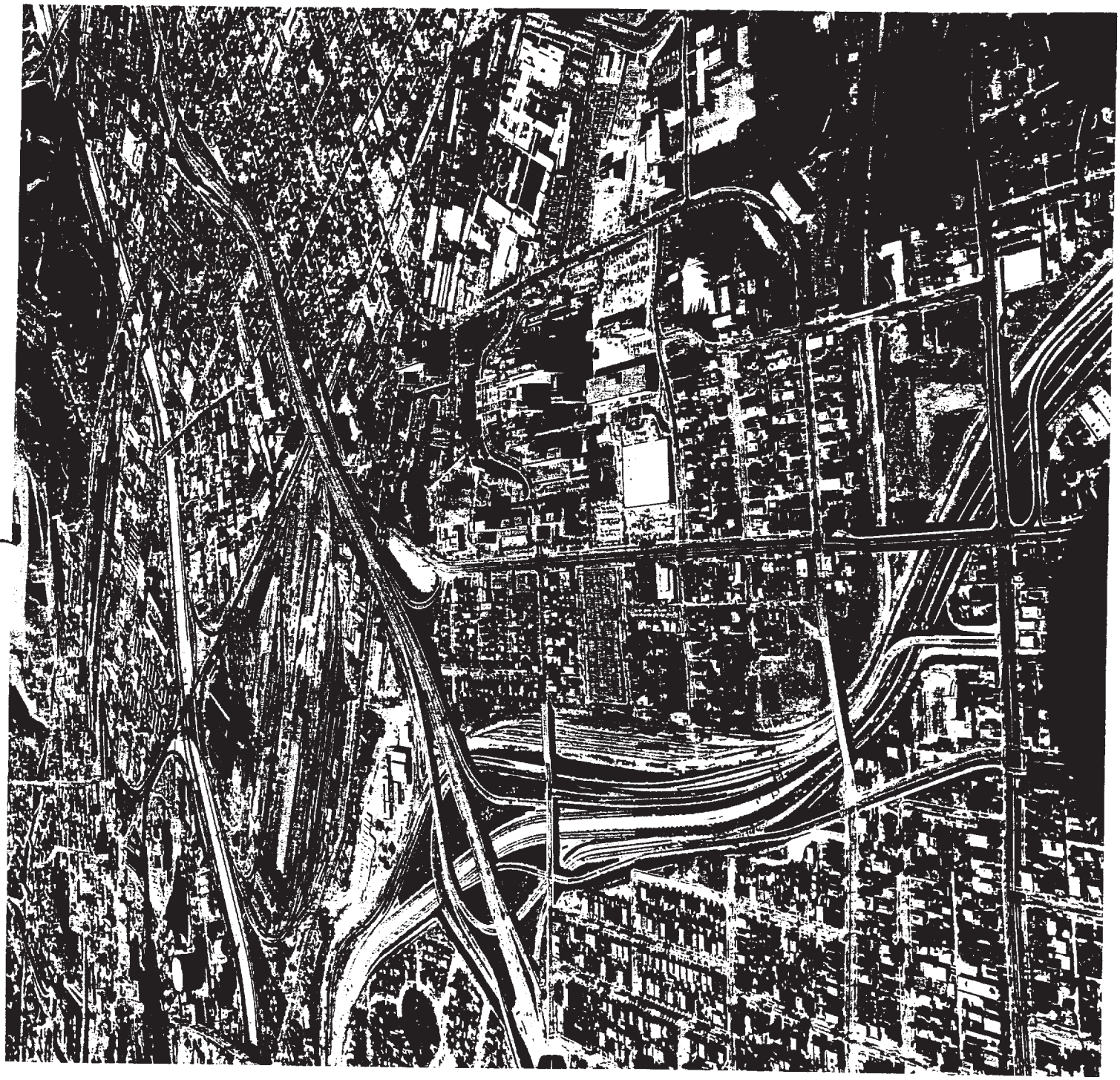


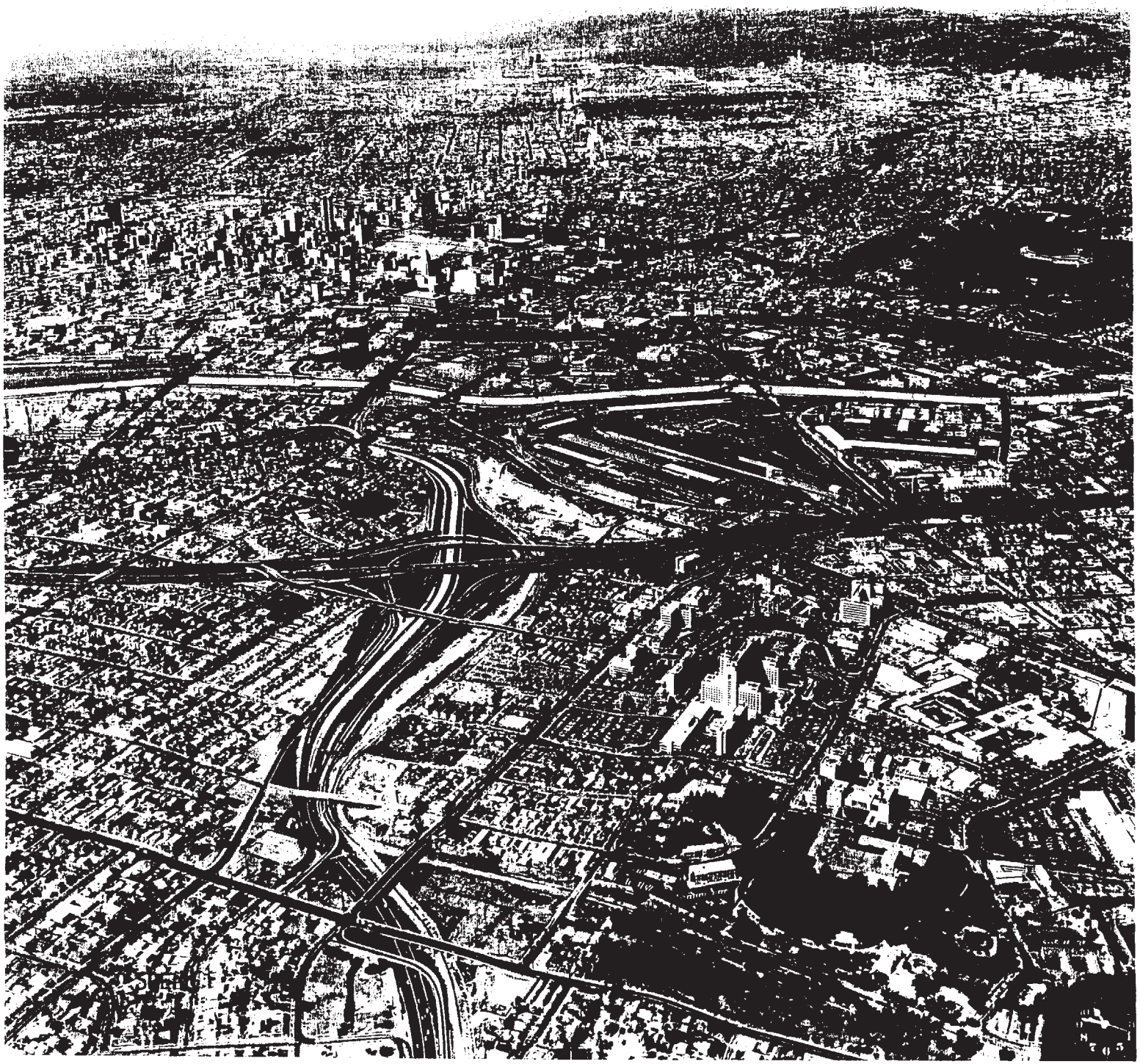












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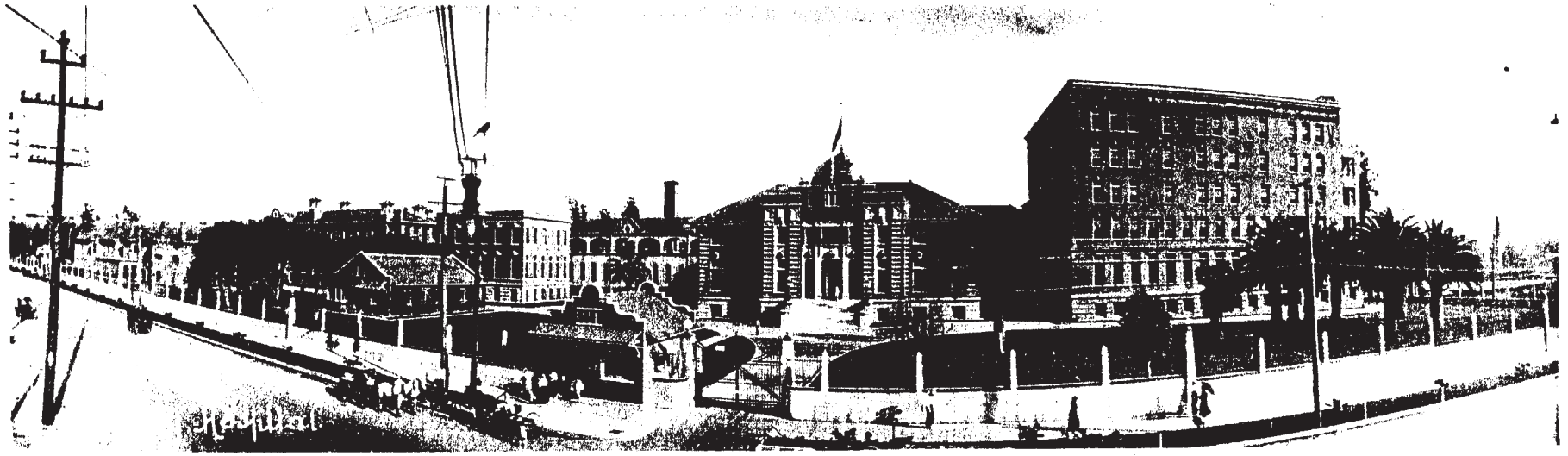
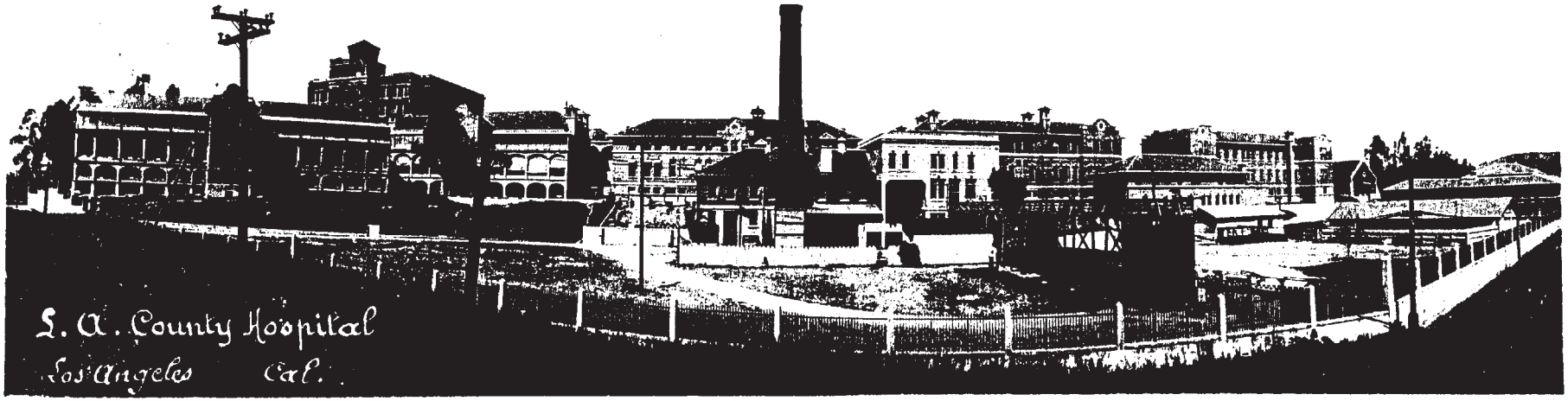
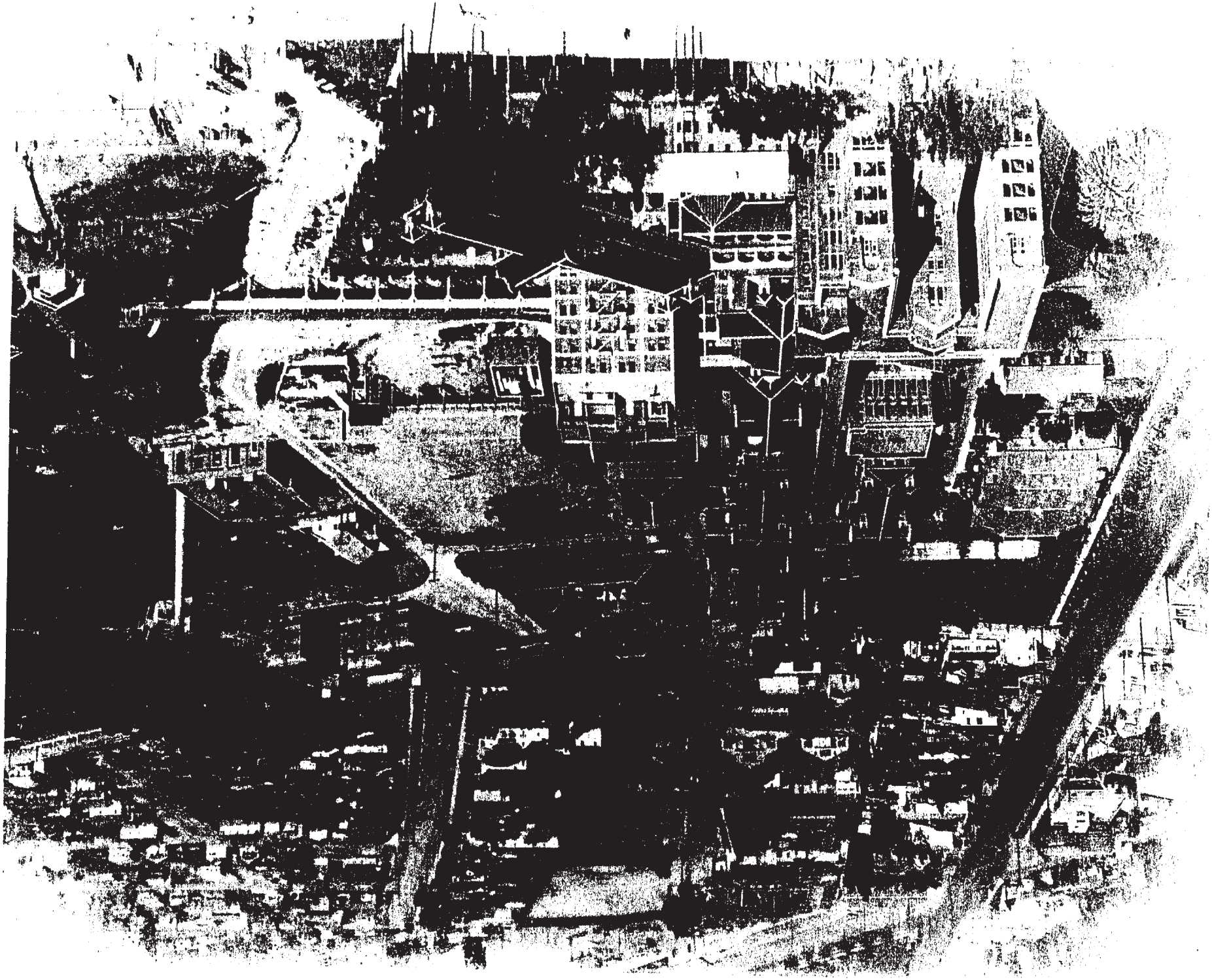
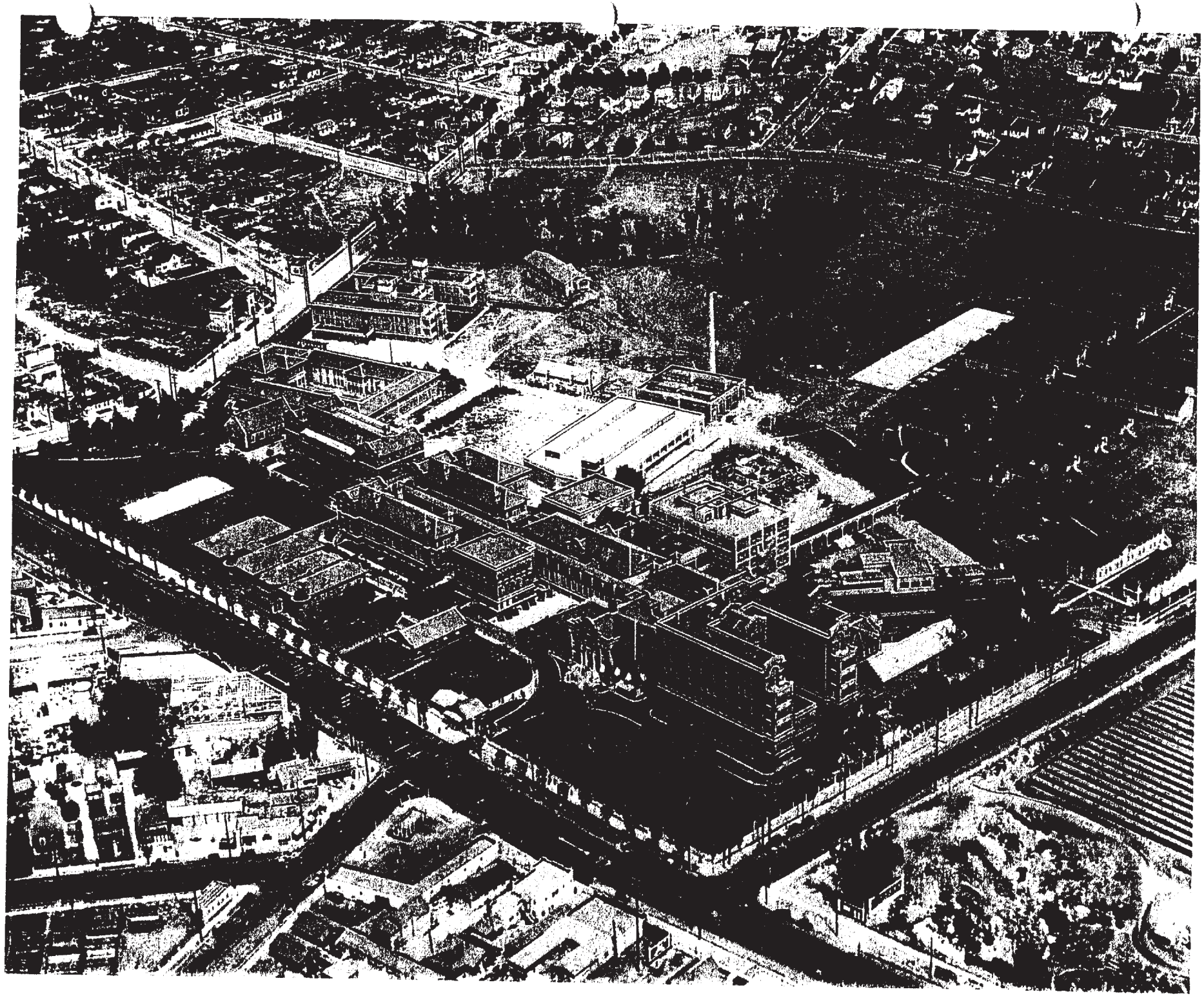

Hospital


L. A. County Hospital
Los Angeles Cal.

P





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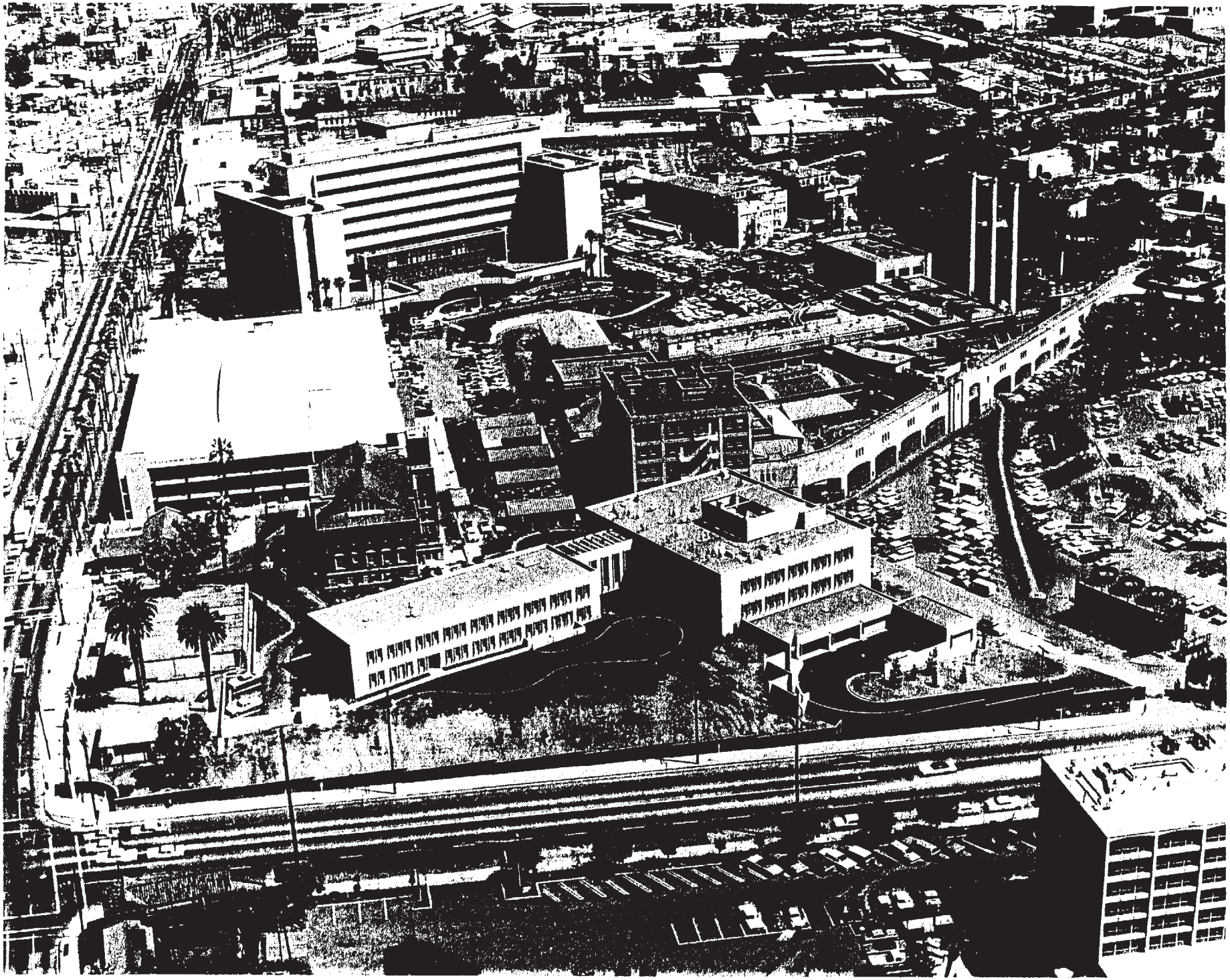
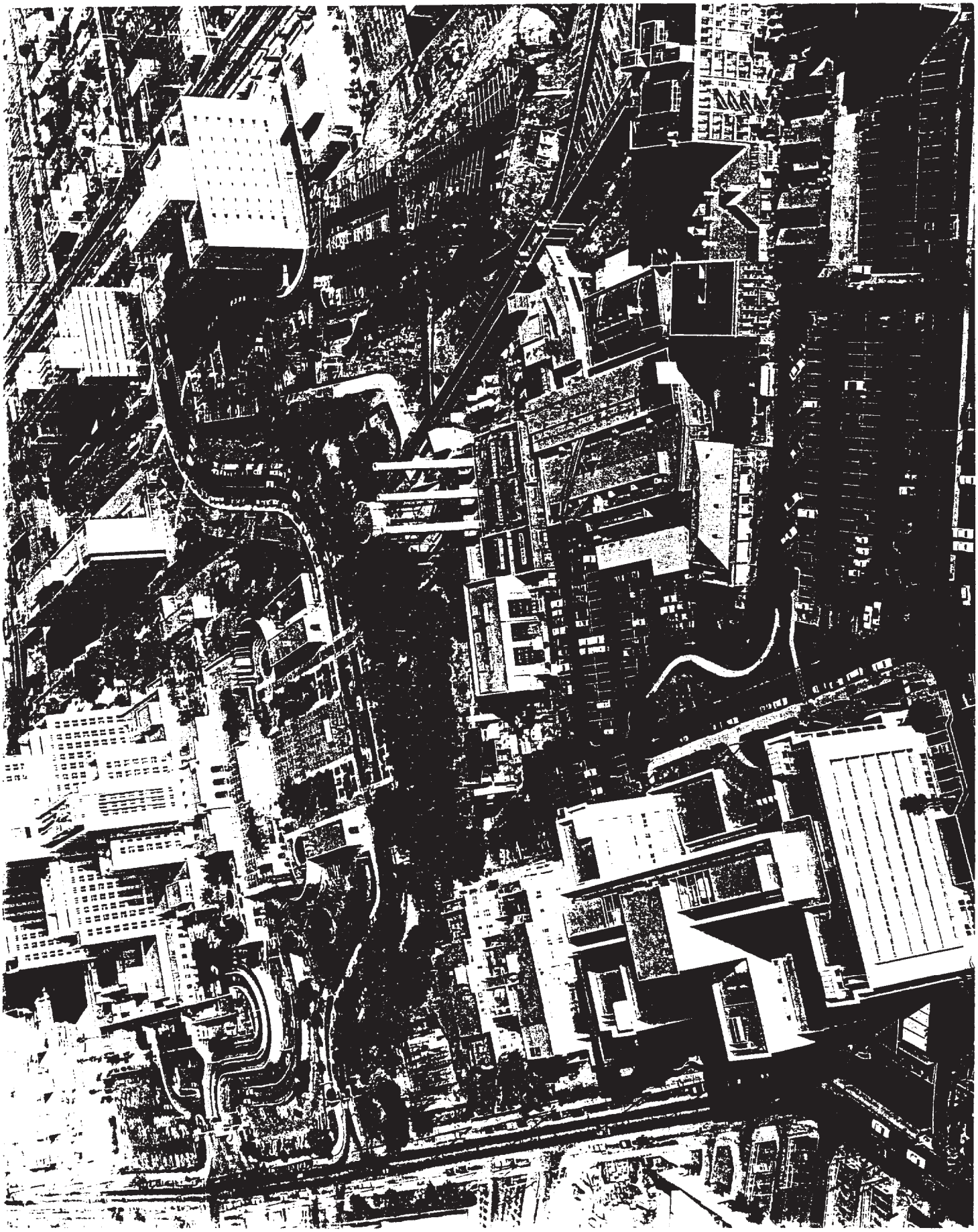
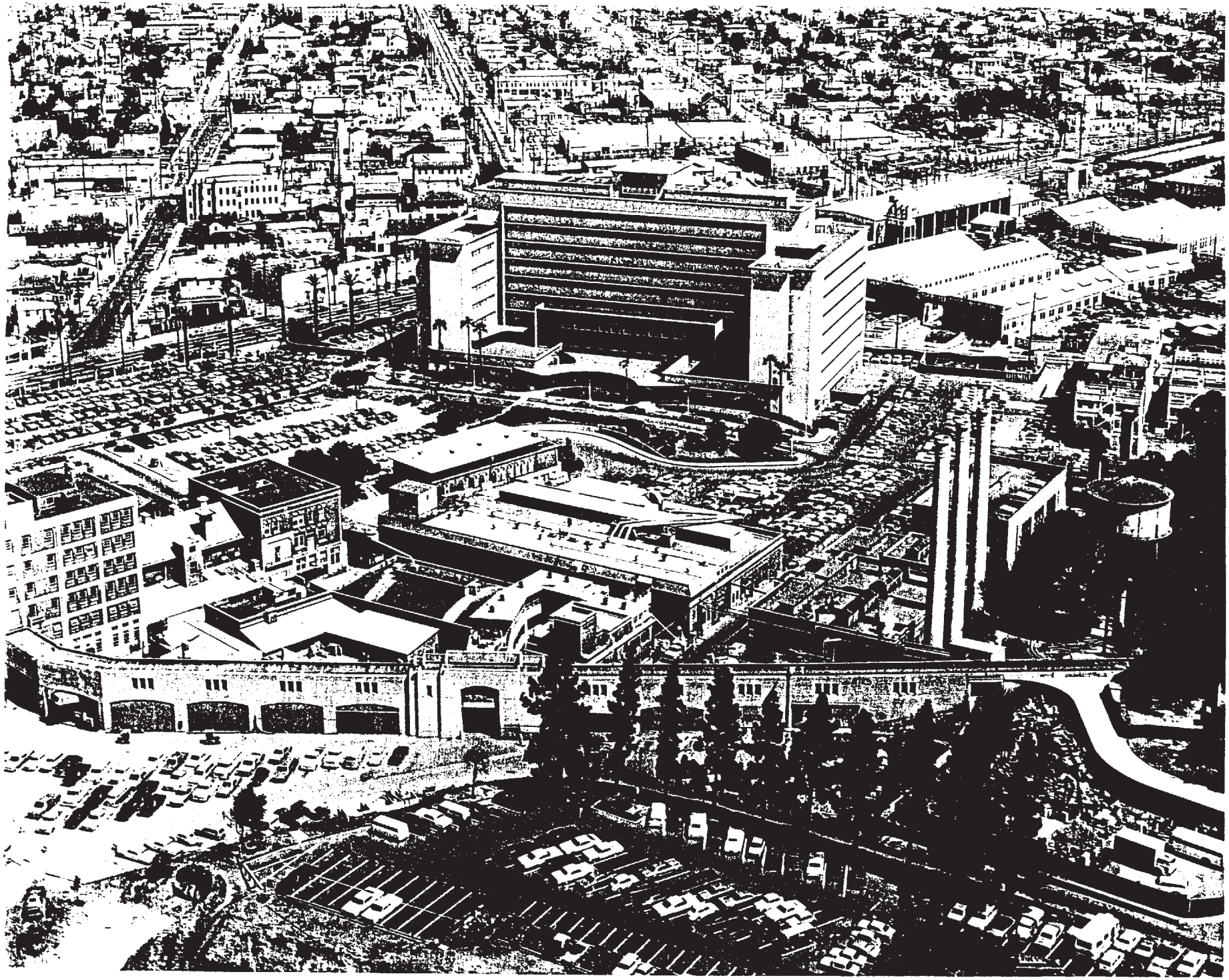
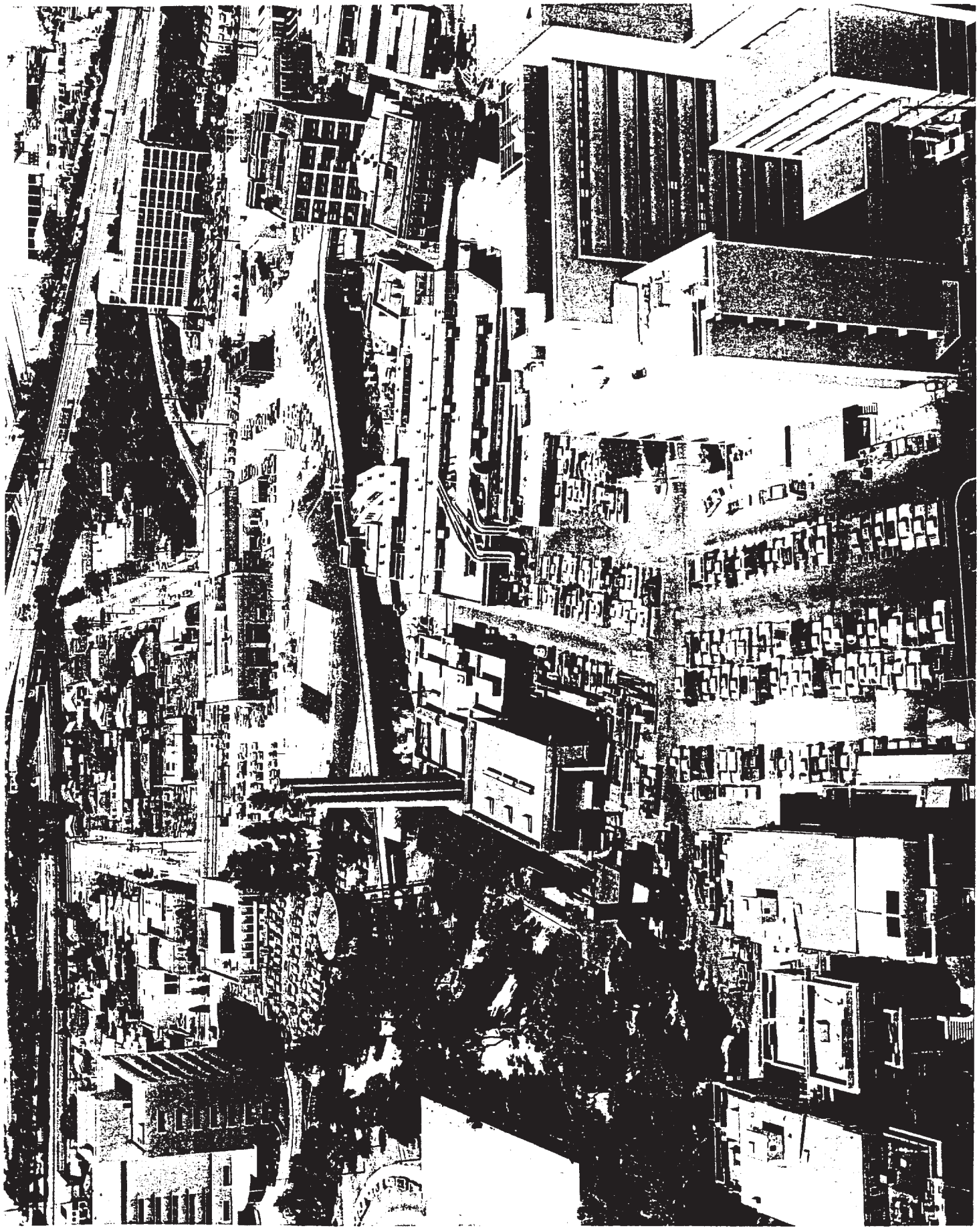






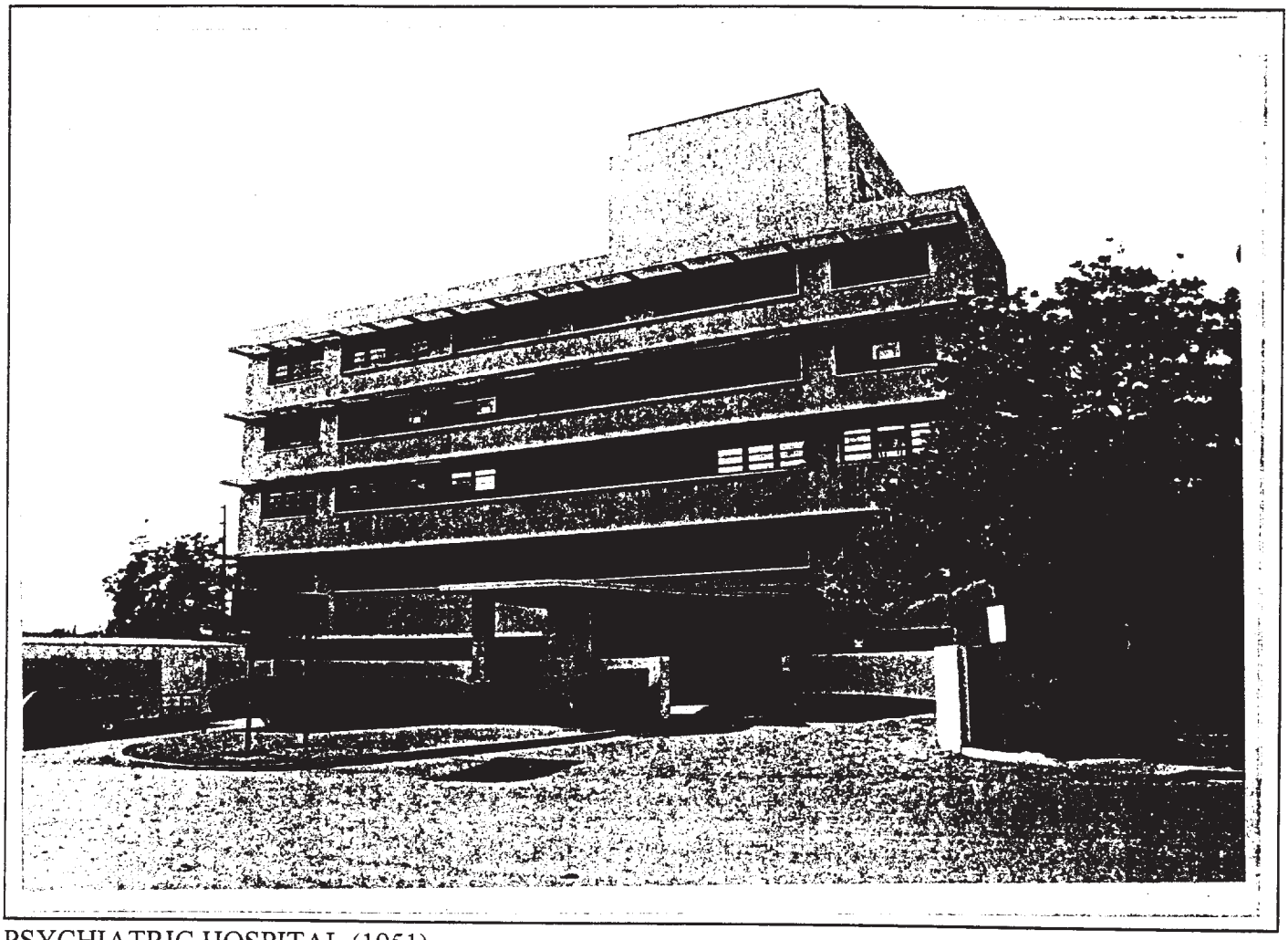


Appendix D

Contemporary Photographs of Area of Direct Impact

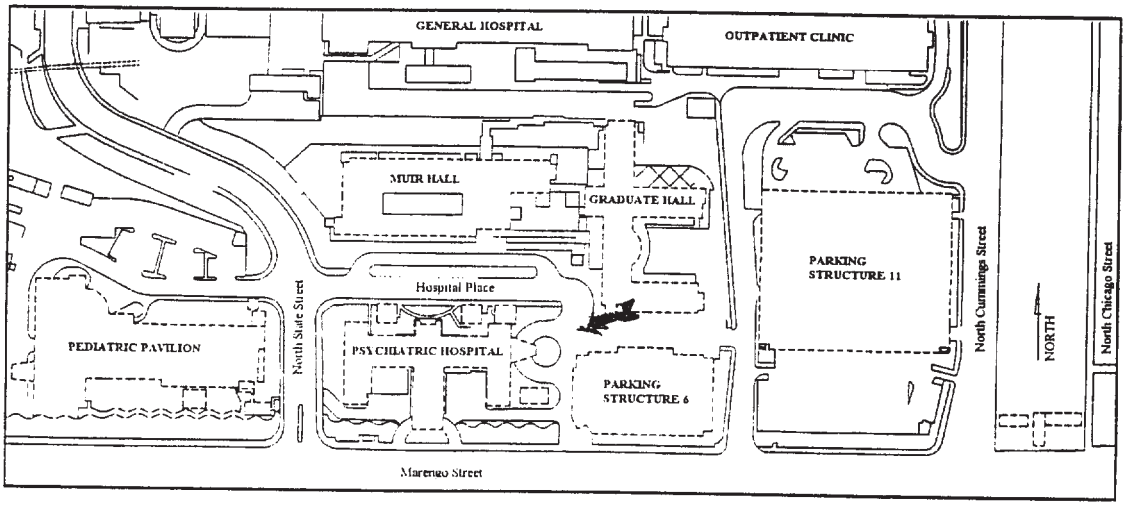
All photographs by Mellon & Associates taken in November 1998.

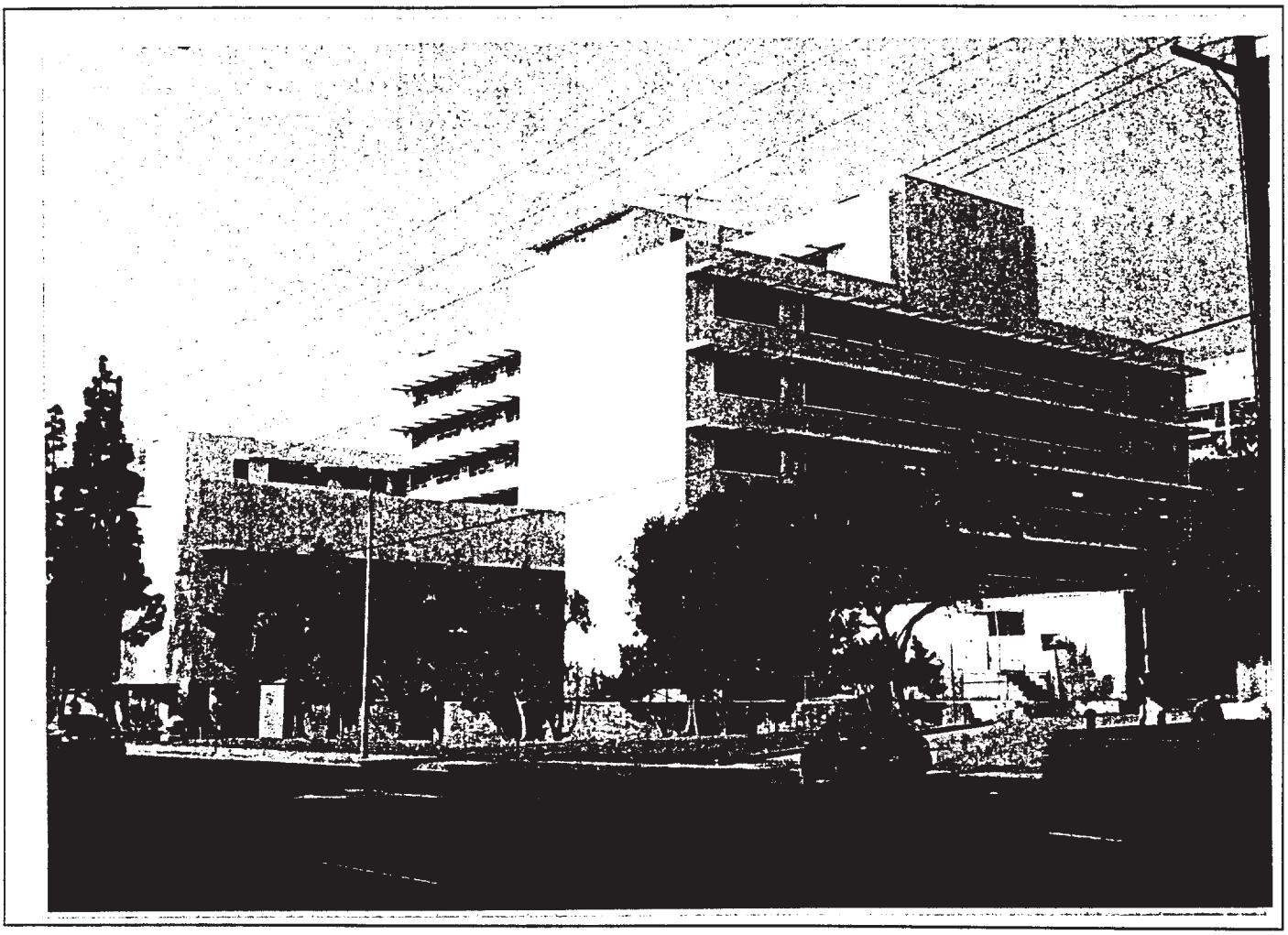
No.	Building (Date of Construction)	Description
1.	Psychiatric Hospital (1951)	General view from east to west of emergency entrance.
2.	Psychiatric Hospital (1951)	General view from southeast looking northwest along Marengo Street.
3.	Psychiatric Hospital (1951)	Detail view from northeast looking southwest at main entrance.
4.	Psychiatric Hospital (1951)	Detail view from southeast looking northwest of Marengo Street entrance.
5.	Psychiatric Hospital (1951)	Detail view from east looking west of masonry serpentine garden wall along Marengo Street.
6.	Graduate Hall (1953, 1955)	General view from southwest looking northeast.
7.	Graduate Hall (1953, 1955)	Detail view from southwest looking northeast of entrance with view through lobby to rear garden.
8.	Pediatric Pavilion (1955)	General view from southeast looking northwest along Marengo Street.
9.	Muir Hall (1962)	General view from southeast looking northwest.
10.	Muir Hall (1962)	Detail view of east entrance.
11.	Parking Structure 11 (1964)	General view from southwest looking northeast.
12.	Parking Structure 6 (1971)	General view from southwest looking northeast along Marengo Street.
13.	Marengo Street Gateway (1933)	General view from south looking north at intersection of North State Street and Marengo Streets.
14.	Marengo Street Gateway (1933)	Detail view from south looking north.
15.	Hospital Place Gateposts (1933)	General view from northwest at intersection of Hospital Place and North State Street.
16.	Hospital Place Gateposts (1933)	Detail view from southwest looking northeast.
17.	North State Street Lampposts (c. 1950s (?))	Detail view from southwest looking northeast.
18.	North State Street Lampposts (c. 1950s (?))	Detail view from southwest looking northeast.
19.	Shopping Center, 2057-2067 Marengo Street (1984)	General view from southeast looking northwest.
20.	Burger King Restaurant, 2033-2055 Marengo Street (1985)	General view from south looking north.
21.	Parking Area North of Pediatric Pavilion	General view from west looking east.
22.	Parking Area North of Pediatric Pavilion	General view from east looking west.
23.	Vacant Property on Block Bounded by Charlotte, Cummings, Chicago and Marengo Streets	General view from northeast looking southwest.



PSYCHIATRIC HOSPITAL (1951) Photograph 1

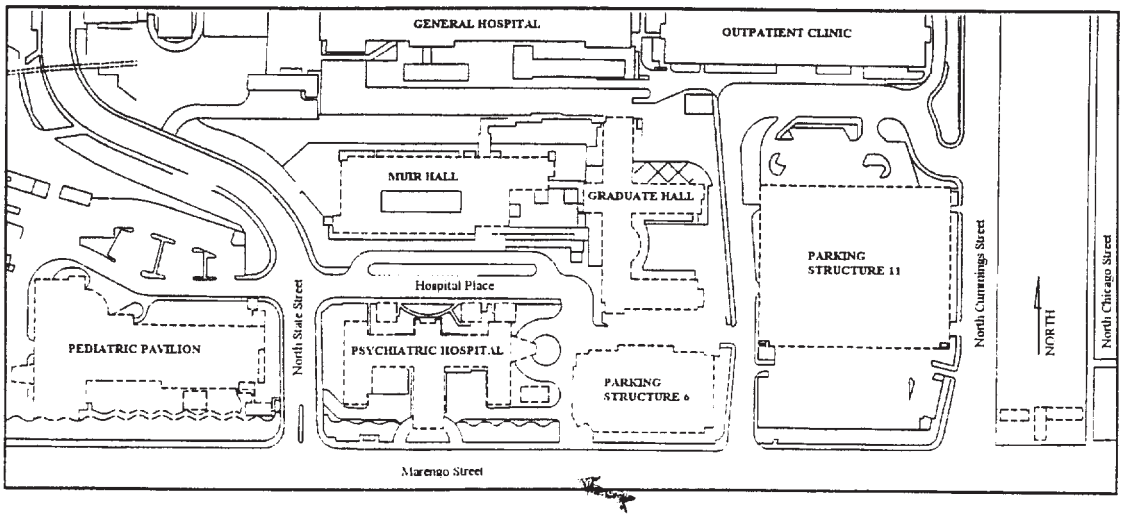
General view from east looking west at emergency entrance.

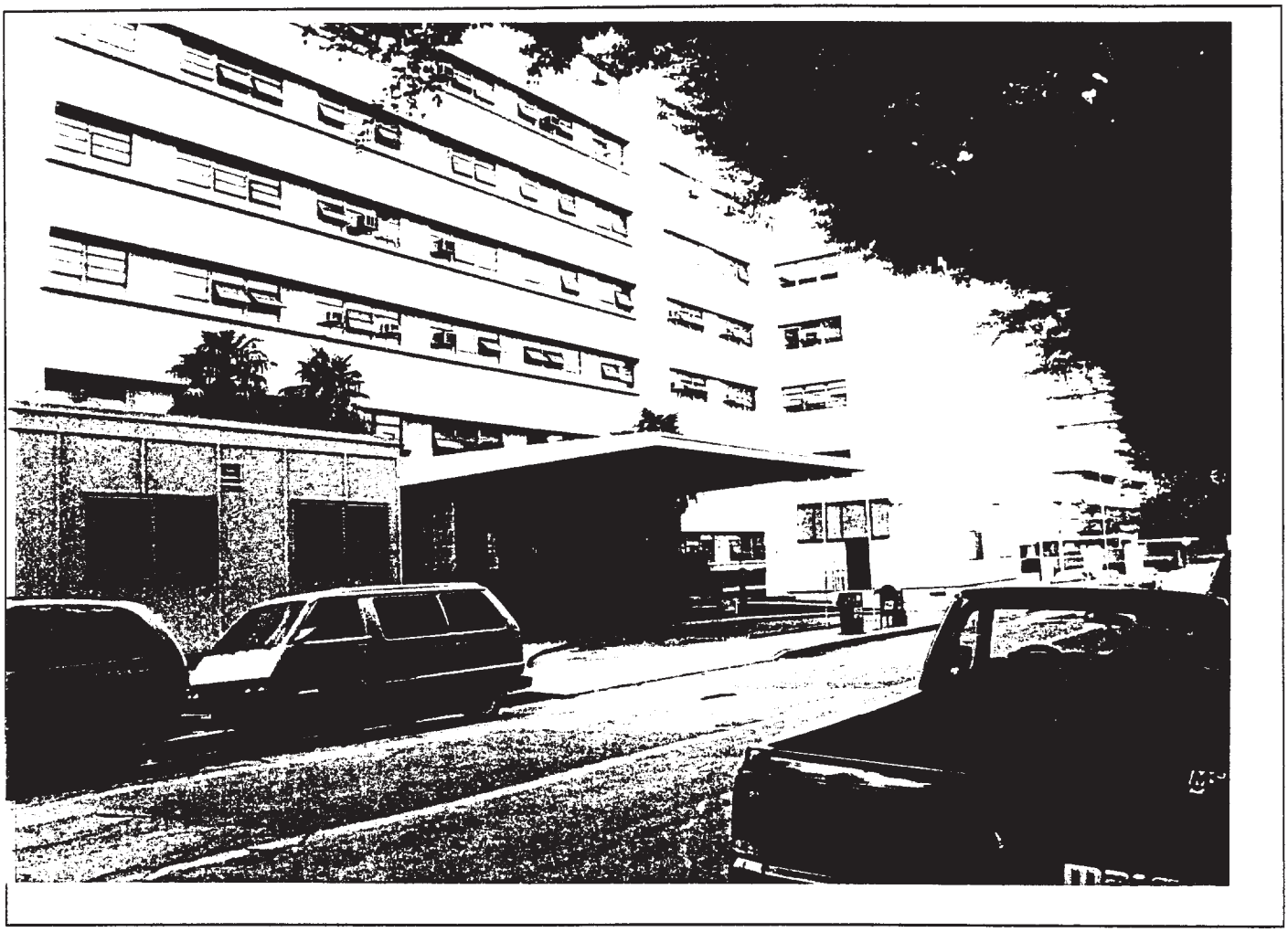




PSYCHIATRIC HOSPITAL (1951) Photograph 2

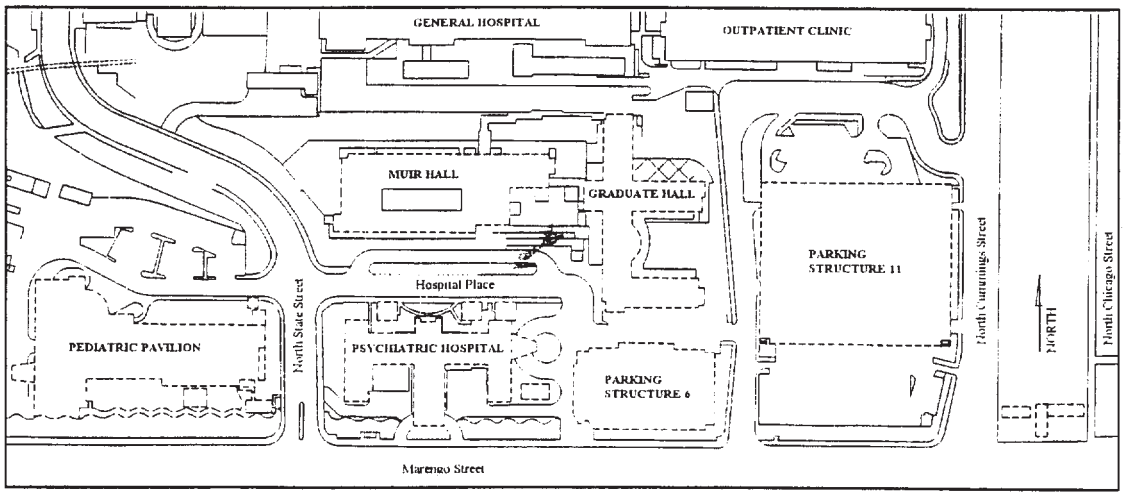
General view from southeast looking northwest along Marengo Street. Note: masonry serpentine garden wall in foreground and trailer on right.

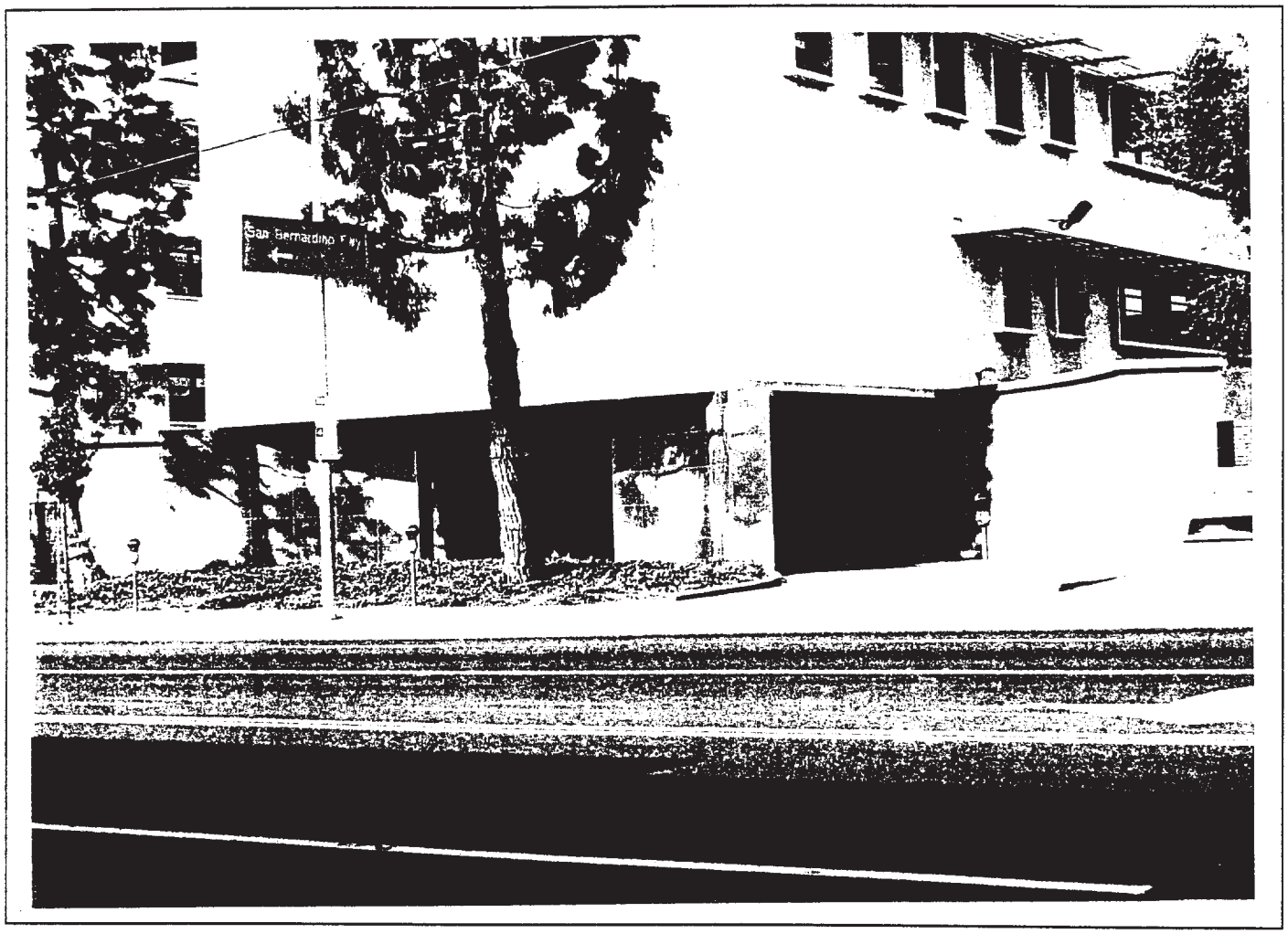




PSYCHIATRIC HOSPITAL (1951) Photograph 3

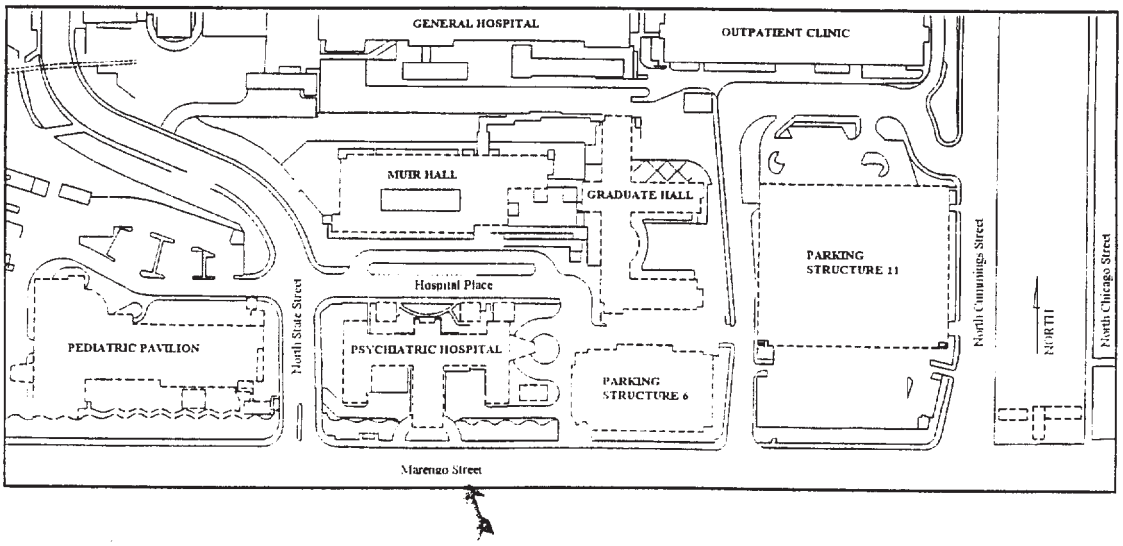
Detail view from northeast looking southwest at main entrance. Note: Modular buildings to left and right of canopy.

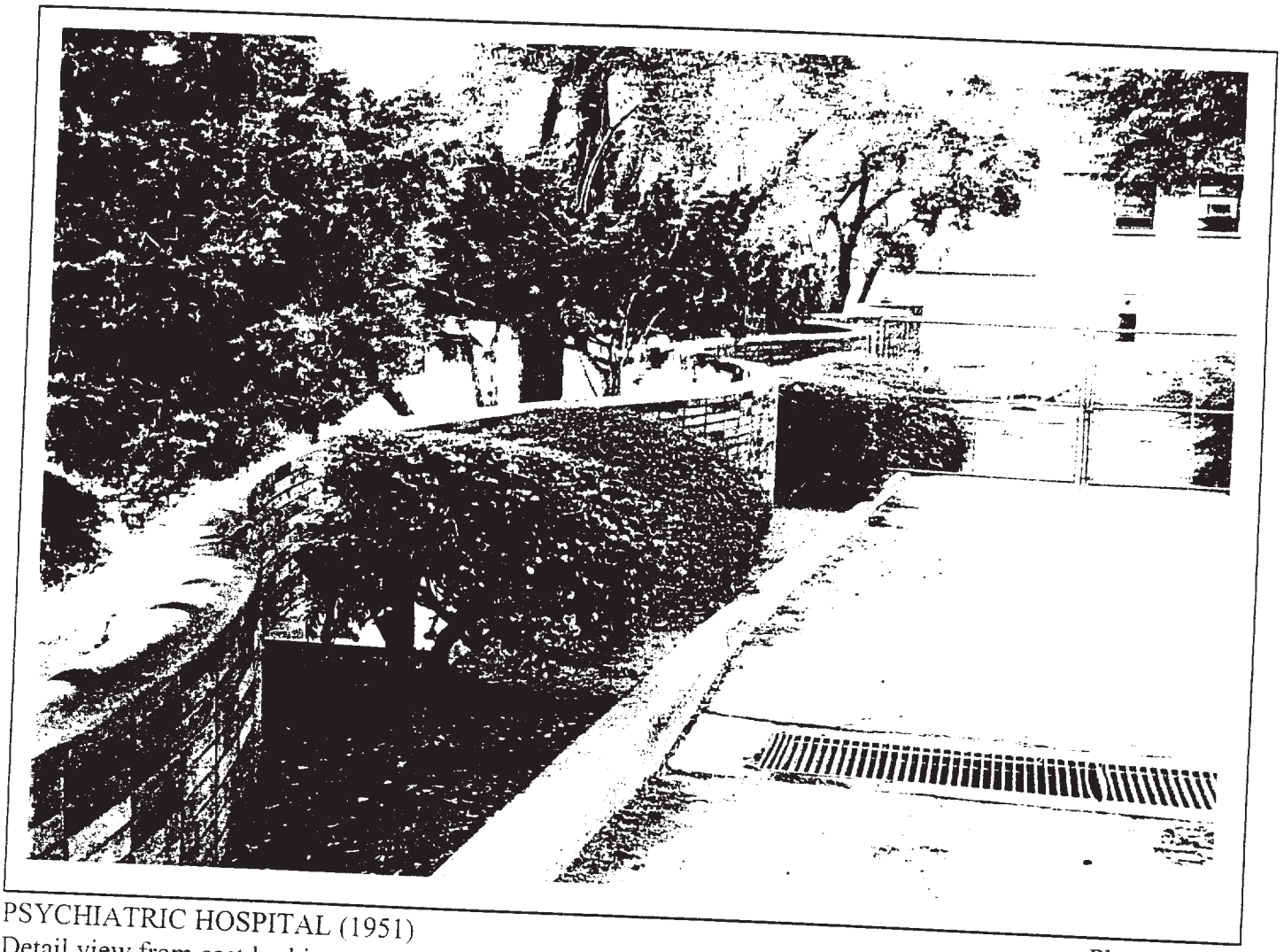




PSYCHIATRIC HOSPITAL (1951) Photograph 4

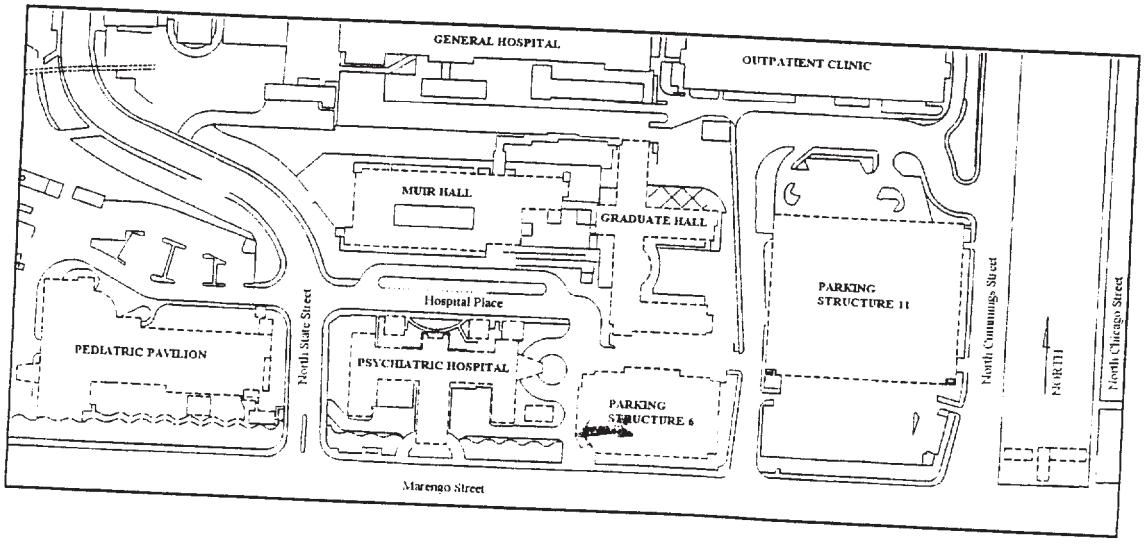
Detail view from southeast looking northwest of Marengo Street entrance.

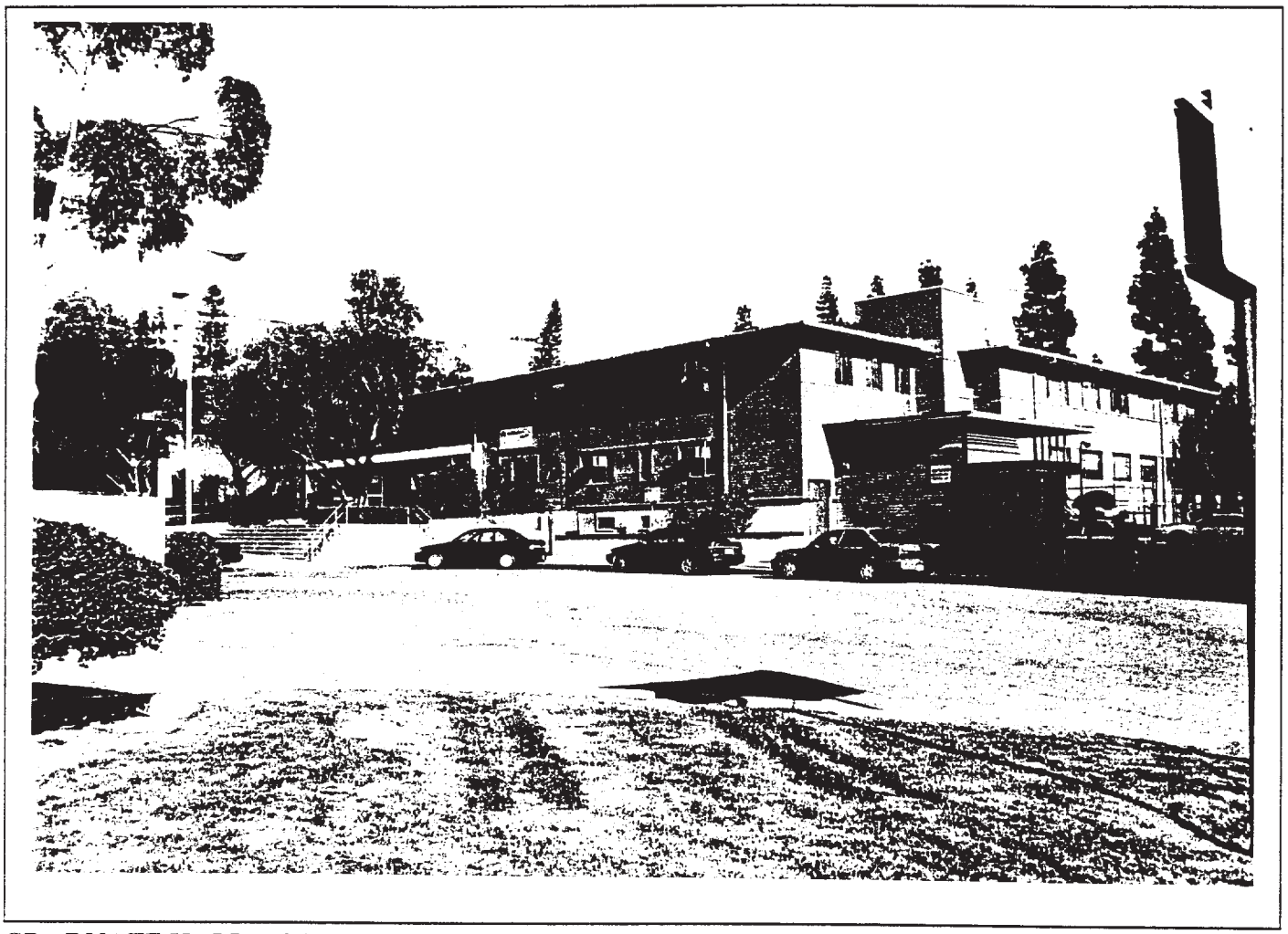




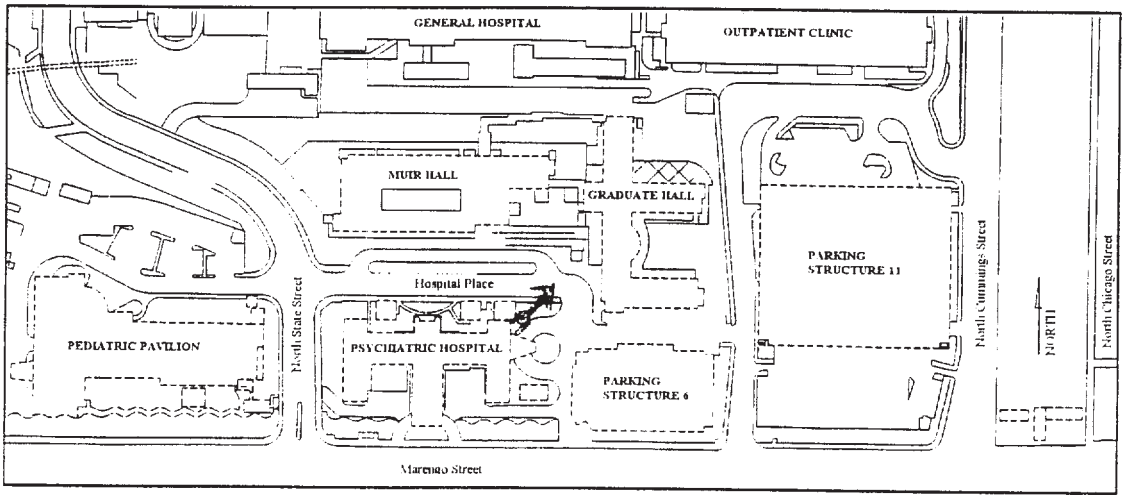
PSYCHIATRIC HOSPITAL (1951)
Detail view from east looking west of masonry serpentine garden wall along Marengo Street. Note: Garden wall detail repeats at Pediatric Pavilion along Marengo Street.

Photograph 5



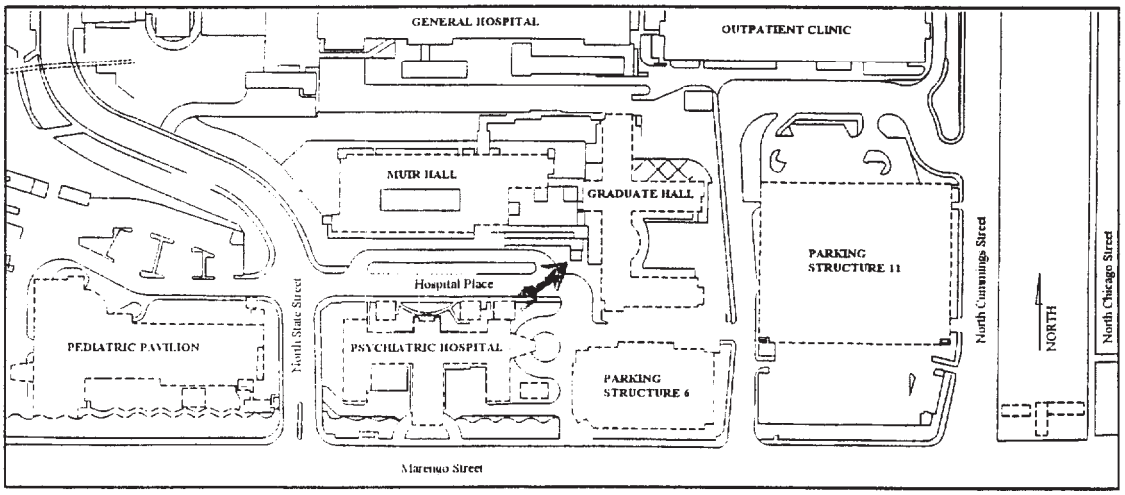


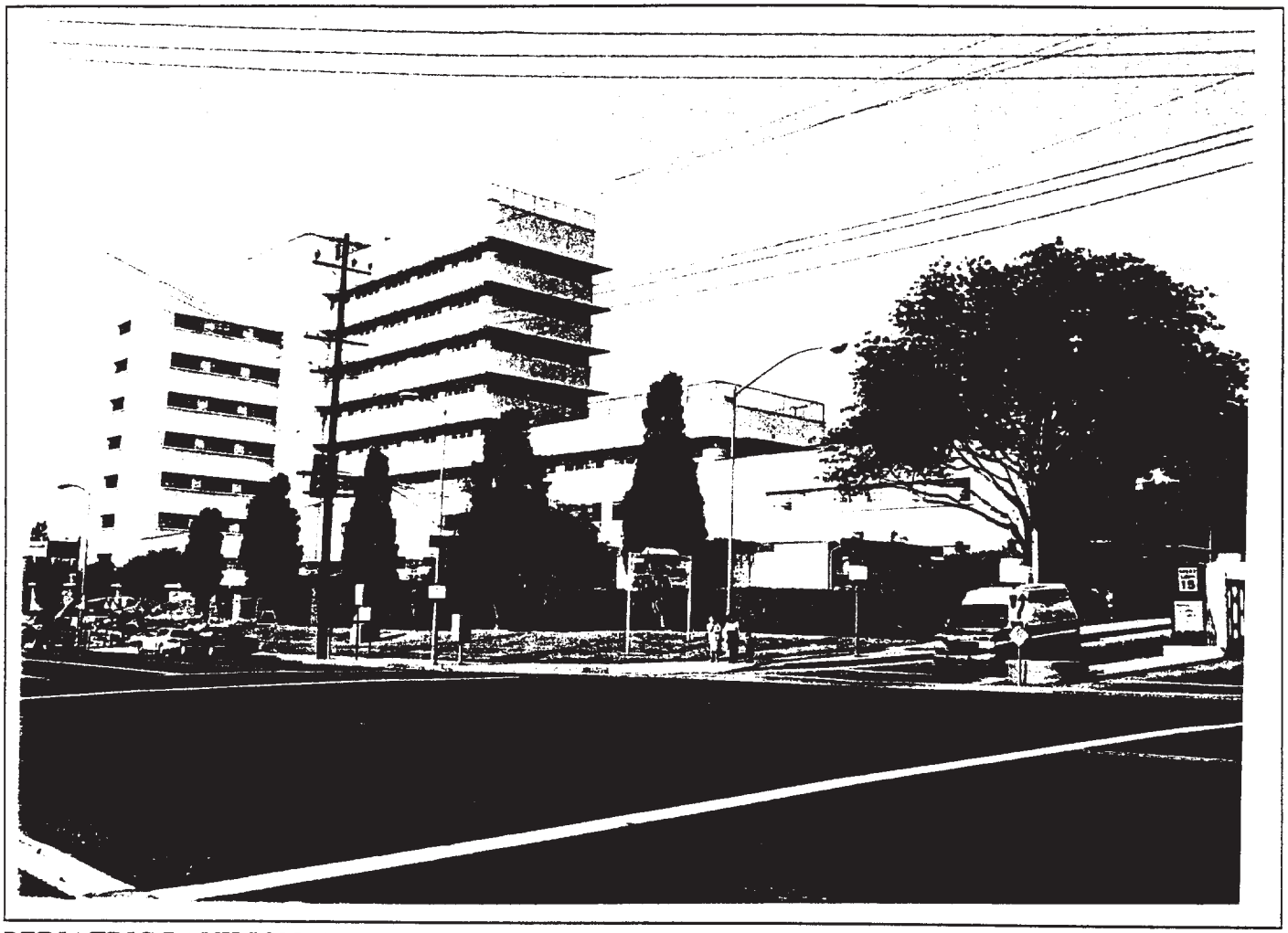
GRADUATE HALL (1953, 1955) Photograph 6
General view from southwest looking northeast.



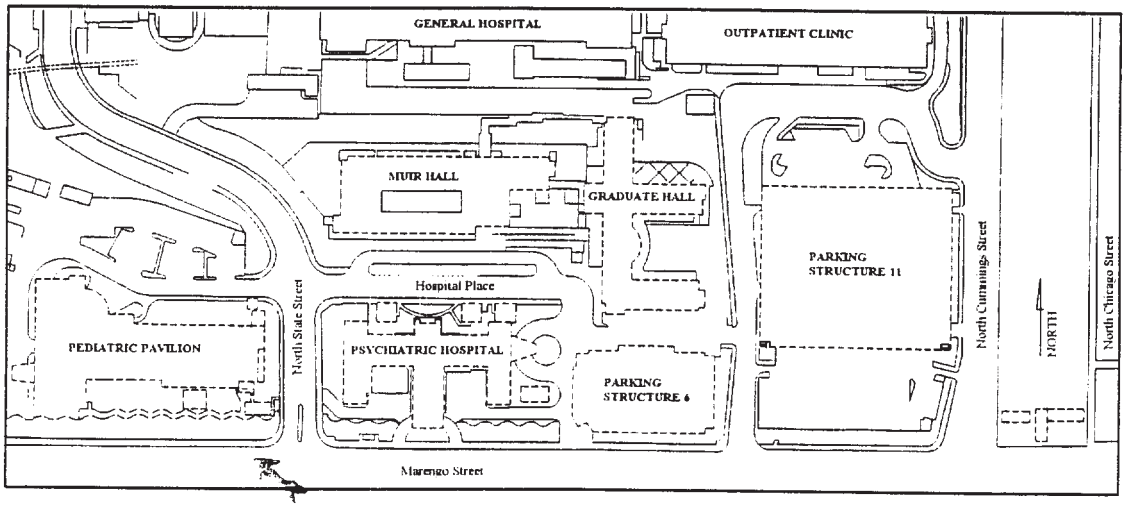
GRADUATE HALL (1953, 1955) Photograph 7

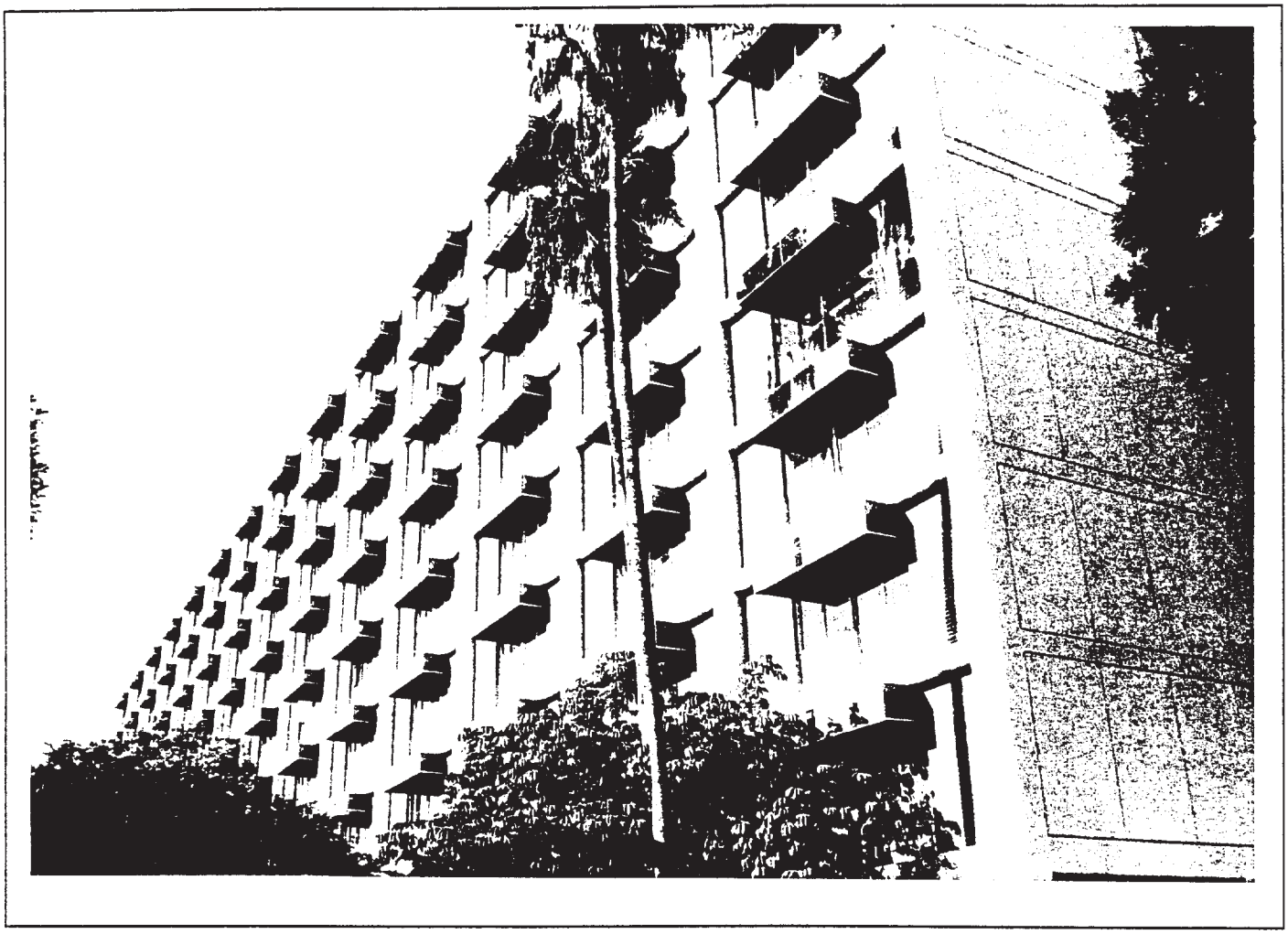
Detail view from southwest looking northeast of entrance with view through lobby to rear garden.



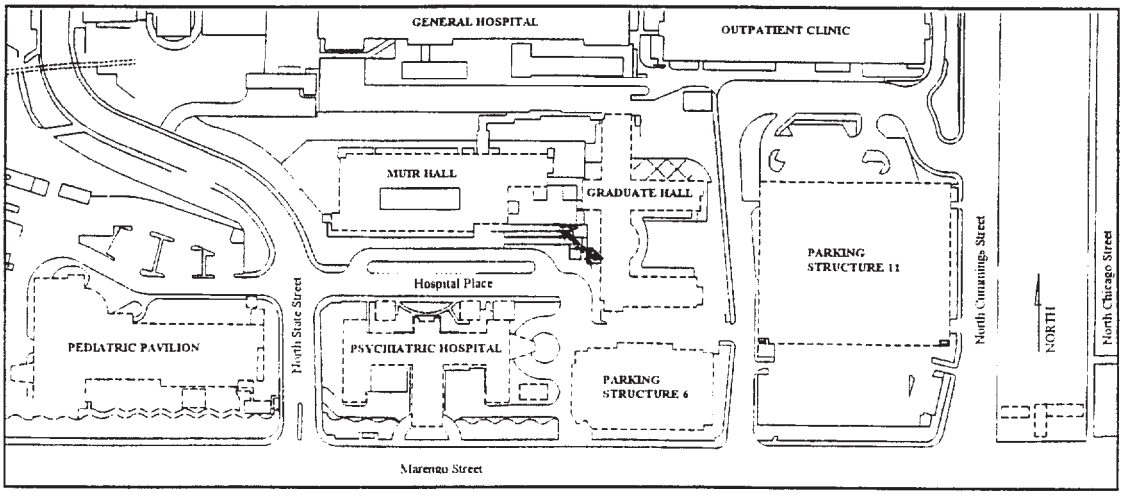


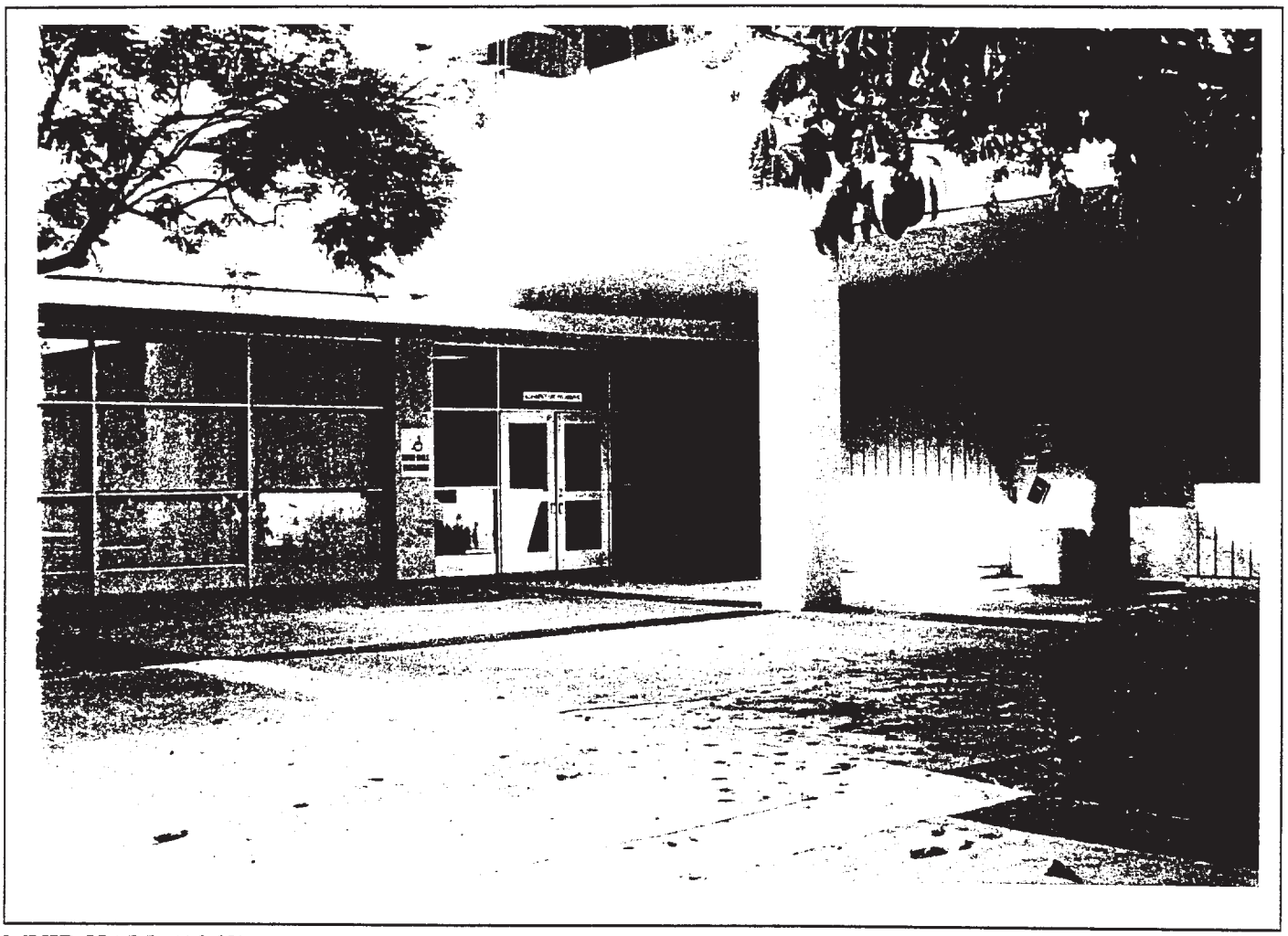
PEDIATRIC PAVILION (1955) Photograph 8
General view from southeast looking northwest along Marengo Street.



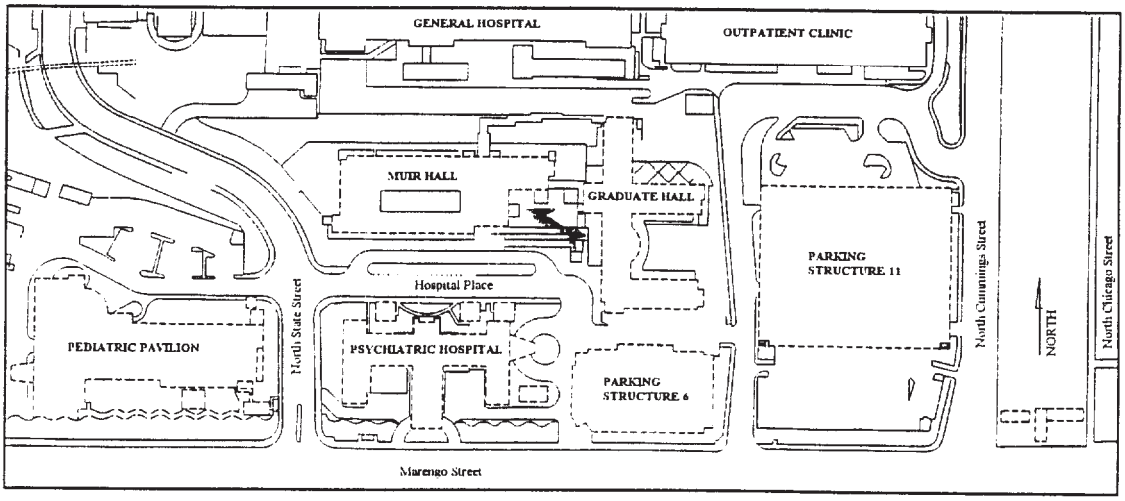


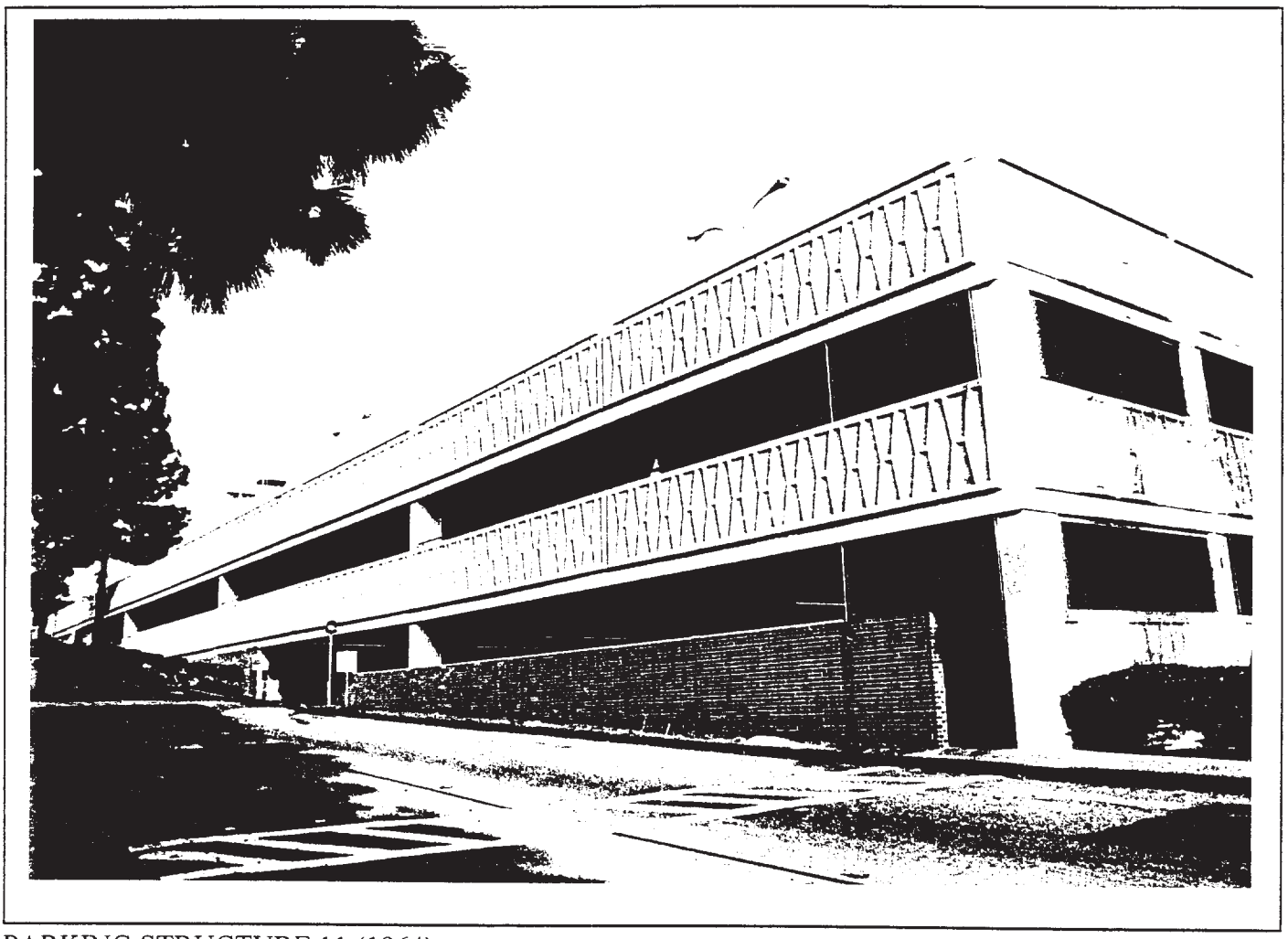
MUIR HALL (1962) Photograph 9
General view from southeast looking northwest.



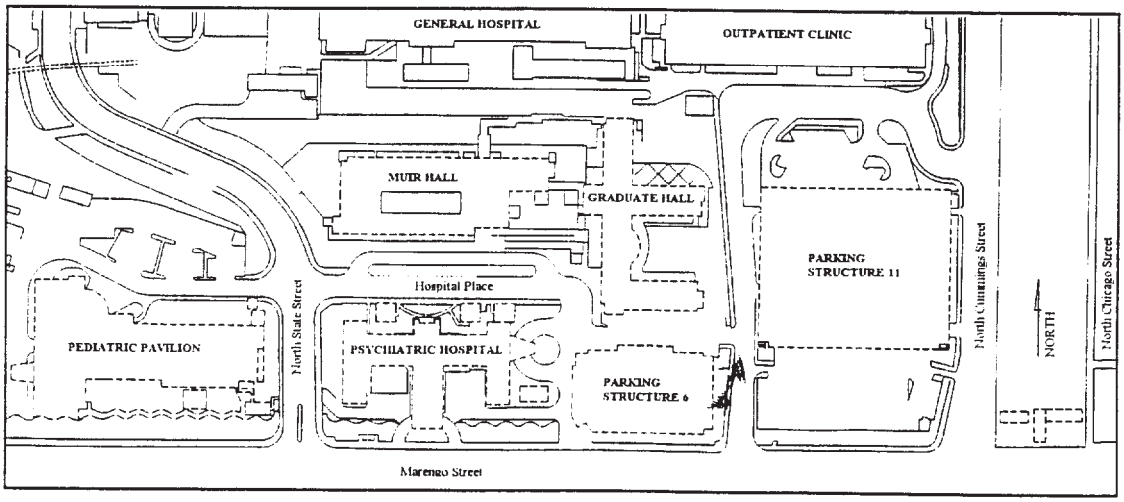


MUIR HALL (1962) Photograph 10
Detail view of east entrance.

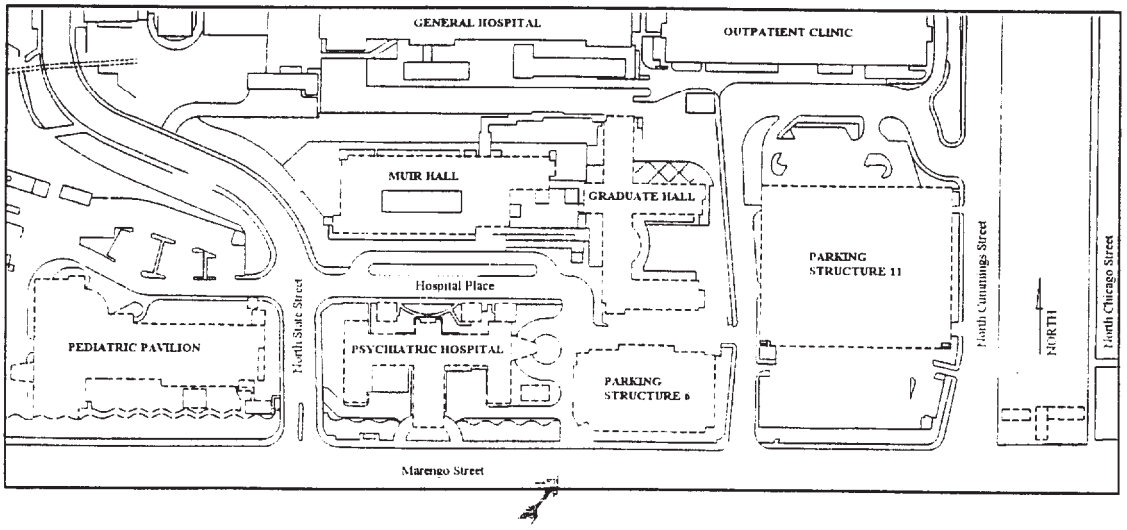


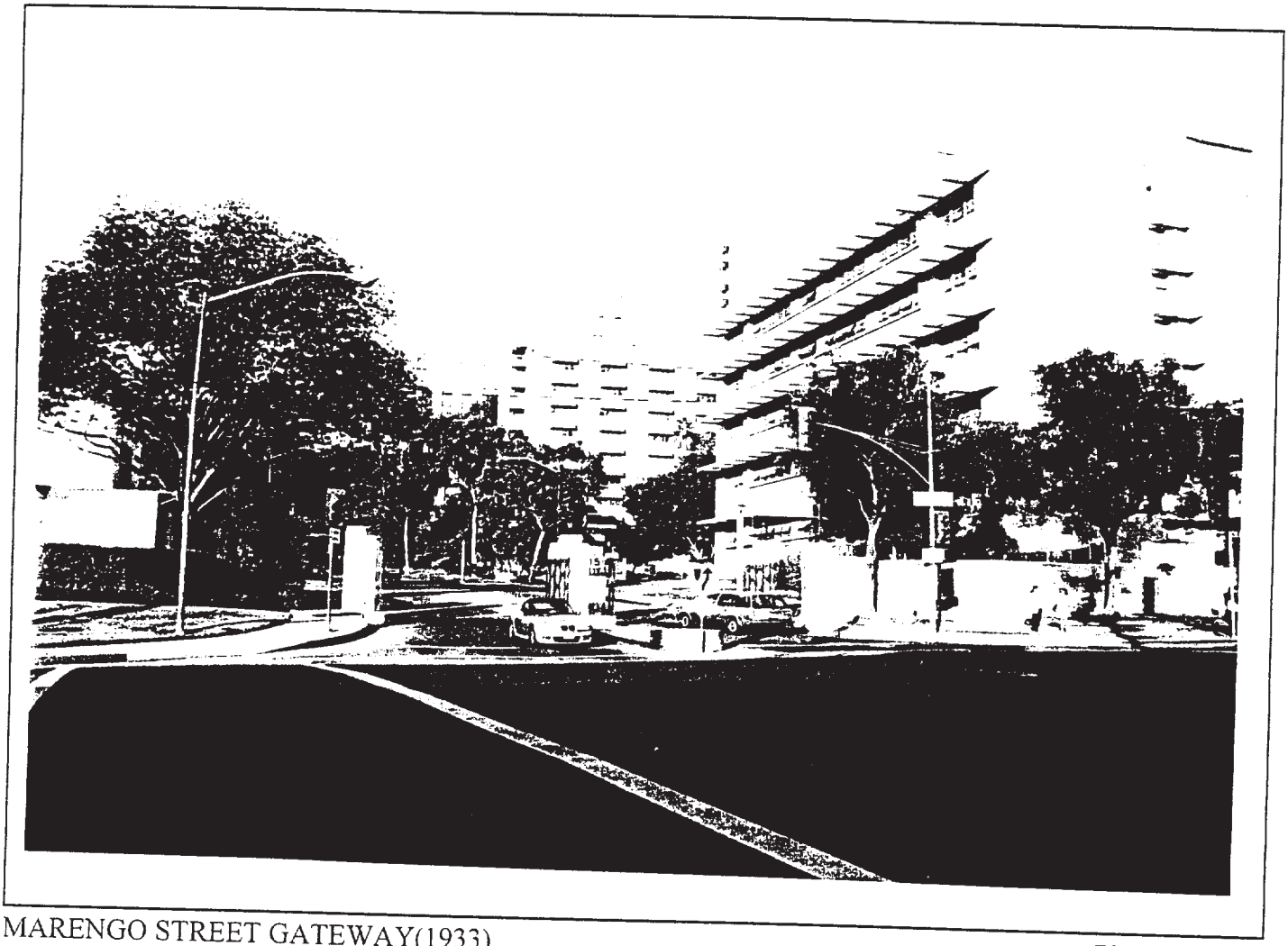


PARKING STRUCTURE 11 (1964) Photograph 11
General view from southwest looking northeast.



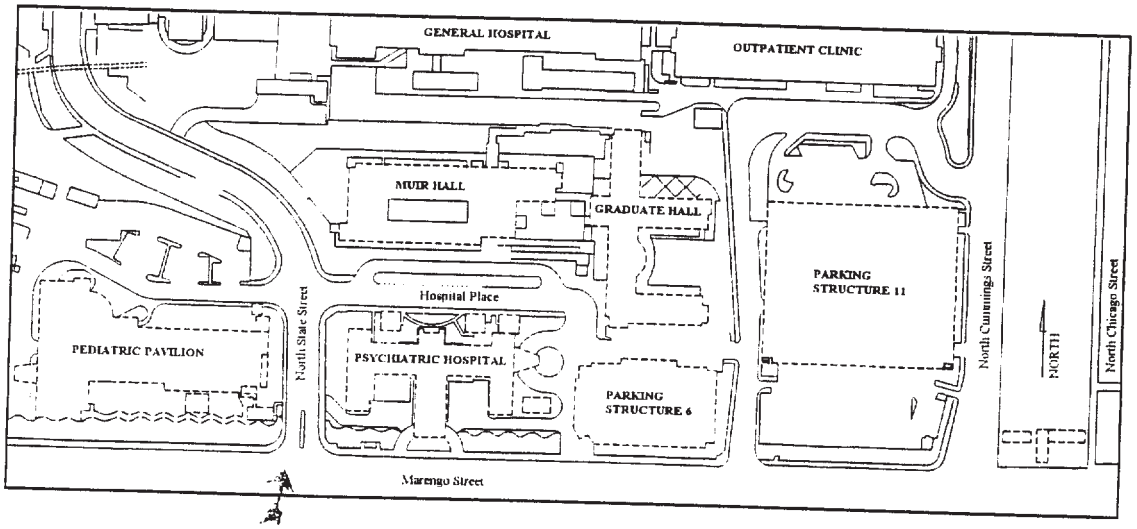
PARKING STRUCTURE 6 (1971) Photograph 12
General view from southwest looking northeast along Marengo Street.

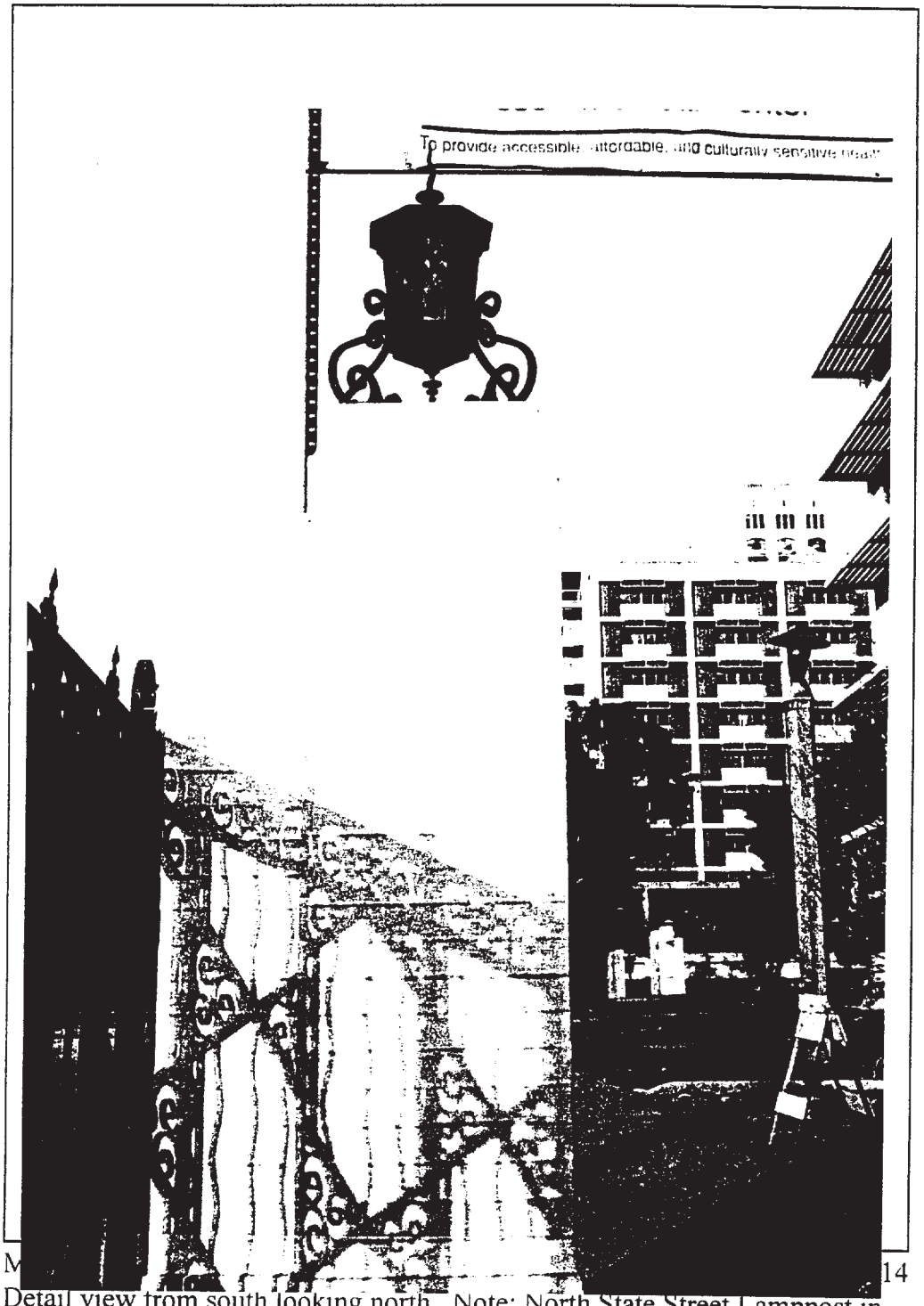




MARENGO STREET GATEWAY(1933) Photograph 13

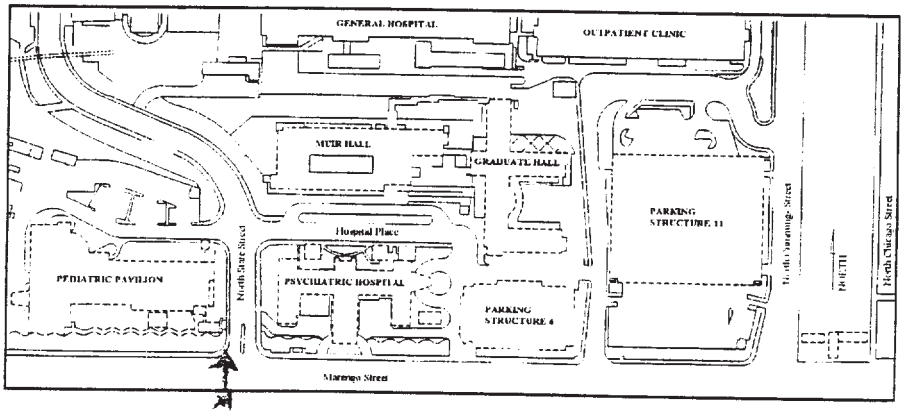
General view from south looking north at intersection of North State Street and Marengo Street.

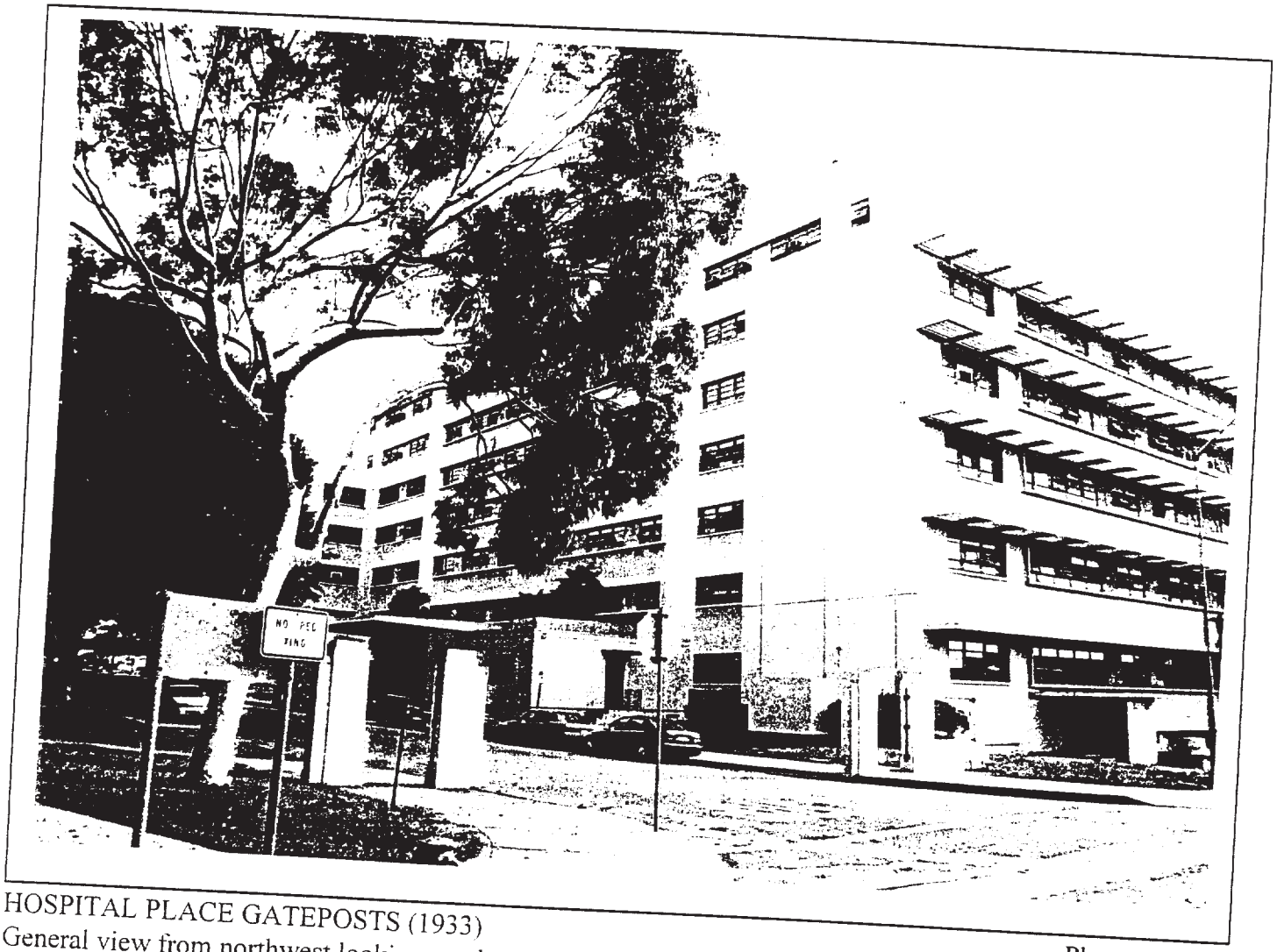




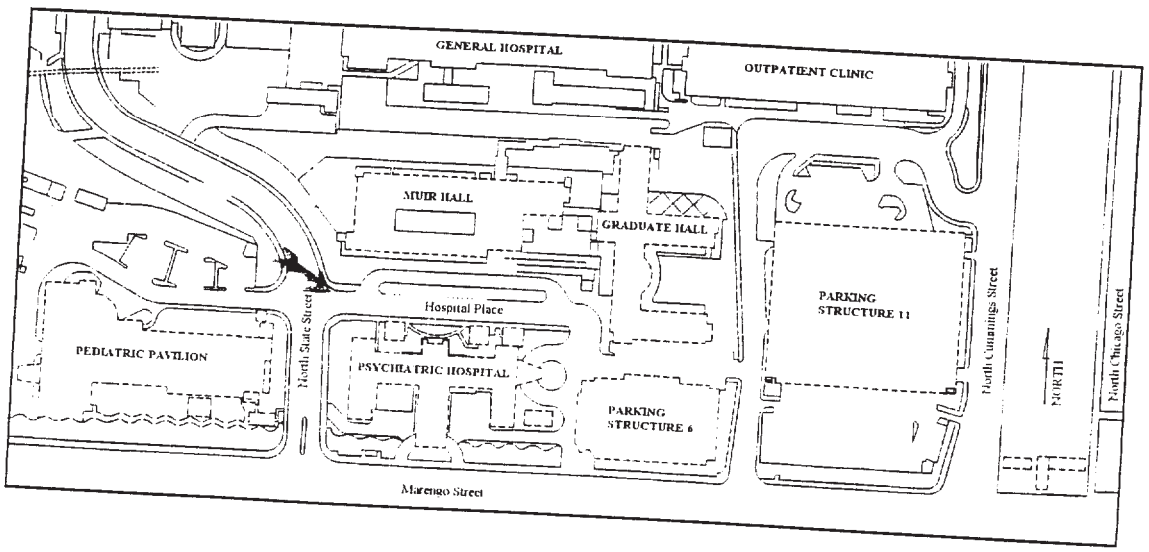
M 14

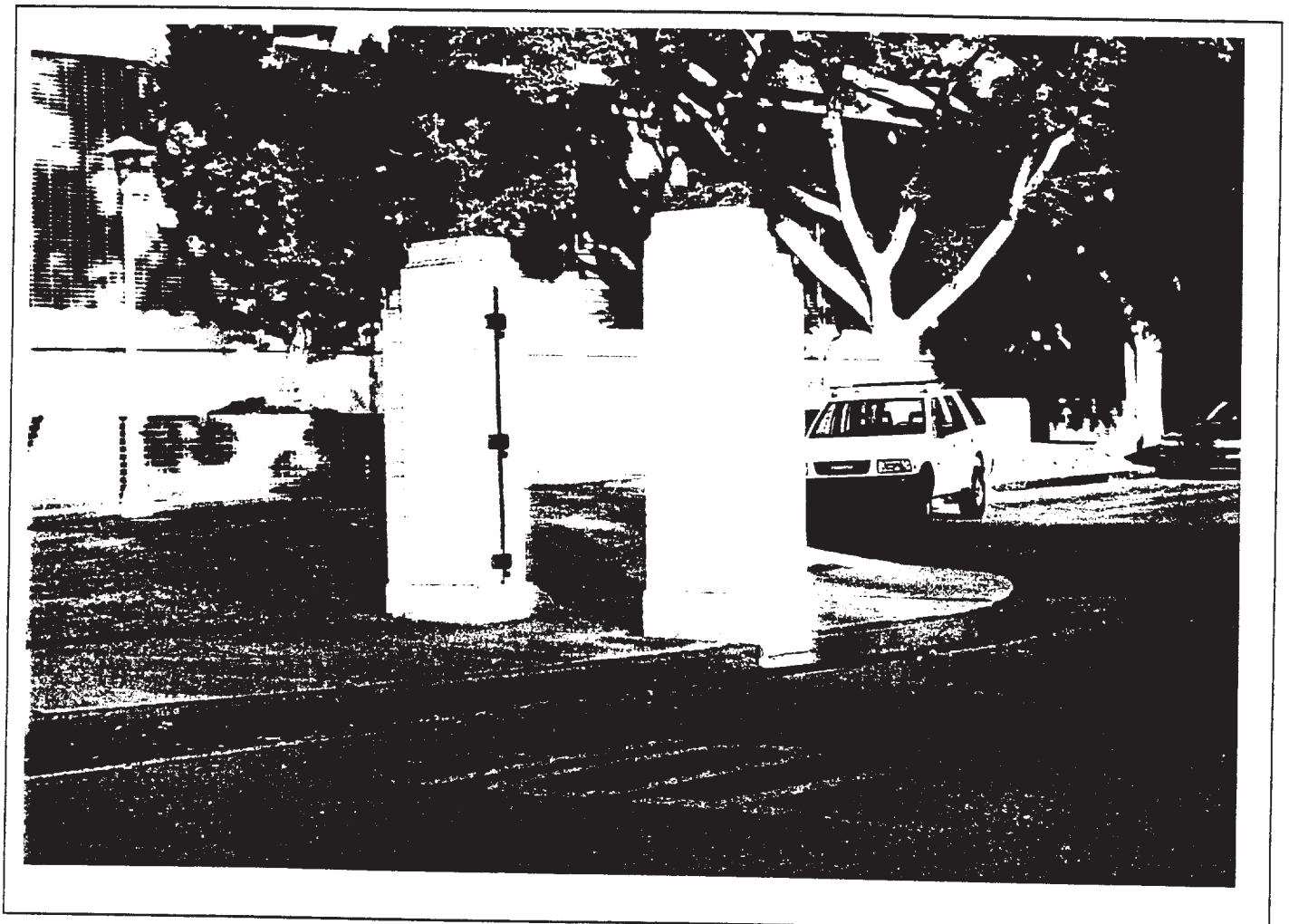
Detail view from south looking north. Note: North State Street Lamppost in middle ground and Muir Hall in background.





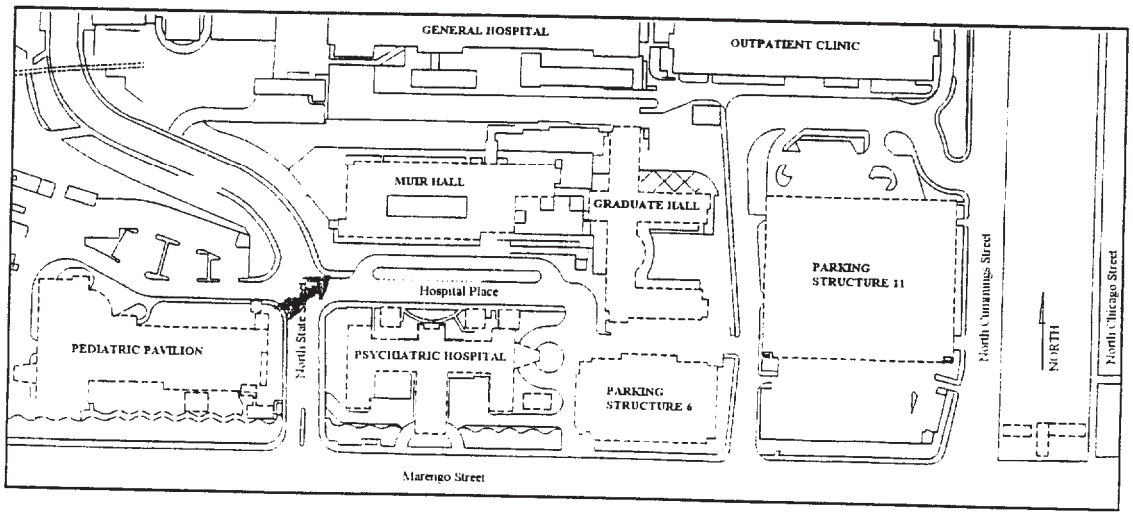
HOSPITAL PLACE GATEPOSTS (1933) Photograph 15
General view from northwest looking southeast at intersection of Hospital Place and North State Street.
Note: Center gatepost missing. Modular building in middle ground and Psychiatric Hospital in background.

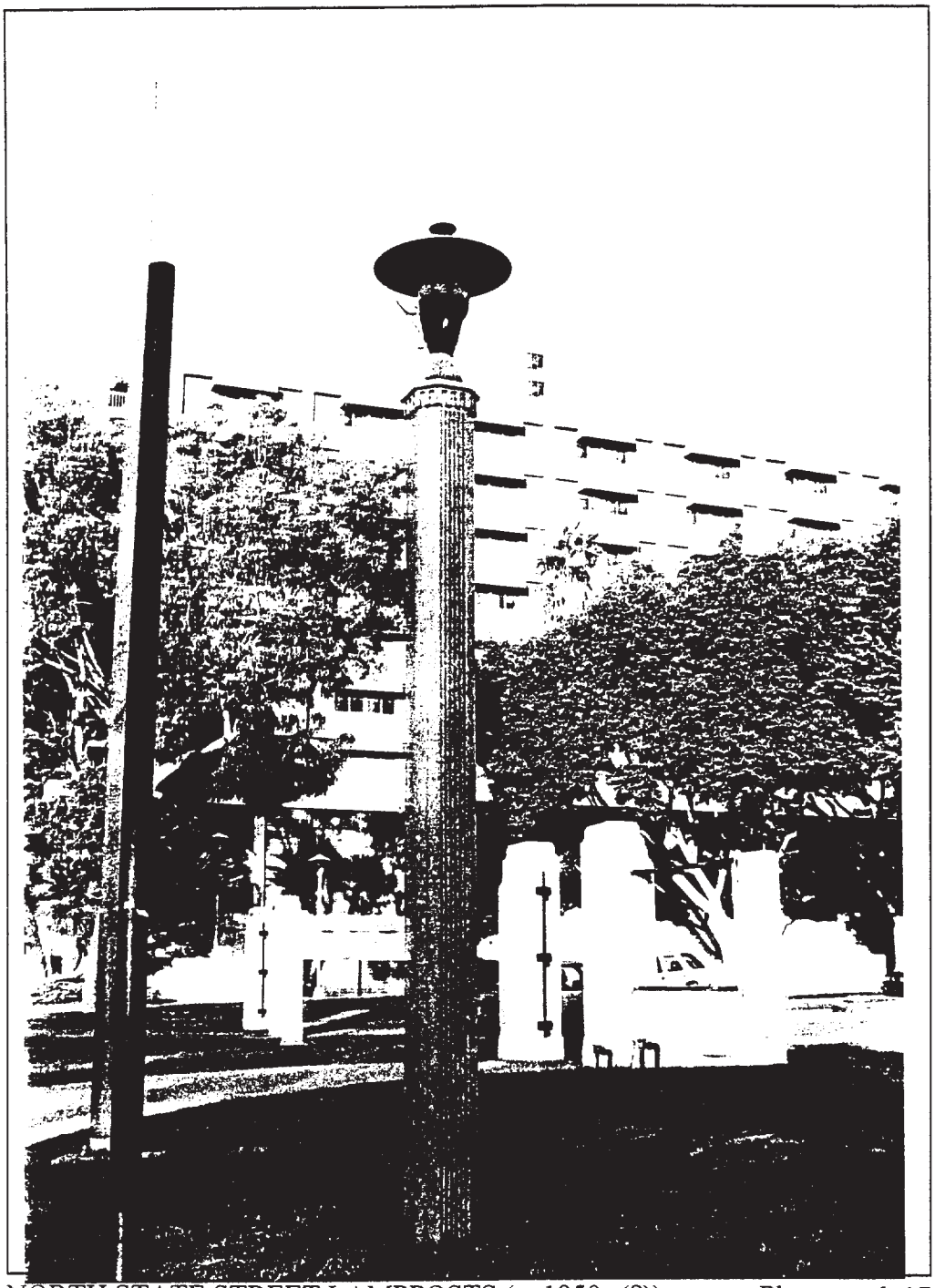




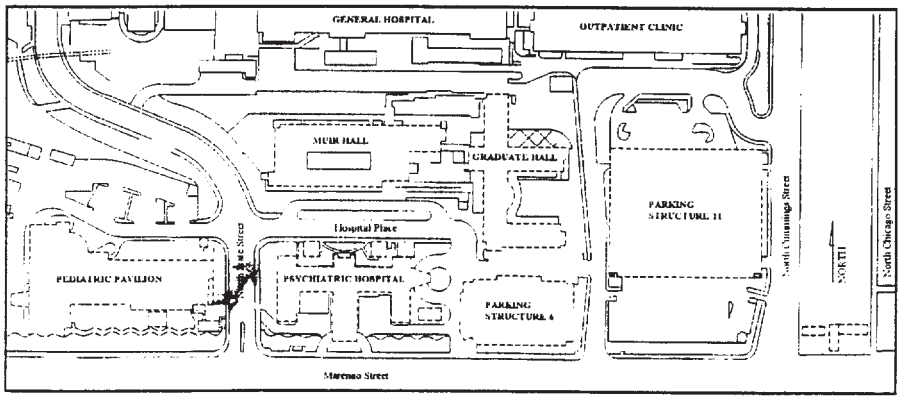
HOSPITAL PLACE GATEPOSTS (1933)
Detail view from southwest looking northeast. Note: Iron gates missing.

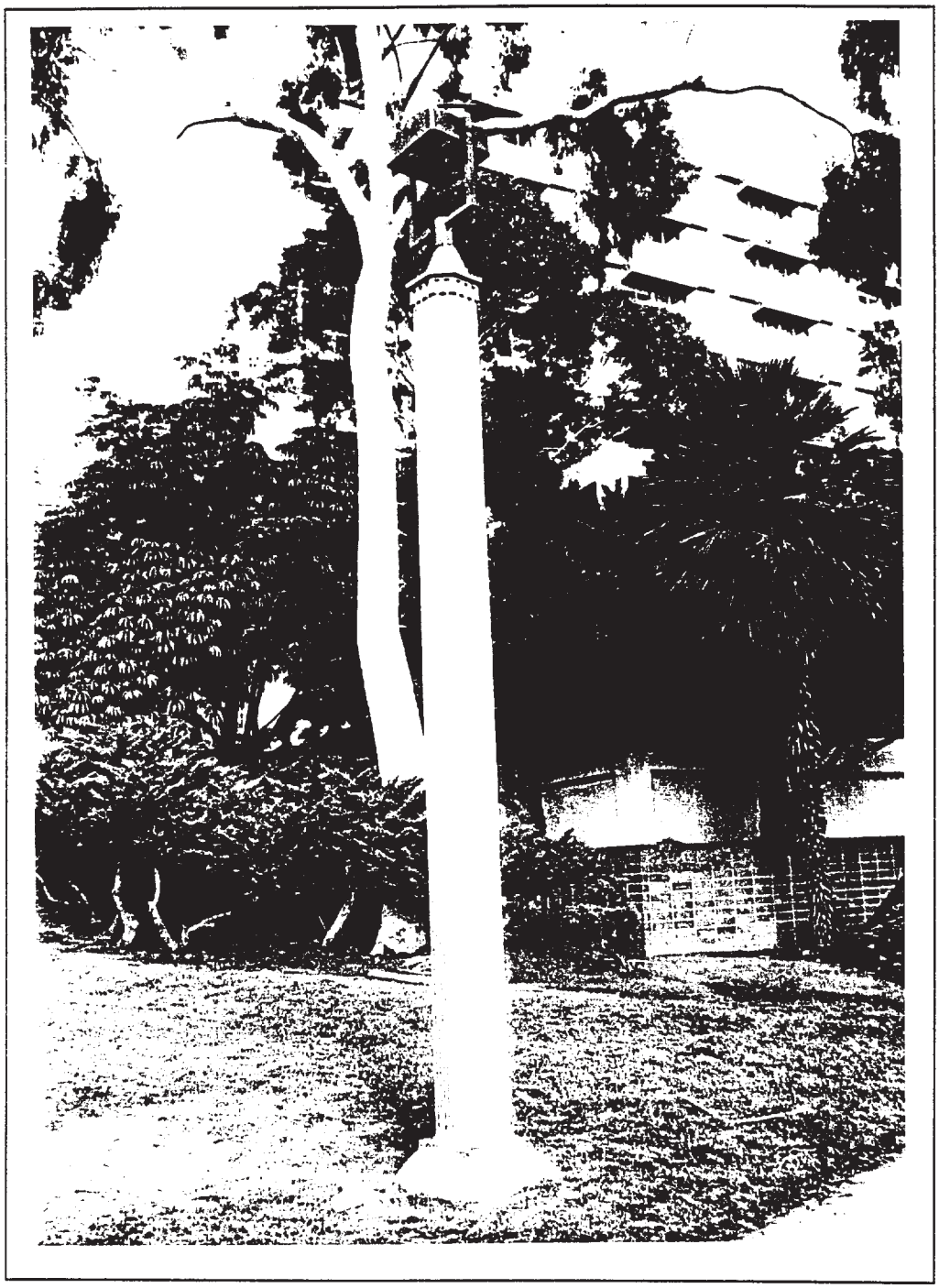
Photograph 16



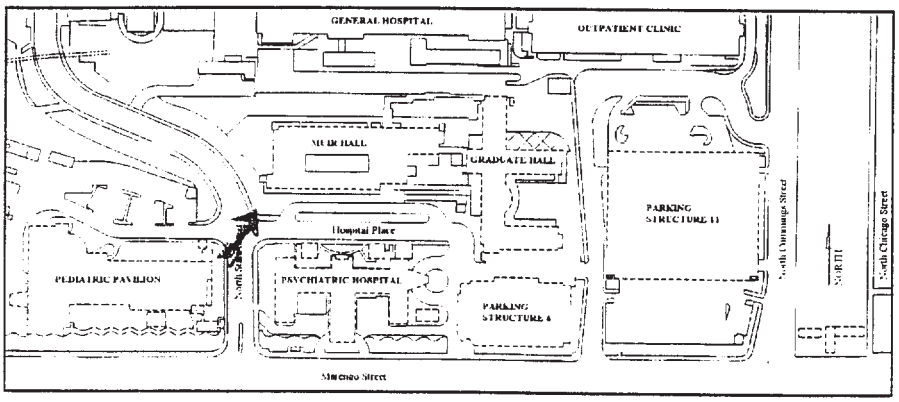


NORTH STATE STREET LAMPPOSTS (c. 1950s (?)) Photograph 17
Detail view from southwest looking northeast. Note: Original lamp?

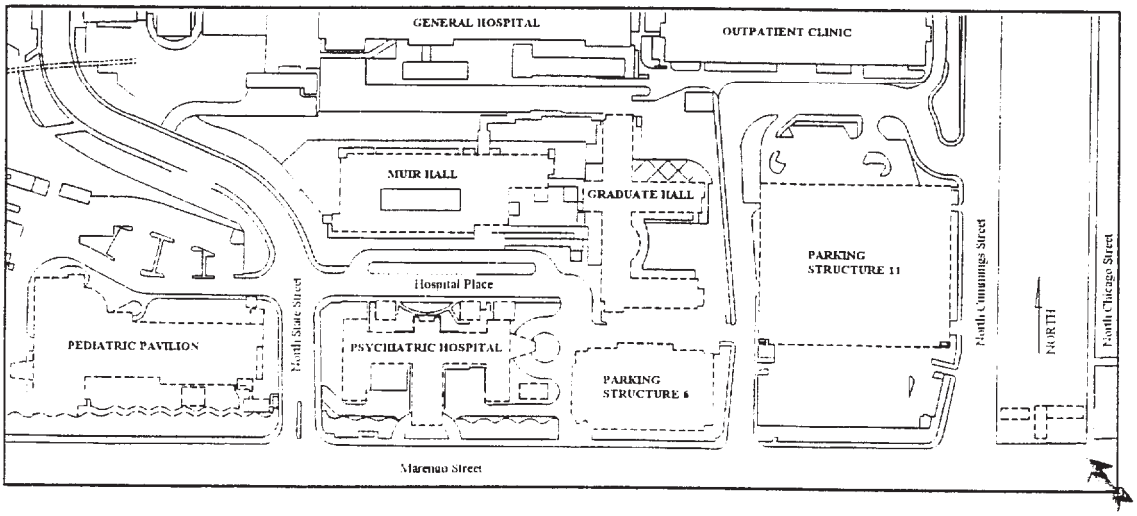


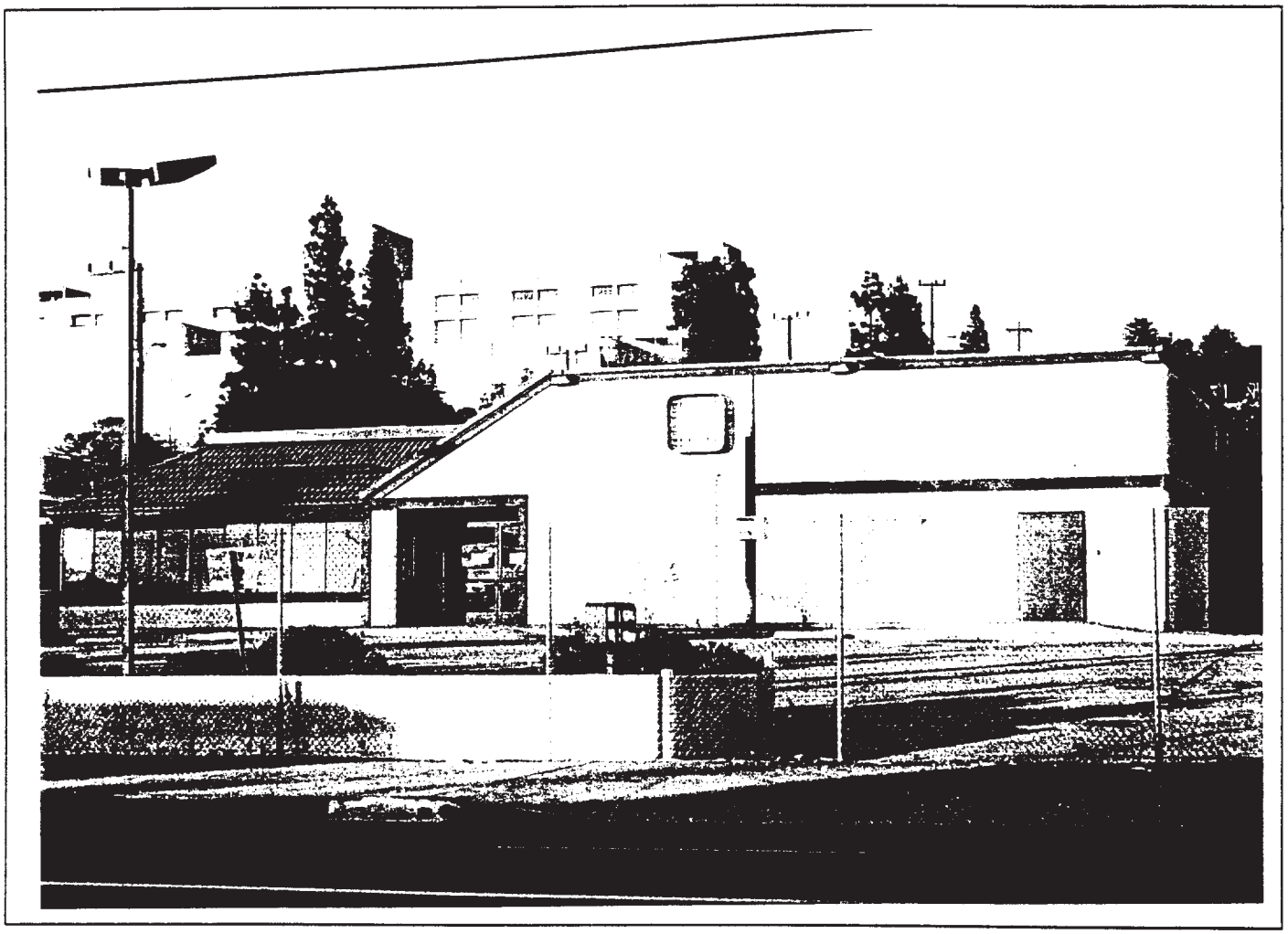


NORTH STATE STREET LAMPPOSTS (c. 1950s (?)) Photograph 18
Detail view from southwest looking northeast. Note: Replacement lamp.

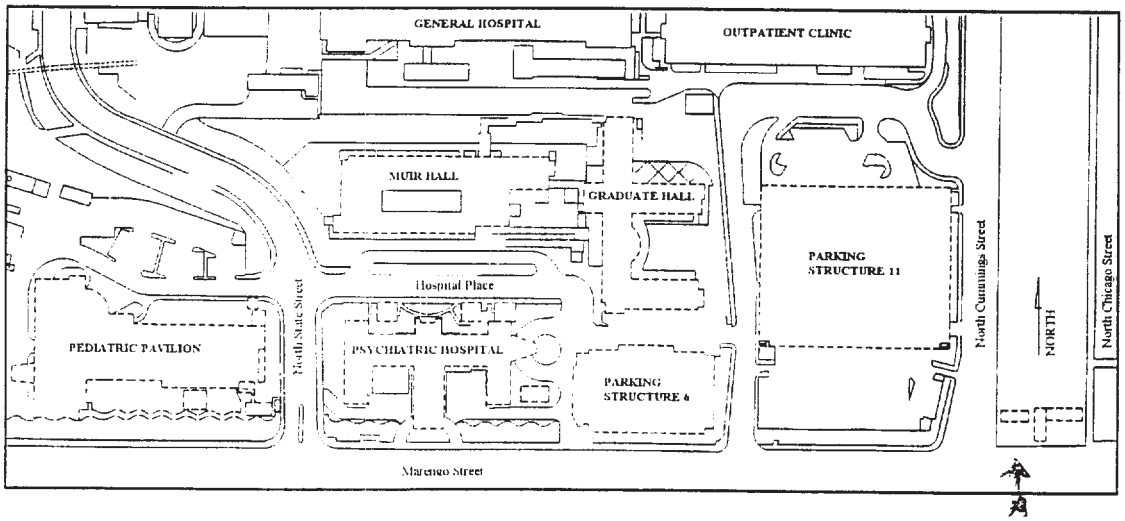


SHOPPING CENTER (1984), 2057-2067 Marengo Street Photograph 19
General view from southeast looking northwest.



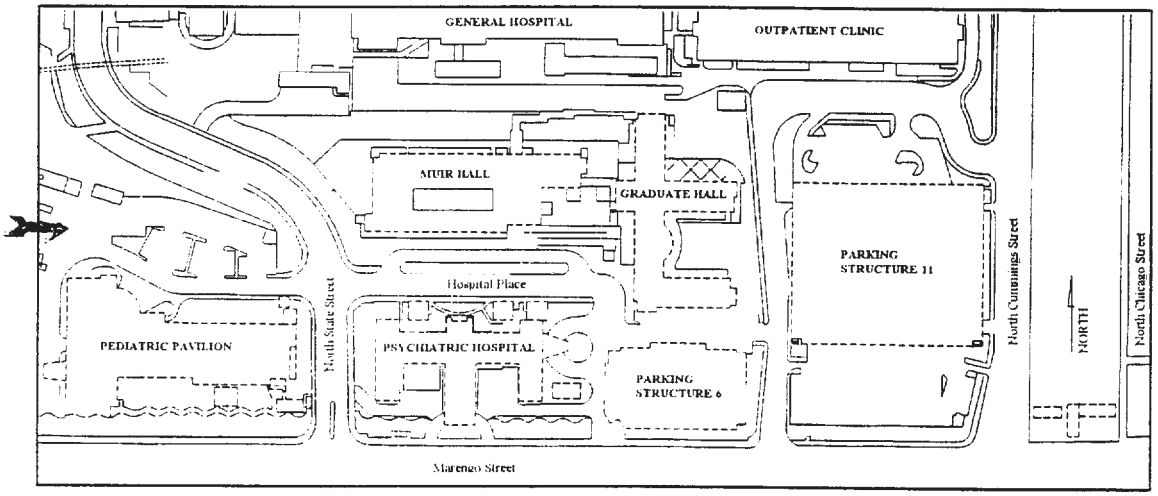


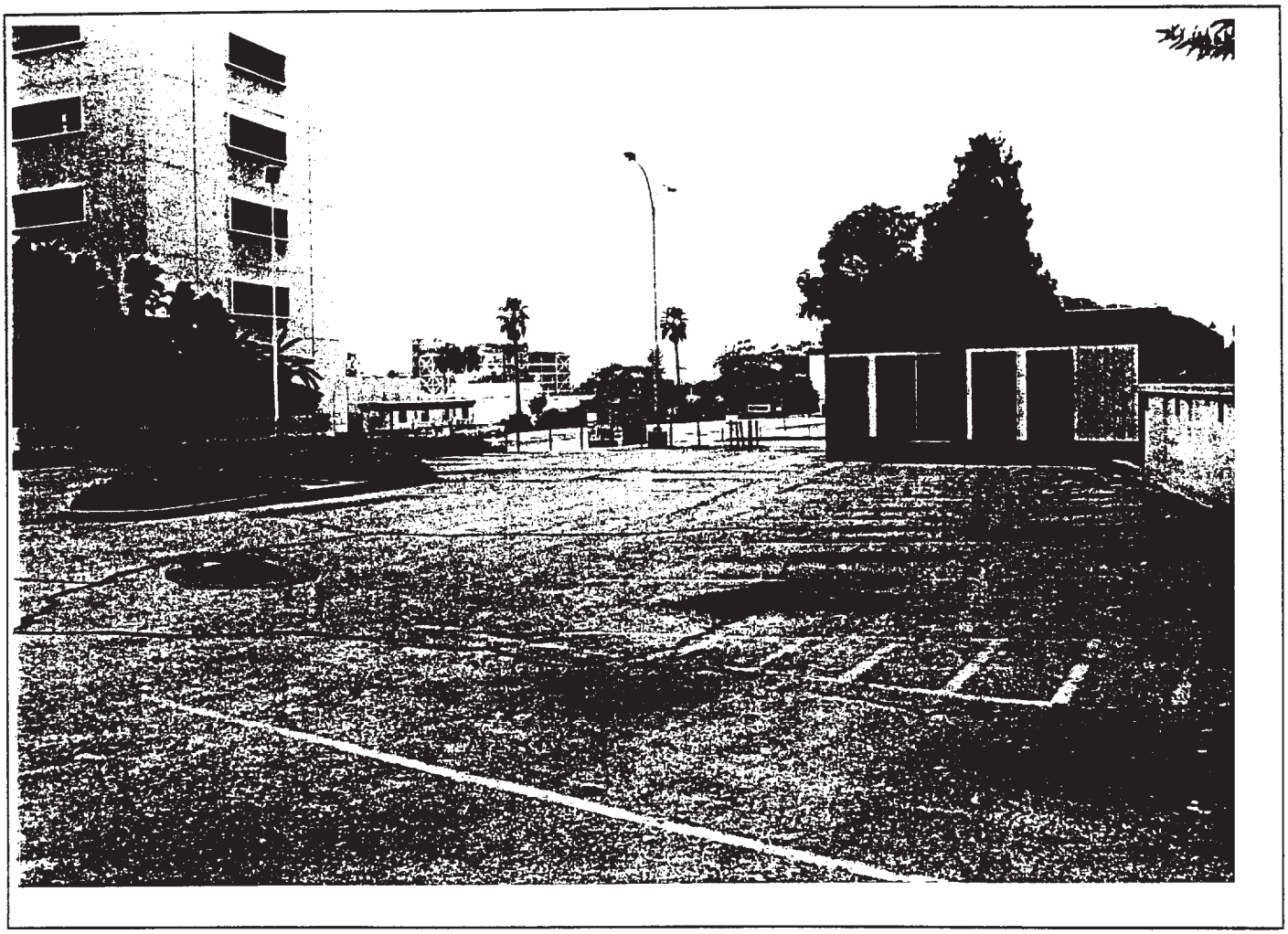
BURGER KING RESTAURANT (1985), 2033-2055 Marengo Street Photograph 20
General view from south looking north.



PARKING AREA NORTH OF PEDIATRIC PAVILION Photograph 21

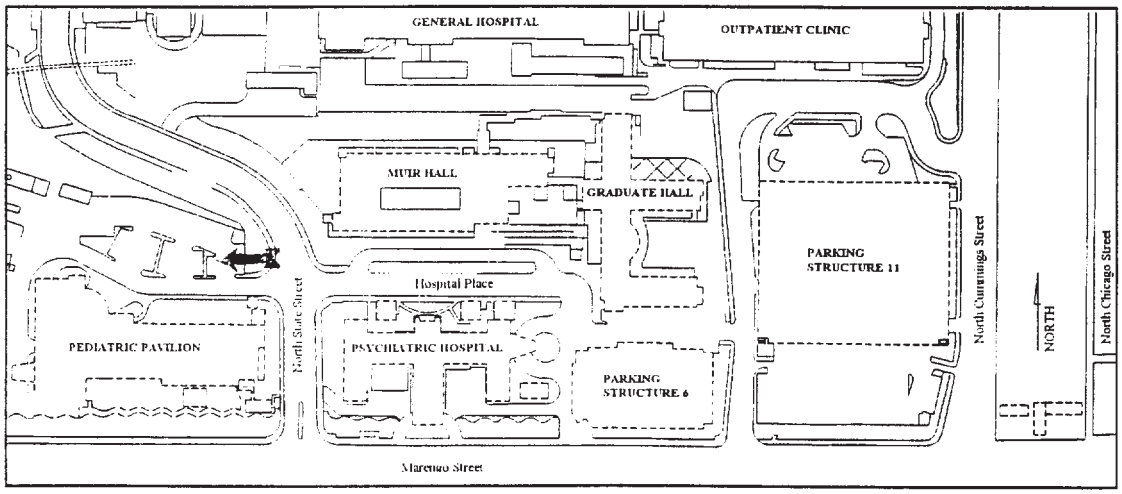
General view from west looking east. Note: Trailer in left middle ground, General Hospital in left background, Muir Hall in center background, and Psychiatric Hospital in right background.





PARKING AREA NORTH OF PEDIATRIC PAVILION Photograph 22

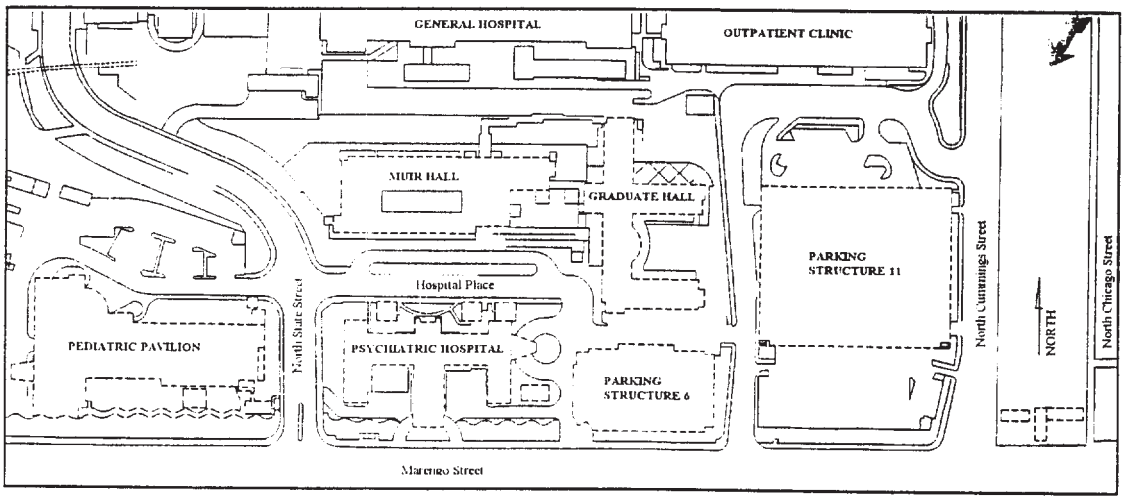
General view from east looking west. Note: Trailer in right middle ground and northwest corner of Pediatric Pavilion in left middle ground.



VACANT PROPERTY ON BLOCK BOUNDED BY CHARLOTTE, CUMMINGS, CHICAGO AND MARENGO STREETS

Photograph 23

General view from northeast looking southwest. Note: North Cummings Street in middle ground to be vacated and all area shown to be incorporated into project site.



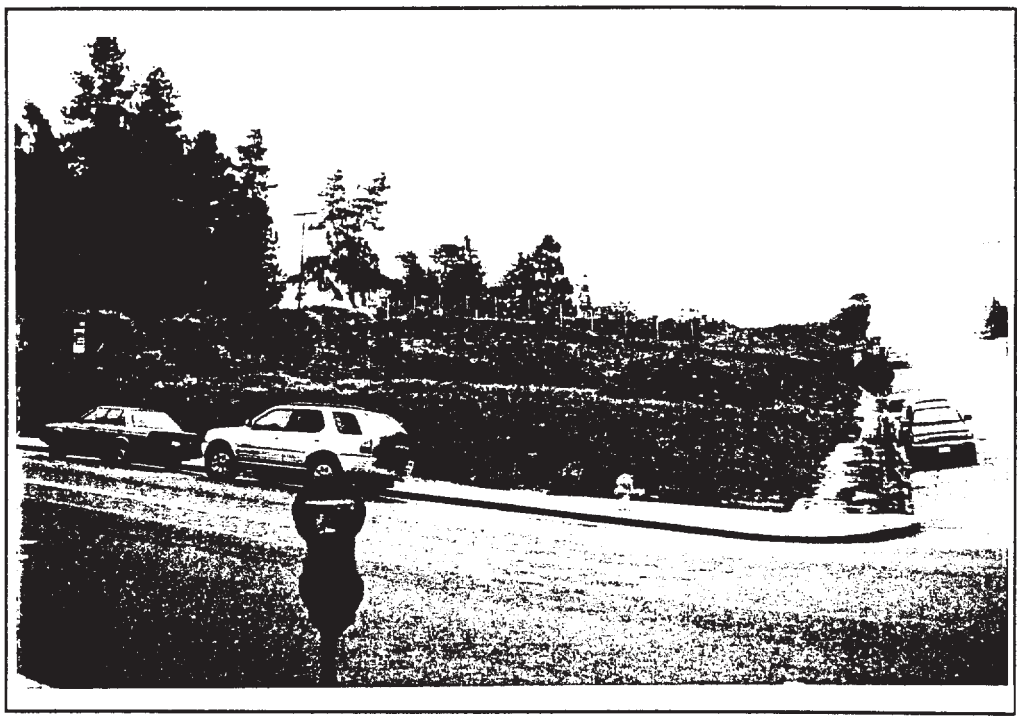
Appendix E

Reconnaissance Survey Photographs of APE

All photographs by Mellon & Associates dates as noted.

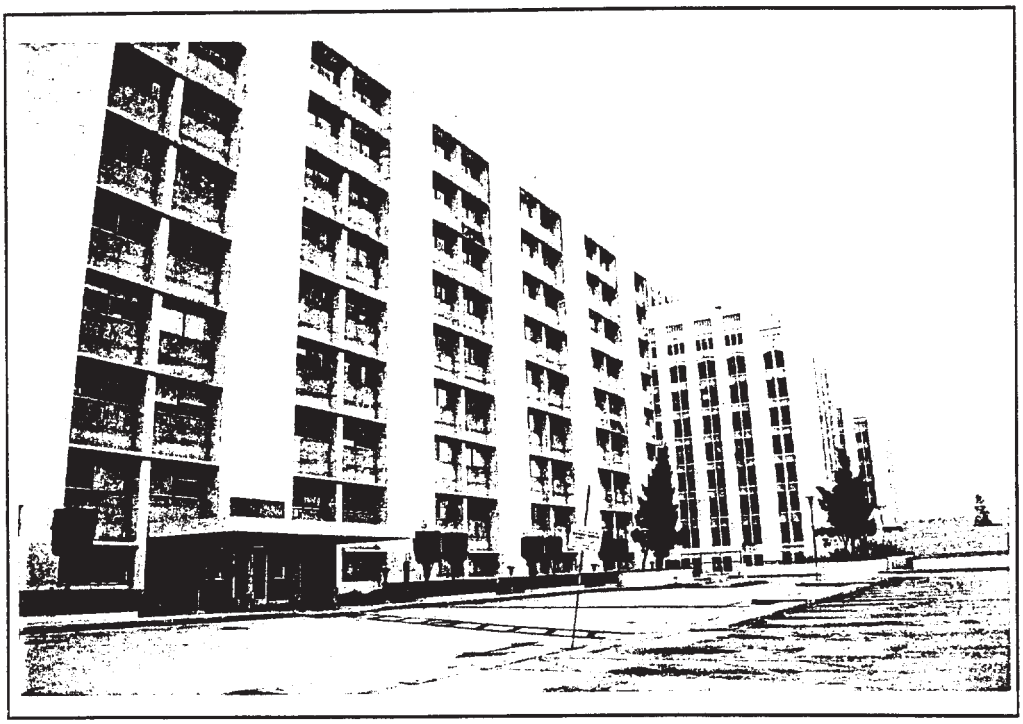
1868 - 9 VIEW LOOKING WEST DATE PHOTOGRAPHED: 1/24/99
CONTEXTUAL VIEW: ZONAL AVENUE TOWARD MISSION ROAD

2000 BLOCK ZONAL AV LOS ANGELES



1868 - 5 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/24/99
SE CORNER ZONAL AVENUE AND CUMMINGS STREET, HAZARD RESERVOIR

2050 BLOCK ZONAL AV LOS ANGELES

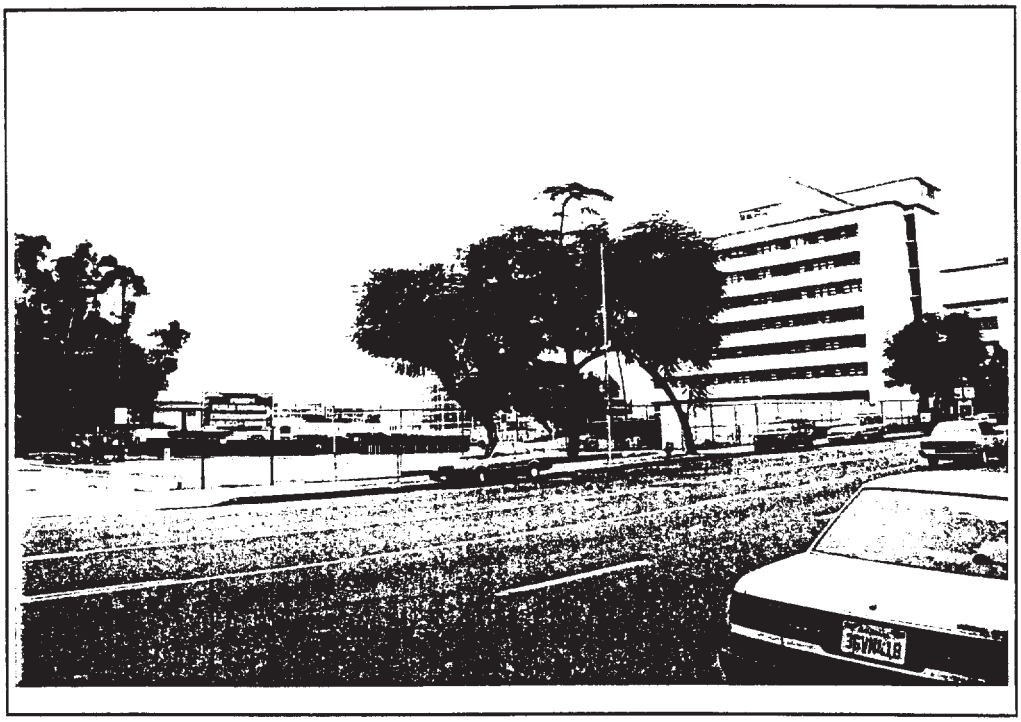


1868 - 1 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/24/99
INTERNS AND RESIDENTS BUILDING ENTRANCE

1200 N STATE ST LOS ANGELES

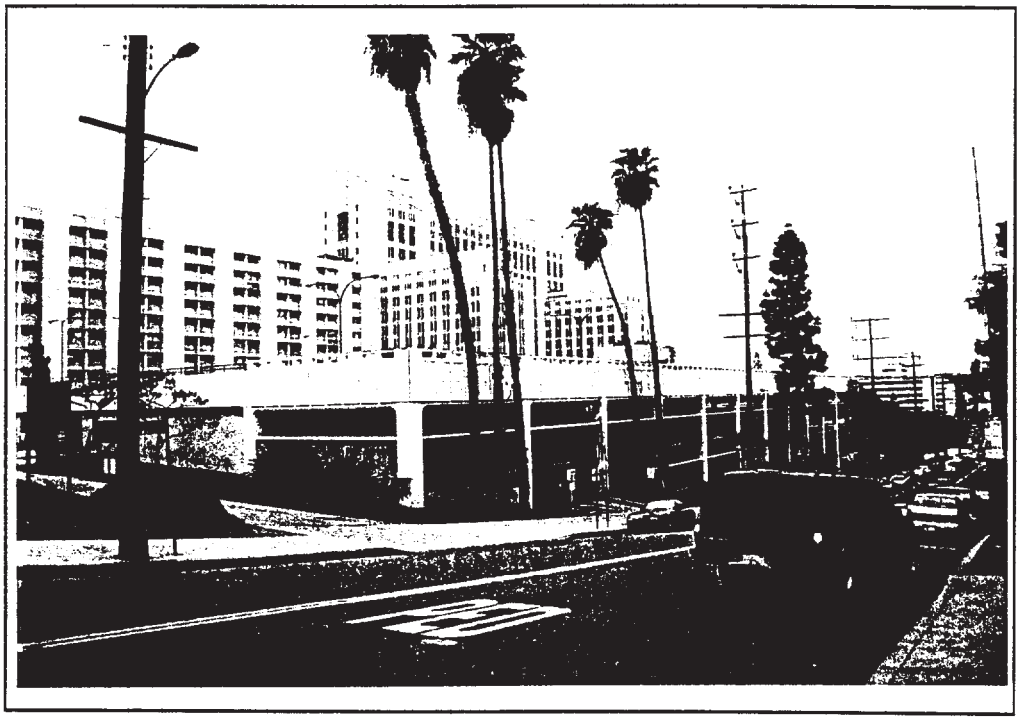
1868 - 2 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/24/99
INTERNS AND RESIDENTS BUILDING ENTRANCE AND PARKING STRUCTURE 12

1200 N STATE ST LOS ANGELES



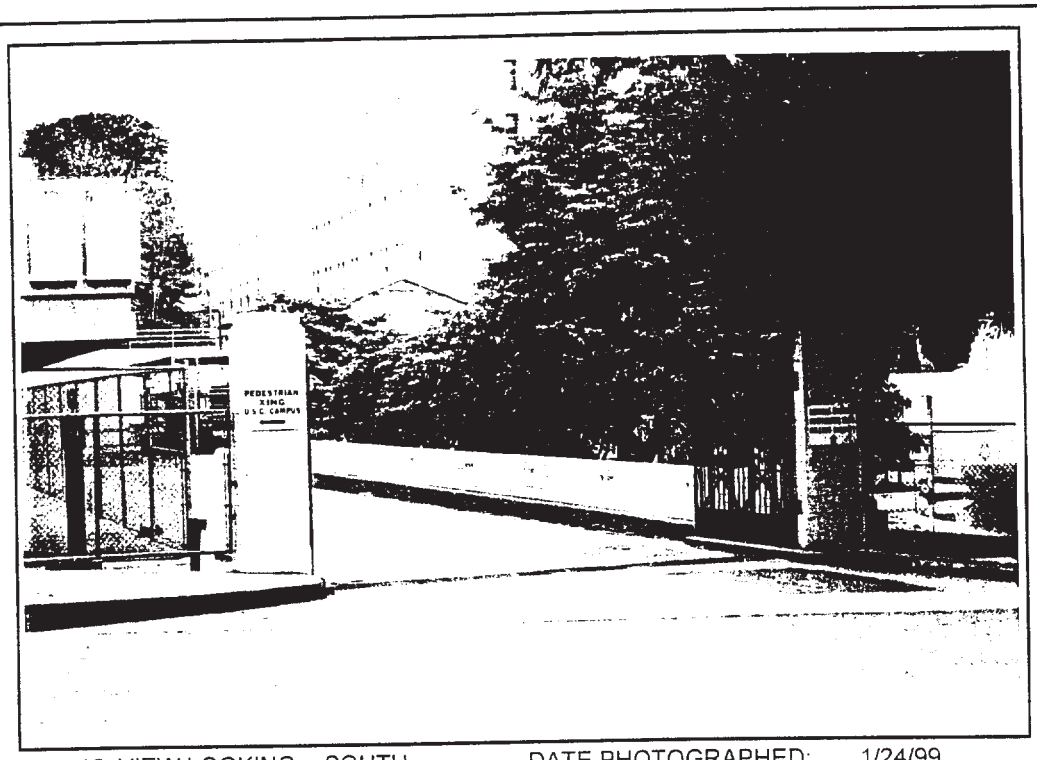
1868 - 22 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/24/99
CONTEXTUAL VIEW: VACANT PARKING LOT 8, WOMEN'S AND CHILDREN'S HOSPITAL

1700 BLOCK ZONAL AV LOS ANGELES



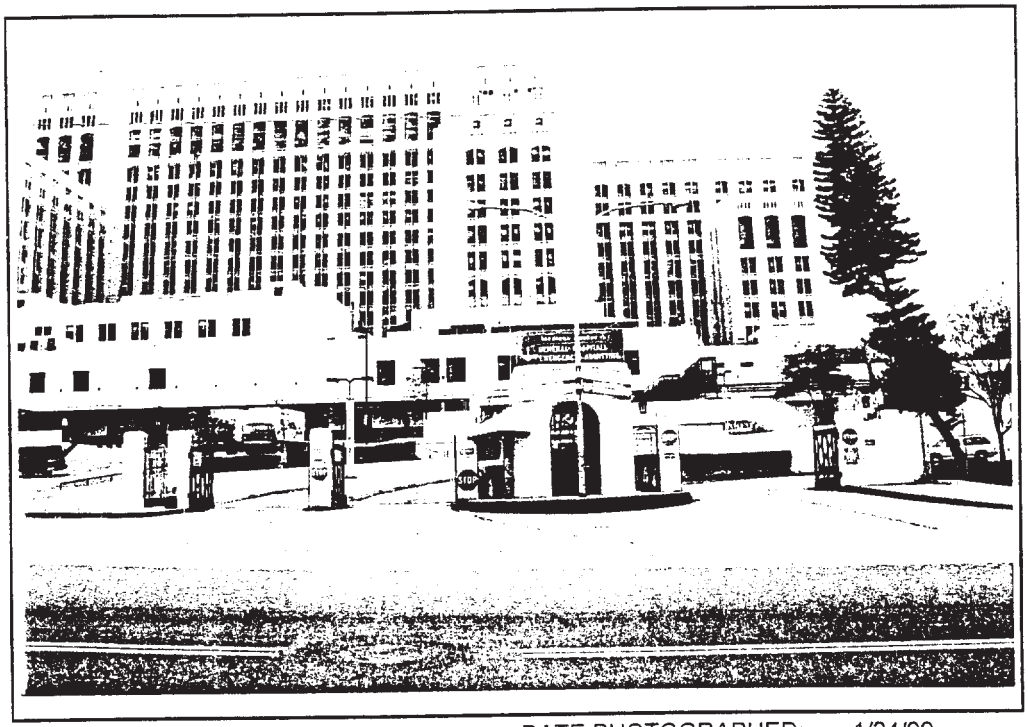
1868 - 4 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/24/99
CONTEXTUAL VIEW: ZONAL AVENUE, PARKING STRUCTURE 12, INTERNS AND RESIDENTS BUILDING

2000 BLOCK ZONAL AV LOS ANGELES



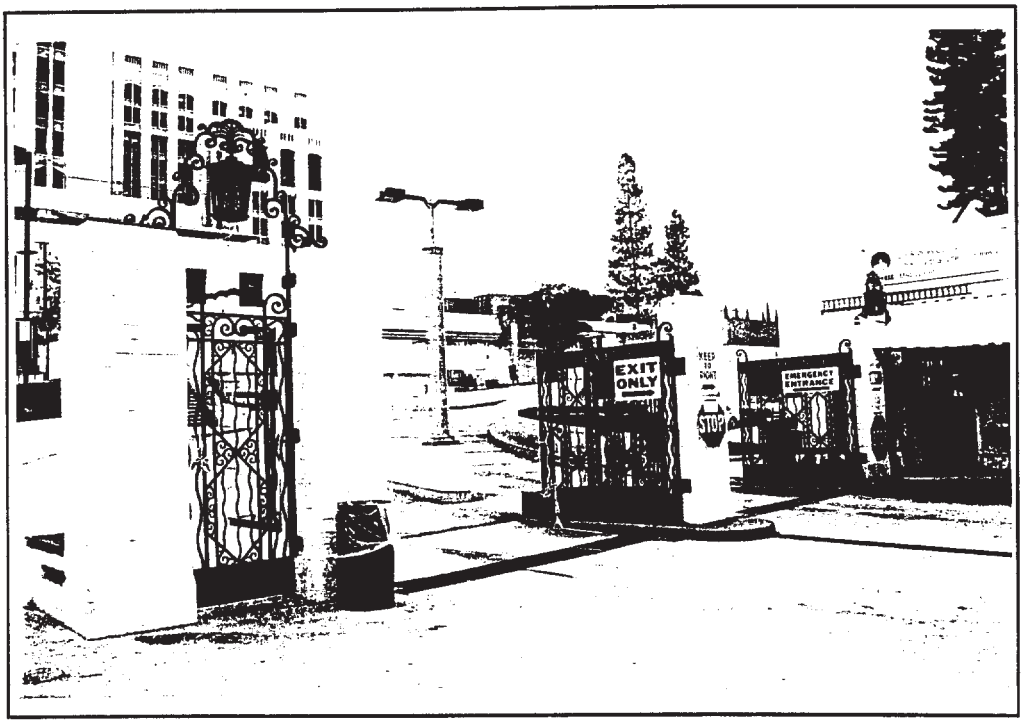
1868 - 12 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/24/99
GENERAL HOSPITAL: EAST ZONAL AVENUE GATEWAY

1200 N STATE ST LOS ANGELES



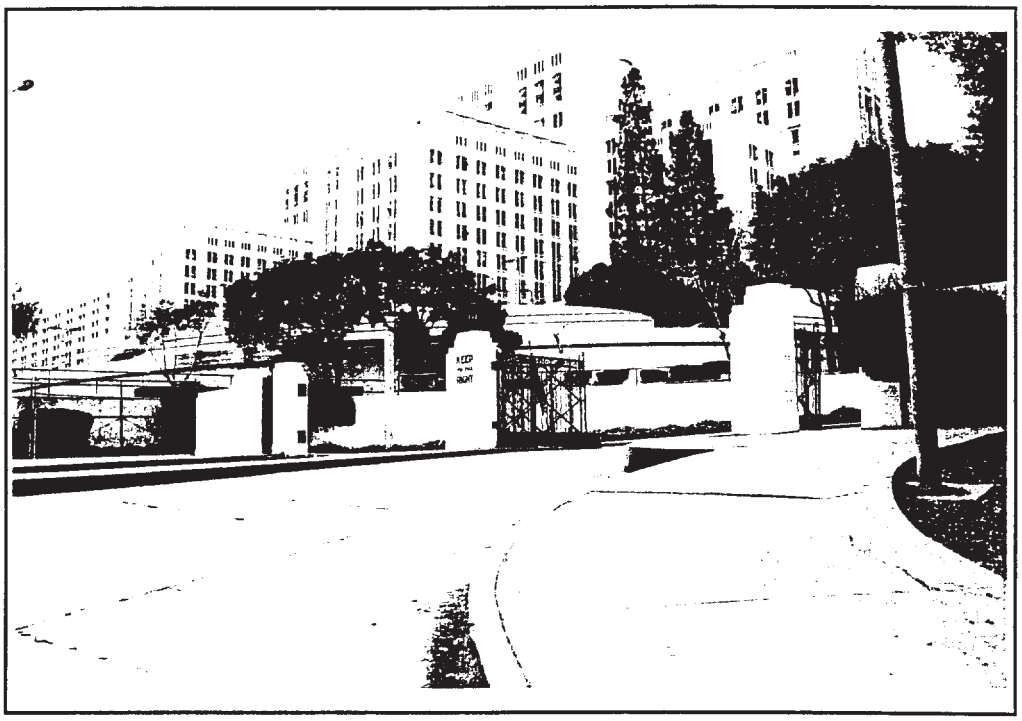
1868 - 13 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/24/99
GENERAL HOSPITAL: CENTRAL ZONAL AVENUE GATEWAY

1200 N STATE ST LOS ANGELES



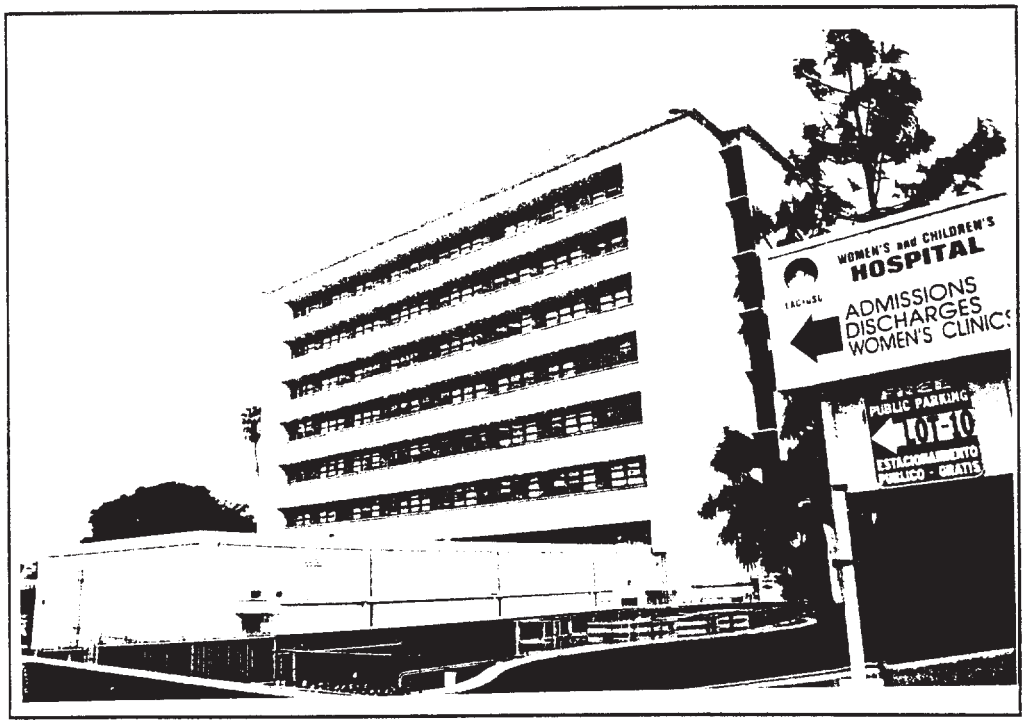
1868 - 14 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/24/99
GENERAL HOSPITAL: DETAIL CENTRAL ZONAL AVENUE GATEWAY

1200 N STATE ST LOS ANGELES



1868 - 21 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/24/99
GENERAL HOSPITAL: WEST ZONAL AVENUE GATEWAY

1200 N STATE ST LOS ANGELES

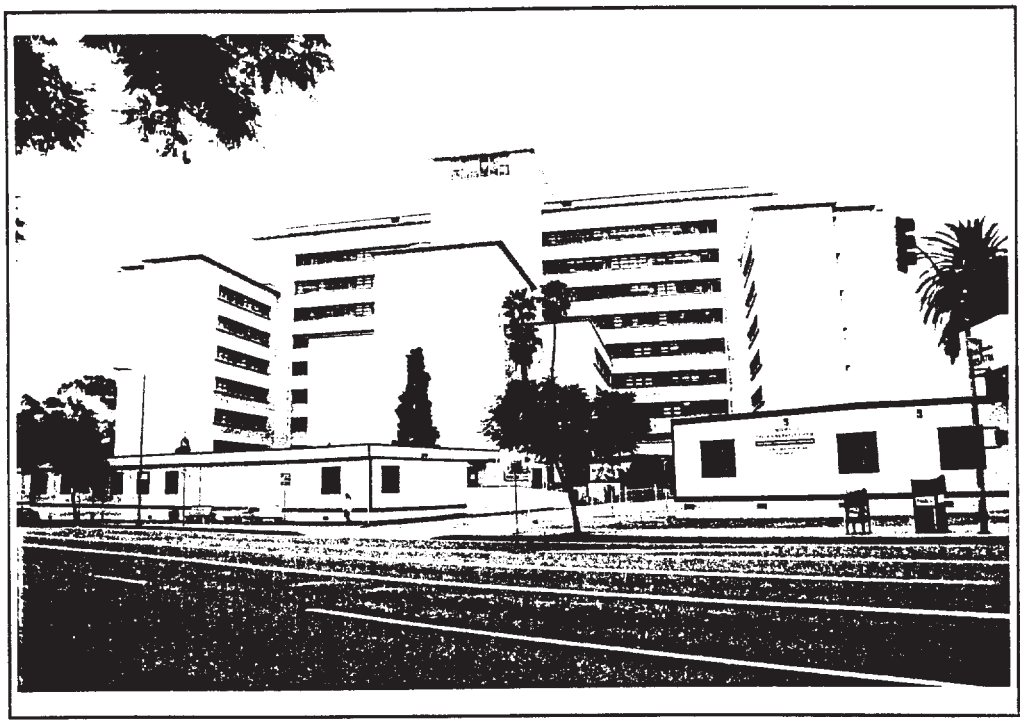


1868 - 23 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/24/99
WOMEN'S AND CHILDREN'S HOSPITAL

1200 N STATE ST LOS ANGELES

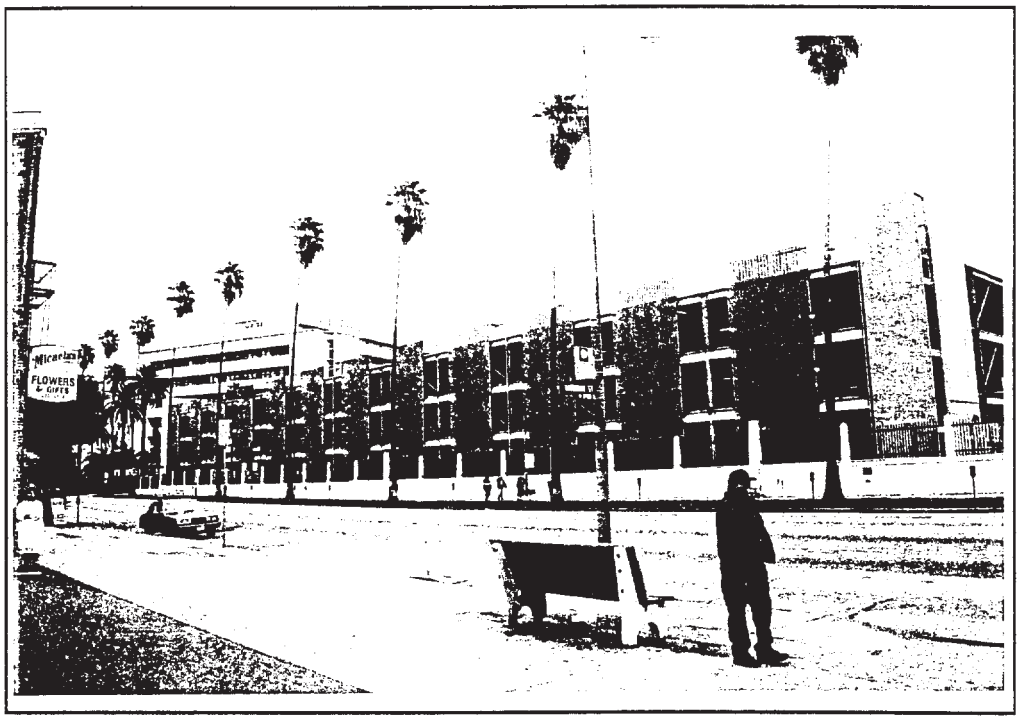
1868 - 24 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/24/99
CONTEXTUAL VIEW: VACANT LOT EAST OF WOMEN'S AND CHILDREN'S HOSPITAL

1200 N STATE ST LOS ANGELES



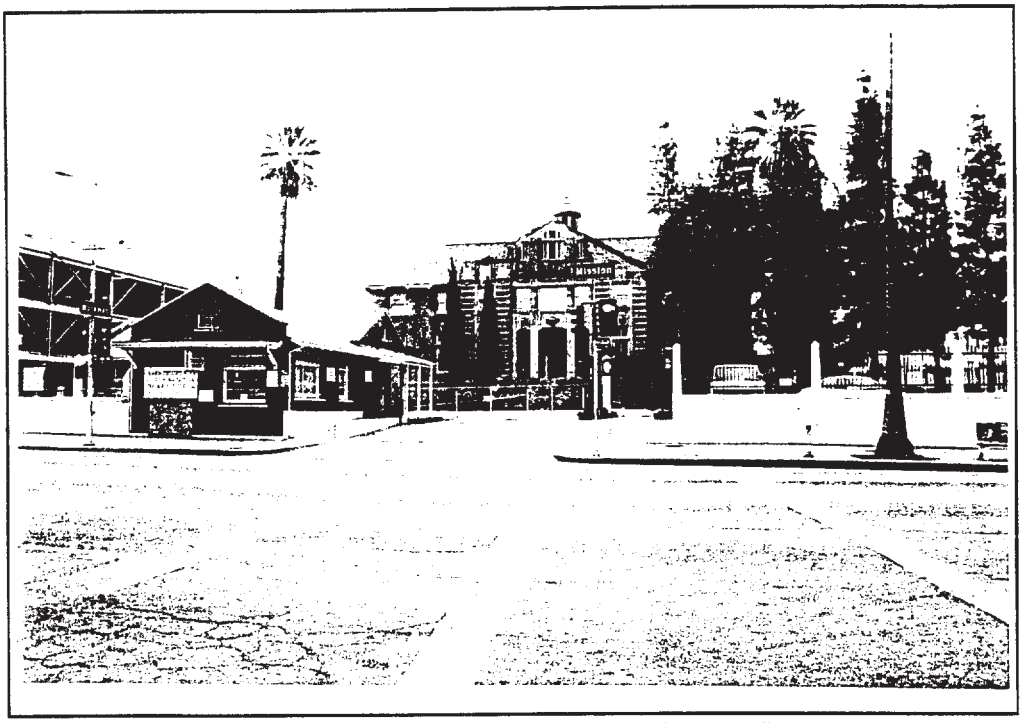
1868 - 28 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/24/99
WOMEN'S AND CHILDREN'S HOSPITAL AND ZONAL AVENUE

1200 N STATE ST LOS ANGELES



1868 - 33 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 1/24/99
PARKING STRUCTURE 10 AND MISSION ROAD AT SICHEL STREET

1200 N STATE ST LOS ANGELES



1868 - 35 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/24/99

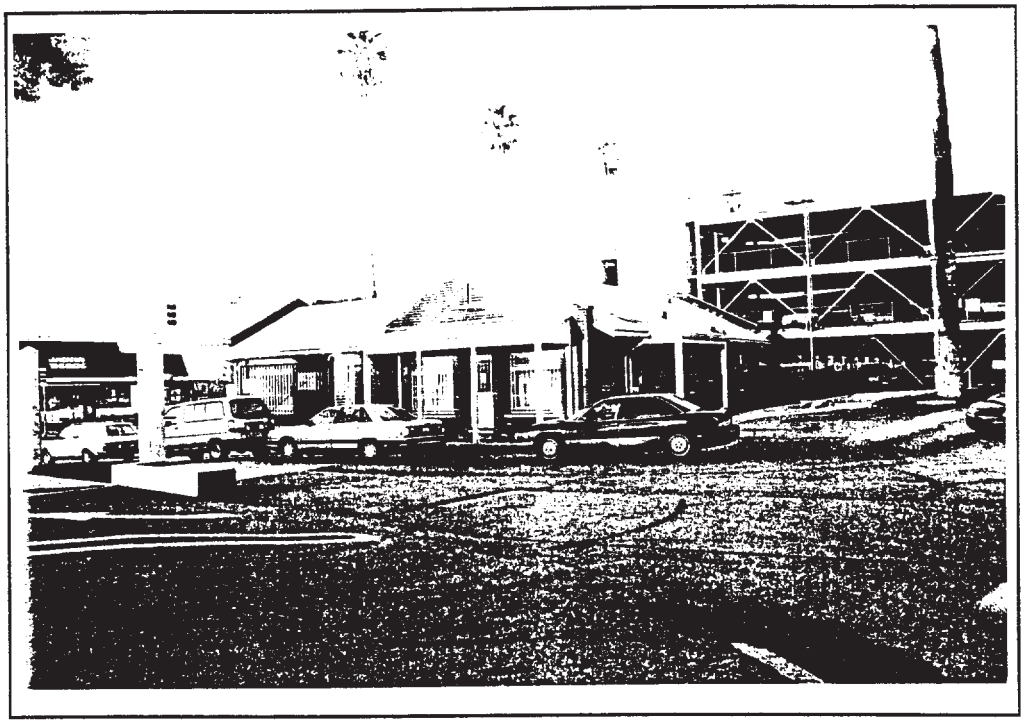
CONTEXTUAL VIEW: OLD ADMINISTRATION BUILDING AND PARKING STRUCTURE 10 ON MISSION ROAD AT WORKMAN STREET

1200 N STATE ST LOS ANGELES

1868 - 37 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/24/99

OLD ADMINISTRATION BUILDING

1200 N STATE ST LOS ANGELES

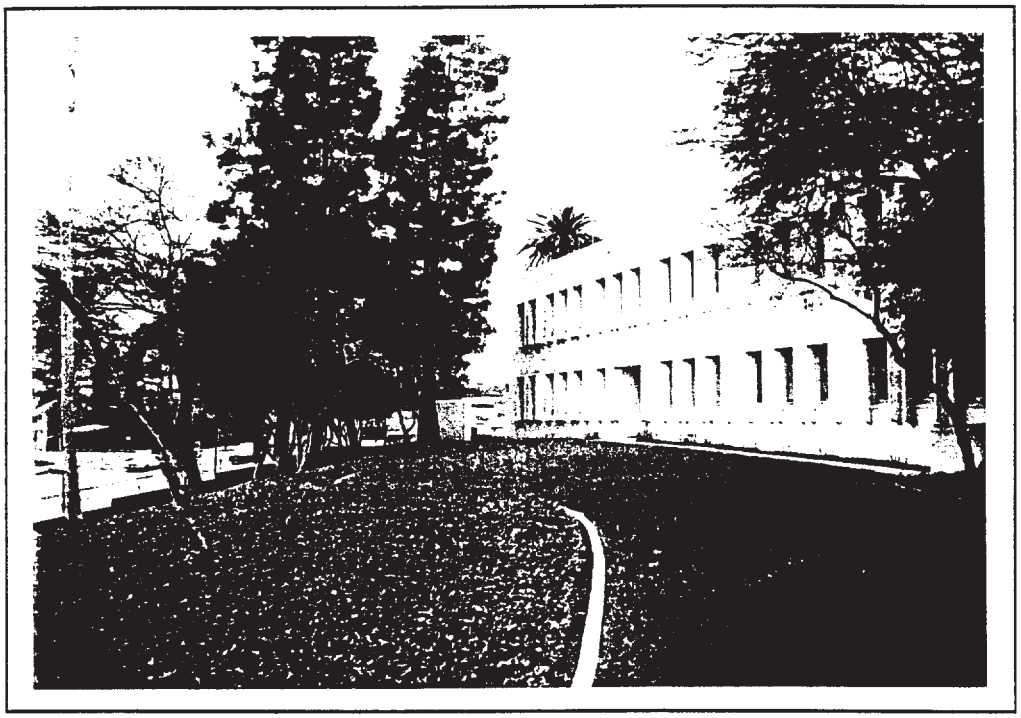


1867 - 36 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99
THRIFT SHOP AND PARKING STRUCTURE 10 ALONG MISSION ROAD

1200 N STATE ST LOS ANGELES

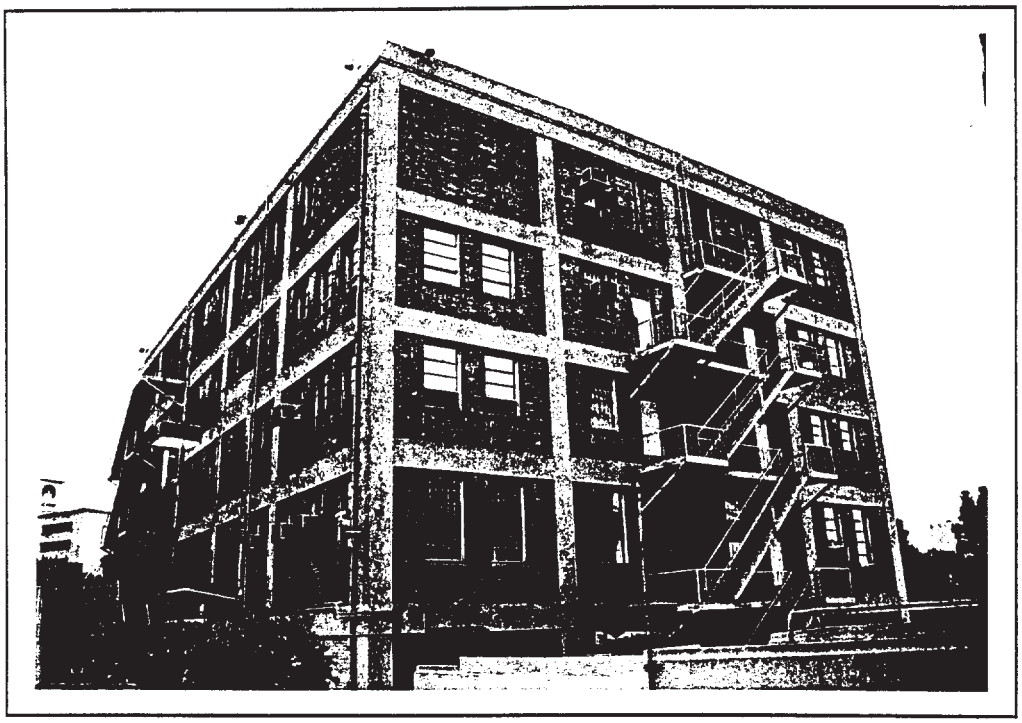
1869 - 5 VIEW LOOKING WEST DATE PHOTOGRAPHED: 1/25/99
OLD ADMINISTRATION BUILDING

1200 N STATE ST LOS ANGELES



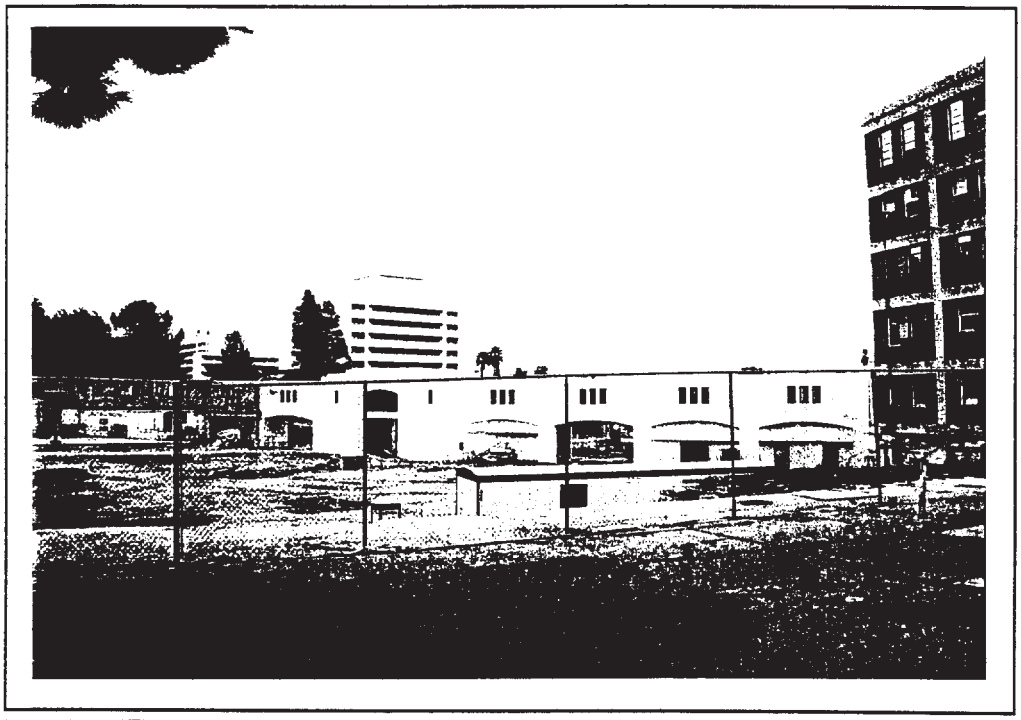
1869 - 6 VIEW LOOKING WEST DATE PHOTOGRAPHED: 1/25/99
CORONER'S BUILDING ALONG MARENGO STREET

1200 N STATE ST LOS ANGELES



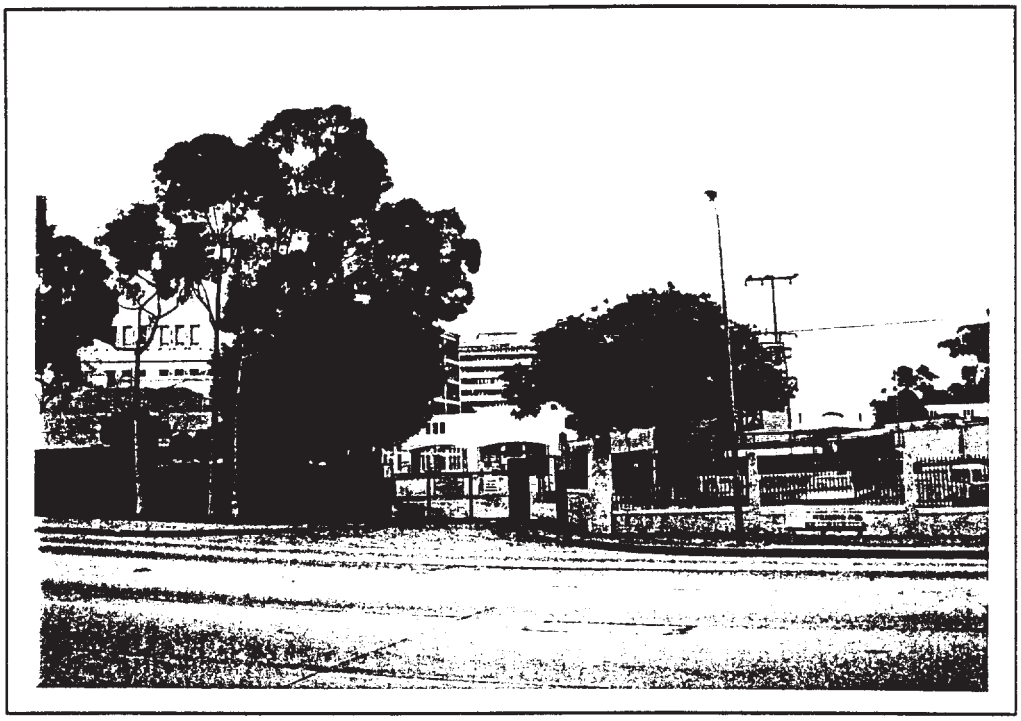
1869 - 4 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/25/99
PHARMACY BUILDING

1200 N STATE ST LOS ANGELES



1869 - 7 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99
SERVICE TUNNEL CONNECTING PHARMACY BUILDING

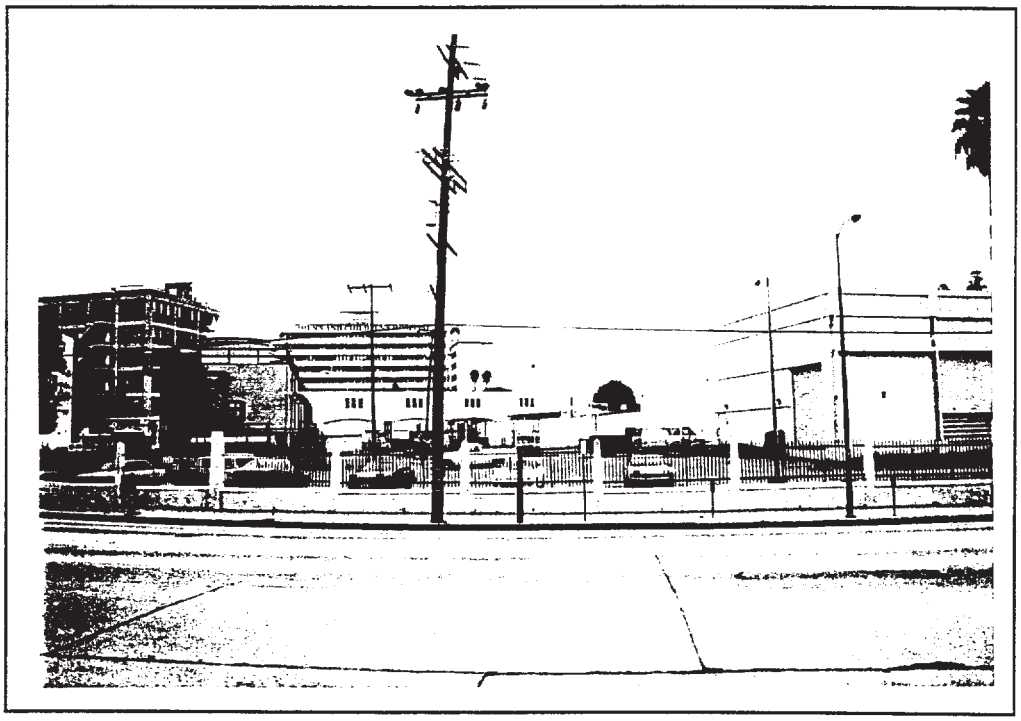
1200 N STATE ST LOS ANGELES



1869 - 8 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/25/99

CONTEXTUAL VIEW: STUCCO AND WROUGHT IRON WALL ALONG MARENGO STREET, SERVICE TUNNEL VISIBLE IN BACKGROUND

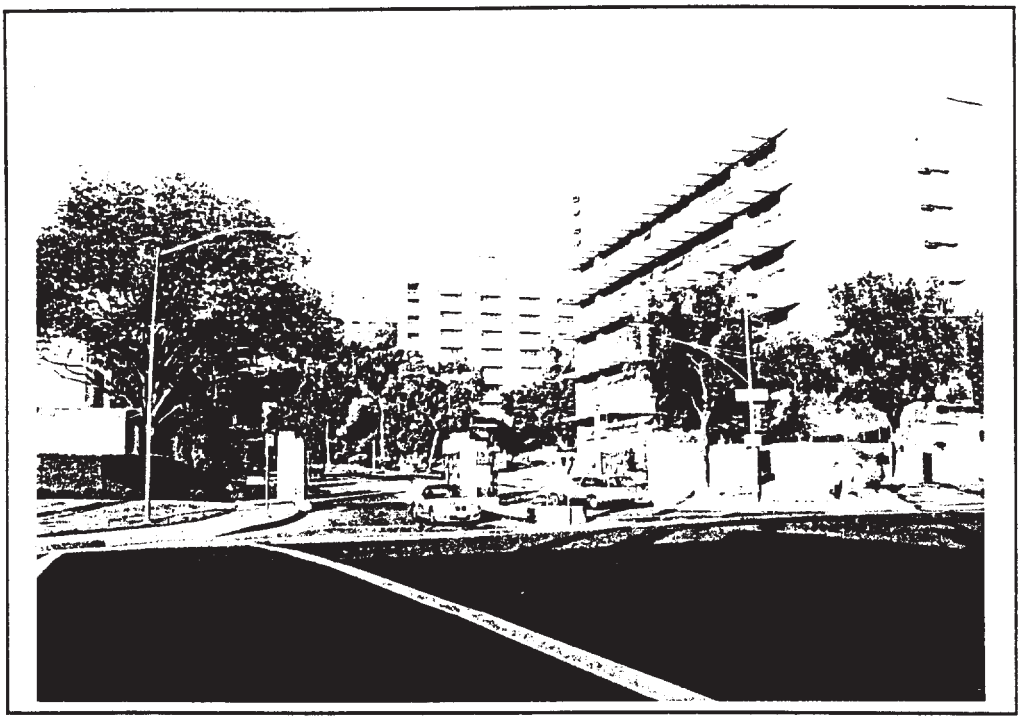
1200 N STATE ST LOS ANGELES



1869 - 9 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/25/99

STUCCO AND WROUGHT IRON WALL ALONG MARENGO STREET

1200 N STATE ST LOS ANGELES

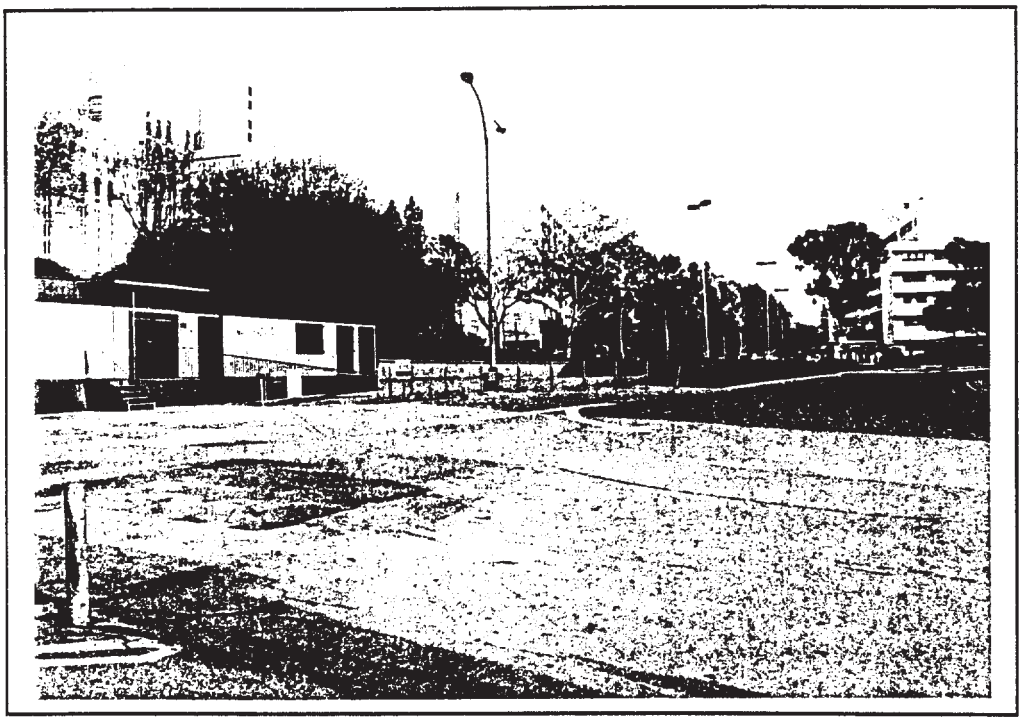


8468 - 11 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/6/98
MARENGO STREET GATEWAY WITH PSYCHIATRIC HOSPITAL

1200 N STATE ST LOS ANGELES

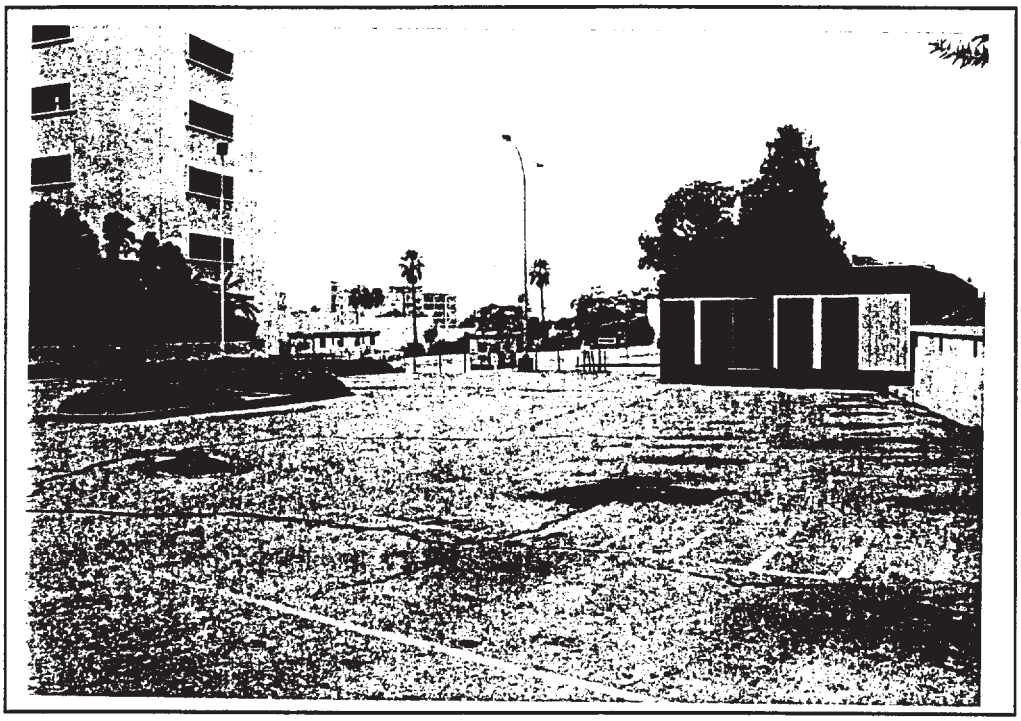
8468 - 12 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98
PEDIATRICS PAVILION

1200 N STATE ST LOS ANGELES



8467 - 11 VIEW LOOKING EAST DATE PHOTOGRAPHED: 11/29/98
PARKING LOT NORTH OF PEDIATRIC PAVILION

1200 N STATE ST LOS ANGELES

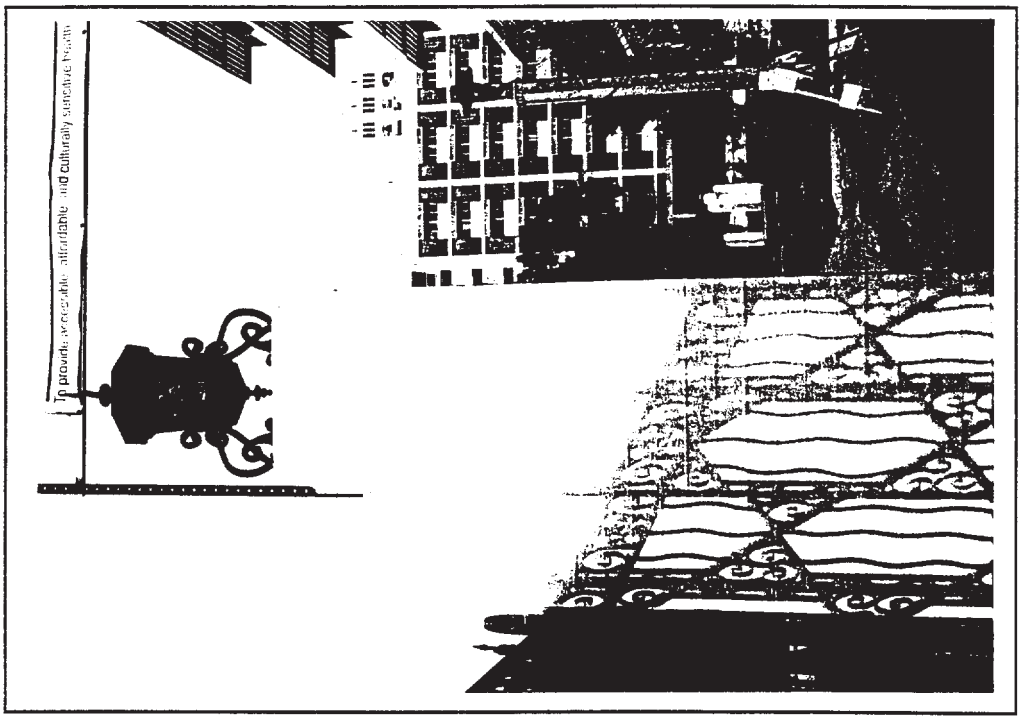


8467 - 12 VIEW LOOKING WEST DATE PHOTOGRAPHED: 11/29/98
PARKING LOT NORTH OF PEDIATRIC PAVILION

1200 N STATE ST LOS ANGELES

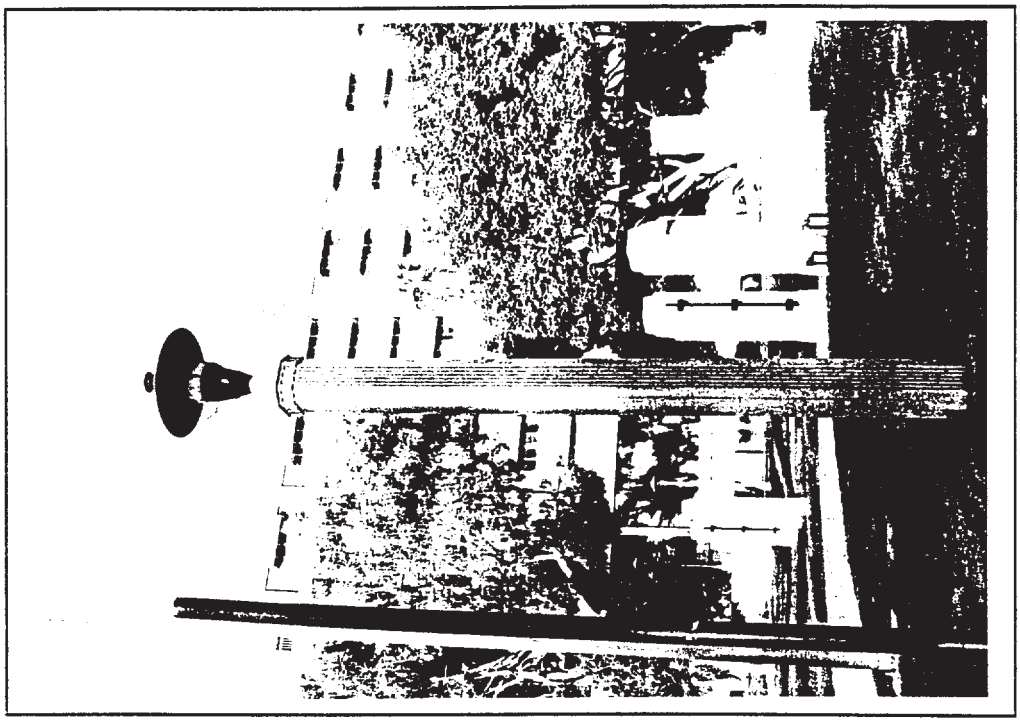
8467 - 8 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/29/98
DETAIL: MARENGO STREET GATEWAY

1200 N STATE ST LOS ANGELES



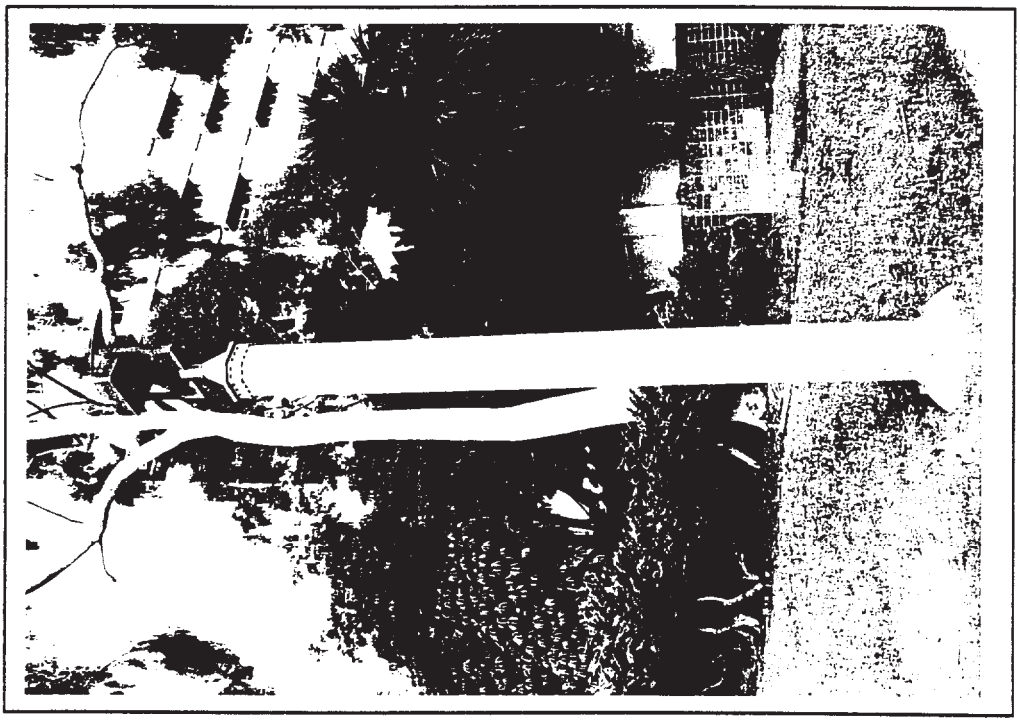
8467 - 9 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/29/98
DETAIL: MARENGO STREET GATEWAY

1200 N STATE ST LOS ANGELES



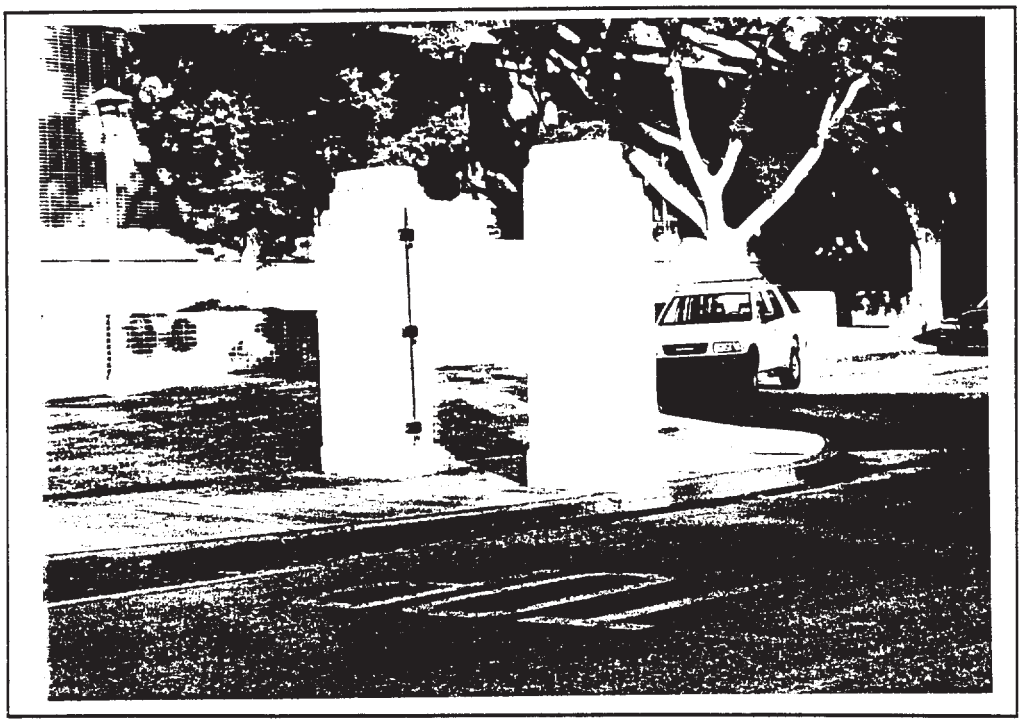
8468 - 10 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 6/11/98
HOSPITAL PLACE GATEPOSTS WITH LAMPPOST

1200 N STATE ST LOS ANGELES



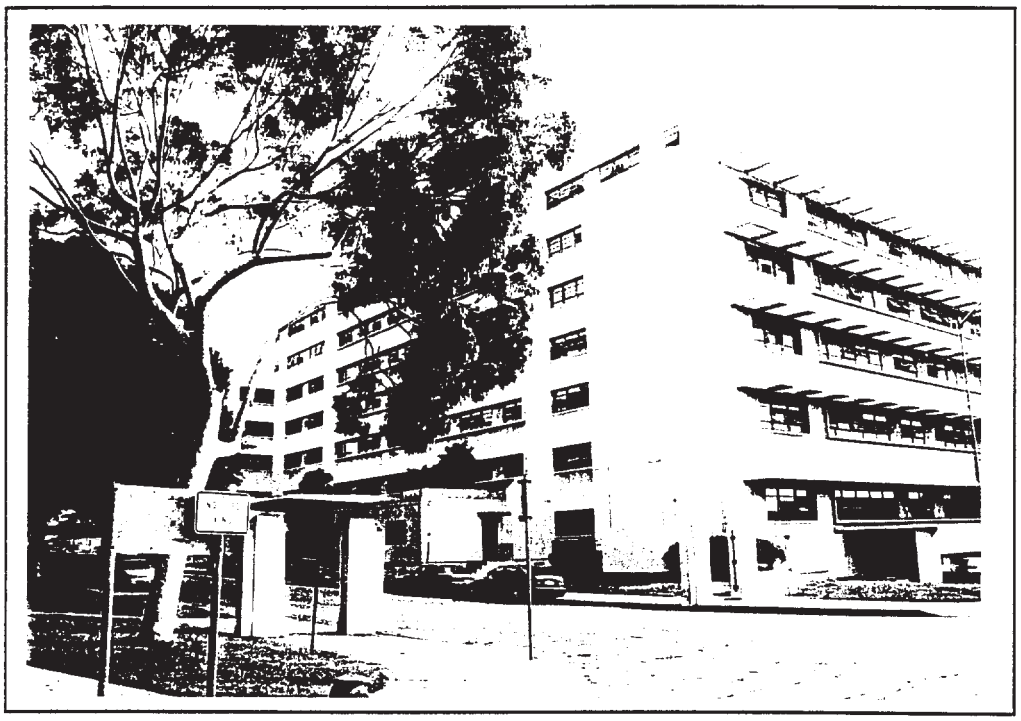
8467 - 36 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/29/98
STATE STREET LAMPPOST

1200 N STATE ST LOS ANGELES



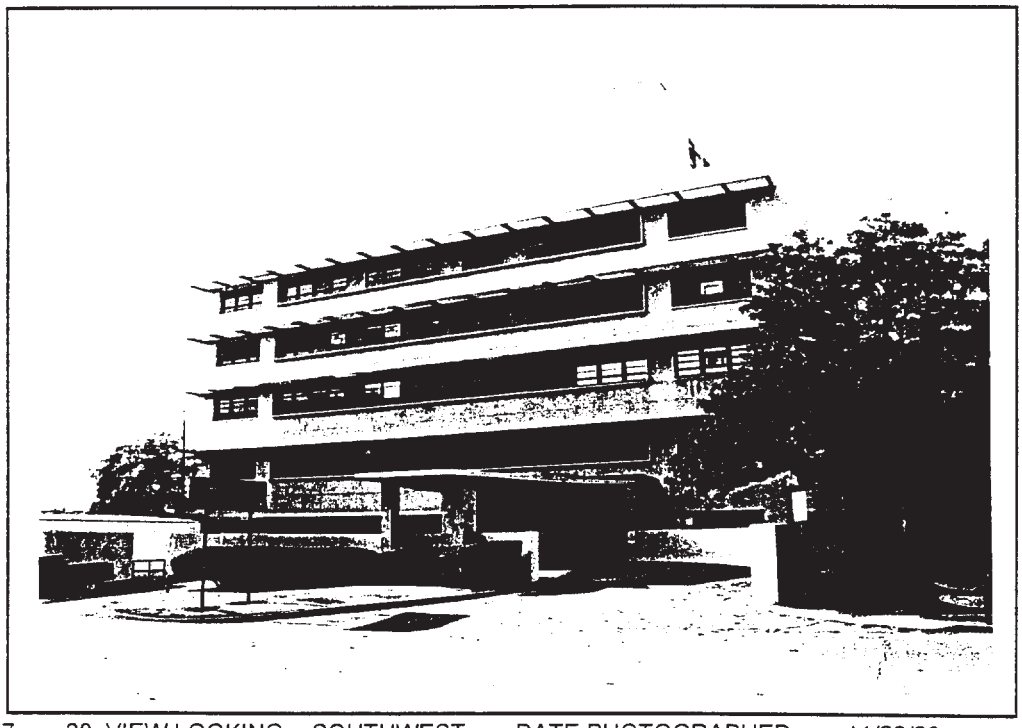
8468 - 9 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 6/11/98
DETAIL: HOSPITAL PLACE GATEPOSTS

1200 N STATE ST LOS ANGELES



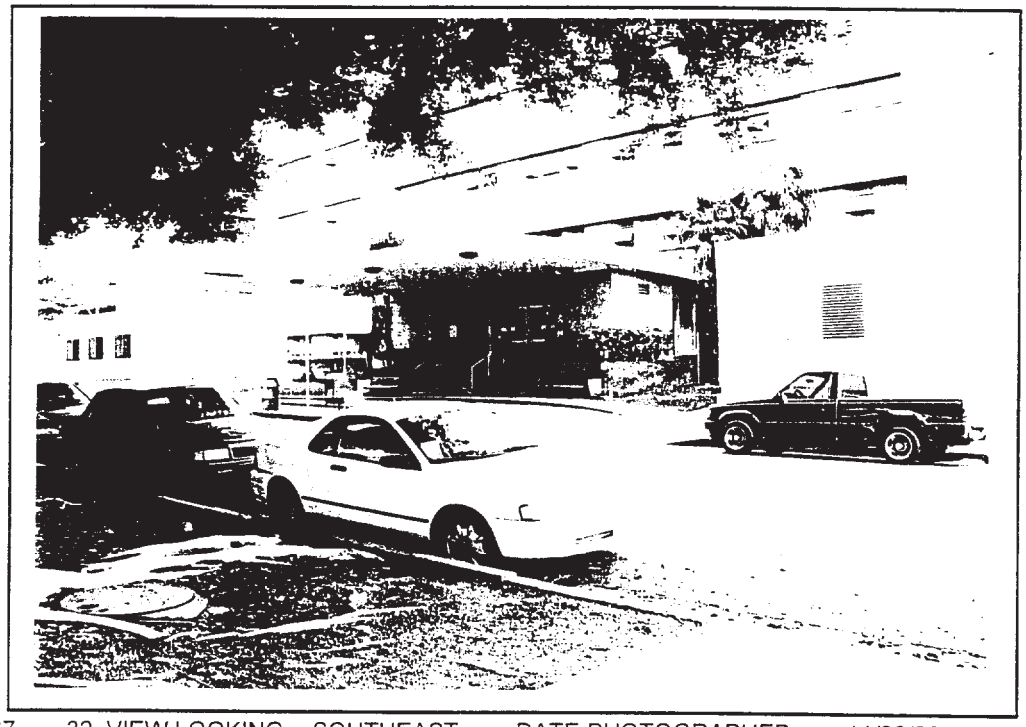
8467 - 33 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/29/98
HOSPITAL PLACE GATEPOSTS

1200 N STATE ST LOS ANGELES



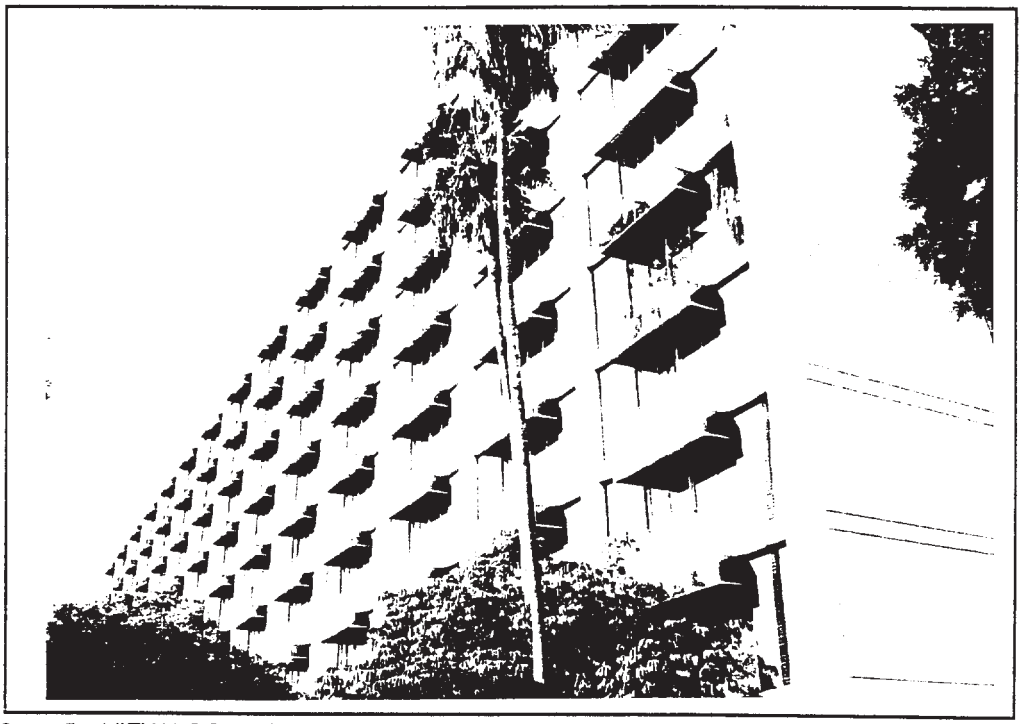
8467 - 28 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 11/29/98
PSYCHIATRIC HOSPITAL

1200 N STATE ST LOS ANGELES



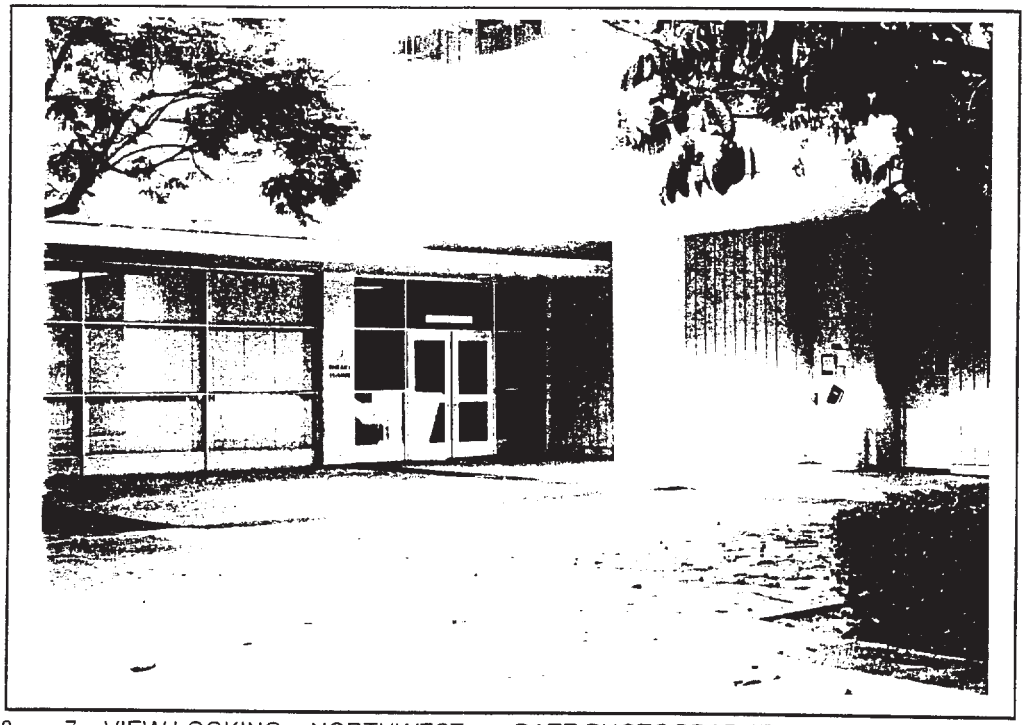
8467 - 32 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/29/98
DETAIL: PSYCHIATRIC HOSPITAL ENTRANCE

1200 N STATE ST LOS ANGELES



8468 - 5 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 6/11/98
DETAIL: MUIR HALL

1200 N STATE ST LOS ANGELES

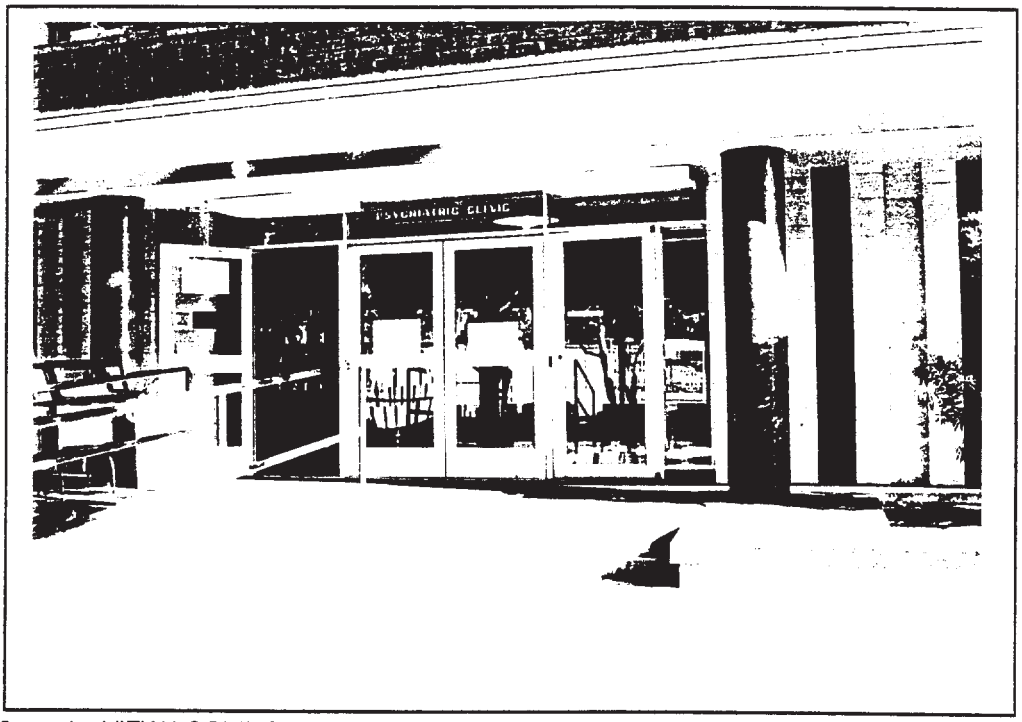


8468 - 7 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 6/11/98
DETAIL: MUIR HALL ENTRANCE

1200 N STATE ST LOS ANGELES

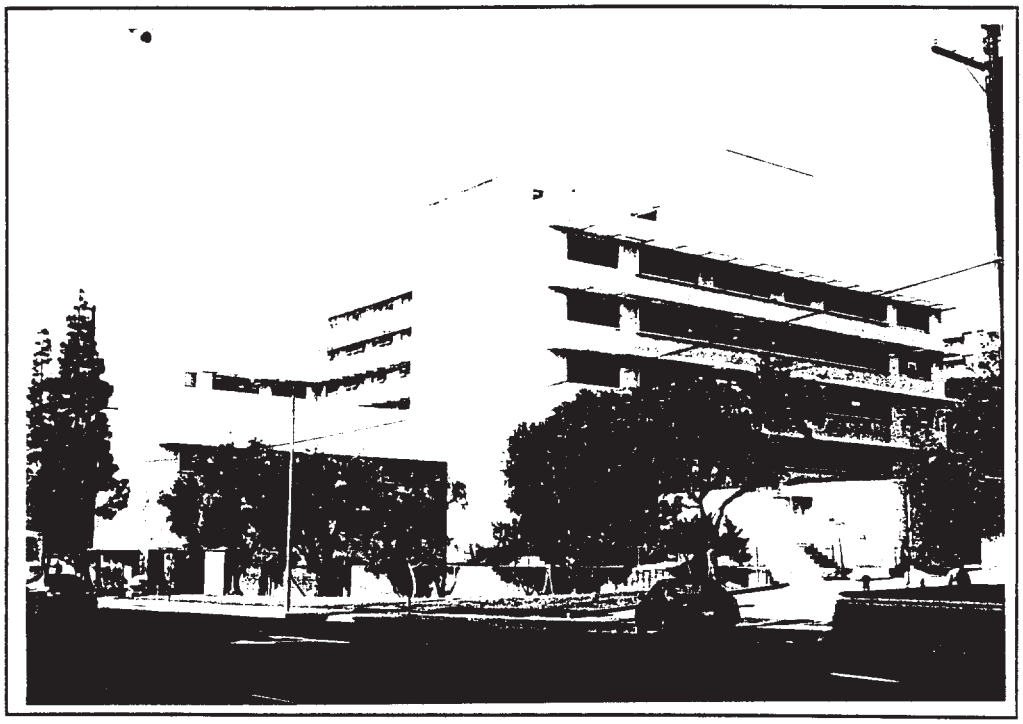
8468 - 2 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 6/11/98
GRADUATE HALL

1200 N STATE ST LOS ANGELES



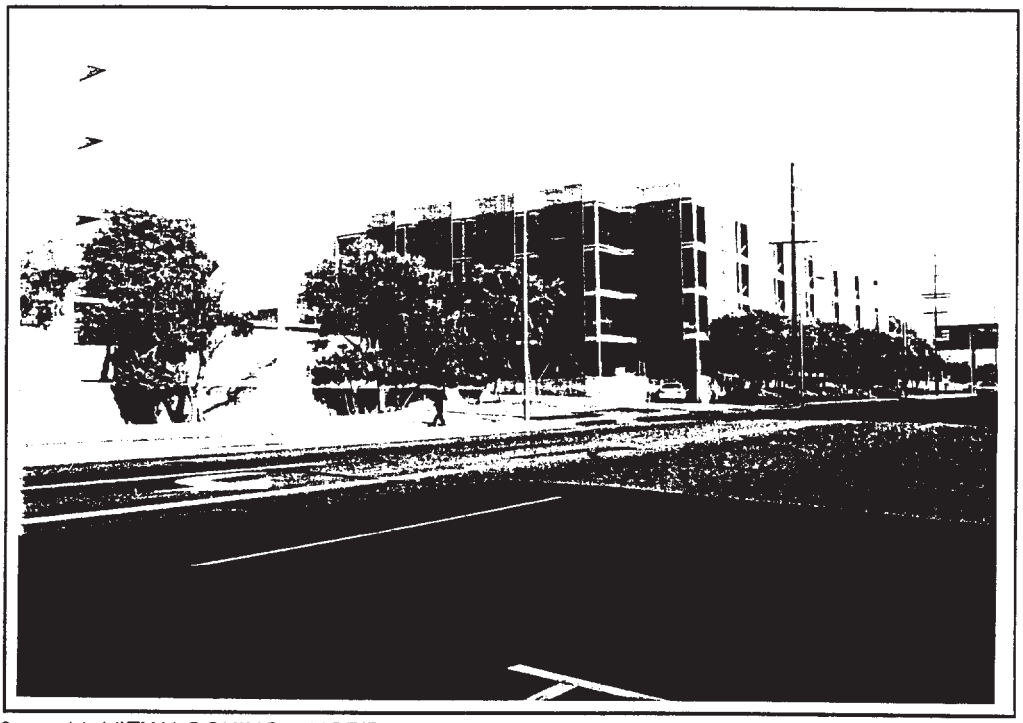
8468 - 4 VIEW LOOKING EAST DATE PHOTOGRAPHED: 6/11/98
DETAIL: GRADUATE HALL ENTRANCE

1200 N STATE ST LOS ANGELES



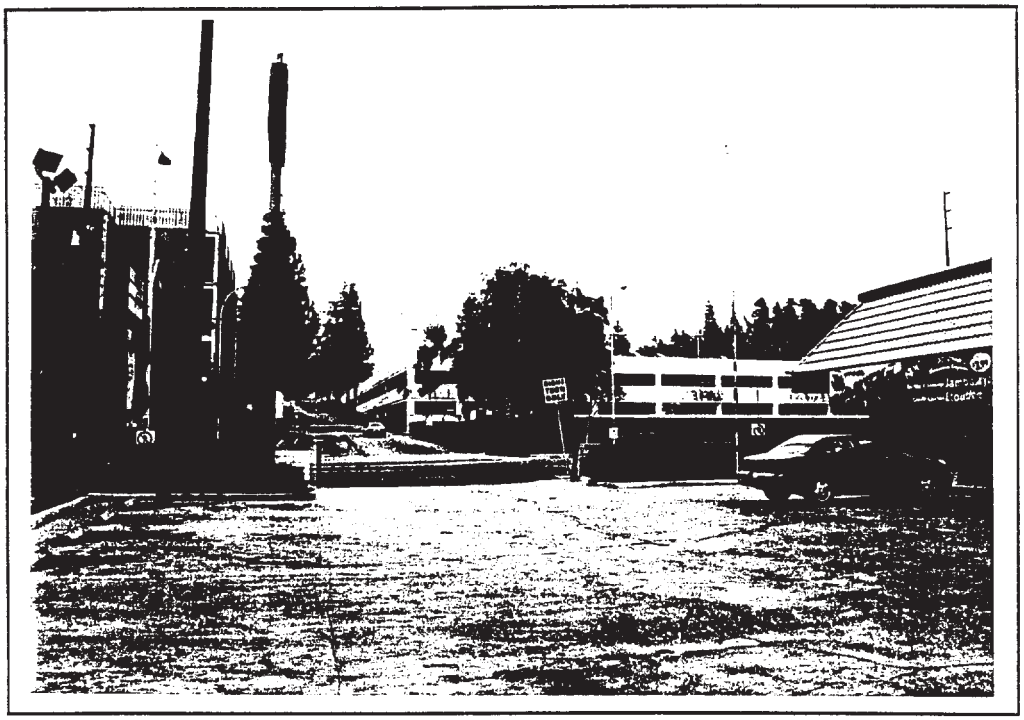
8466 - 7 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98
PSYCHIATRIC HOSPITAL

1200 N STATE ST LOS ANGELES



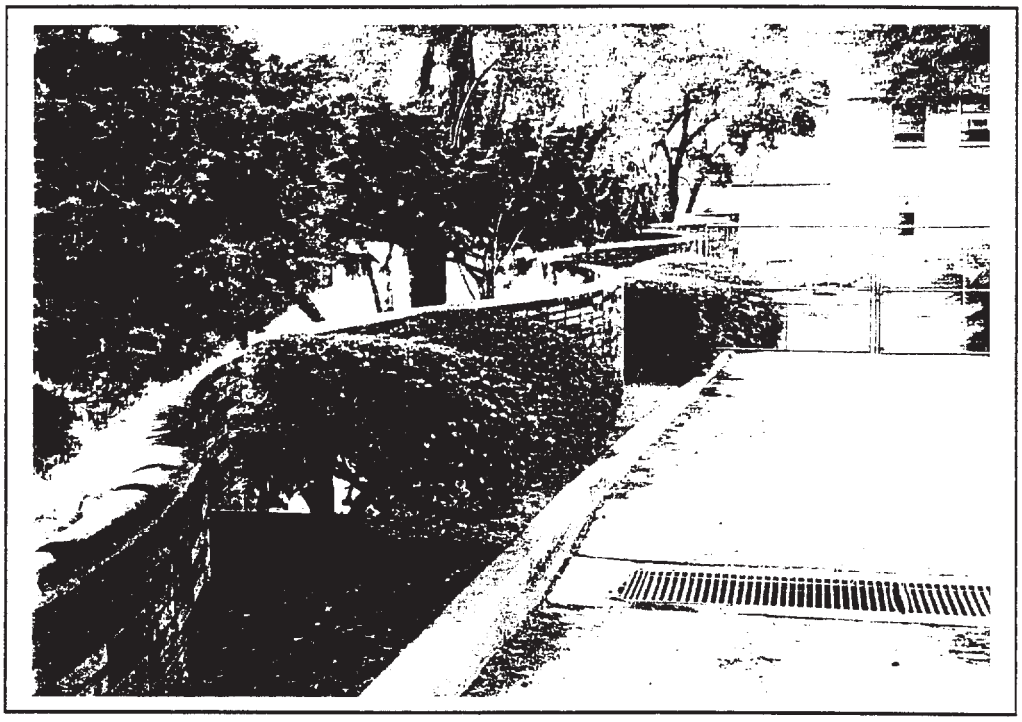
8466 - 11 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 11/6/98
PSYCHIATRIC HOSPITAL AND PARKING STRUCTURE 6

1200 N STATE ST LOS ANGELES



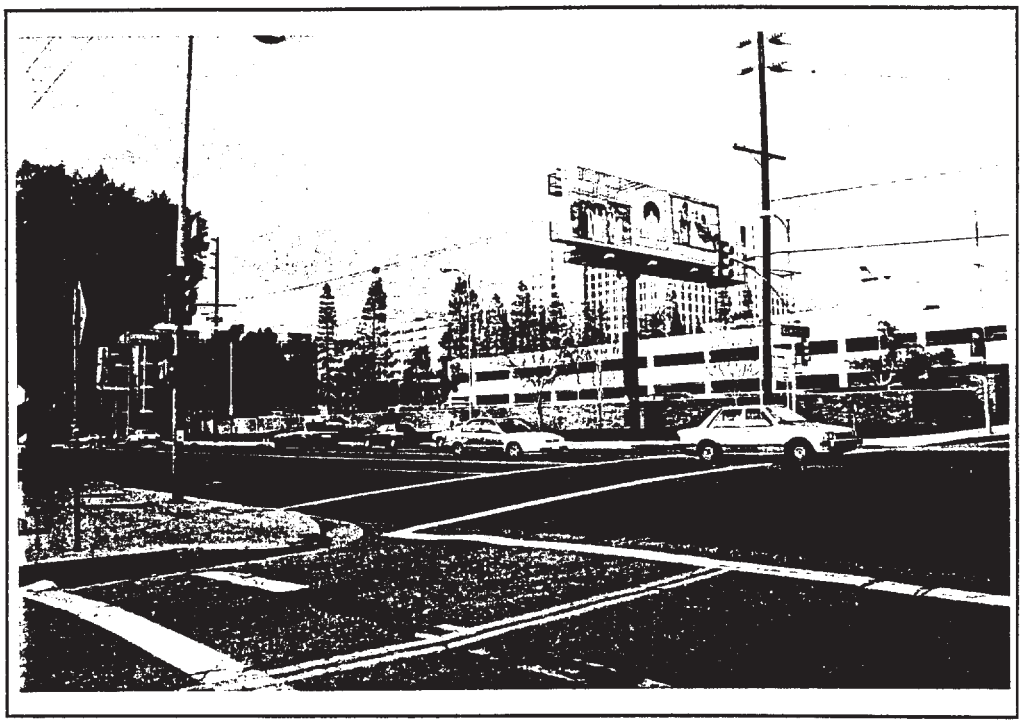
8467 - 4 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 11/29/98
PARKING STRUCTURES 6 AND 11 AT MARENGO AND BRITTANIA STREETS

1200 N STATE ST LOS ANGELES



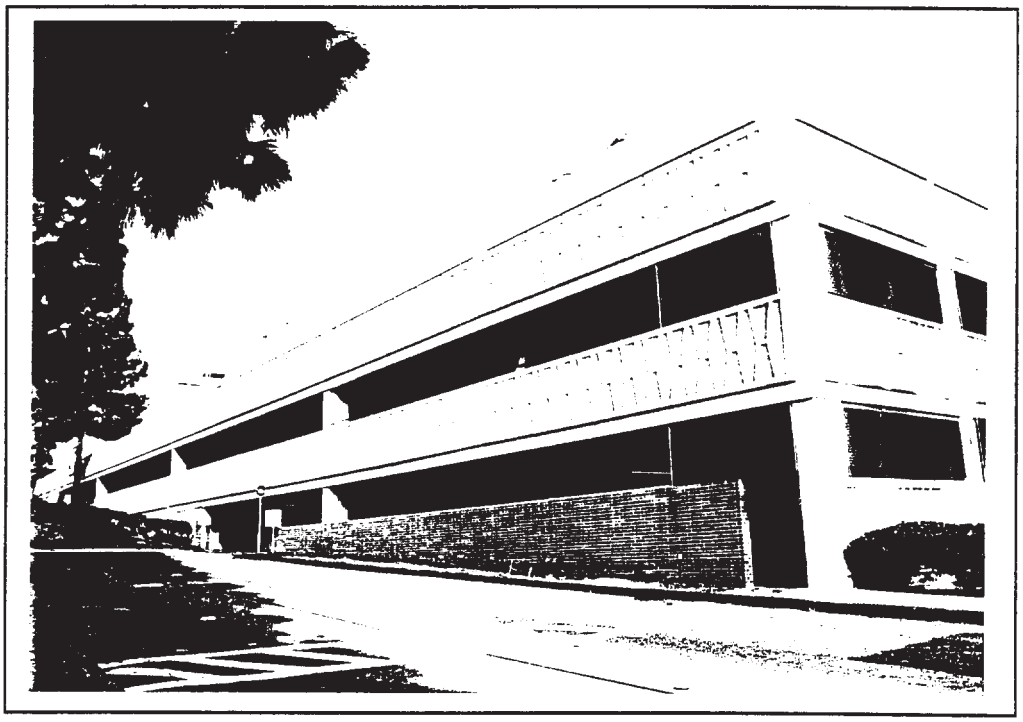
8467 - 7 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/29/98
SERPENTINE GARDEN WALL

1200 N STATE ST LOS ANGELES



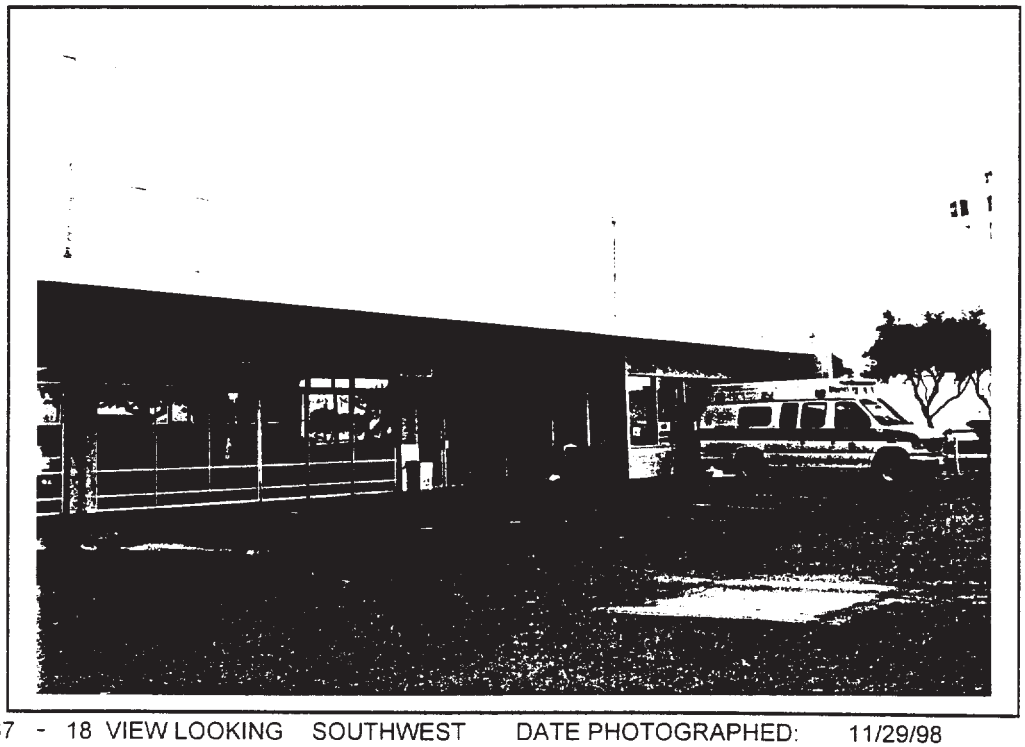
1866 - 31 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99
CONTEXTUAL VIEW: MARENGO AND CUMMINGS STREETS WITH PARKING STRUCTURE 11

2050 BLOCK MARENGO ST LOS ANGELES



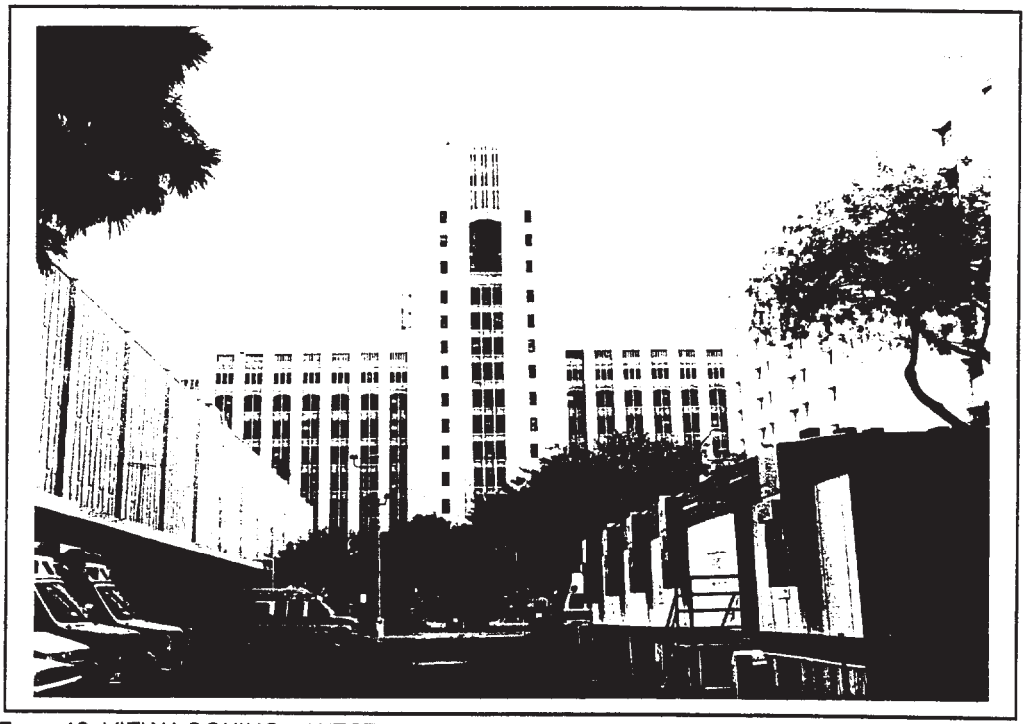
8467 - 27 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/29/98
PARKING STRUCTURE 11

1200 N STATE ST LOS ANGELES



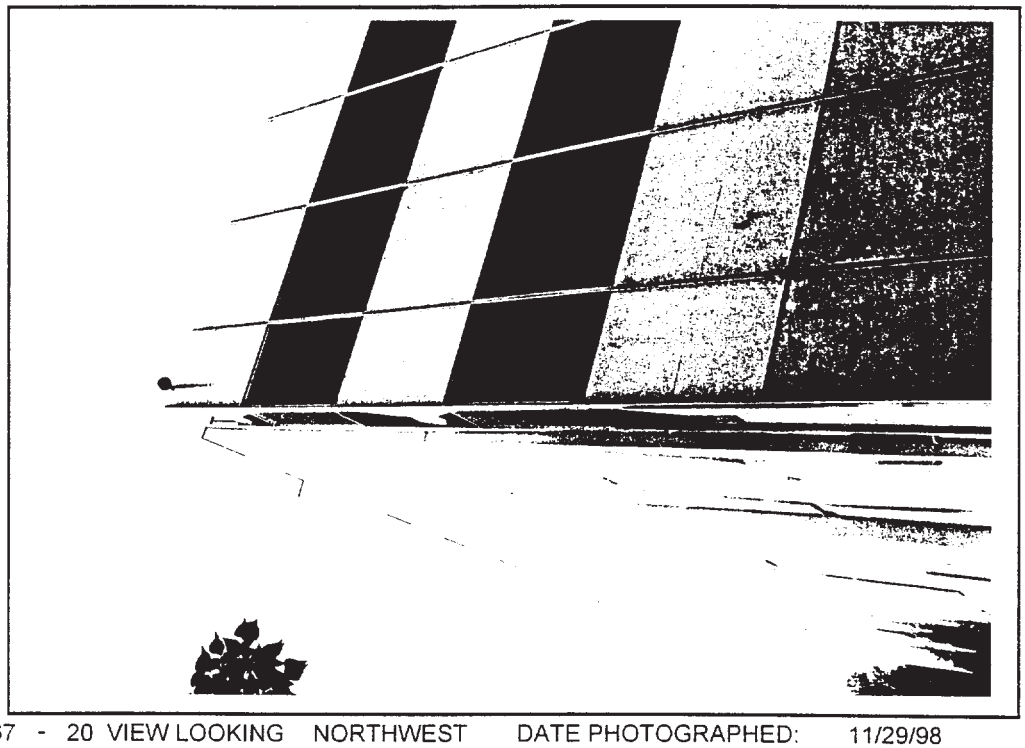
8467 - 18 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 11/29/98
OUTPATIENT CLINIC, AMBULANCE ENTRANCE

1200 N STATE ST LOS ANGELES



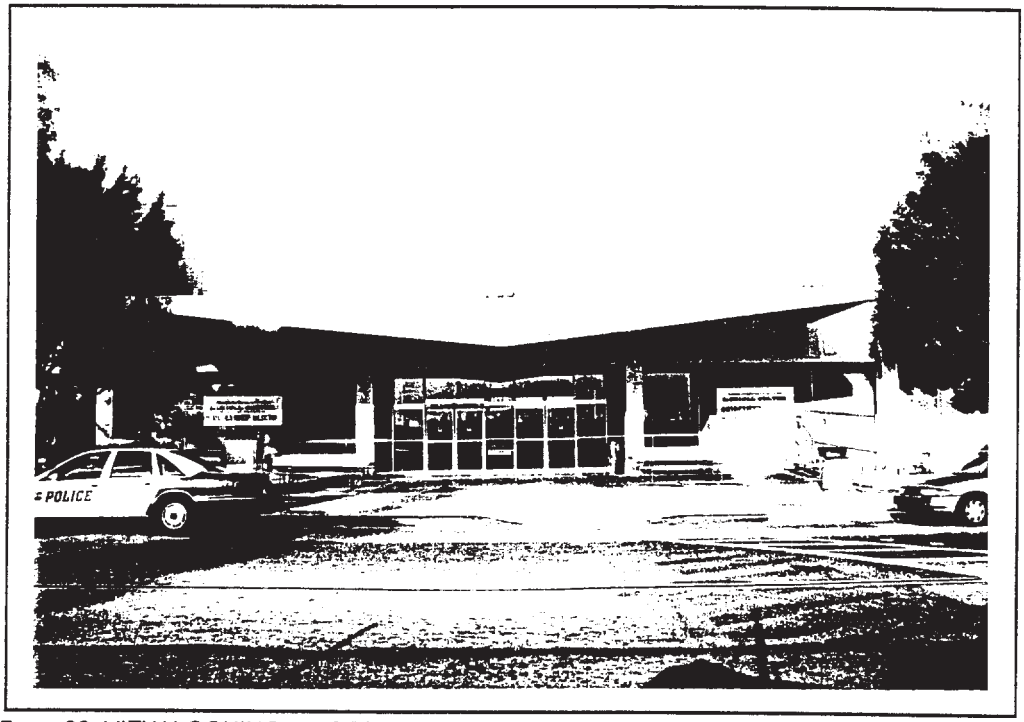
8467 - 19 VIEW LOOKING WEST DATE PHOTOGRAPHED: 11/29/98
OUTPATIENT CLINIC, AMBULANCE ENTRANCE

1200 N STATE ST LOS ANGELES



8467 - 20 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/29/98
DETAIL: OUTPATIENT CLINIC

1200 N STATE ST LOS ANGELES



8467 - 22 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 11/29/98
DETAIL: OUTPATIENT CLINIC ENTRANCE

1200 N STATE ST LOS ANGELES

8468 - 29 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 6/11/98
SHOPPING CENTER

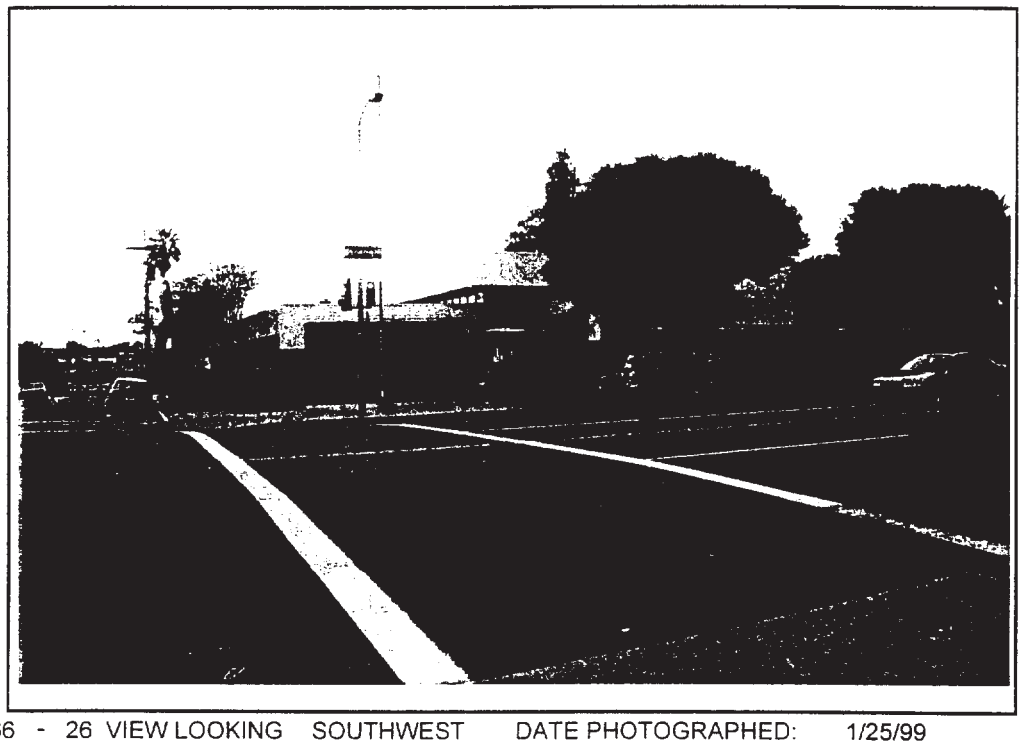
2057-2067 MARENGO ST LOS ANGELES

8467 - 6 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/29/98
BURGER KING RESTAURANT

2033-2055 MARENGO ST LOS ANGELES

1866 - 32 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99
SHOPPING CENTER CORNER MARENGO AND BRITTANIA STREETS

2000 N MARENGO ST LOS ANGELES

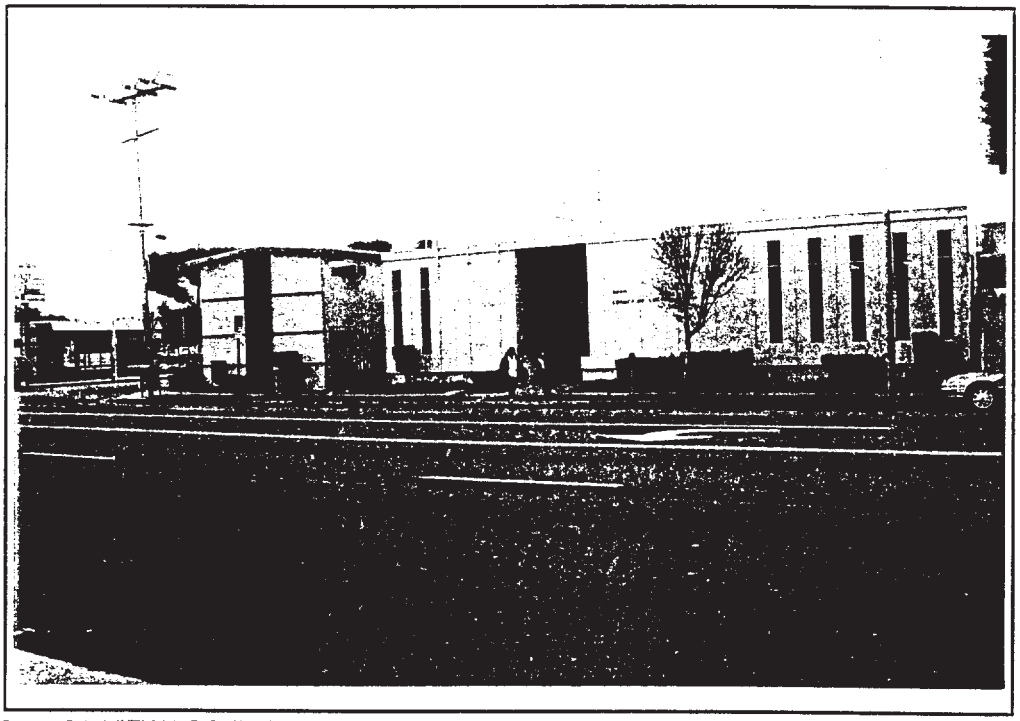


1866 - 26 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/25/99
NORTHEAST DISTRICT HEALTH CENTER

2032 MARENGO ST LOS ANGELES

1866 - 25 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/25/99

2050 / 2040 MARENGO ST LOS ANGELES

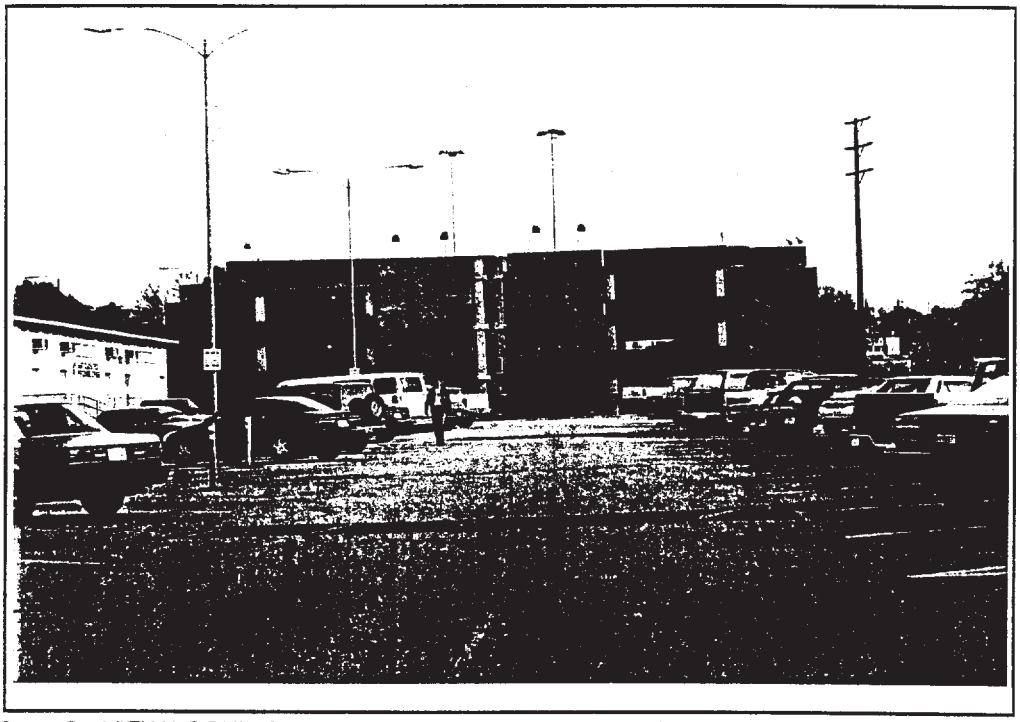


1866 - 24 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99
LOS ANGELES COUNTY OFFICES

2064 MARENGO ST LOS ANGELES

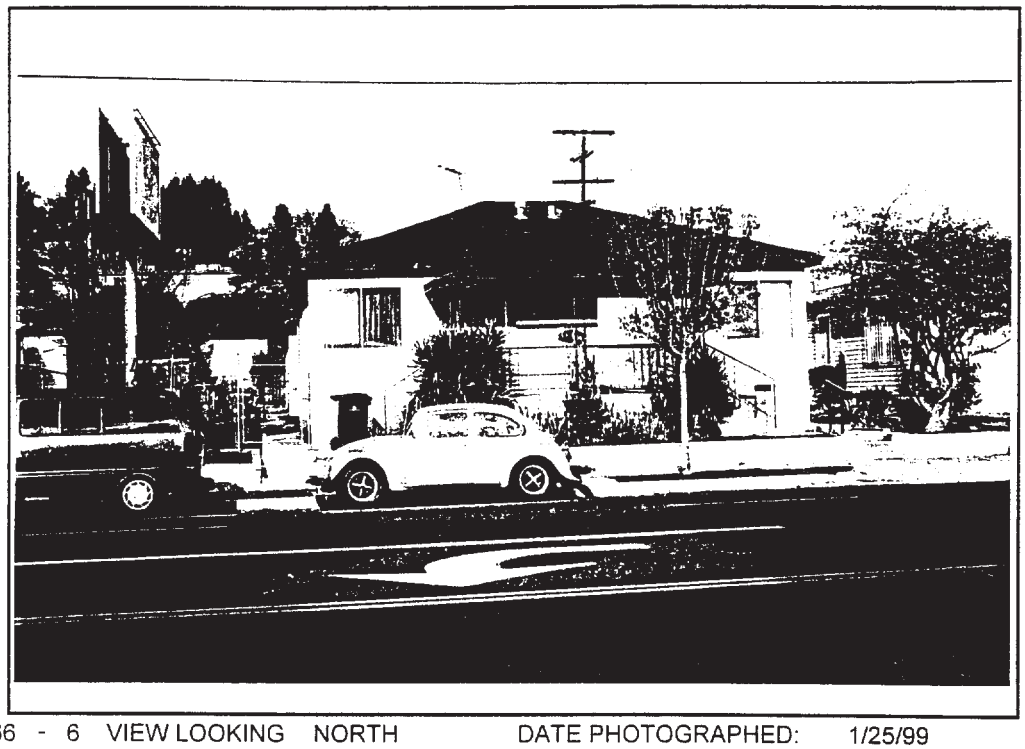
1866 - 3 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99
EAST LA OCCUPATIONAL CENTER

2100 MARENGO ST LOS ANGELES



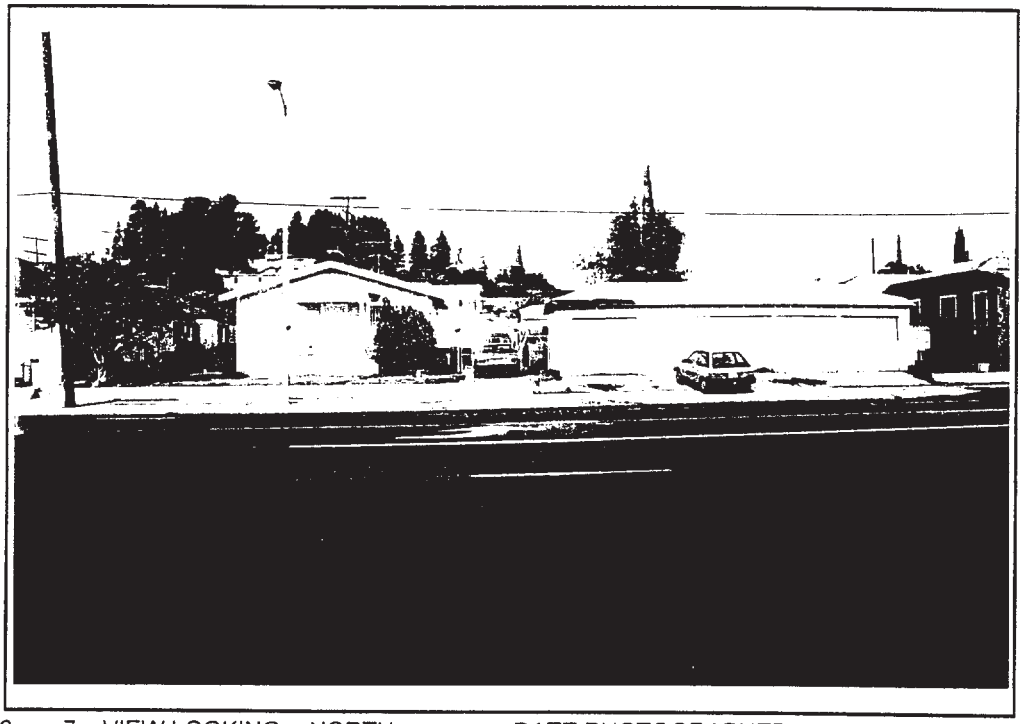
1866 - 5 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/25/99
EAST LA OCCUPATIONAL CENTER PARKING STRUCTURE

2100 MARENGO ST LOS ANGELES



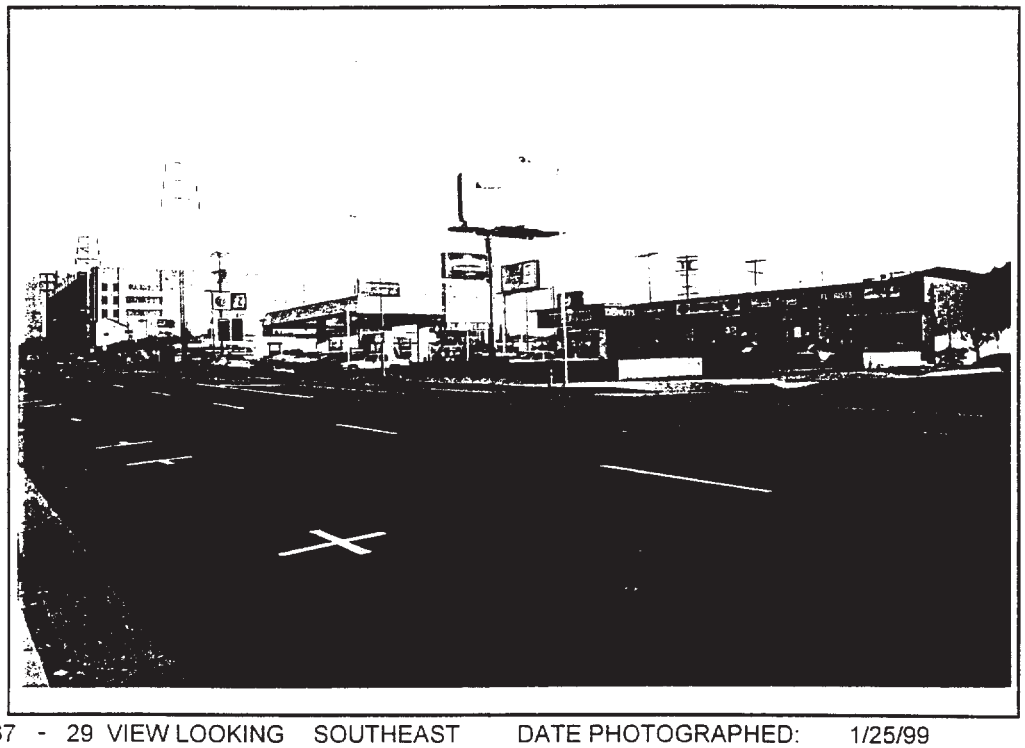
1866 - 6 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 1/25/99

2111 MARENGO ST LOS ANGELES



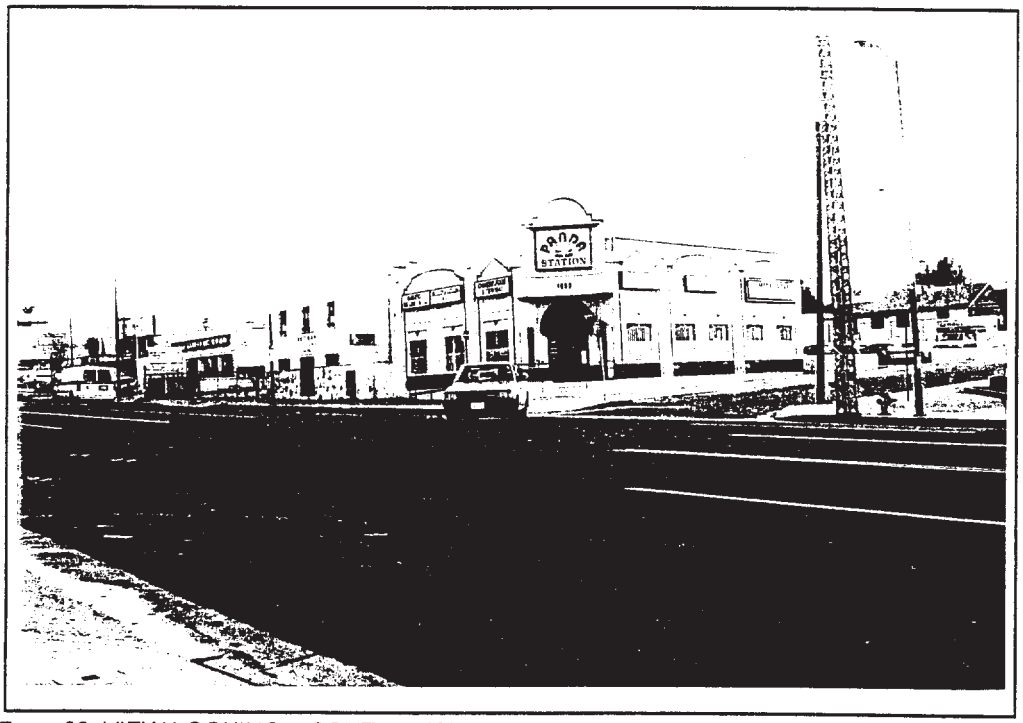
1866 - 7 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 1/25/99
HOUSE (2117) AND GARAGES

2117 MARENGO ST LOS ANGELES



1867 - 29 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99
CONTEXTUAL VIEW: MARENGO STREET FROM CLEMENT TO BRITTANIA STREETS

1800 BLOCK MARENGO ST LOS ANGELES



1867 - 30 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/25/99
MARENGO STREET AT LORD STREET

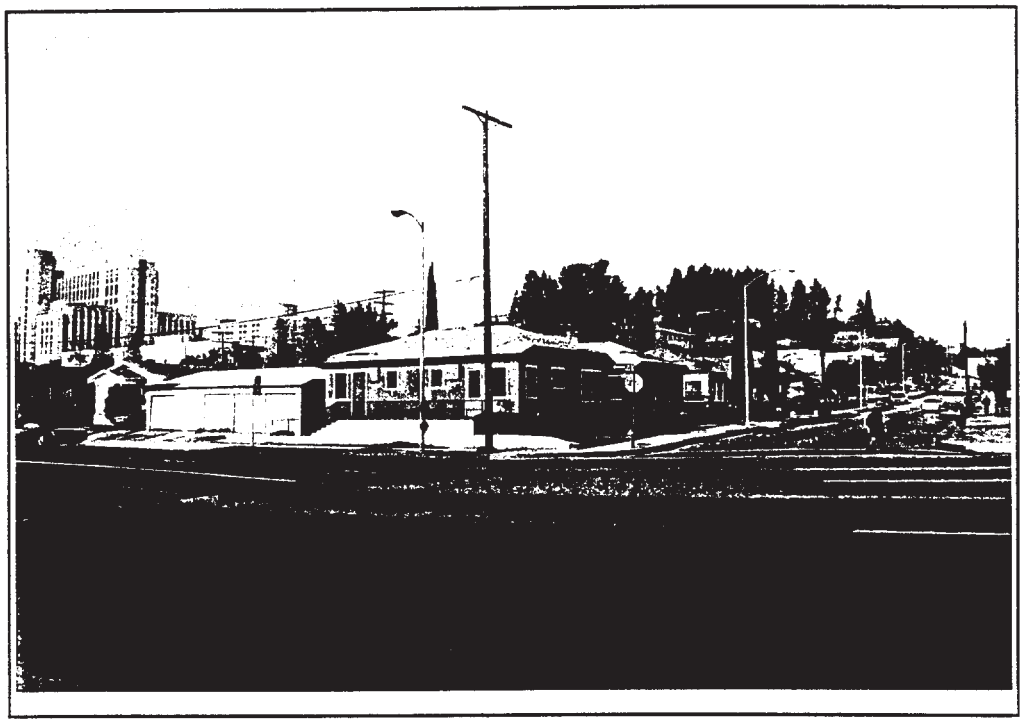
1800 BLOCK MARENGO ST LOS ANGELES

1867 - 31 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99
MC DONALD'S RESTAURANT

1800 BLOCK MARENGO ST LOS ANGELES

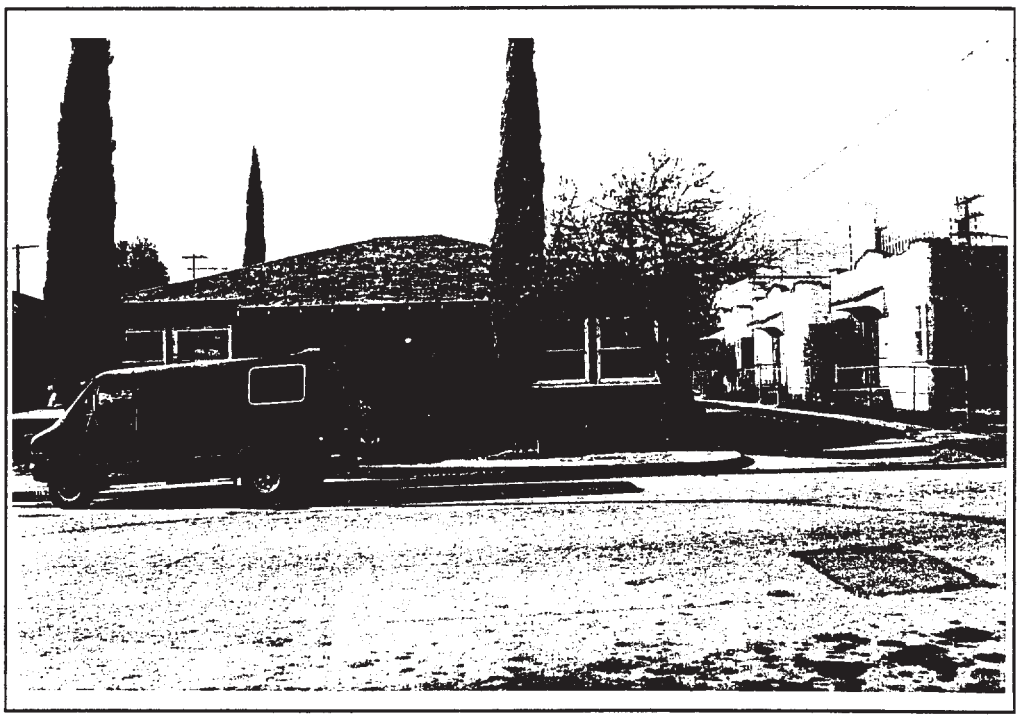
1867 - 32 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/25/99
HEALTH RESEARCH ASSOCIATION BUILDING

1700 BLOCK MARENGO ST LOS ANGELES



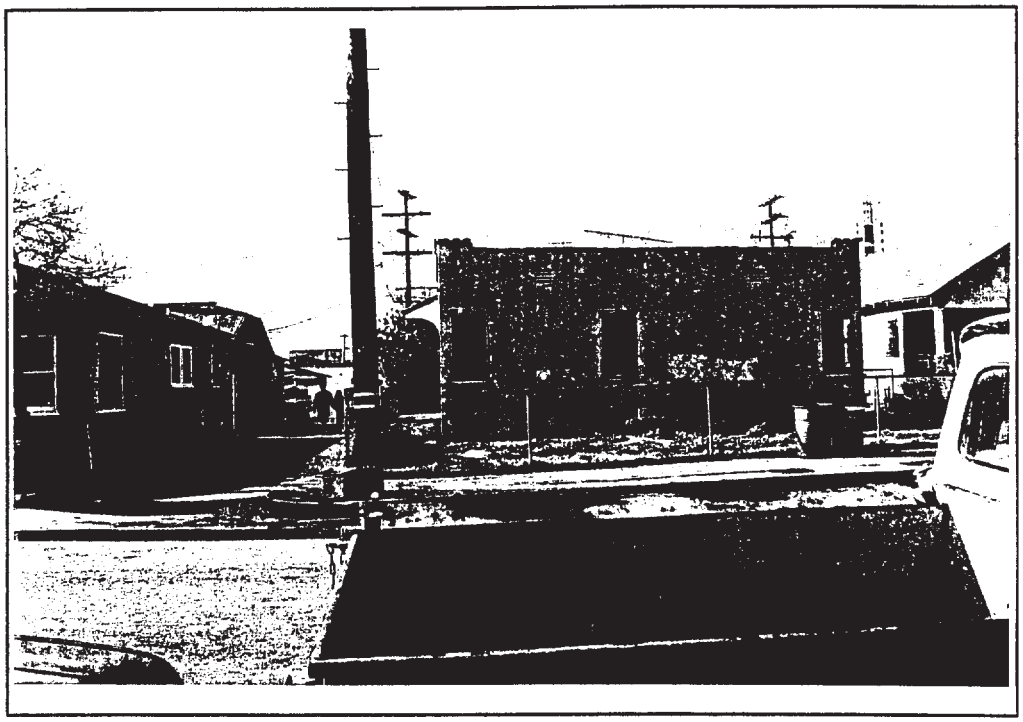
1866 - 8 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 2/25/99
CONTEXTUAL VIEW: INTERSECTION MARENGO AND CORNWELL STREETS, HOUSE (1103,1105) AND GARAGES

1103 / 1105 CORNWELL ST LOS ANGELES



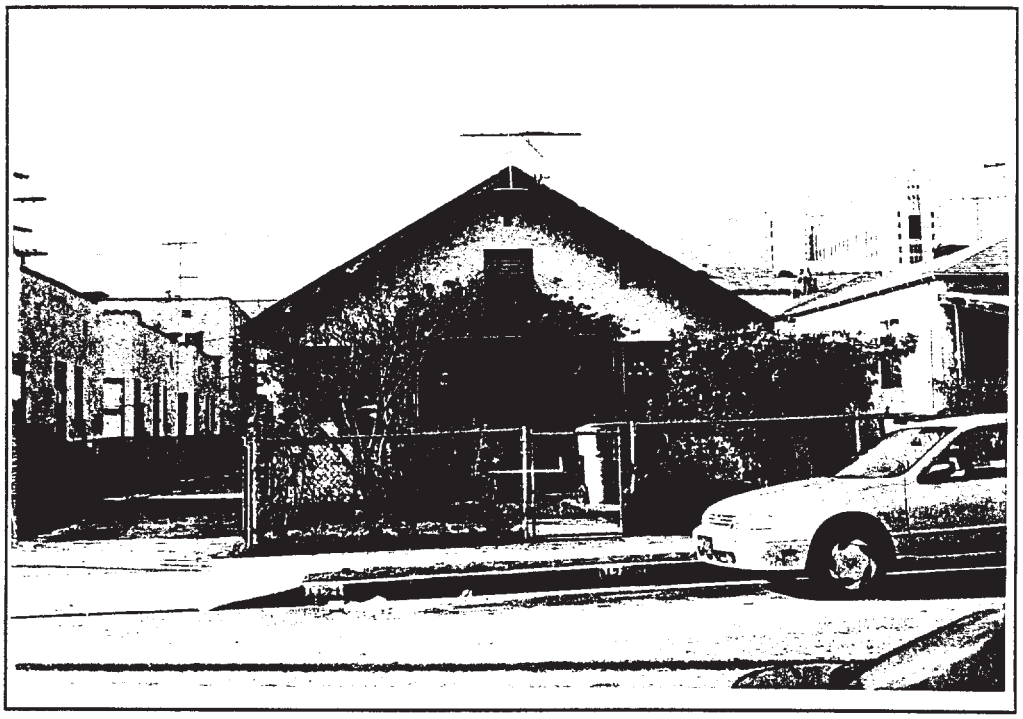
1866 - 9 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99
HOUSE AND ALLEY BETWEEN CORNWELL AND CHICAGO STREETS, WITH HOUSES ON ALLEY

1113 - 1119 1/2 CORNWELL ST LOS ANGELES



1866 - 10 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99
ALLEY BETWEEN CORNWELL AND CHICAGO STREETS

1117 CORNWELL ST LOS ANGELES



1866 - 11 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99

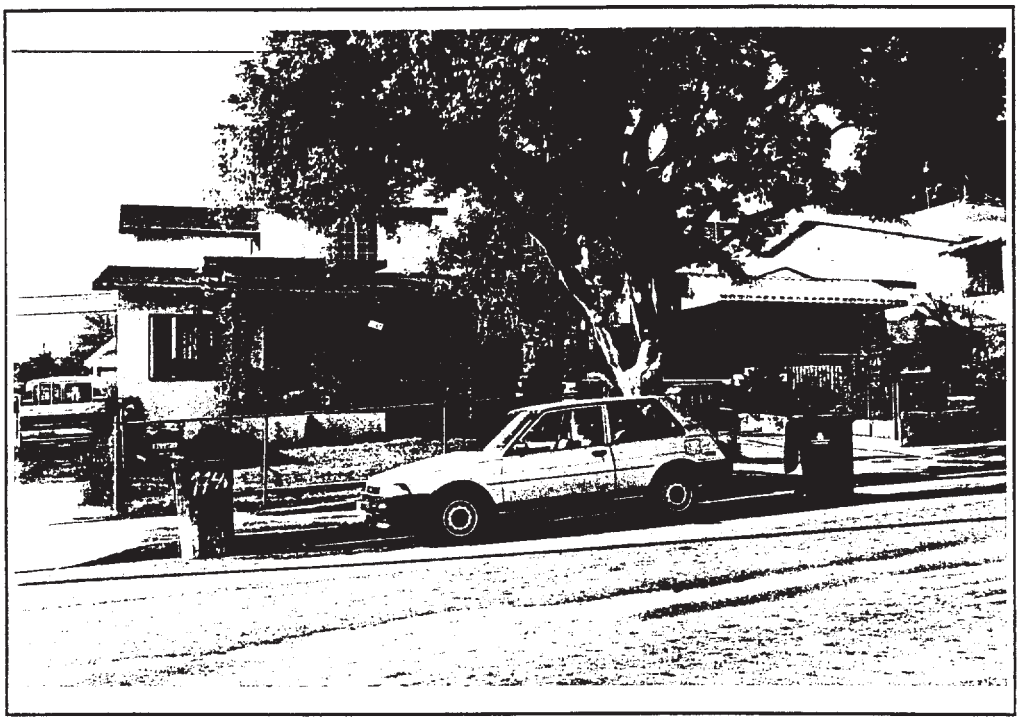
1121 CORNWELL ST LOS ANGELES

1866 - 12 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99

1125-1127 1/2 / 1131 CORNWELL ST LOS ANGELES

1866 - 13 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99

1135 / 1139 CORNWELL ST LOS ANGELES



1866 - 14 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99

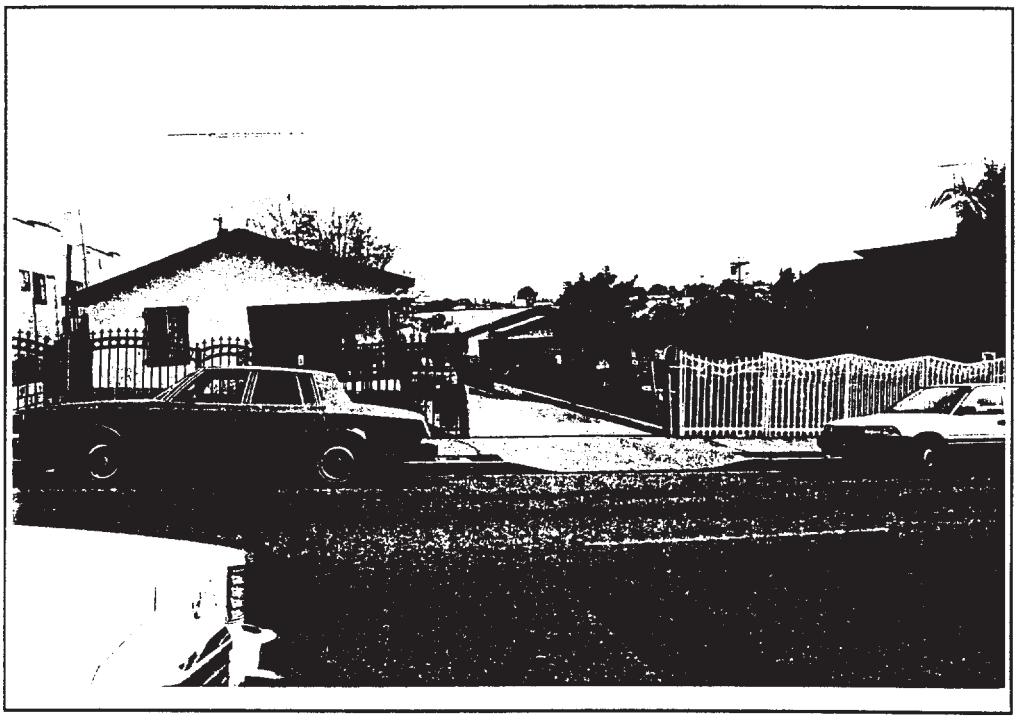
1141-1145 / 1147-1149 CORNWELL ST LOS ANGELES

1866 - 15 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99

1151-1155 1/2 CORNWELL ST LOS ANGELES

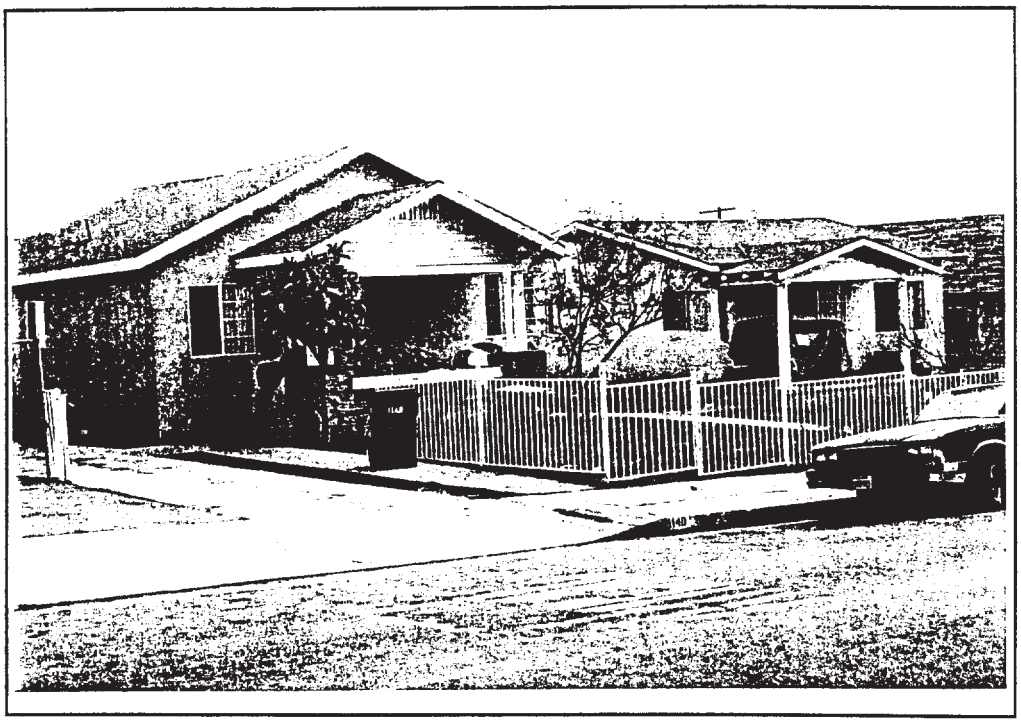
1866 - 16 VIEW LOOKING WEST DATE PHOTOGRAPHED: 2/25/99

1159 / 1163 CORNWELL ST LOS ANGELES



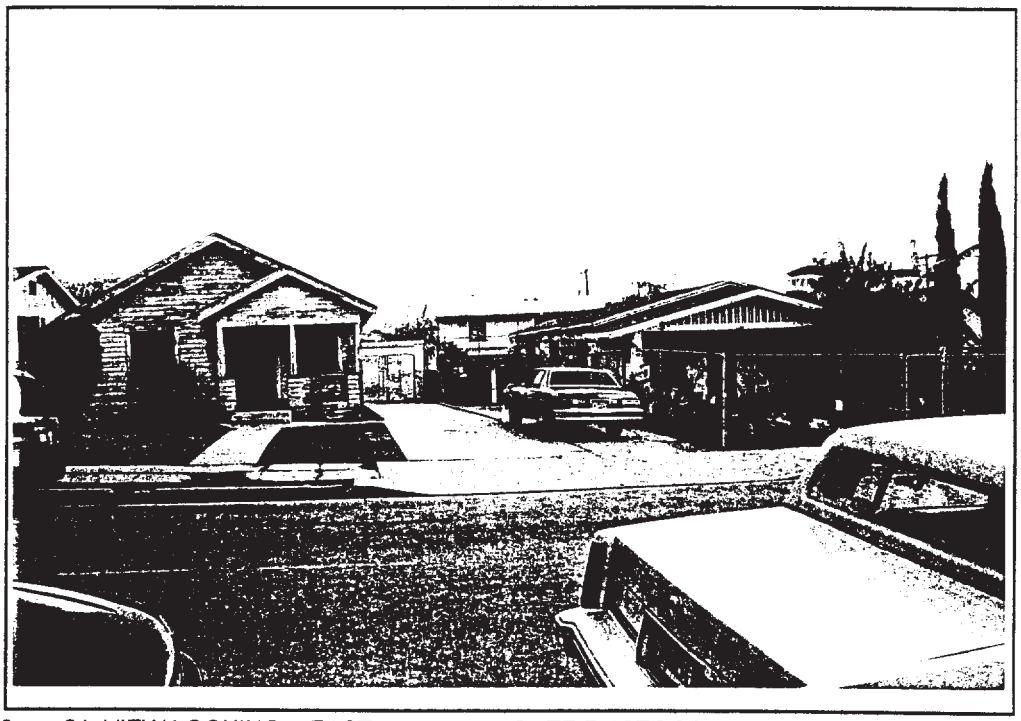
1866 - 17 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1162 / 1168 CORNWELL ST LOS ANGELES



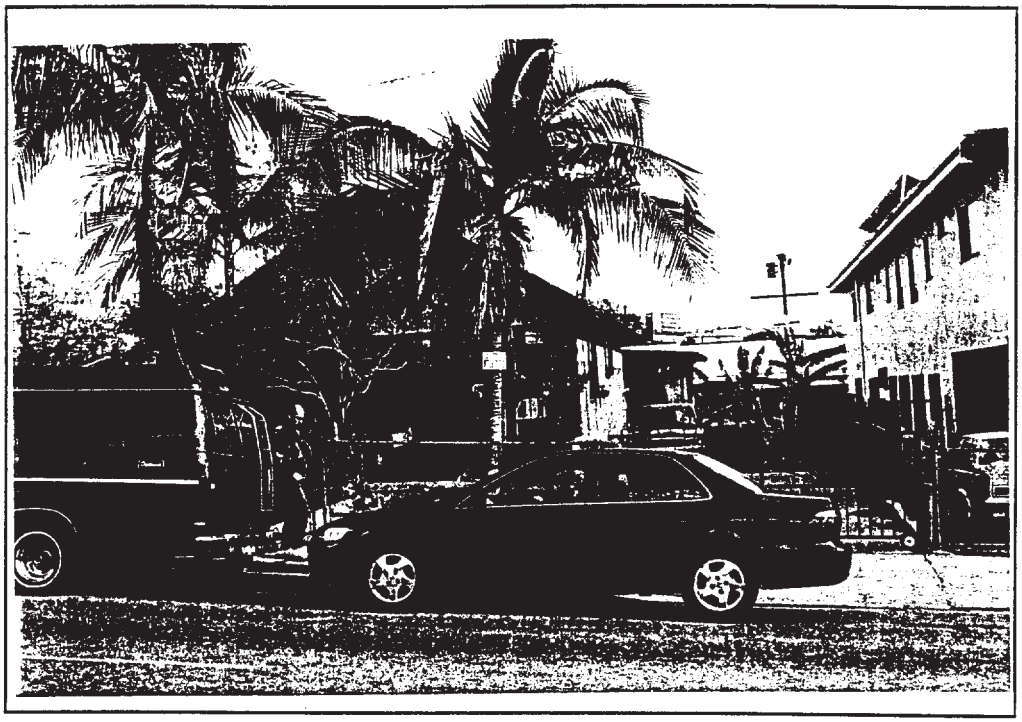
1866 - 20 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1140 / 1136 CORNWELL ST LOS ANGELES



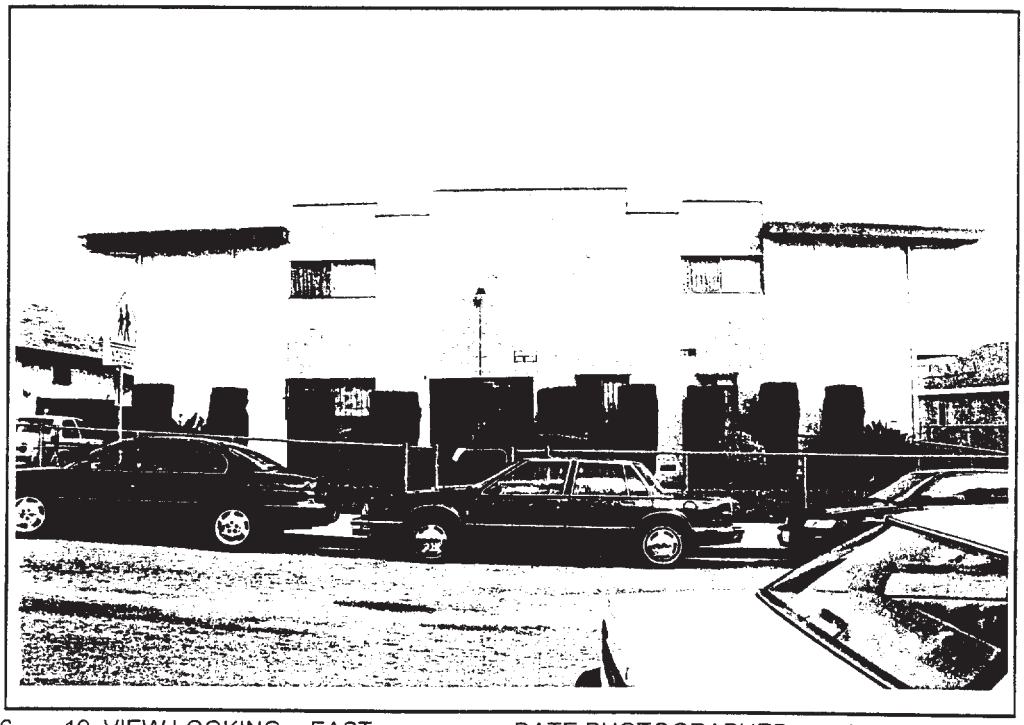
1866 - 21 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1128 / 1126 CORNWELL ST LOS ANGELES



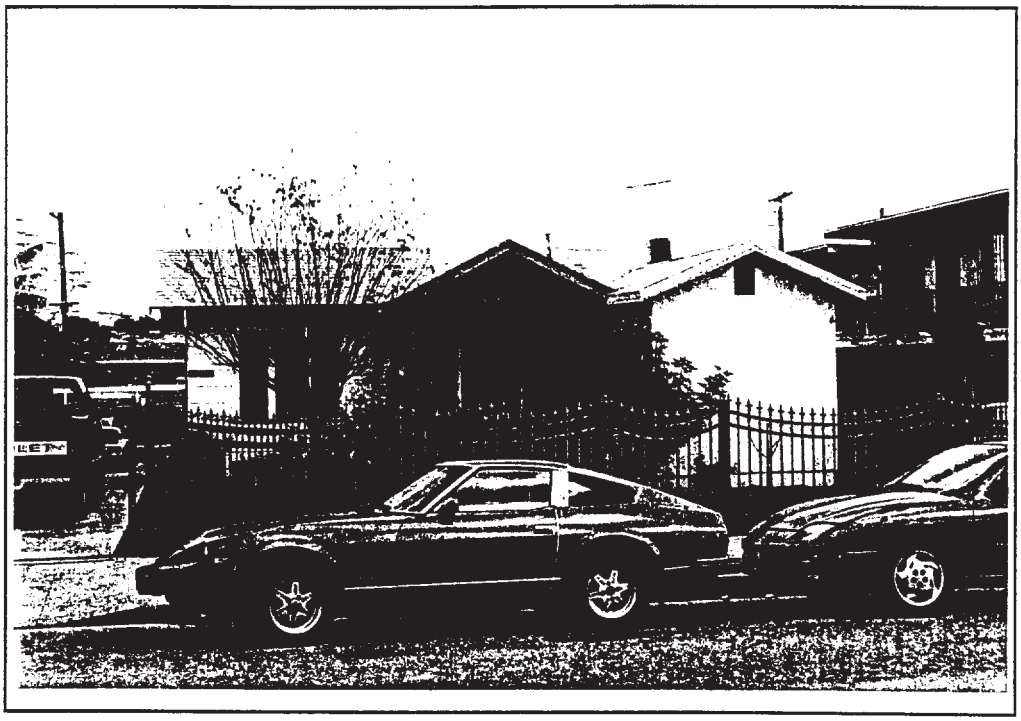
1866 - 18 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1154 CORNWELL ST LOS ANGELES



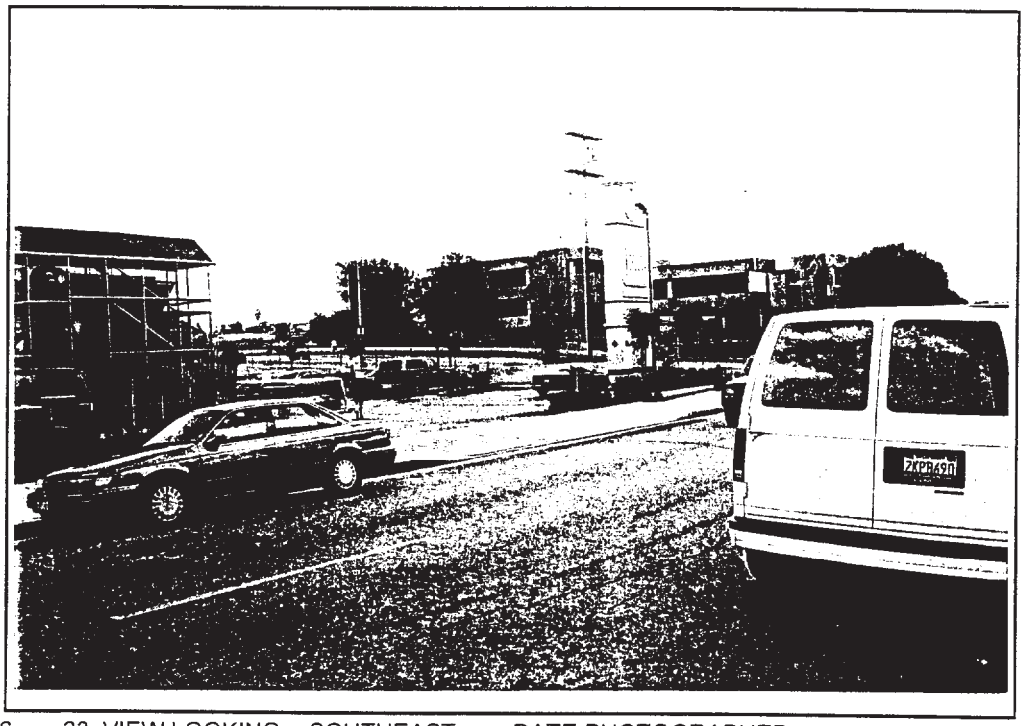
1866 - 19 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1150 CORNWELL ST LOS ANGELES



1866 - 22 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/25/99

1122 CORNWELL ST LOS ANGELES



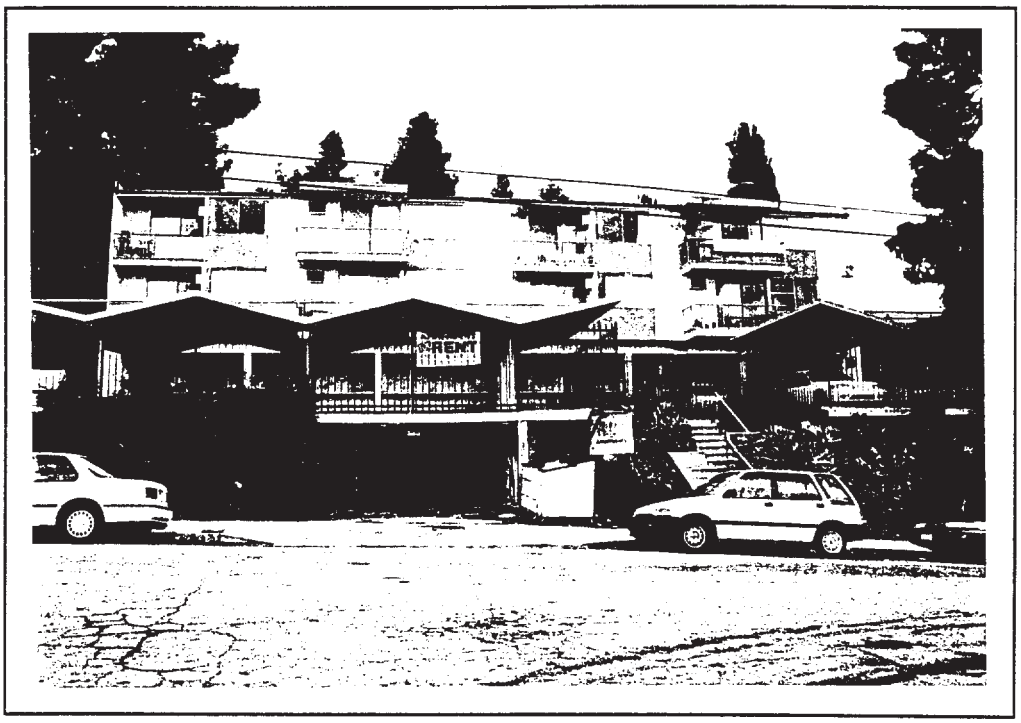
1866 - 23 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99

CONTEXTUAL VIEW: INTERSECTION CORNWELL AND MARENGO STREETS, WITH BURGER KING RESTAURANT

CORNWELL AND MARENGO ST LOS ANGELES

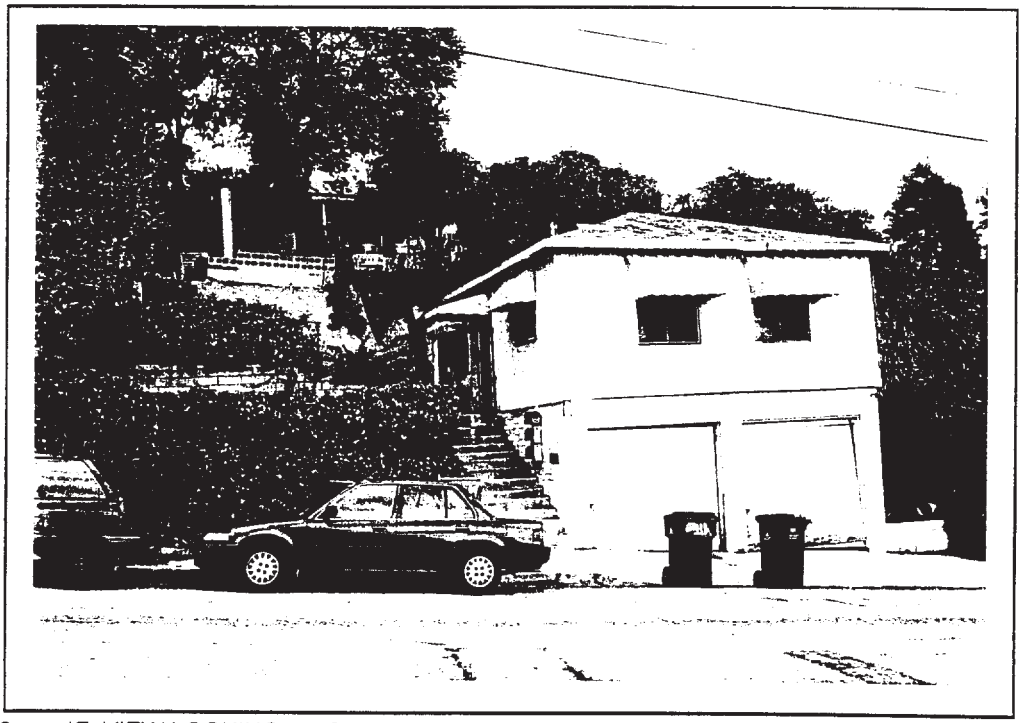
8468 - 30 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 6/11/98
BURGER KING RESTAURANT

NE CORNER MARENGO AND CORNWELL ST LOS ANGELES



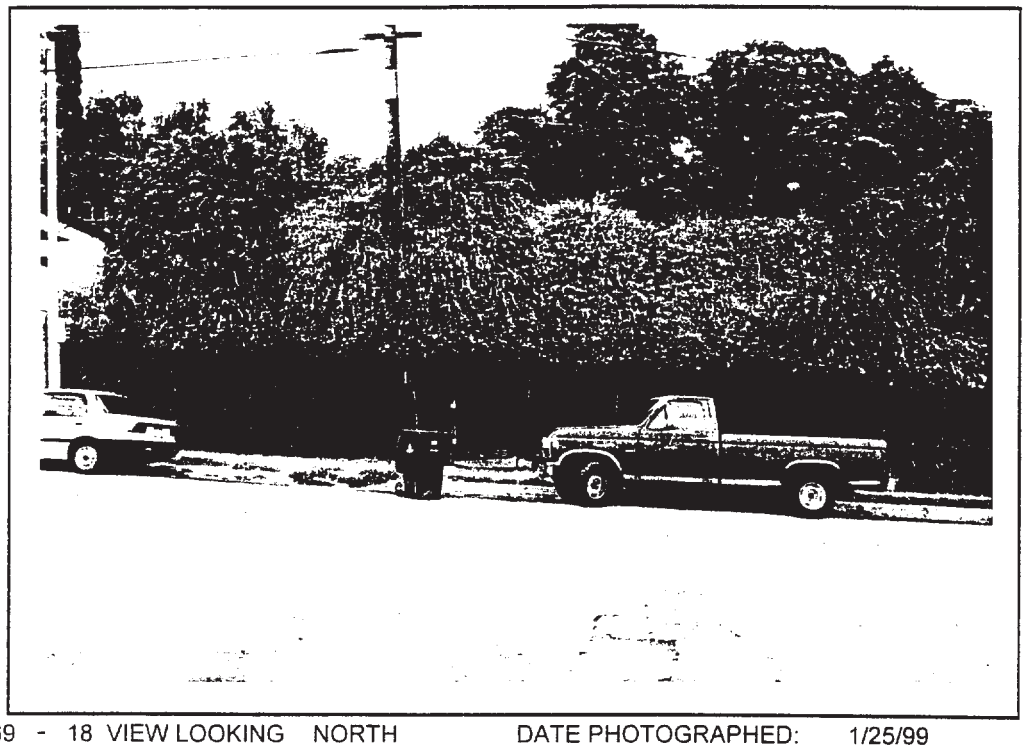
1869 - 16 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 1/25/99

2101 CHARLOTTE ST LOS ANGELES



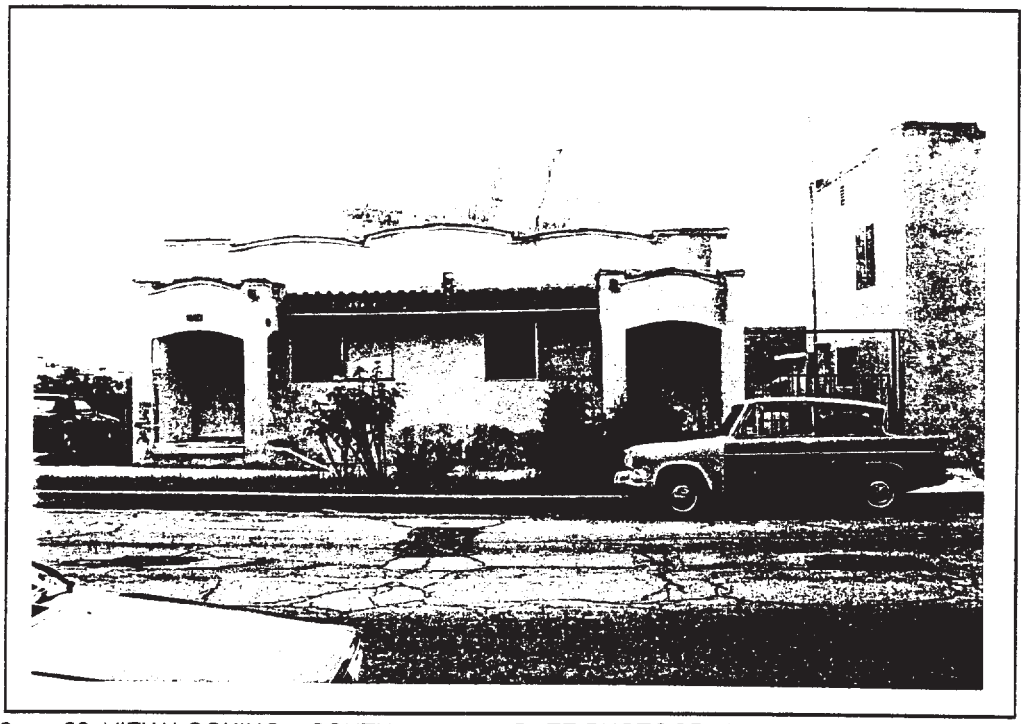
1869 - 17 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 1/25/99

2111 / 2133 / 2115 CHARLOTTE ST LOS ANGELES



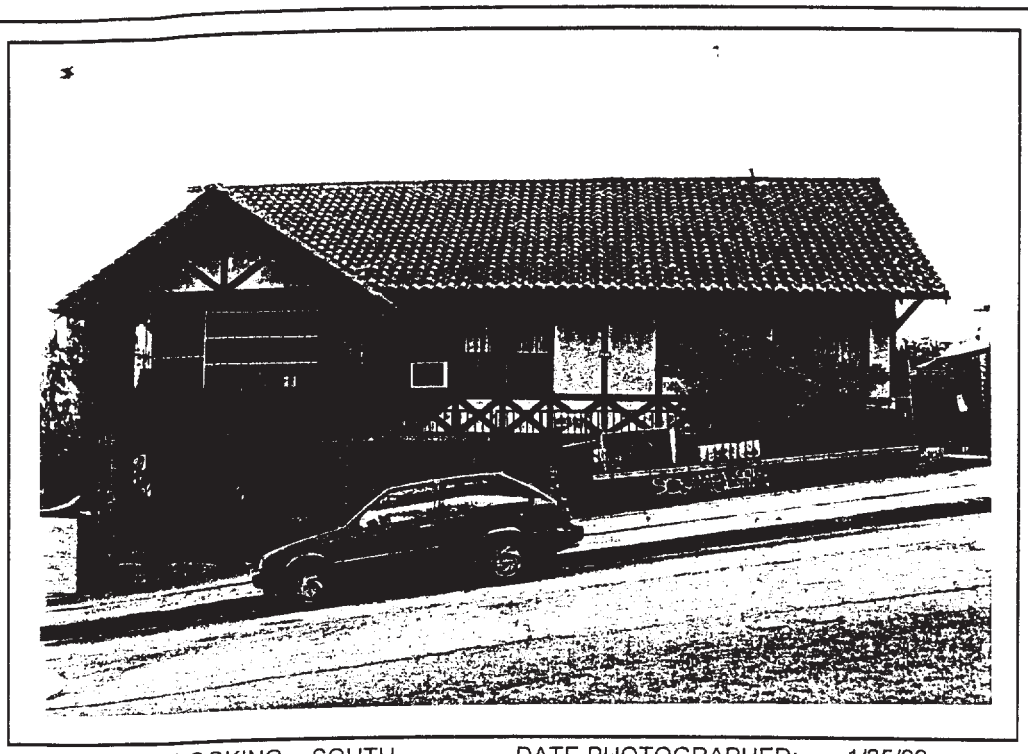
1869 - 18 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 1/25/99

2121 / 2119 CHARLOTTE ST LOS ANGELES



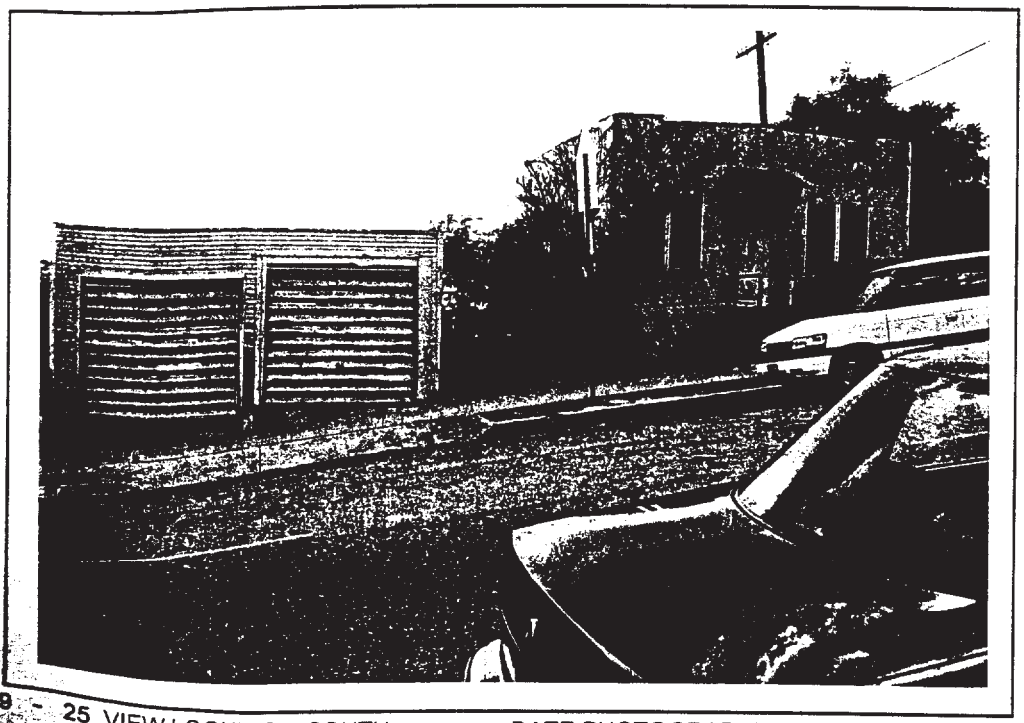
1869 - 22 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

2210 / 2212 CHARLOTTE ST LOS ANGELES



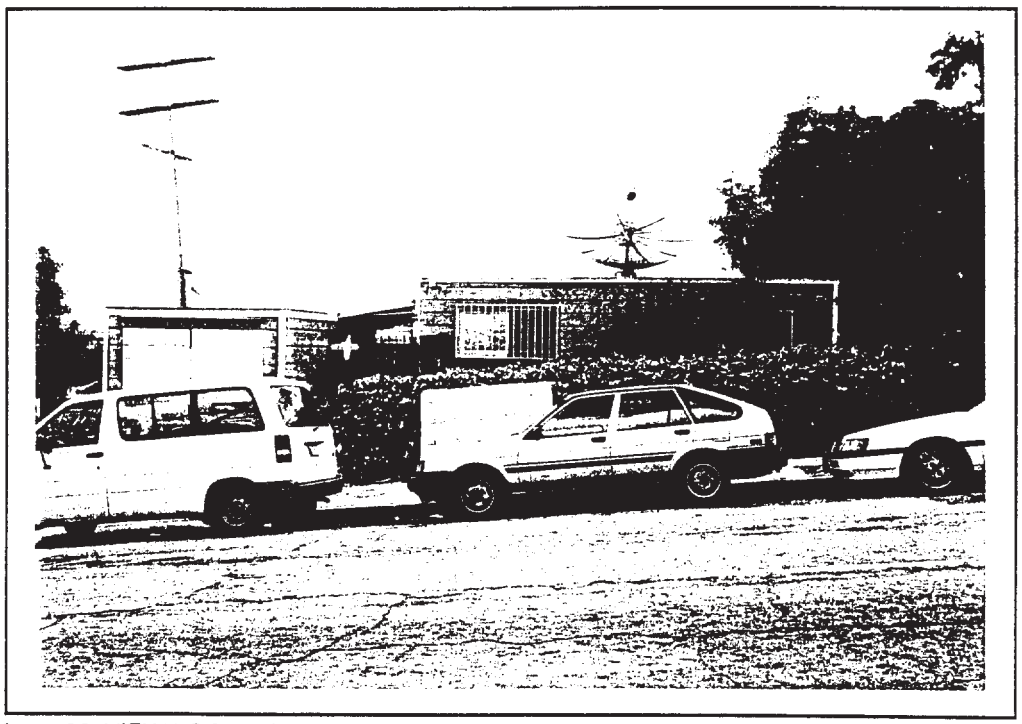
1869 - 24 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

2124 CHARLOTTE ST LOS ANGELES



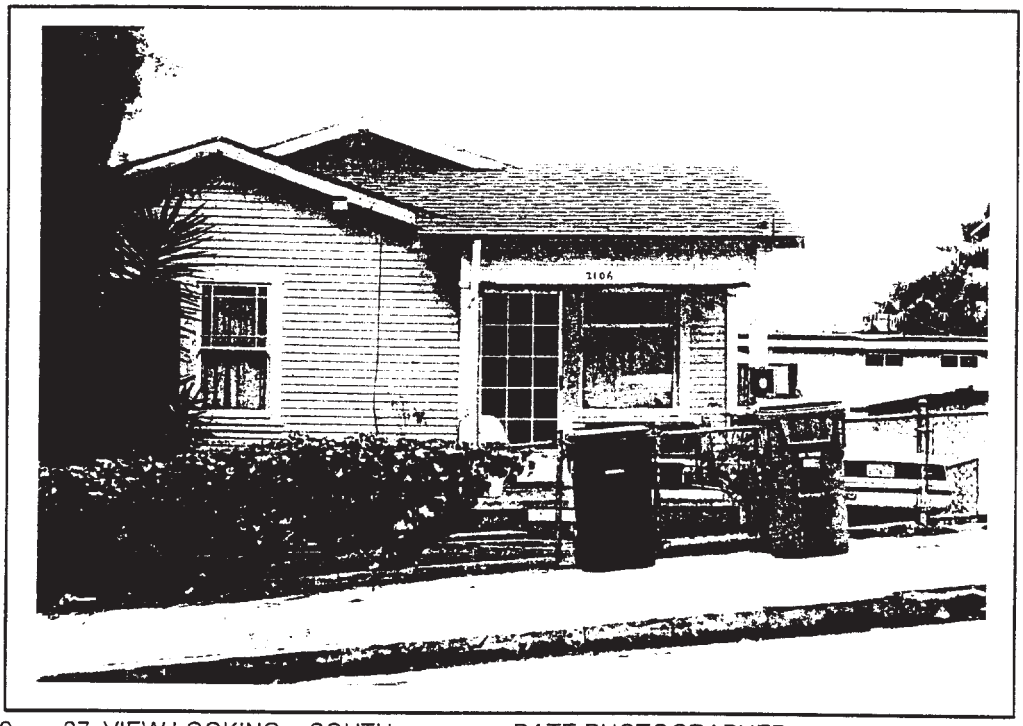
1869 - 25 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

CHARLOTTE ST LOS ANGELES



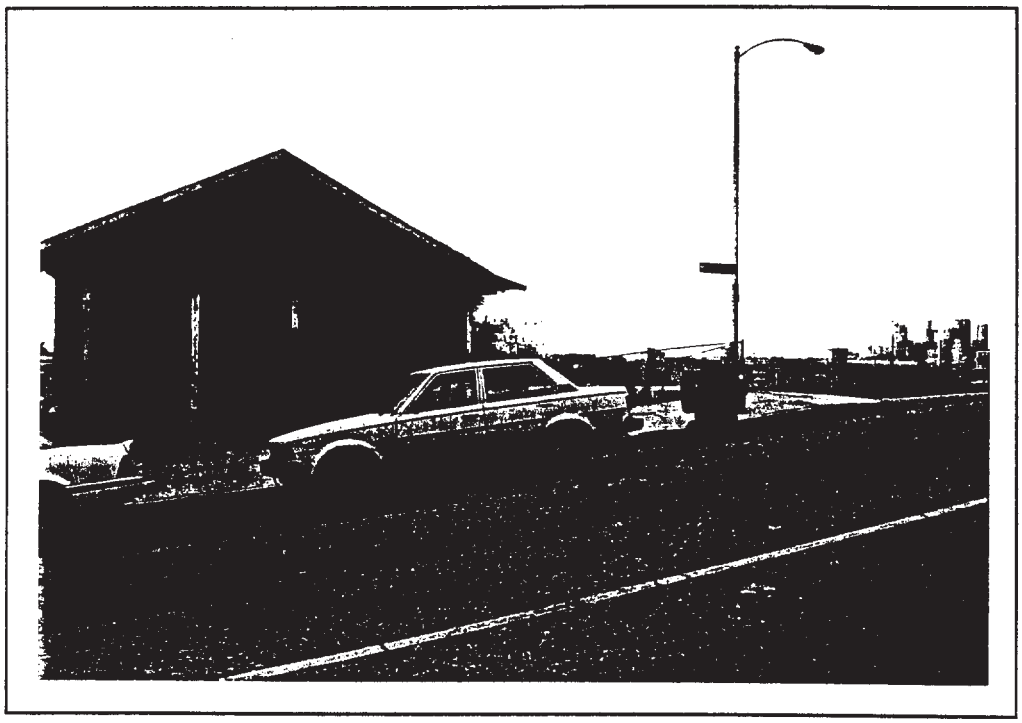
1869 - 26 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

2108 CHARLOTTE ST LOS ANGELES



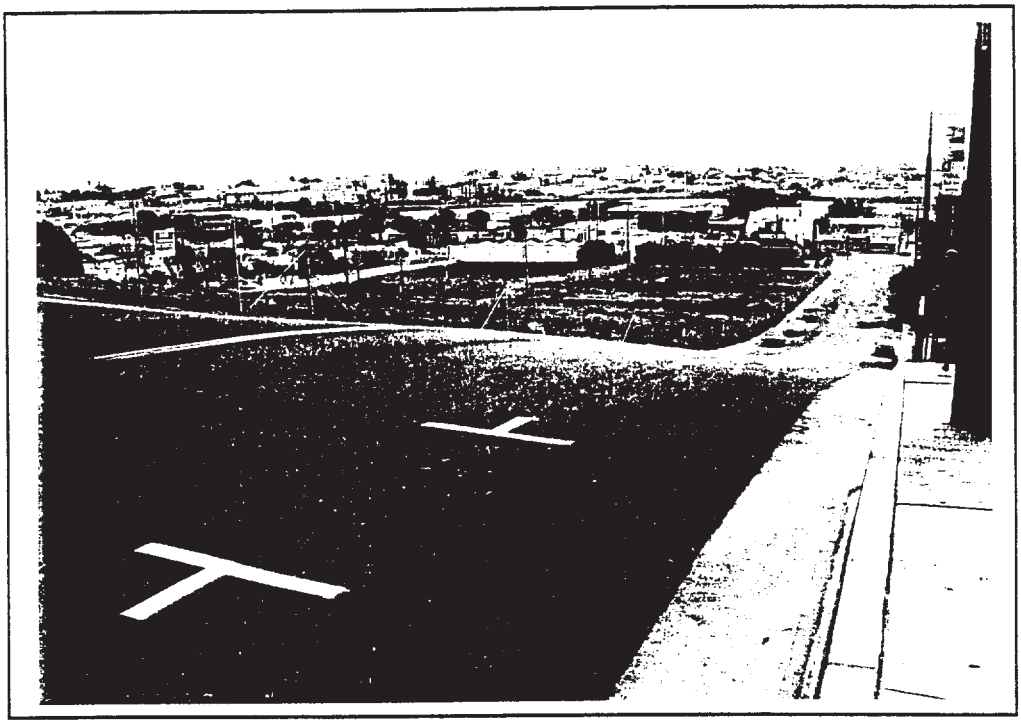
1869 - 27 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

2106 CHARLOTTE ST LOS ANGELES



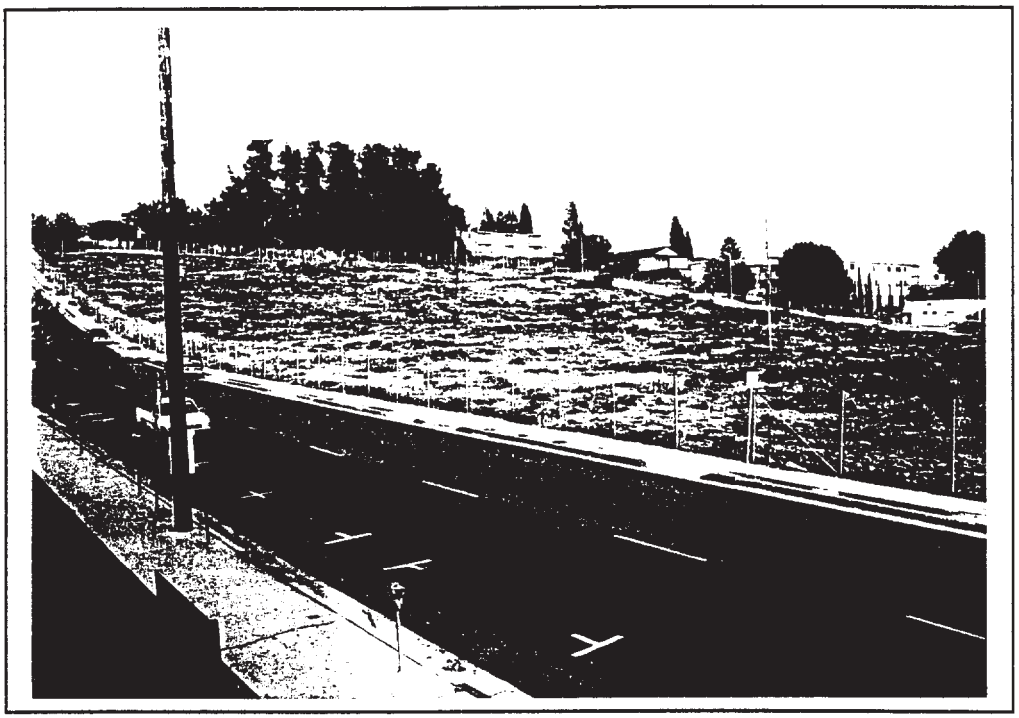
1869 - 28 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

2100 CHARLOTTE ST LOS ANGELES



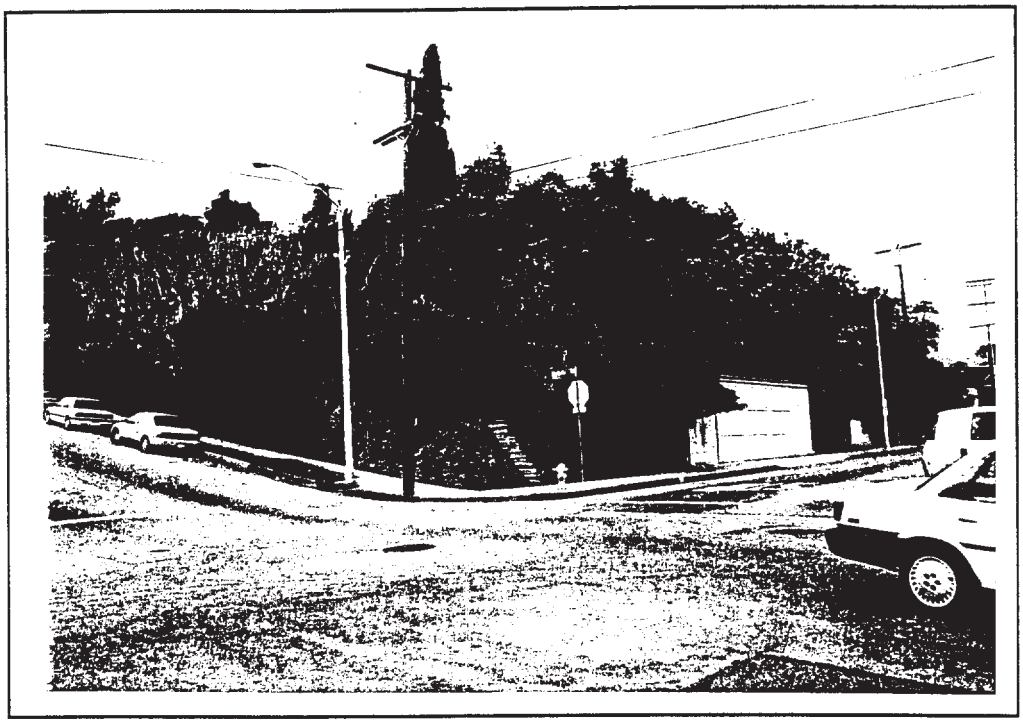
8467 - 15 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/29/98
CUMMINGS STREET TO BE VACATED AND INCORPORATED INTO PROJECT SITE

1100 BLOCK CUMMINGS ST LOS ANGELES



8467 - 17 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/29/98
VACANT LOT FROM CUMMINGS STREET TOWARD CHARLOTTE STREET

1100 BLOCK CUMMINGS ST LOS ANGELES

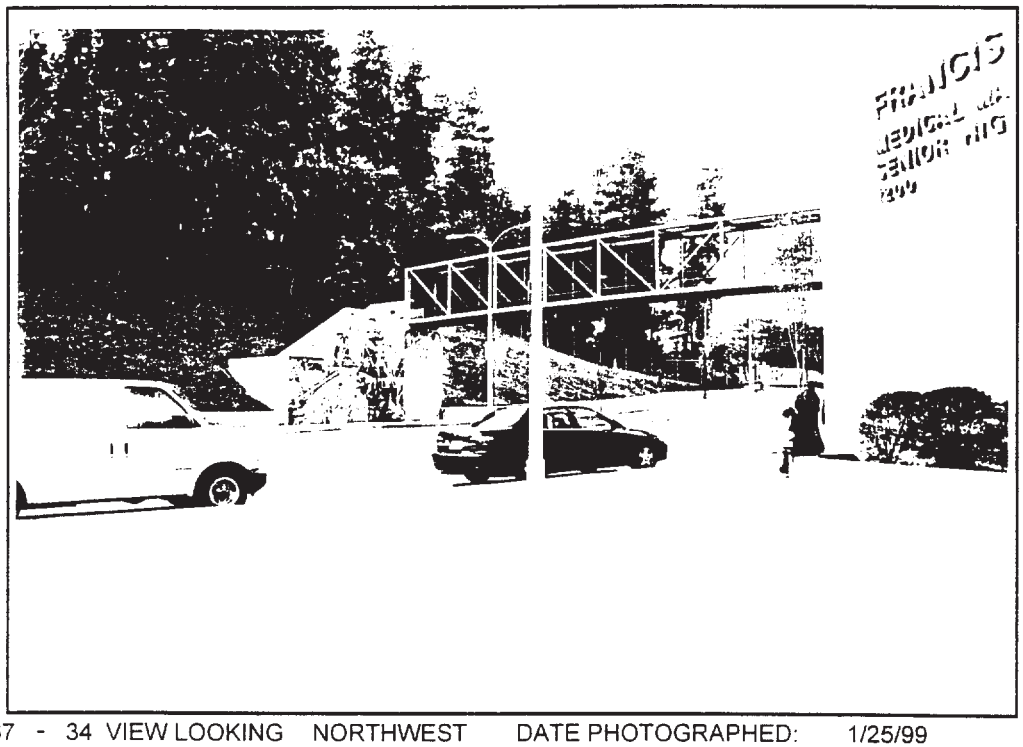


1869 - 19 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99

1207 CORNWELL ST LOS ANGELES

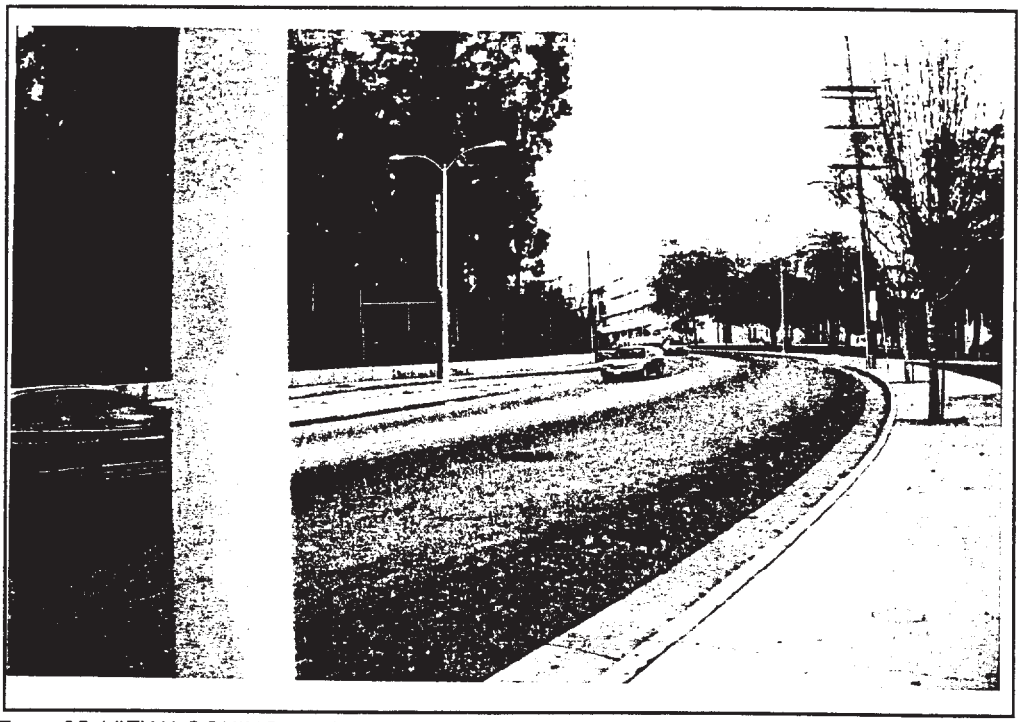
1869 - 21 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99
EASTERN APE BOUNDARY: PACIFIC ELECTRIC RAILWAY'S RIGHT OF WAY

EAST OF CORNWELL ST LOS ANGELES



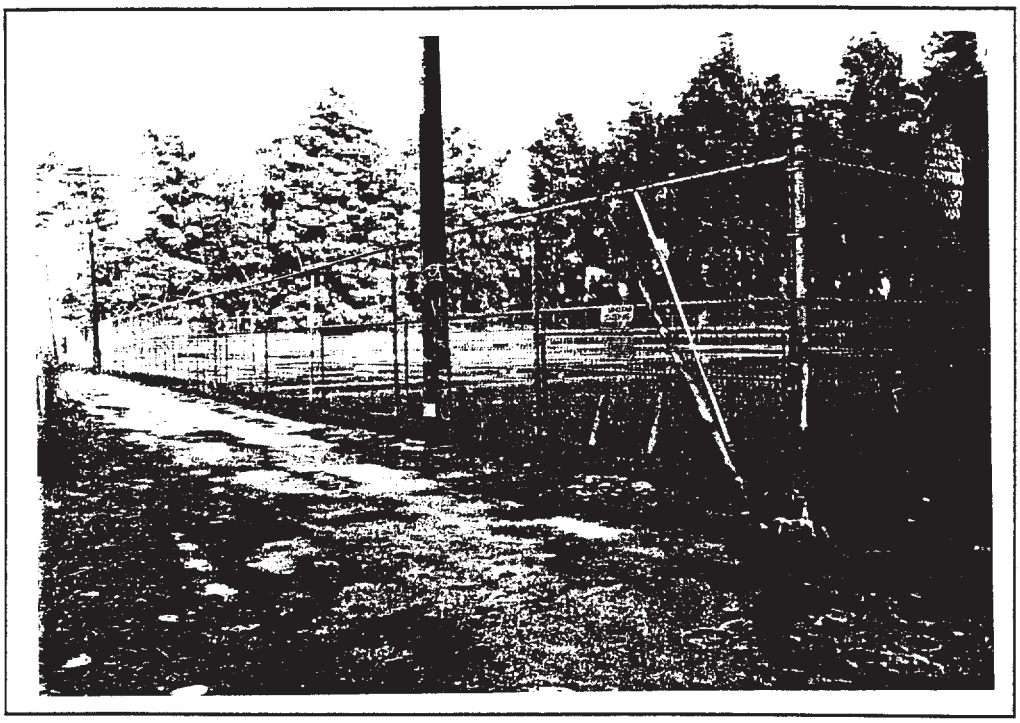
1867 - 34 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99
CONTEXTUAL VIEW: CORNWELL STREET INTO ZONAL AVENUE

1200 BLOCK CORNWELL ST LOS ANGELES



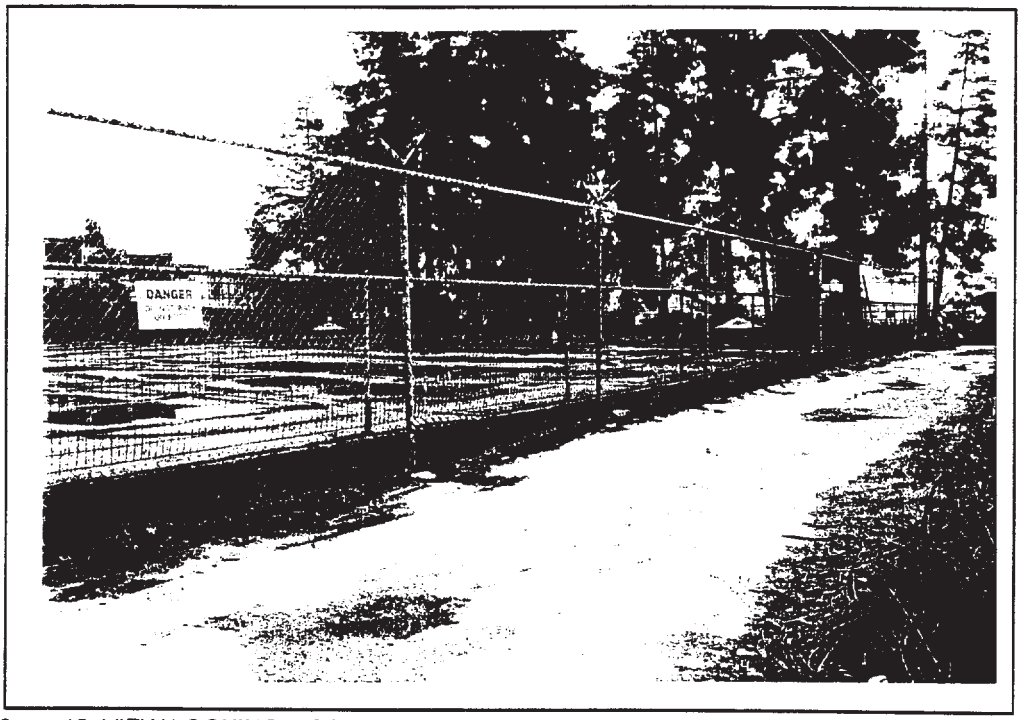
1867 - 35 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99
CONTEXTUAL VIEW: CORNWELL STREET INTO ZONAL AVENUE

1200 BLOCK CORNWELL ST LOS ANGELES



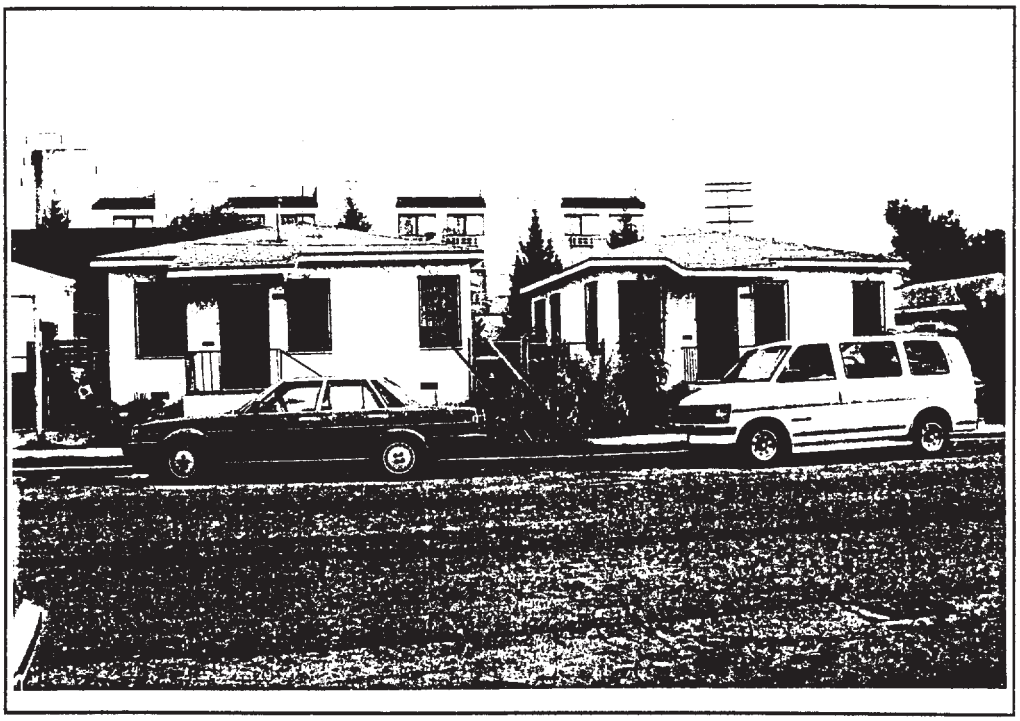
1869 - 10 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 2/25/99
COVERED HAZARD RESERVOIR

1200 BLOCK CUMMINGS ST LOS ANGELES



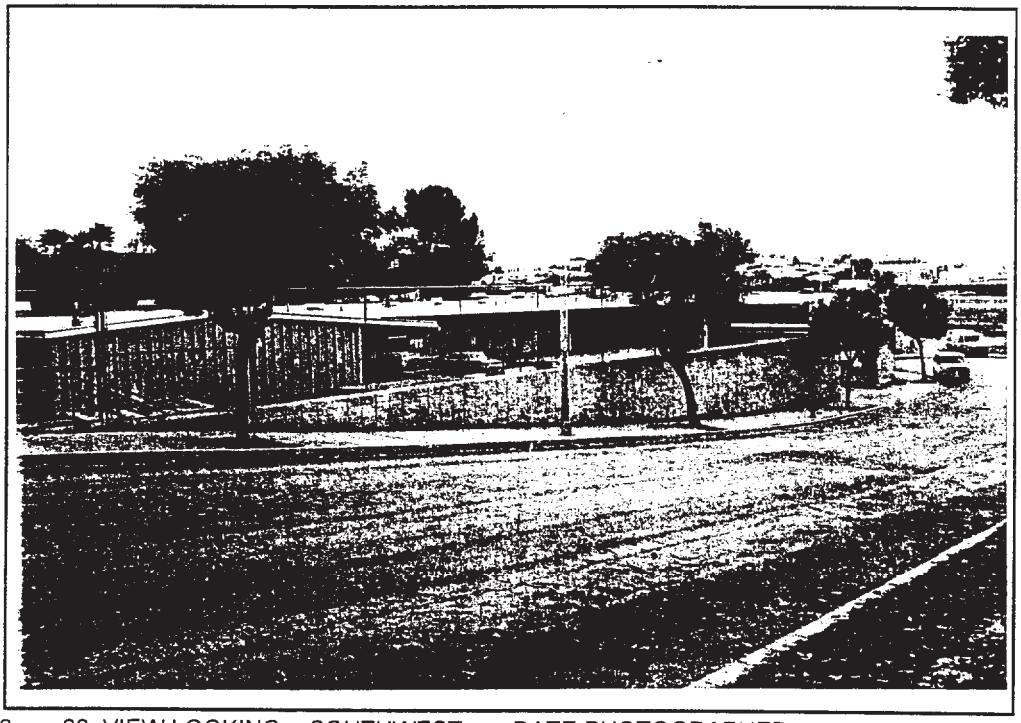
1869 - 12 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 2/25/99
COVERED HAZARD RESERVOIR

1200 BLOCK CUMMINGS ST LOS ANGELES



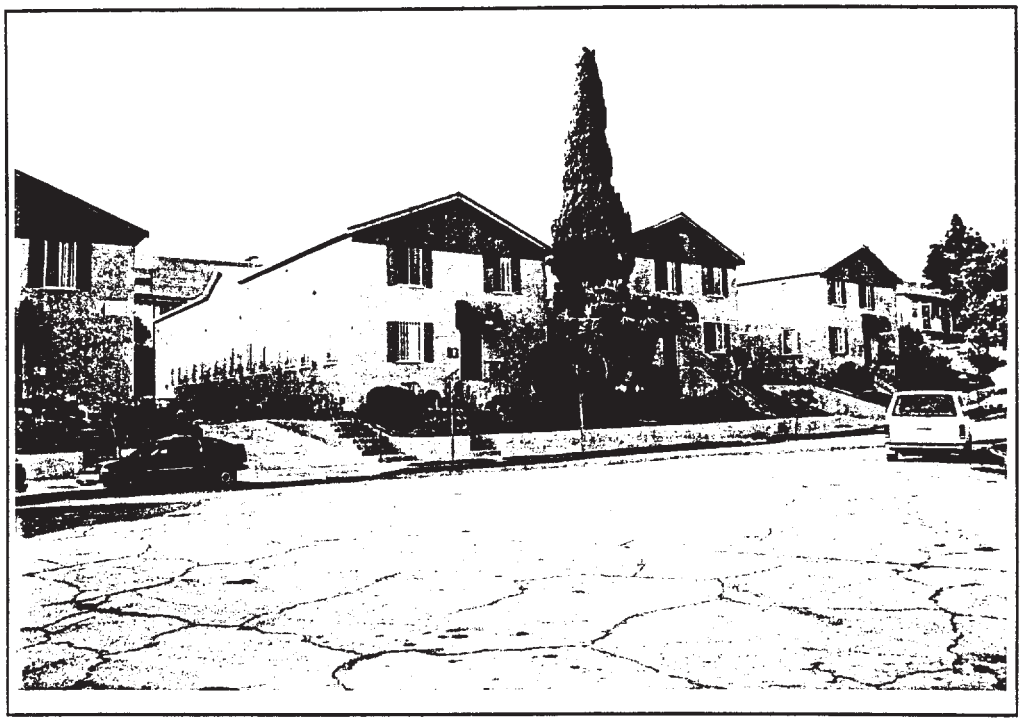
1866 - 27 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 2/25/99

1056 / 1054 CUMMINGS ST LOS ANGELES



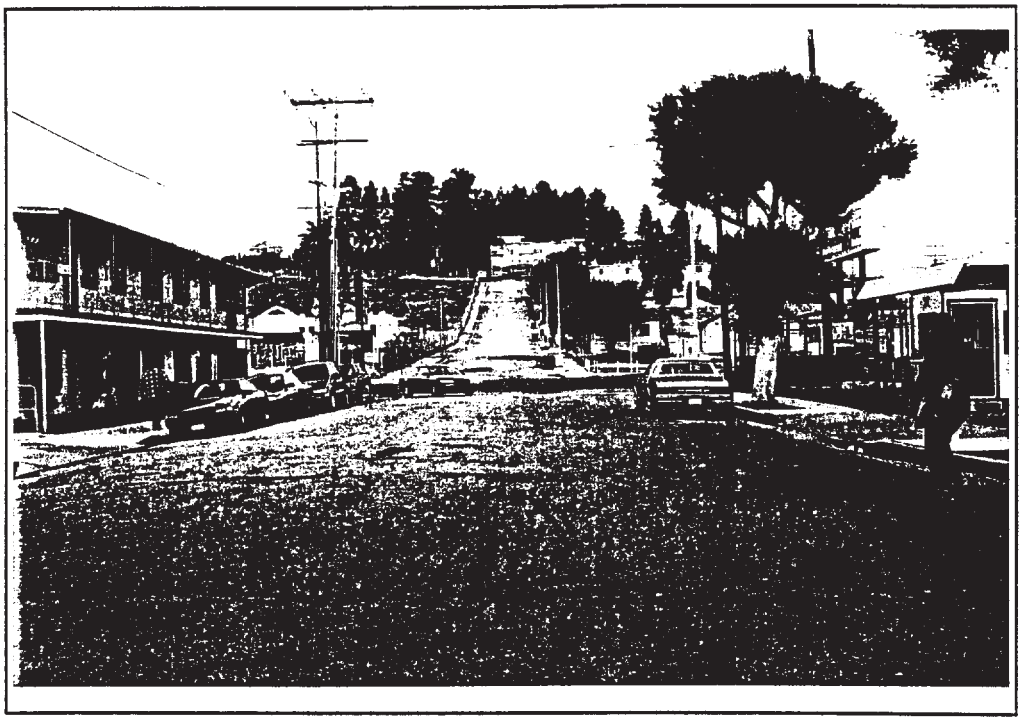
1866 - 28 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 2/25/99

1000 BLOCK CUMMINGS ST LOS ANGELES



1866 - 29 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 2/25/99

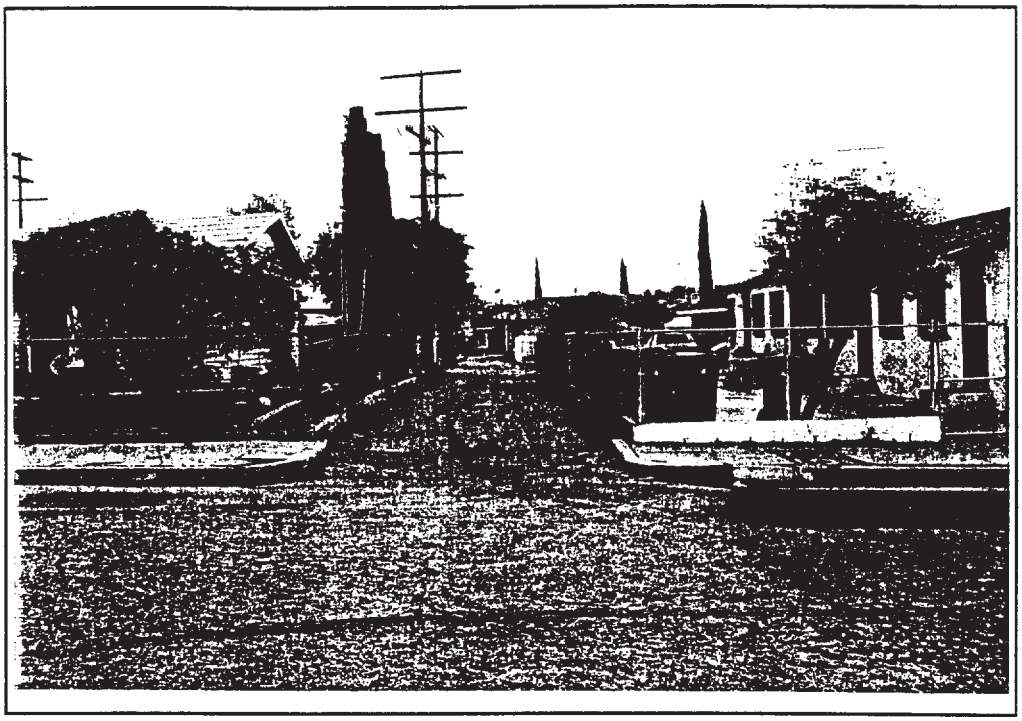
1011 / 1015 / 1021 / 1025 CUMMINGS ST LOS ANGELES



1866 - 4 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 2/25/99

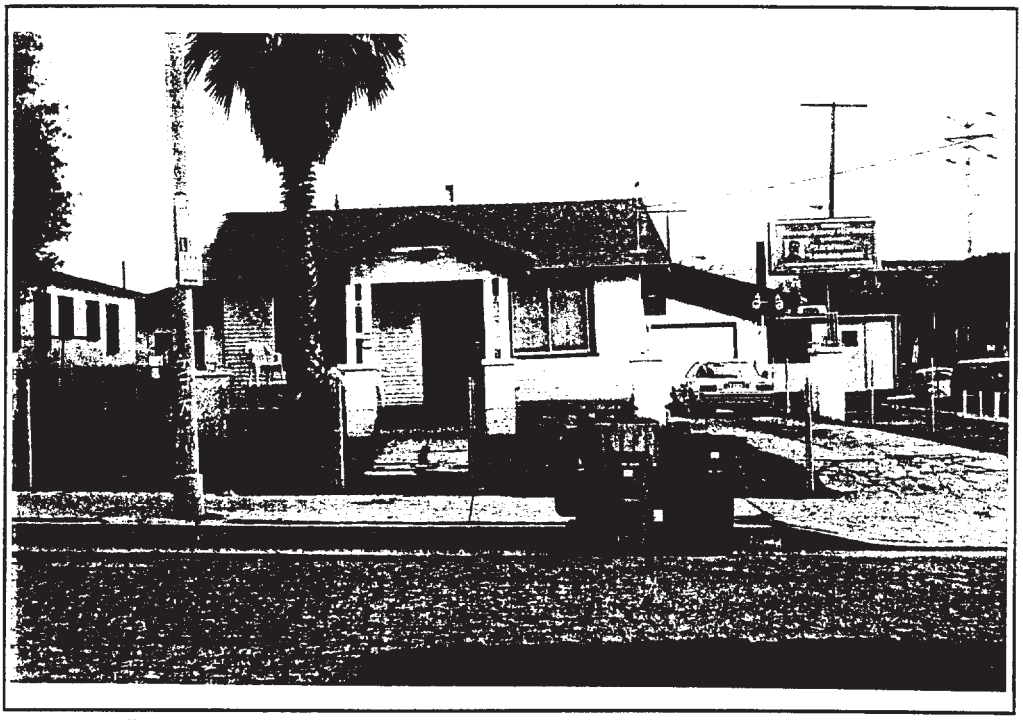
CONTEXTUAL VIEW: CHICAGO STREET NORTH, WITH MARENGO AND CHARLOTTE STREETS AND VACANT LOT

1000 BLOCK CHICAGO ST LOS ANGELES



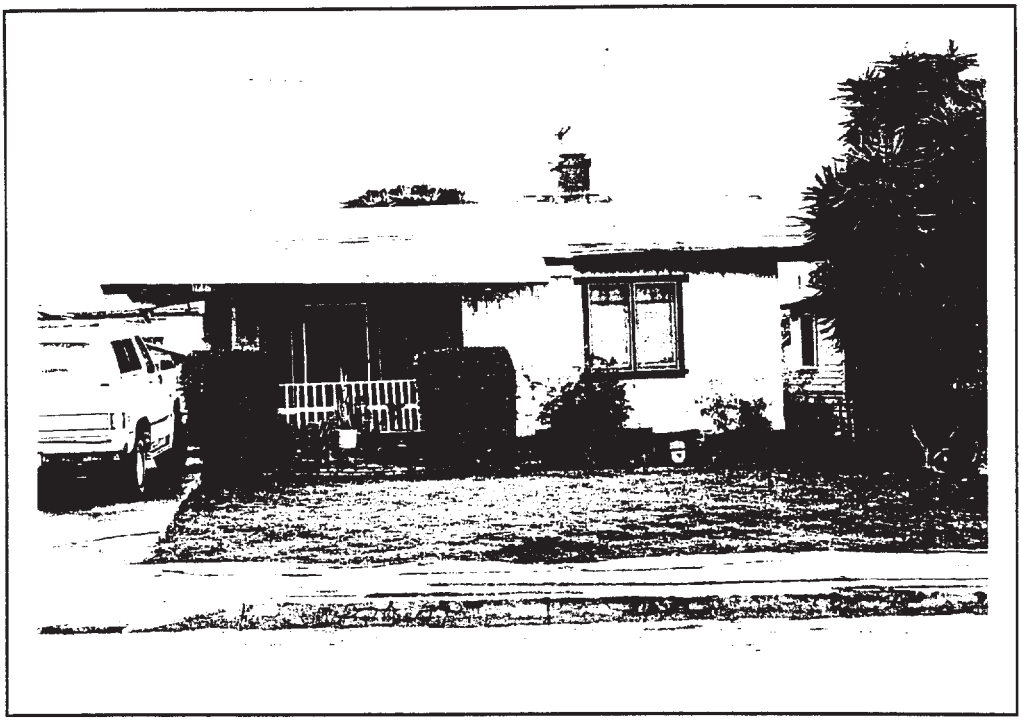
1866 - 1 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99
ALLEY N OF MARENGO BETWEEN CHICAGO AND CORNWELL STREETS

1100 BLOCK CHICAGO ST LOS ANGELES



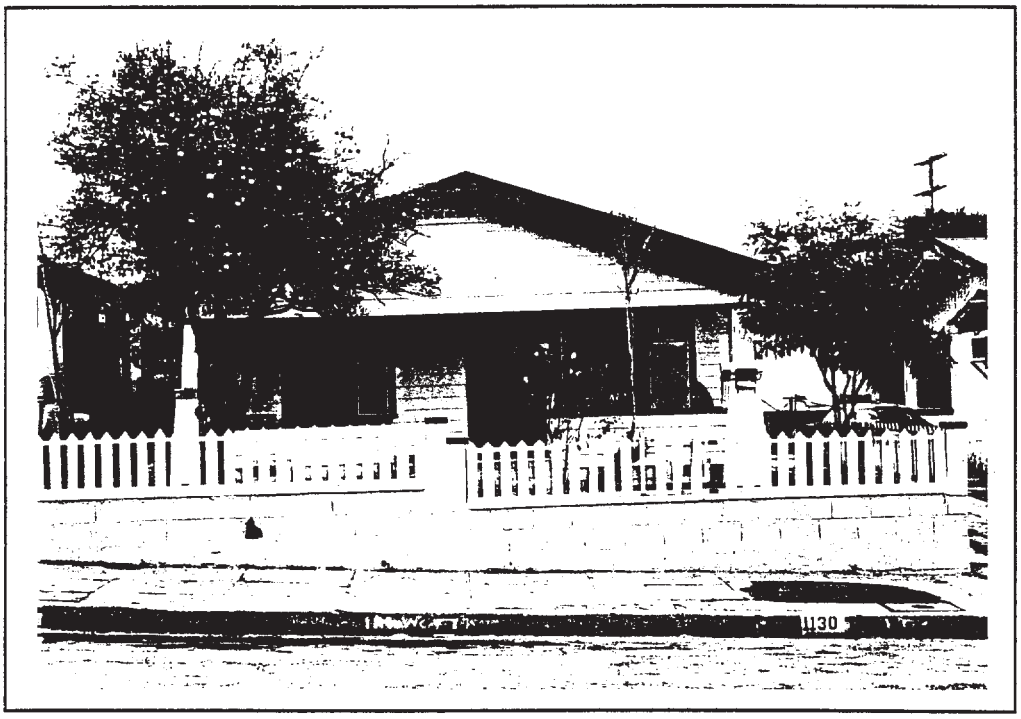
1866 - 2 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 2/25/99
NE CORNER CHICAGO AND MARENGO STREETS

1100 CHICAGO ST LOS ANGELES



1869 - 37 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1126 CHICAGO ST LOS ANGELES

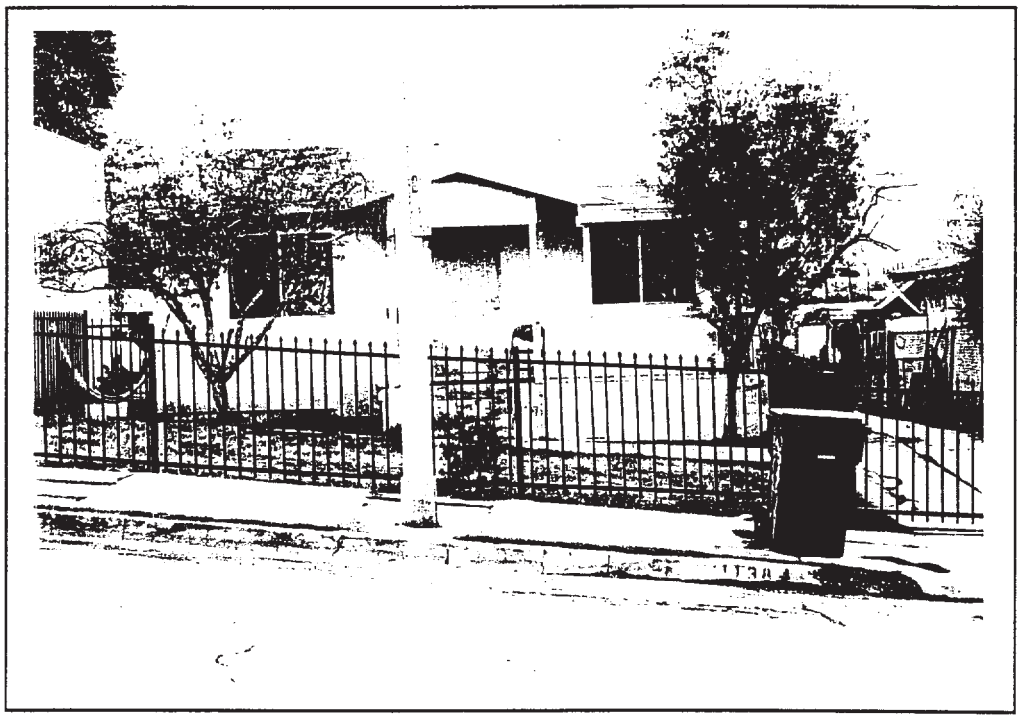


1869 - 36 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1130 CHICAGO ST LOS ANGELES

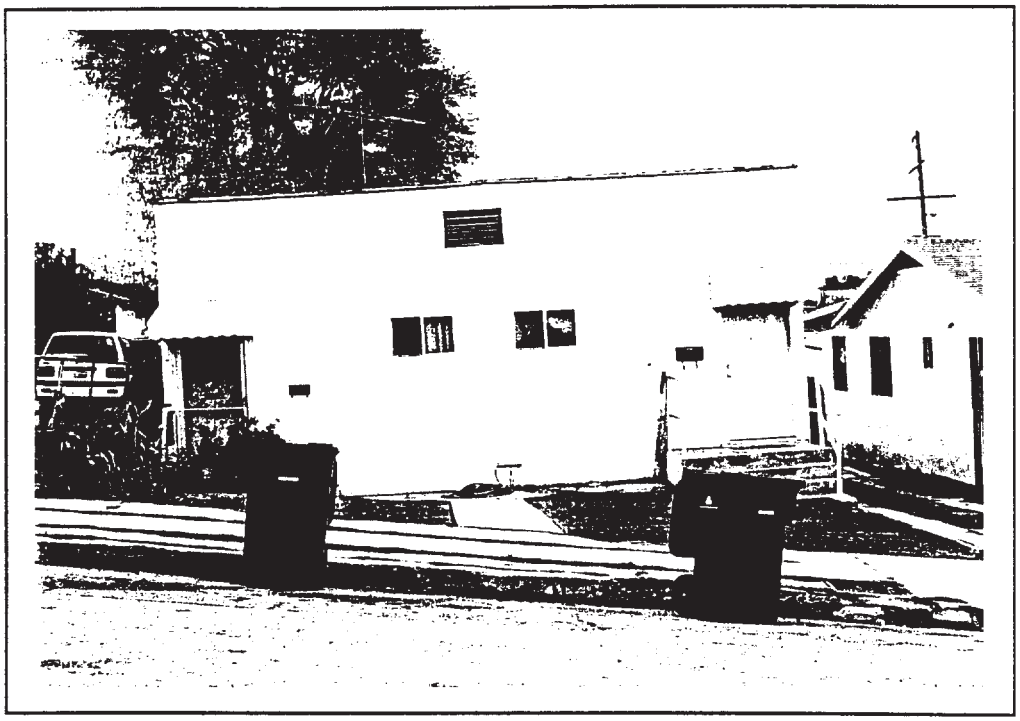
1869 - 35 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1136 (?) CHICAGO ST LOS ANGELES



1869 - 34 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1138 CHICAGO ST LOS ANGELES

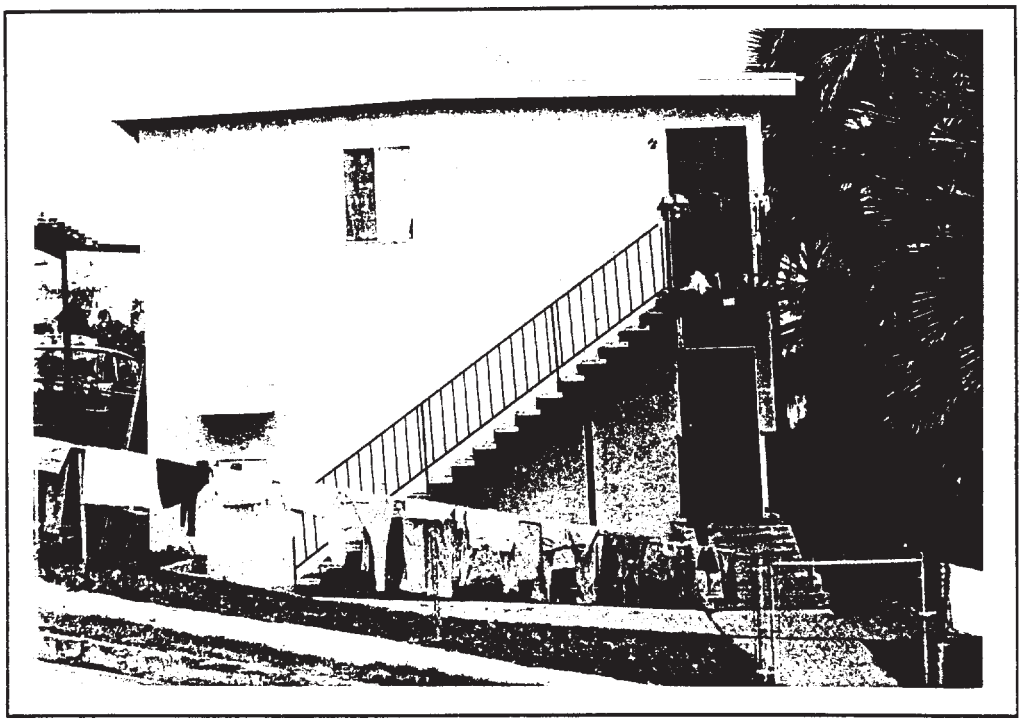


1869 - 33 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1142 / 1140 CHICAGO ST LOS ANGELES

1869 - 32 VIEW LOOKING EAST DATE PHOTOGRAPHED: 2/25/99

1144 / 1146 CHICAGO ST LOS ANGELES

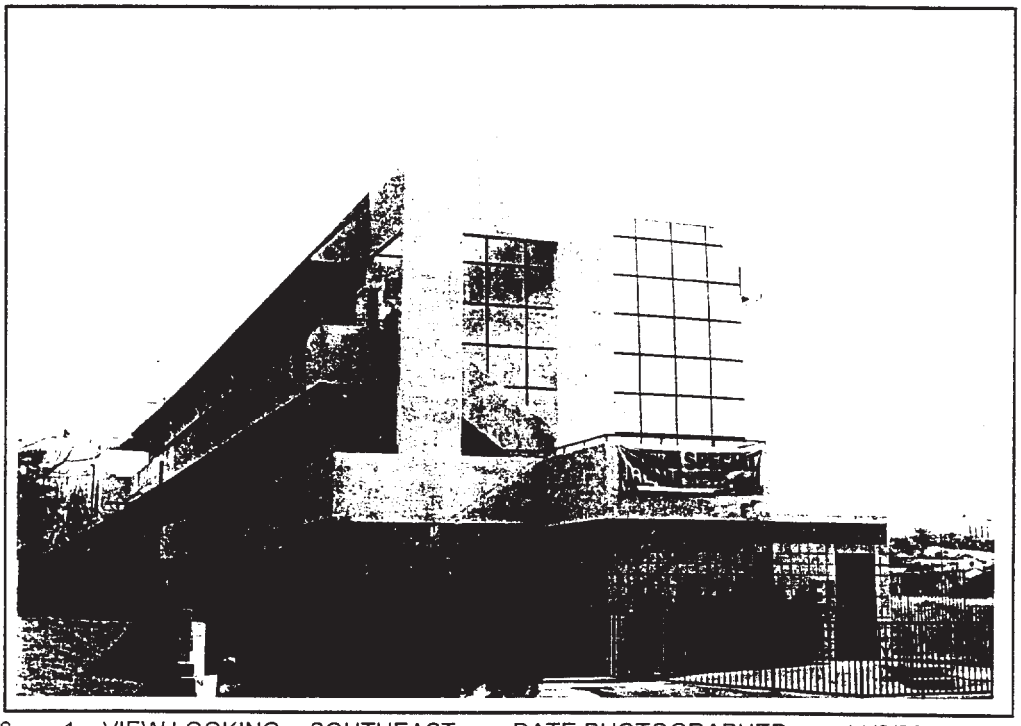


1869 - 29 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/25/99

1156 CHICAGO ST LOS ANGELES

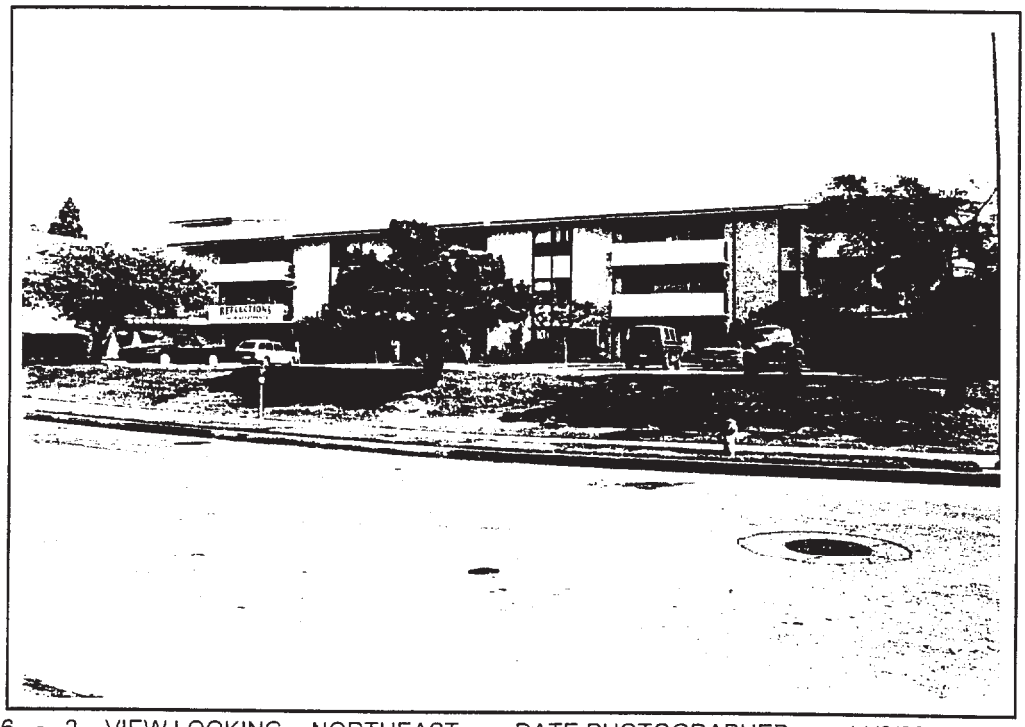
1869 - 31 VIEW LOOKING EAST DATE PHOTOGRAPHED: 1/25/99

1148 CHICAGO ST LOS ANGELES



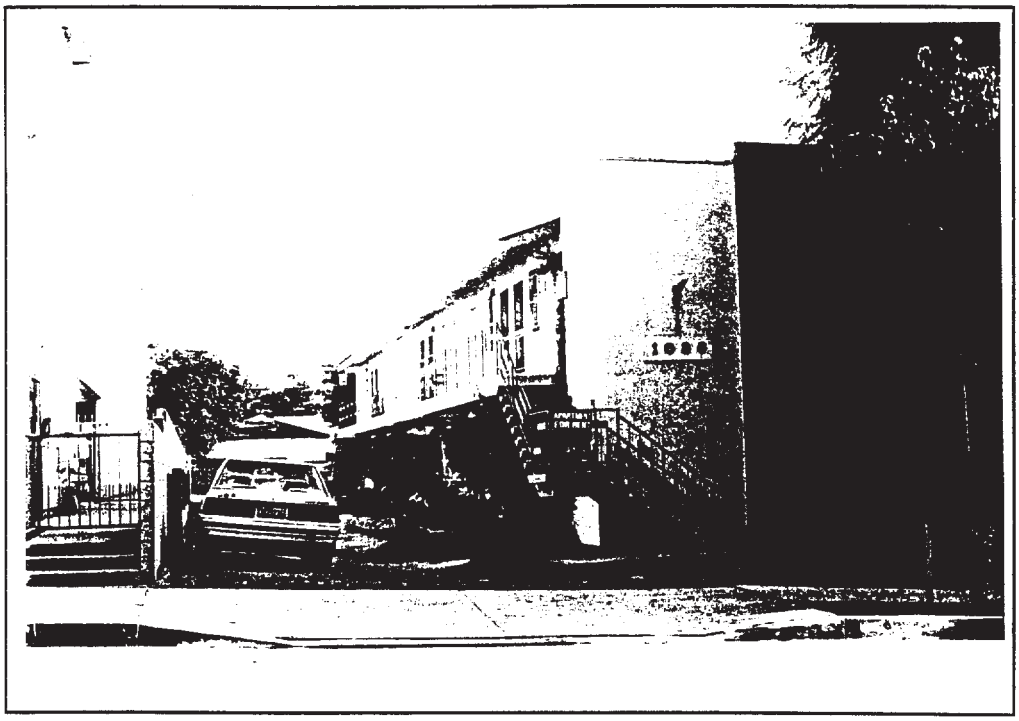
8466 - 1 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/6/98

1010 BRITTANIA ST LOS ANGELES



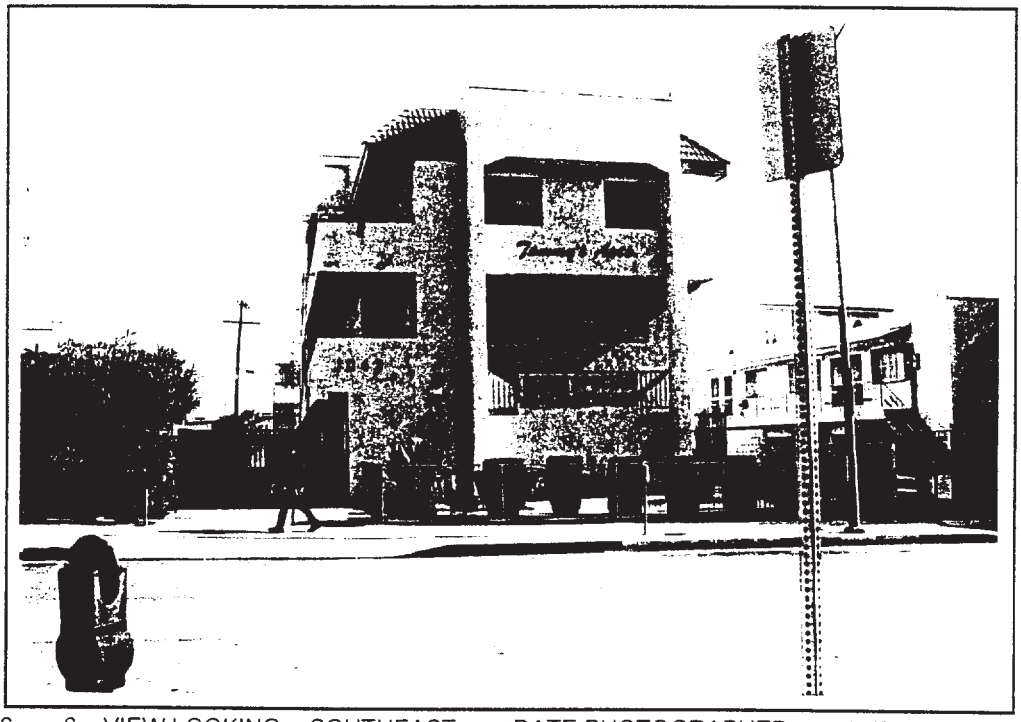
8466 - 2 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/6/98

1030 BRITTANIA ST LOS ANGELES



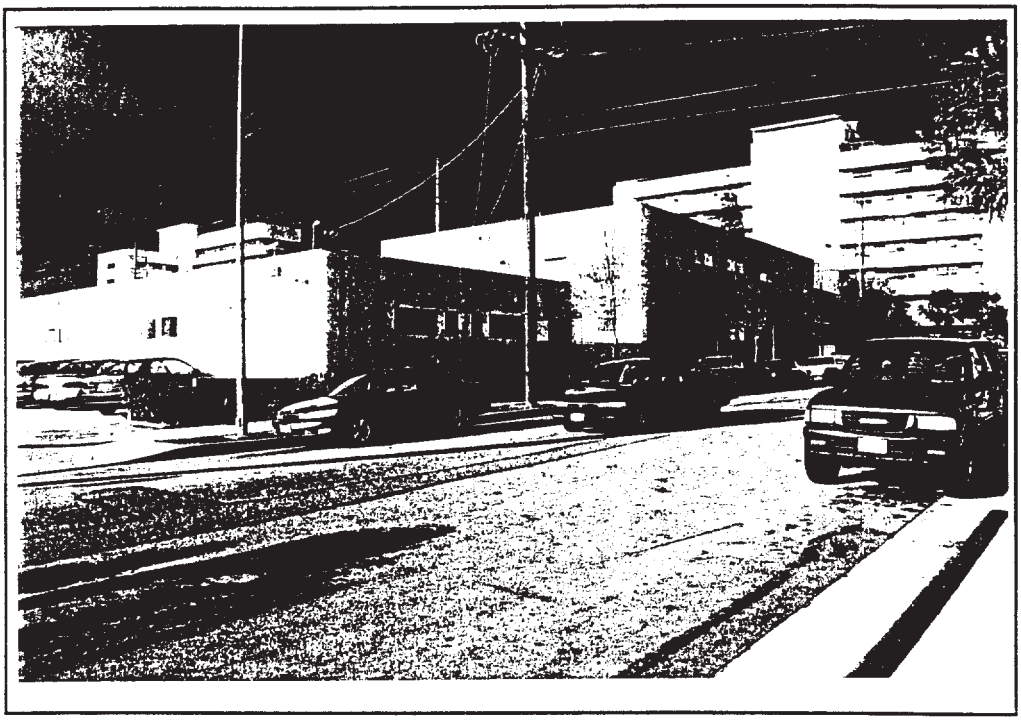
8466 - 5 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/6/98

1036 BRITTANIA ST LOS ANGELES



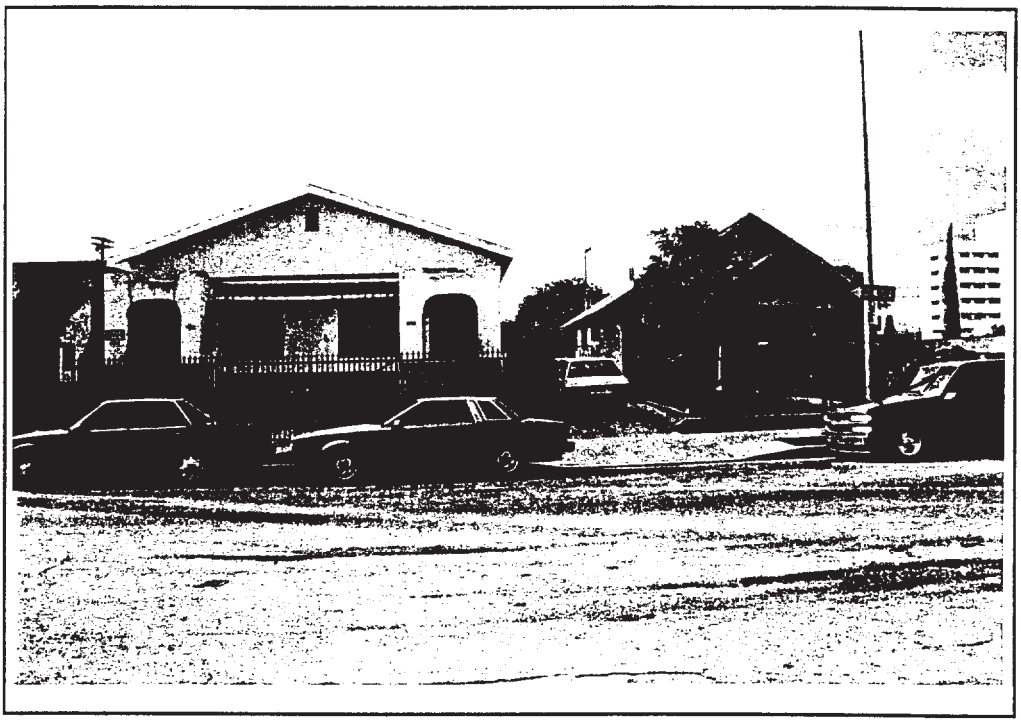
8466 - 6 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/6/98

1042 BRITTANIA ST LOS ANGELES



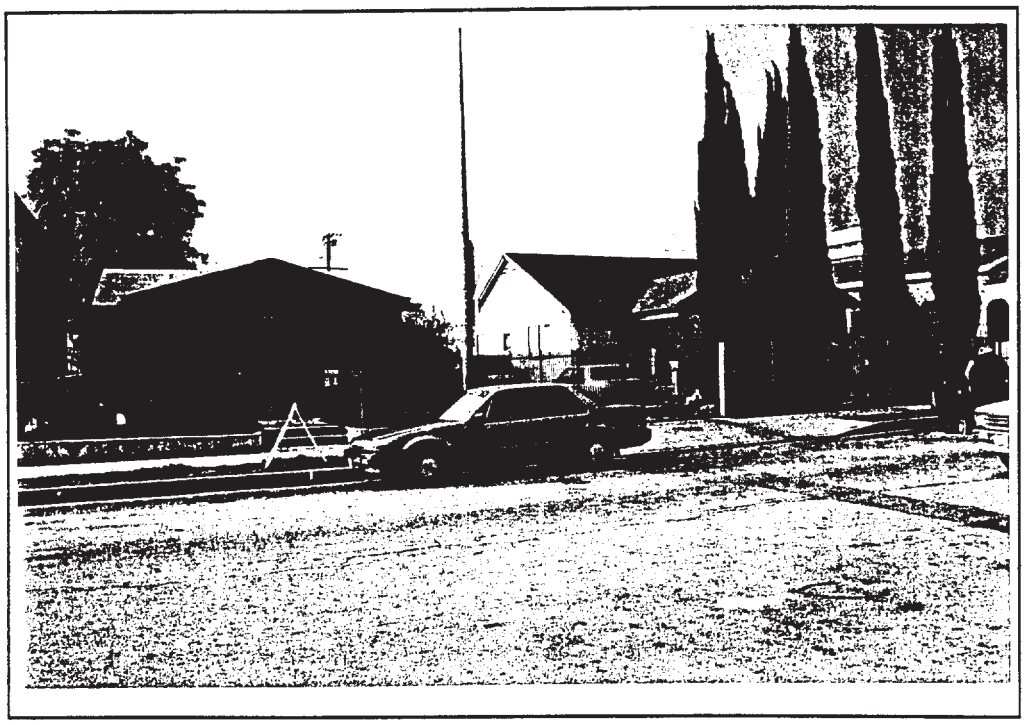
1866 - 33 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99
SHOPPING CENTER SW CORNER MARENGO AND BRITTANIA STREETS

1057 KINGSTON ST LOS ANGELES



1866 - 34 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99

1035-1037 / 1039 KINGSTON ST LOS ANGELES



1866 - 35 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99

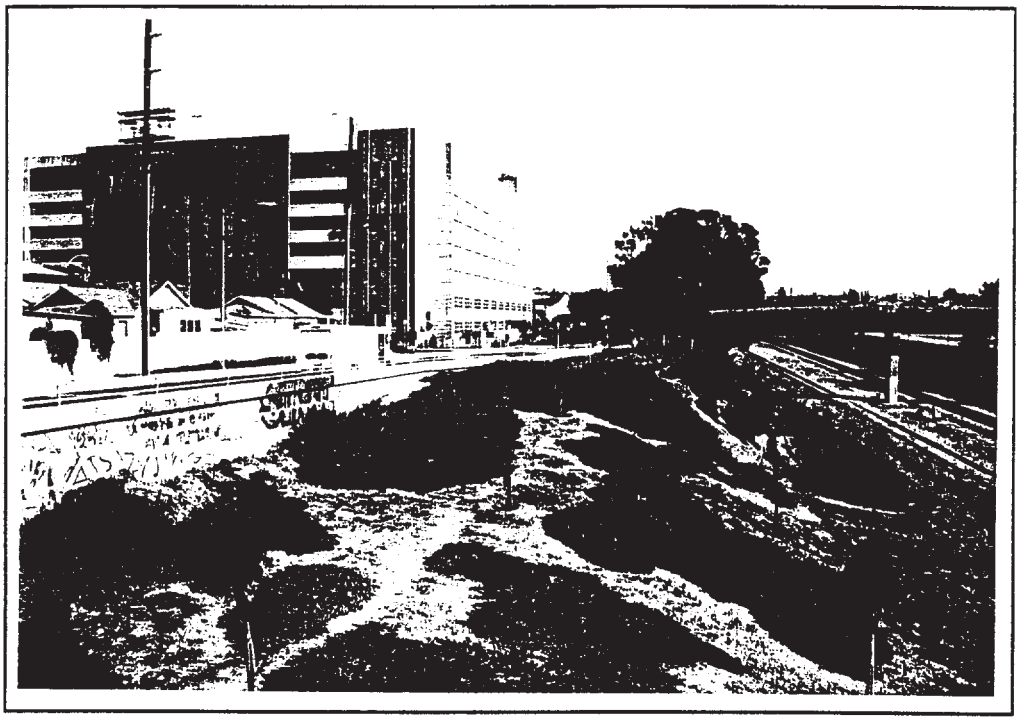
1027 / 1030 KINGSTON ST LOS ANGELES

1866 - 36 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99

1025 / 1019 KINGSTON ST LOS ANGELES

8468 - 24 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 6/11/98
CONTEXTURAL VIEW: MARENGO PARKING STRUCTURE AND KINGSTON STREET

1000 BLOCK KINGSTON ST LOS ANGELES

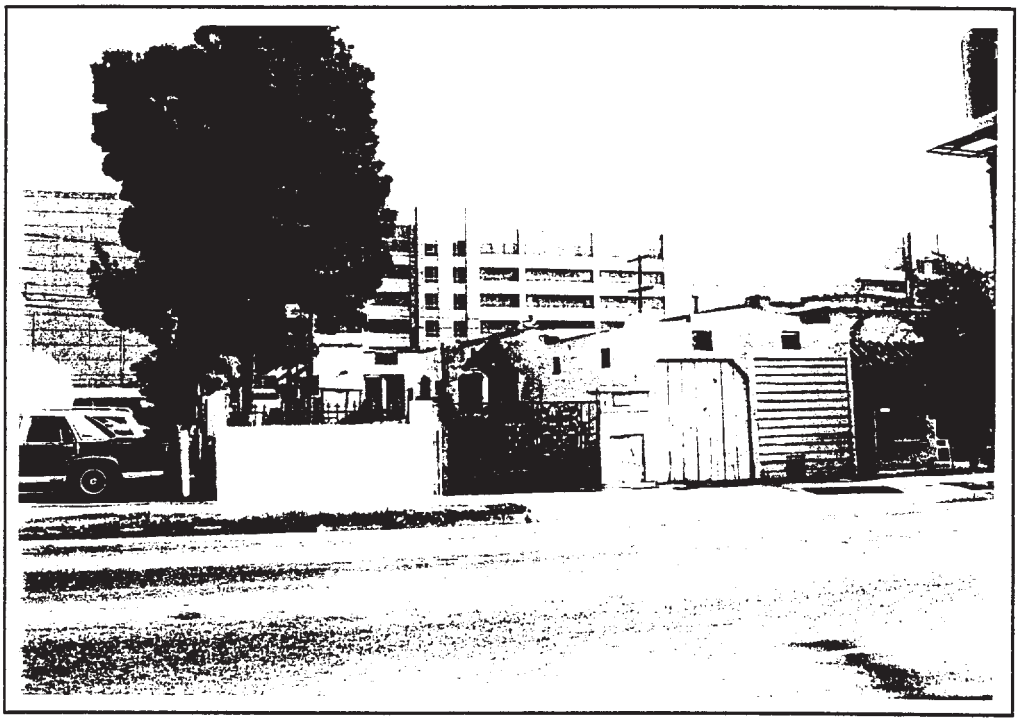


8466 - 24 VIEW LOOKING EAST DATE PHOTOGRAPHED: 11/6/98
CONTEXTUAL VIEW: MARENGO PARKING STRUCTURE / I-10 FREEWAY

1016 N STATE ST LOS ANGELES

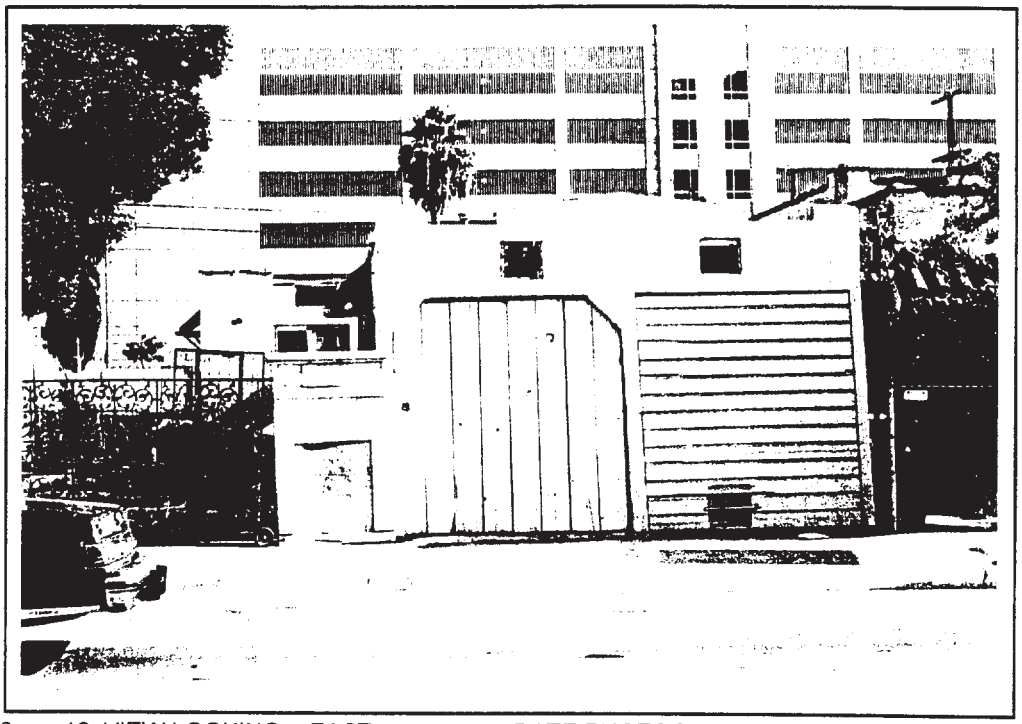
8466 - 14 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/6/98
SE CORNER STATE AND MARENGO STREETS

1000 BLOCK N STATE ST LOS ANGELES



8466 - 15 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 11/6/98

1052 (?) N STATE ST LOS ANGELES

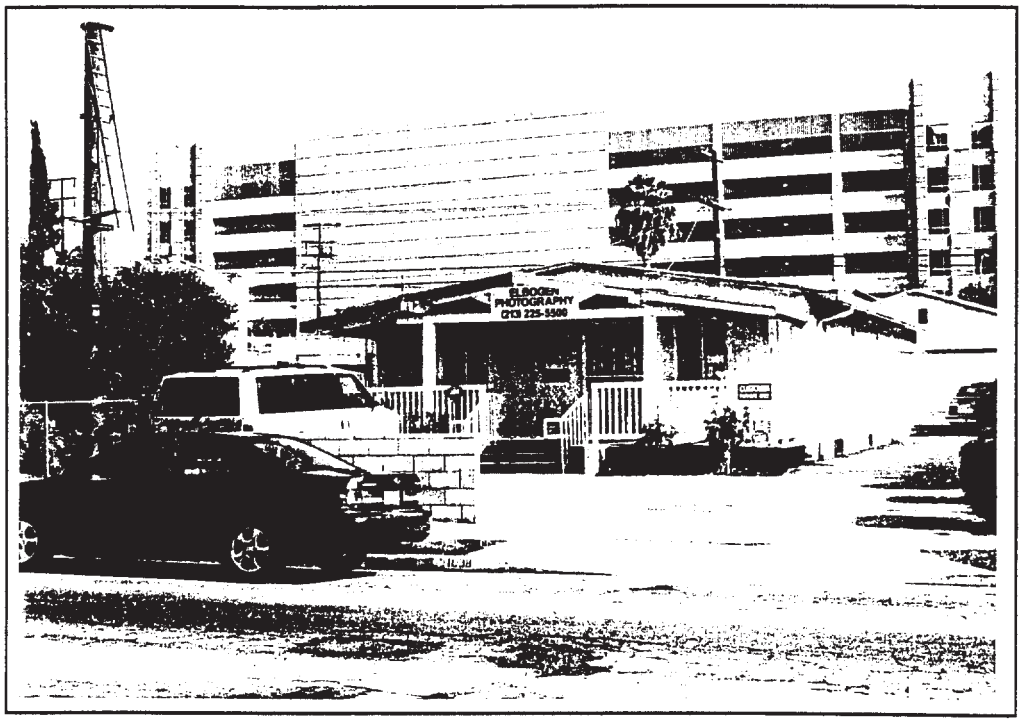


8466 - 16 VIEW LOOKING EAST DATE PHOTOGRAPHED: 11/6/98

1052 (?) N STATE ST LOS ANGELES

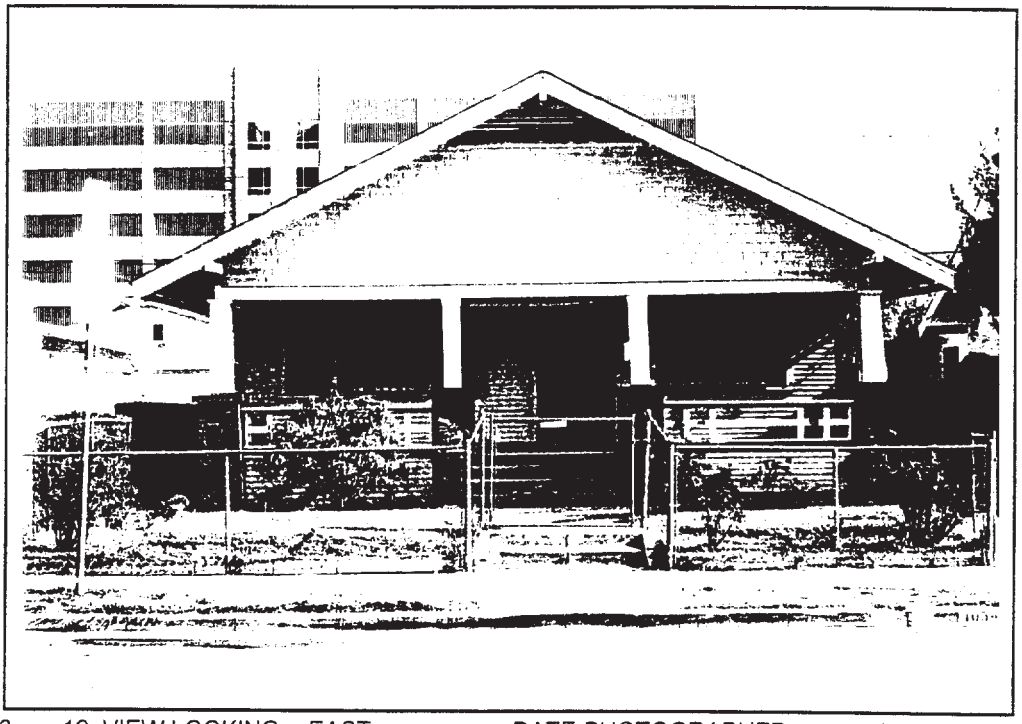
8466 - 17 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/6/98

1050 (?) N STATE ST LOS ANGELES



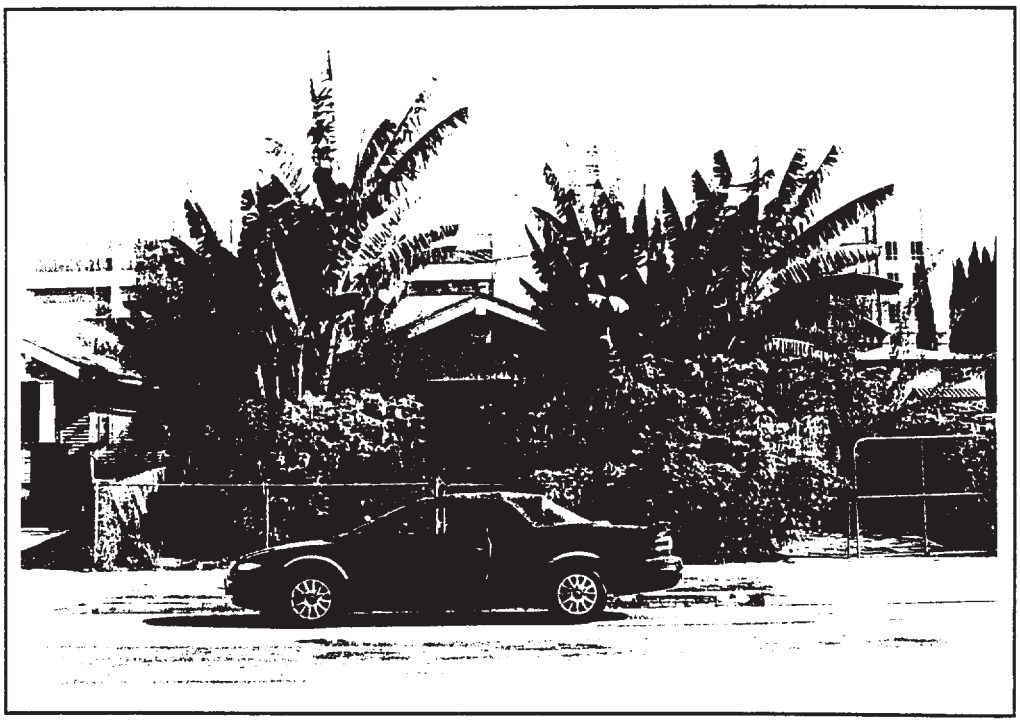
8466 - 18 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/6/98

1038 N STATE ST LOS ANGELES



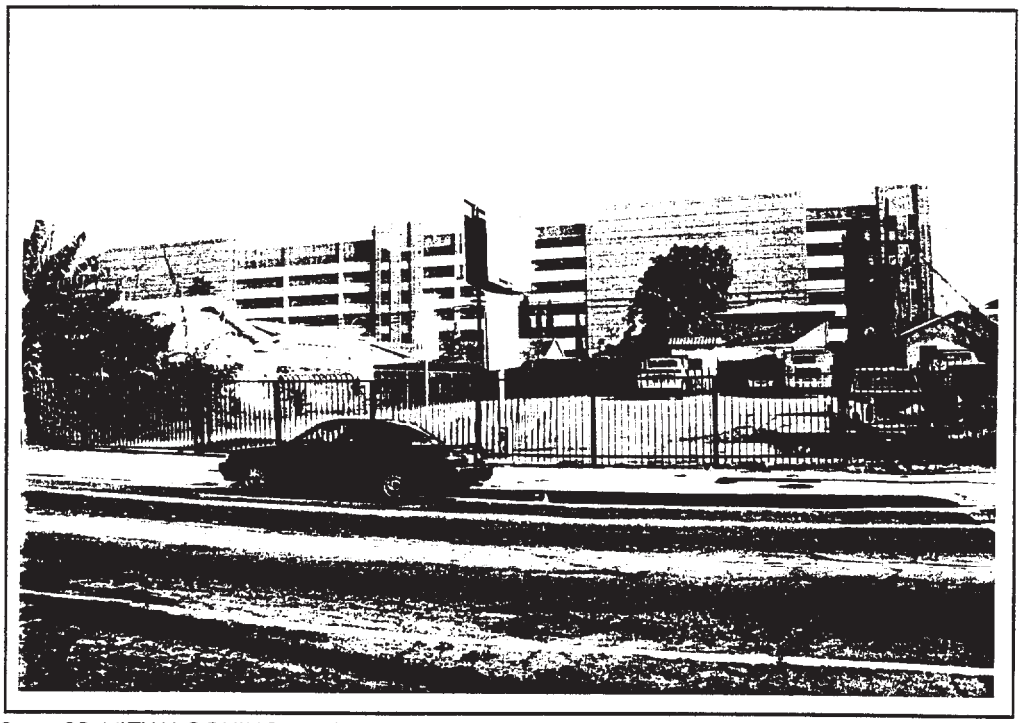
8466 - 19 VIEW LOOKING EAST DATE PHOTOGRAPHED: 11/6/98

1034 N STATE ST LOS ANGELES



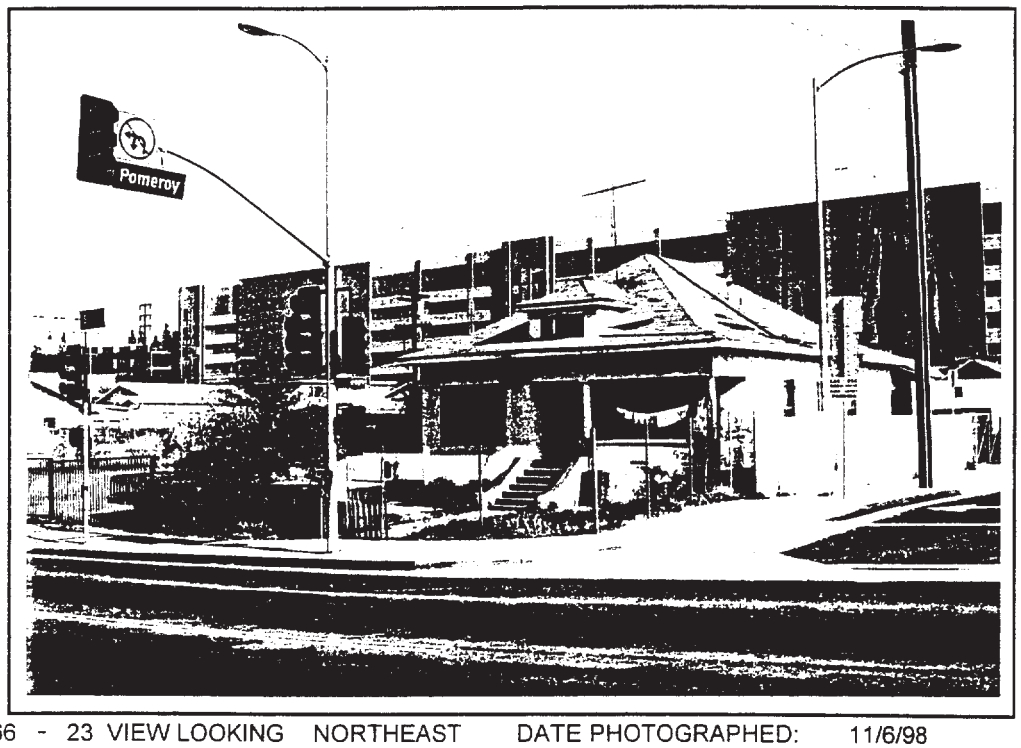
8466 - 21 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/6/98

1030-1030 1/2 N STATE ST LOS ANGELES



8466 - 22 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/6/98
VACANT LOT

1020 (?) N STATE ST LOS ANGELES

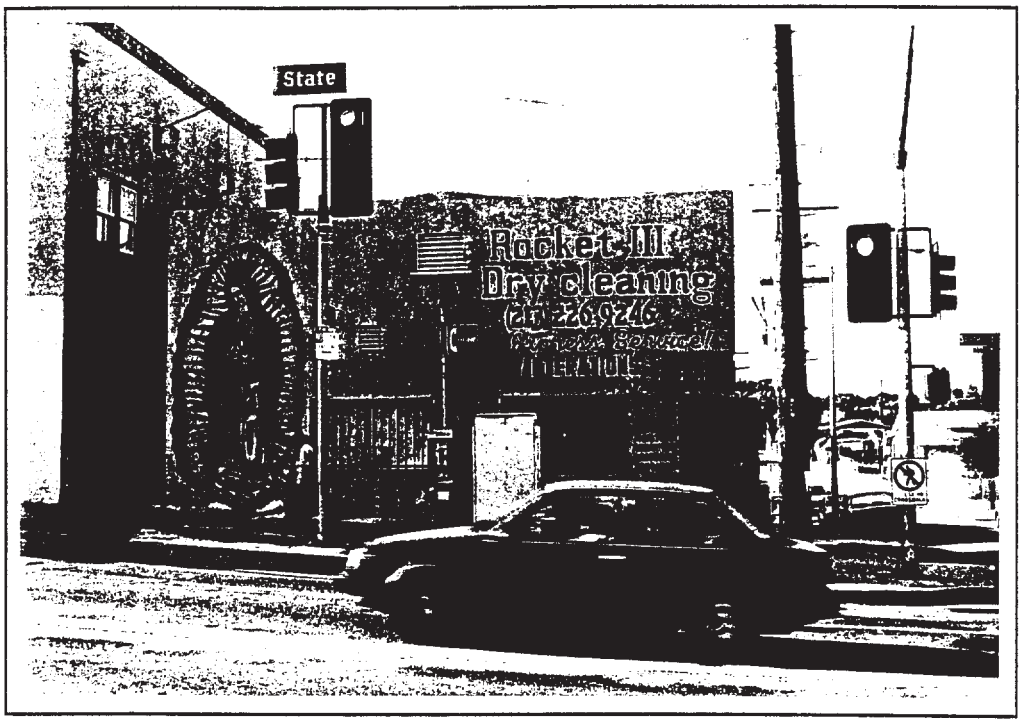


8466 - 23 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 11/6/98

1016 N STATE ST LOS ANGELES

8466 - 25 VIEW LOOKING WEST DATE PHOTOGRAPHED: 11/6/98

1007 N STATE ST LOS ANGELES

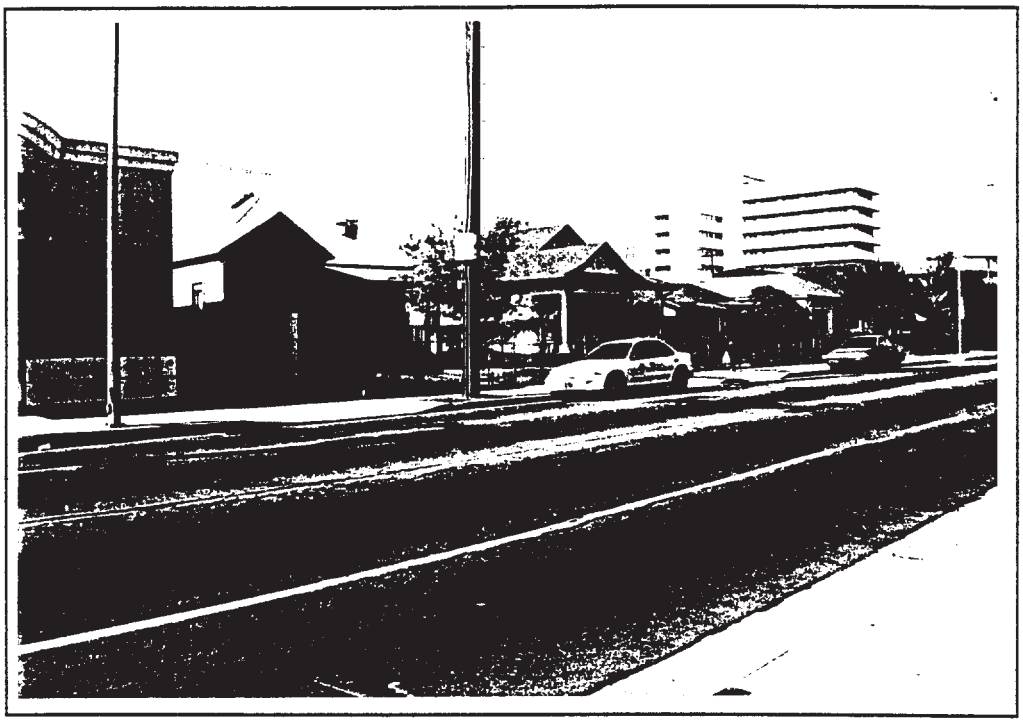


8466 - 26 VIEW LOOKING WEST DATE PHOTOGRAPHED: 11/6/98

1011 N STATE ST LOS ANGELES

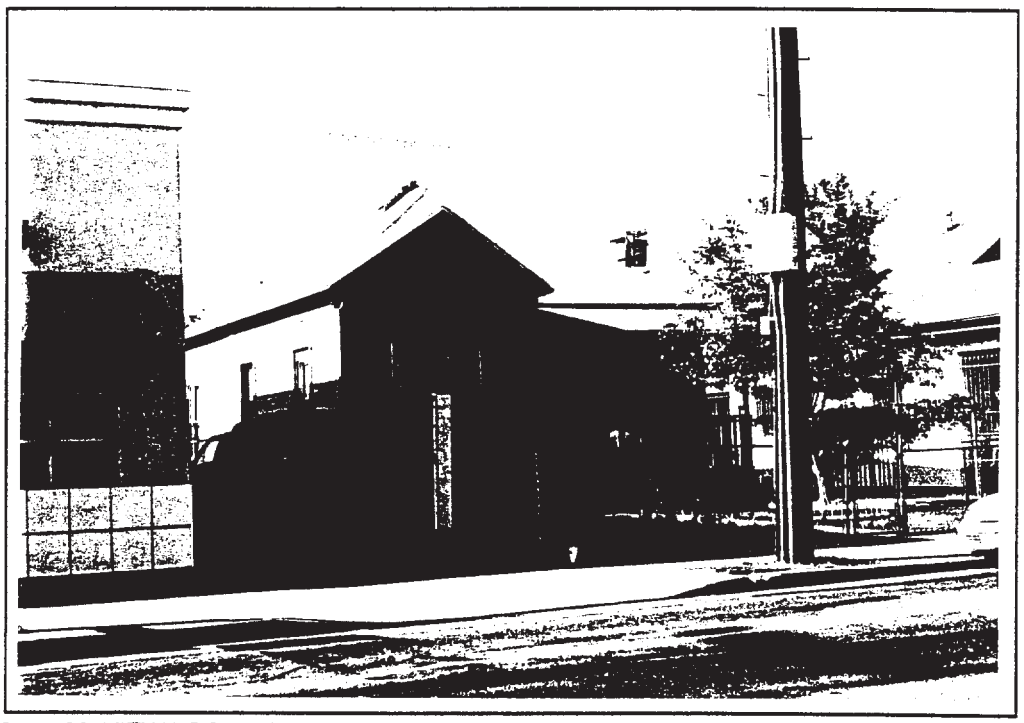
8466 - 27 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98

1025 N STATE ST LOS ANGELES



8466 - 28 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98
CONTEXTUAL VIEW: N STATE STREET

1000 BLOCK N STATE ST LOS ANGELES



8466 - 29 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98

1027 N STATE ST LOS ANGELES

8466 - 30 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98

1031 N STATE ST LOS ANGELES

8466 - 31 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98

1035 N STATE ST LOS ANGELES

8466 - 32 VIEW LOOKING WEST DATE PHOTOGRAPHED: 11/6/98

1039-1039 1/2 N STATE ST LOS ANGELES

8466 - 33 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98

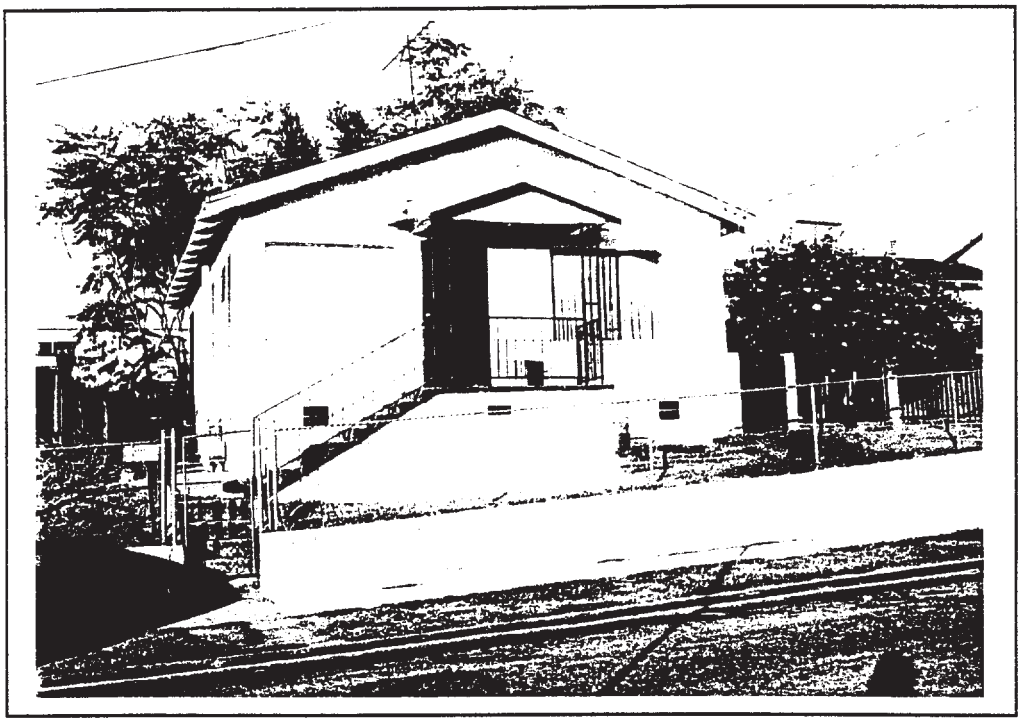
1043 N STATE ST LOS ANGELES

8466 - 34 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 11/6/98

1047 N STATE ST LOS ANGELES

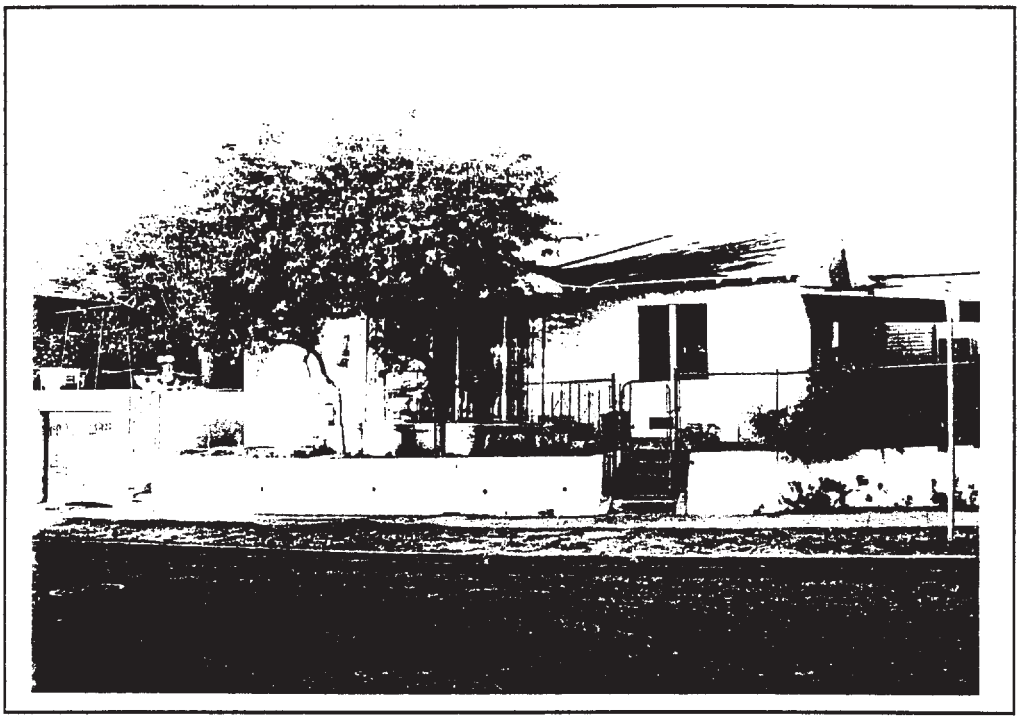
8466 - 35 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 11/6/98
SW CORNER STATE AND MARENGO STREETS

1000 BLOCK N STATE ST LOS ANGELES



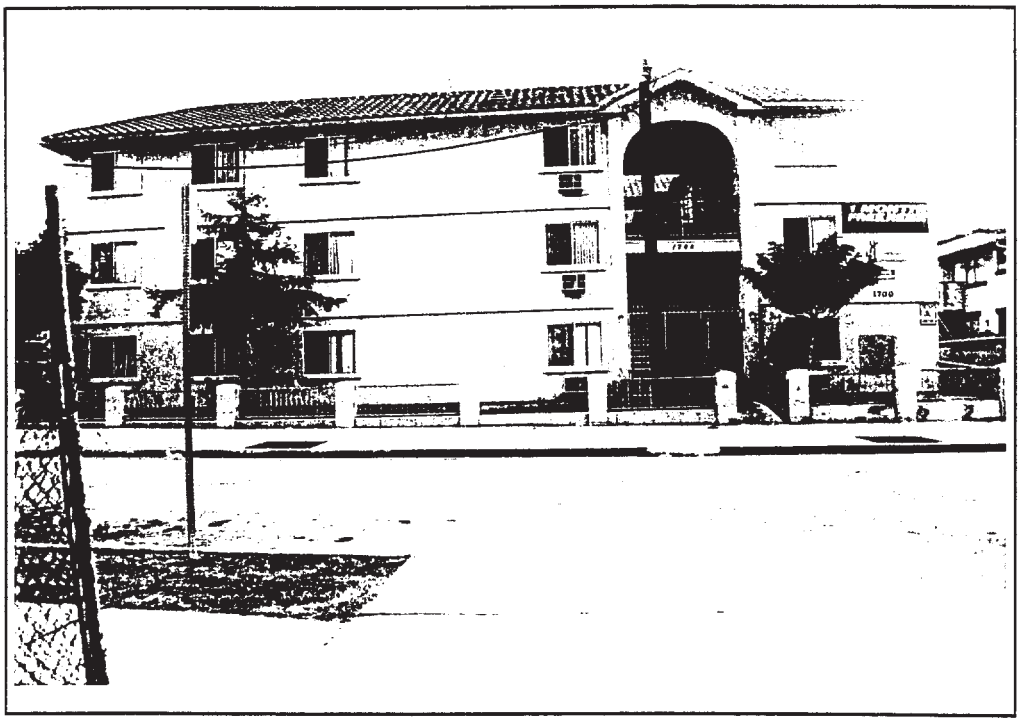
8468 - 22 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 6/11/98

1833 POMEROY ST LOS ANGELES



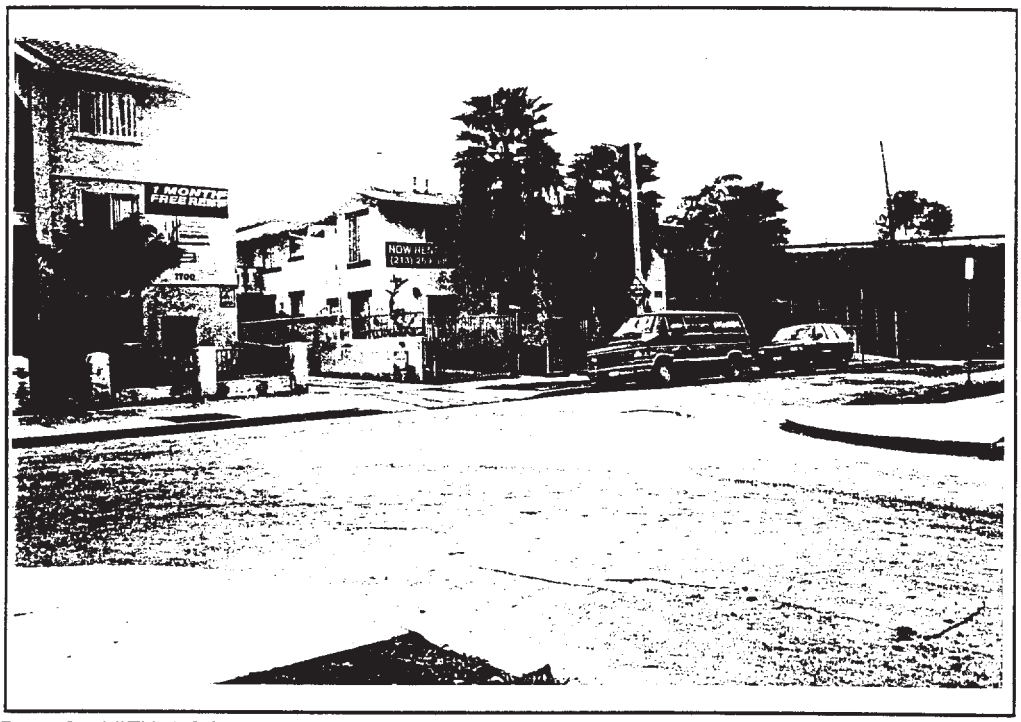
8468 - 23 VIEW LOOKING NORTH DATE PHOTOGRAPHED: 6/11/98

1839 POMEROY ST LOS ANGELES



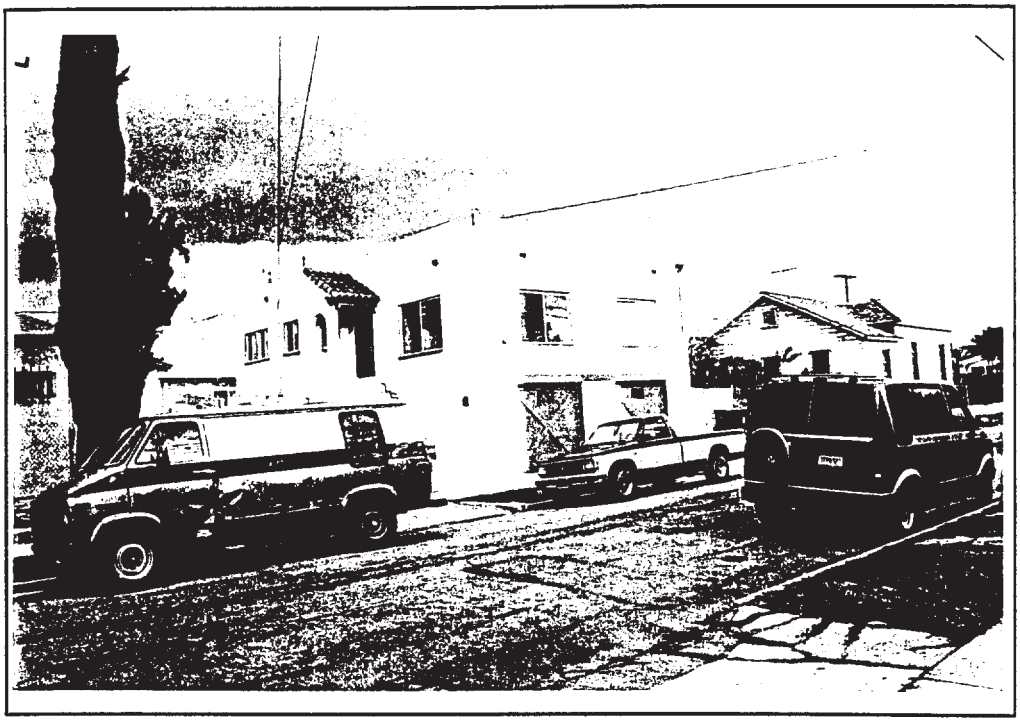
1867 - 7 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

1700 POMEROY ST LOS ANGELES



1867 - 8 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99

1700 / 1690 POMEROY ST LOS ANGELES

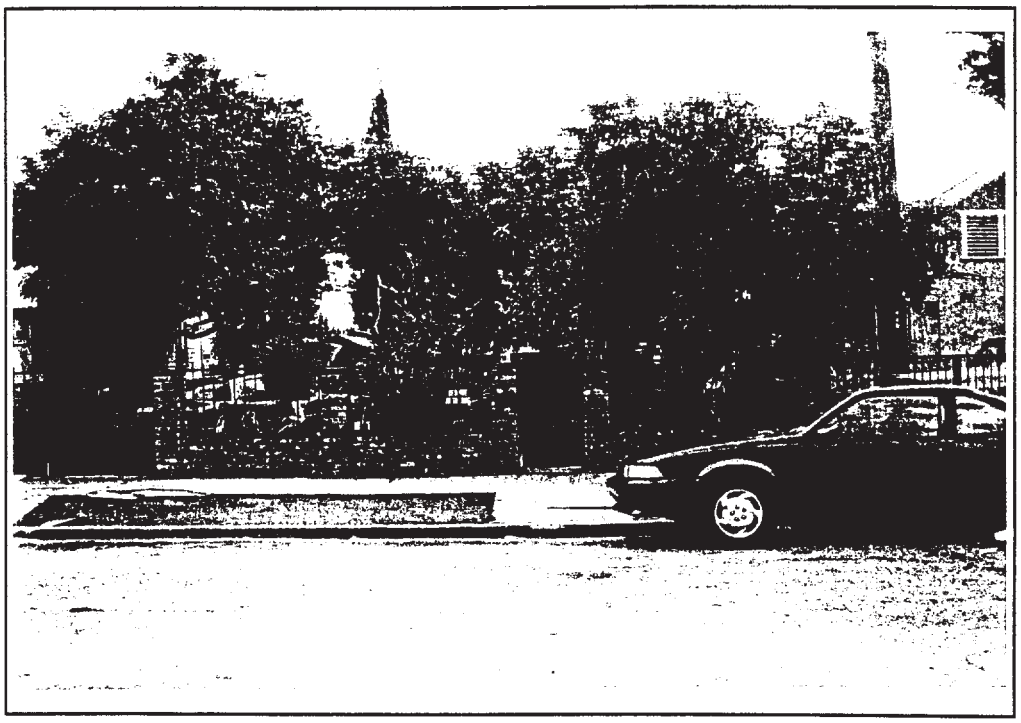


1867 - 6 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99

1711 POMEROY ST LOS ANGELES

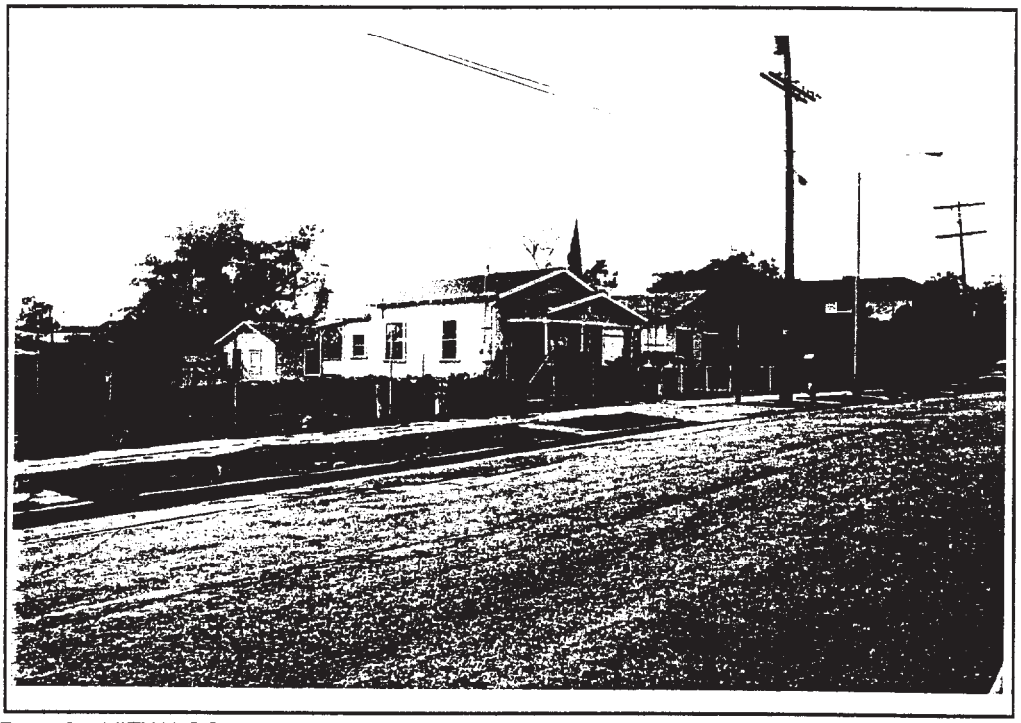
1867 - 5 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

1712 / 1706 POMEROY ST LOS ANGELES



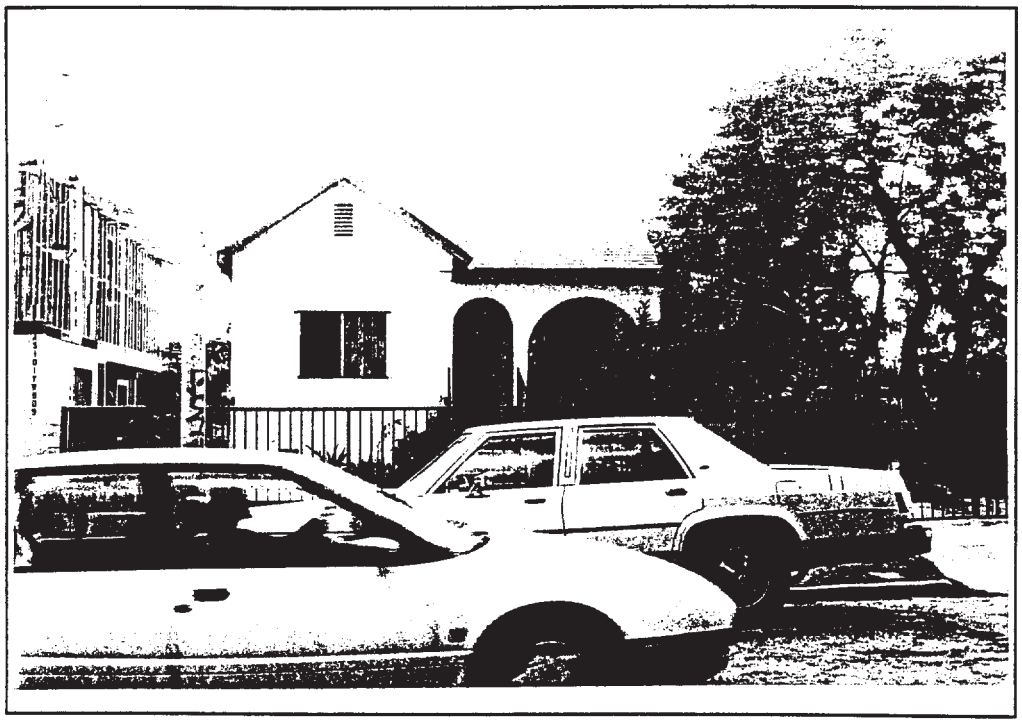
1867 - 4 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

1716 / 1714 POMEROY ST LOS ANGELES



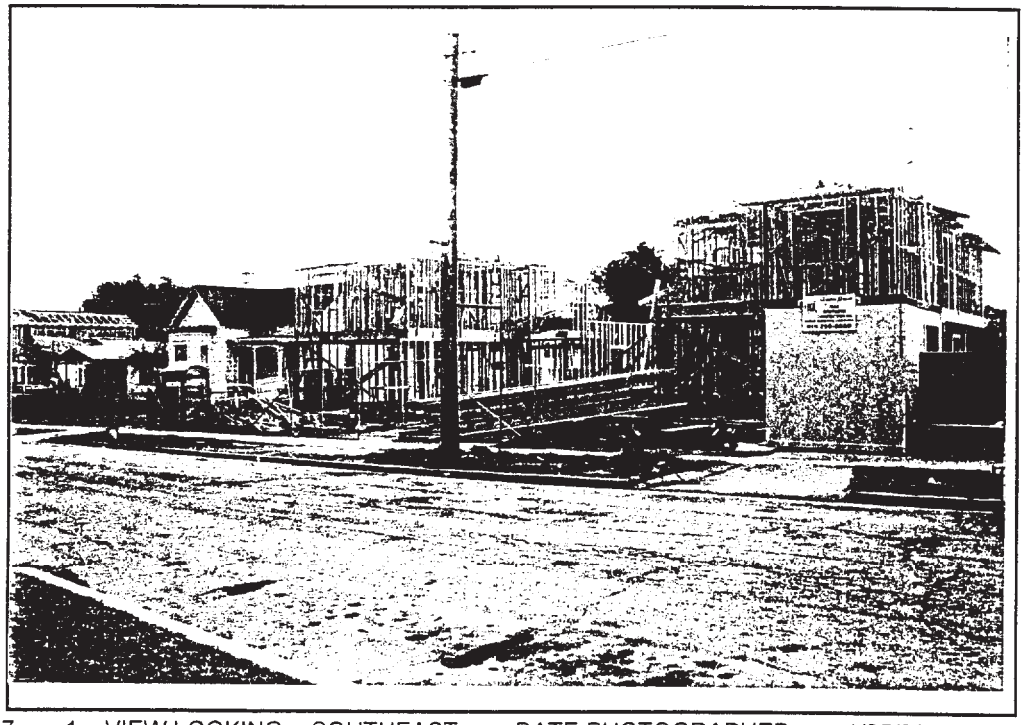
1867 - 3 VIEW LOOKING SOUTHWEST DATE PHOTOGRAPHED: 1/25/99
1726-1728 VACANT LOT

1726-1728 / 1722 / 1718 POMEROY ST LOS ANGELES



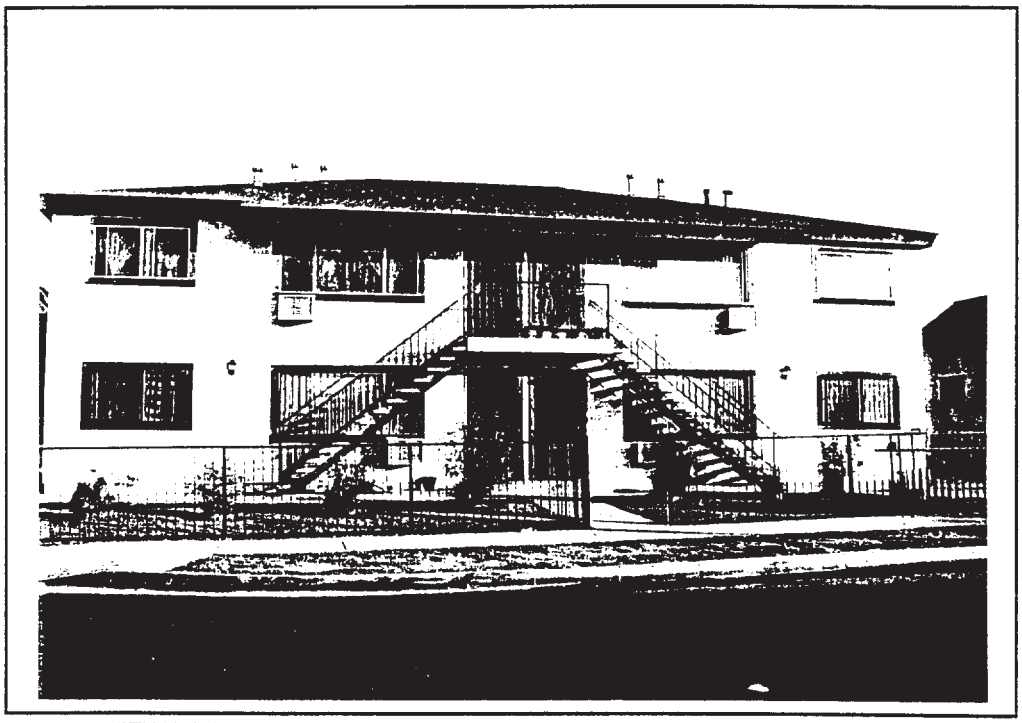
1867 - 2 VIEW LOOKING SOUTH DATE PHOTOGRAPHED: 1/25/99

1806 POMEROY ST LOS ANGELES



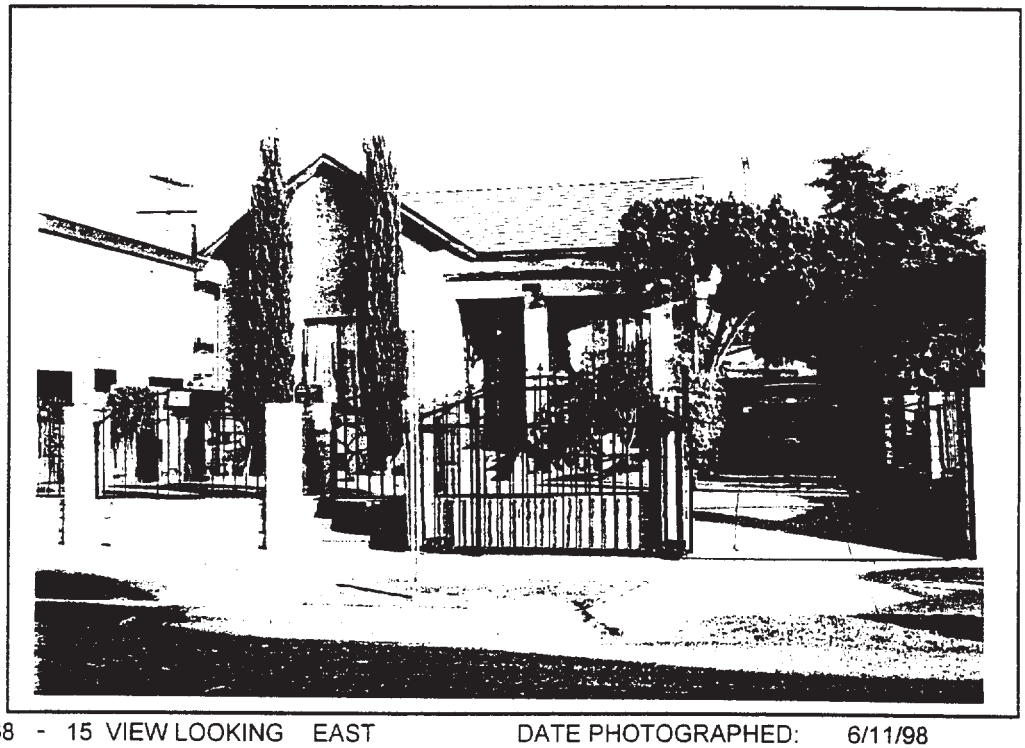
1867 - 1 VIEW LOOKING SOUTHEAST DATE PHOTOGRAPHED: 1/25/99

1818 / 1814 /1812-1810 POMEROY ST LOS ANGELES



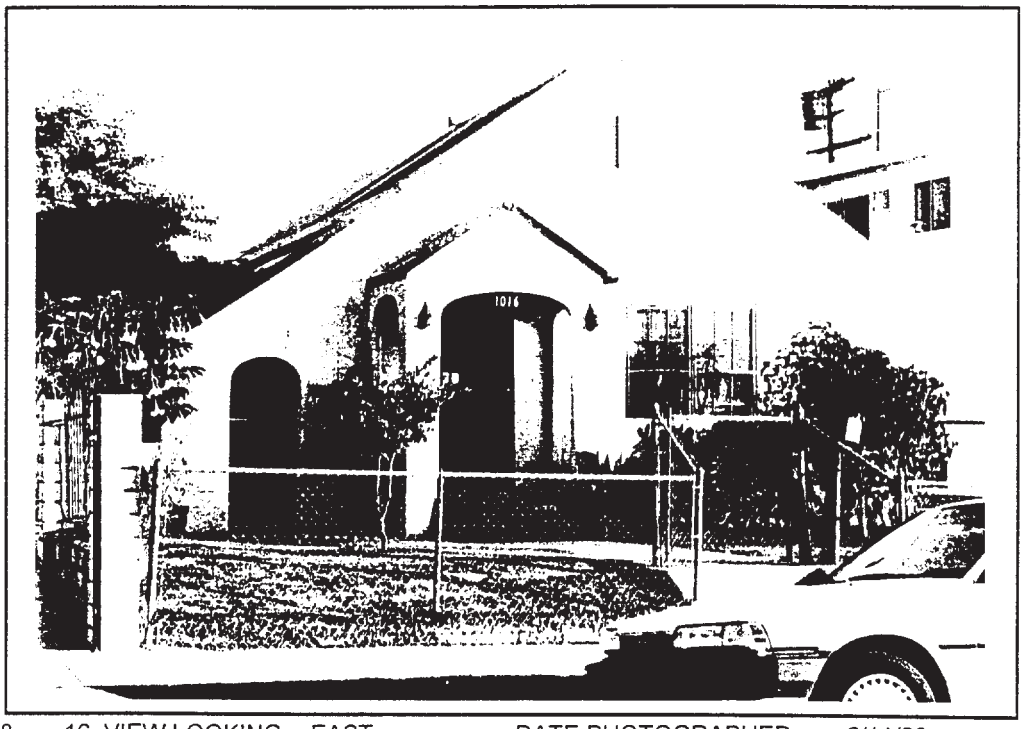
8468 - 14 VIEW LOOKING EAST DATE PHOTOGRAPHED: 6/11/98

1028 CLEMENT ST LOS ANGELES



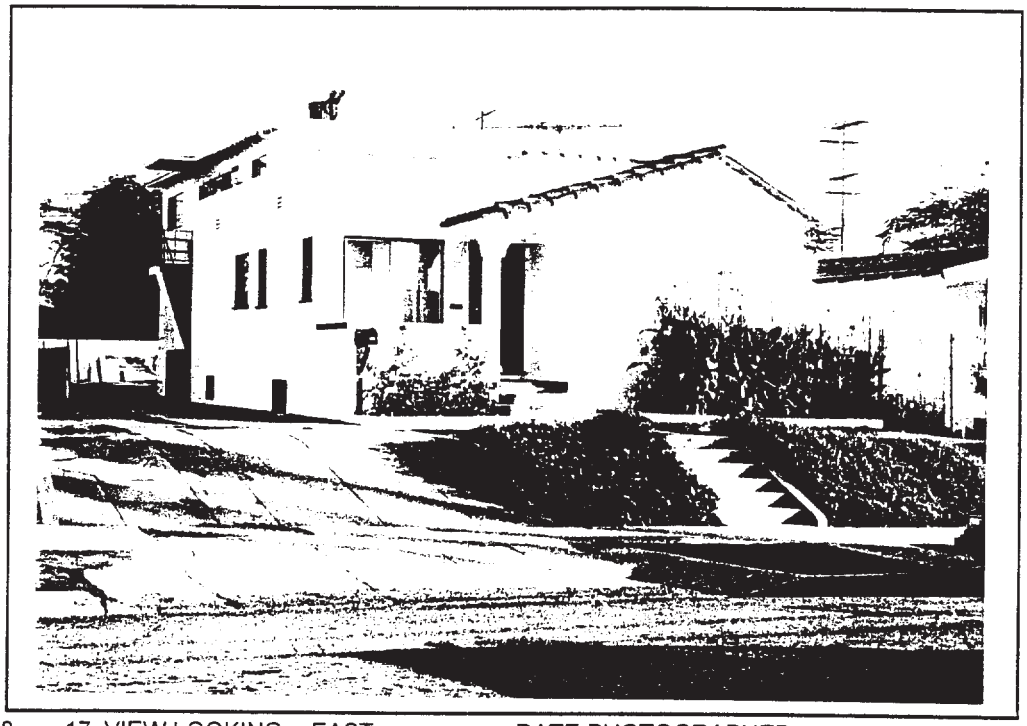
8468 - 15 VIEW LOOKING EAST DATE PHOTOGRAPHED: 6/11/98

1020 CLEMENT ST LOS ANGELES



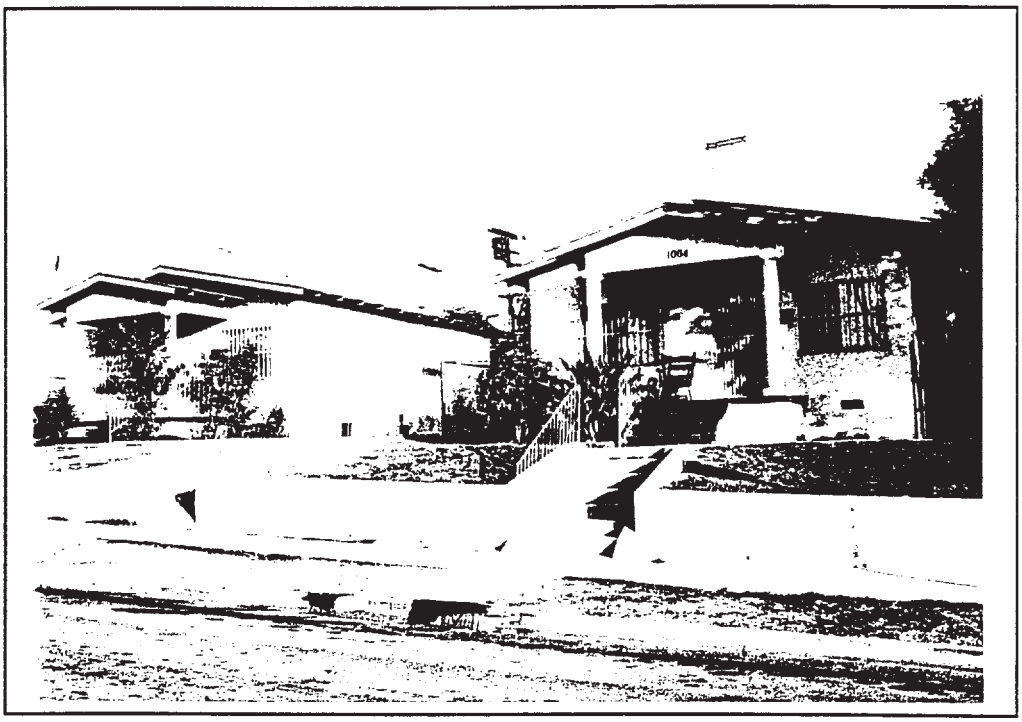
8468 - 16 VIEW LOOKING EAST DATE PHOTOGRAPHED: 6/11/98

1016 CLEMENT ST LOS ANGELES



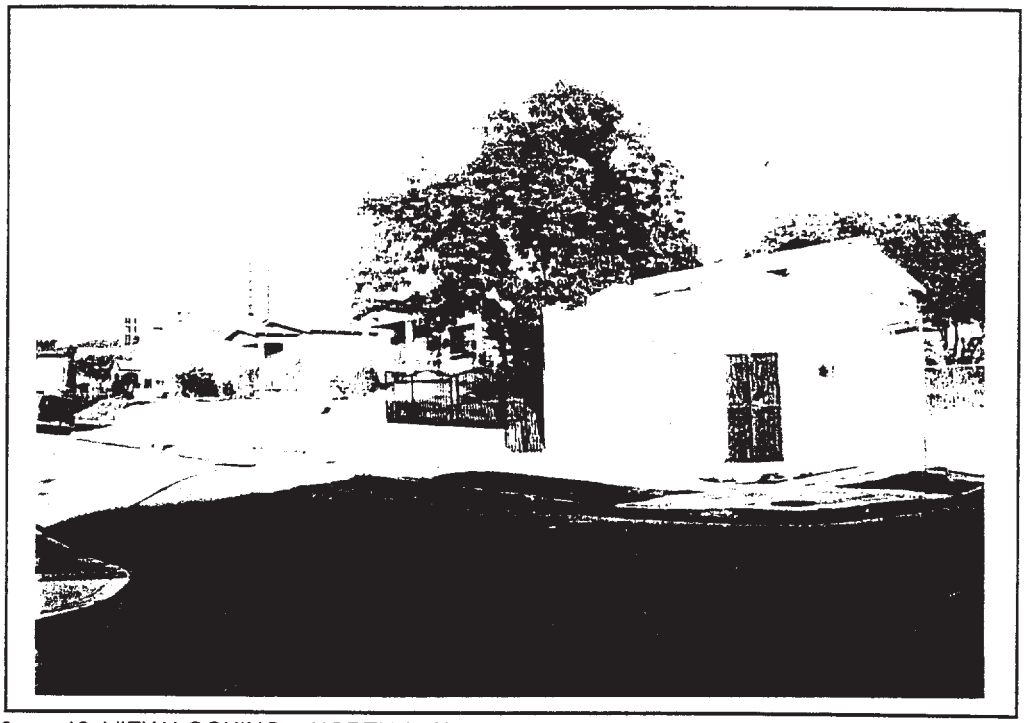
8468 - 17 VIEW LOOKING EAST DATE PHOTOGRAPHED: 6/11/98

1012 CLEMENT ST LOS ANGELES



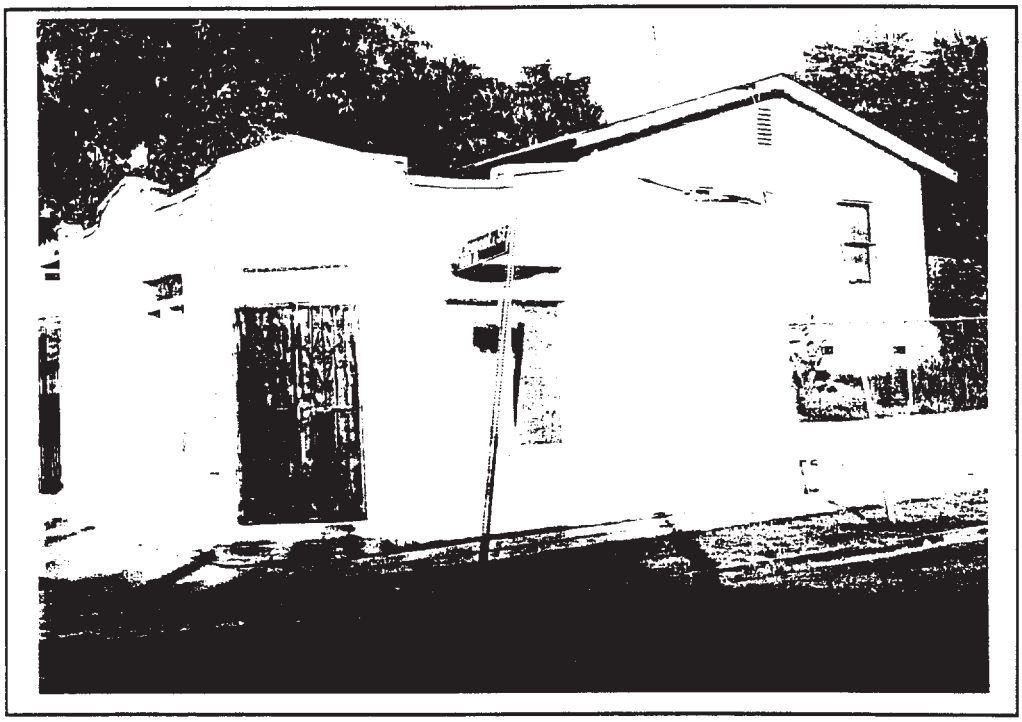
8468 - 18 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 6/11/98

1008 / 1004 CLEMENT ST LOS ANGELES



8468 - 19 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 6/11/98
N-E CORNER OF CLEMENT AND POMEROY

CLEMENT ST LOS ANGELES



8468 - 20 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 6/11/98
N-E CORNER OF CLEMENT AND POMEROY

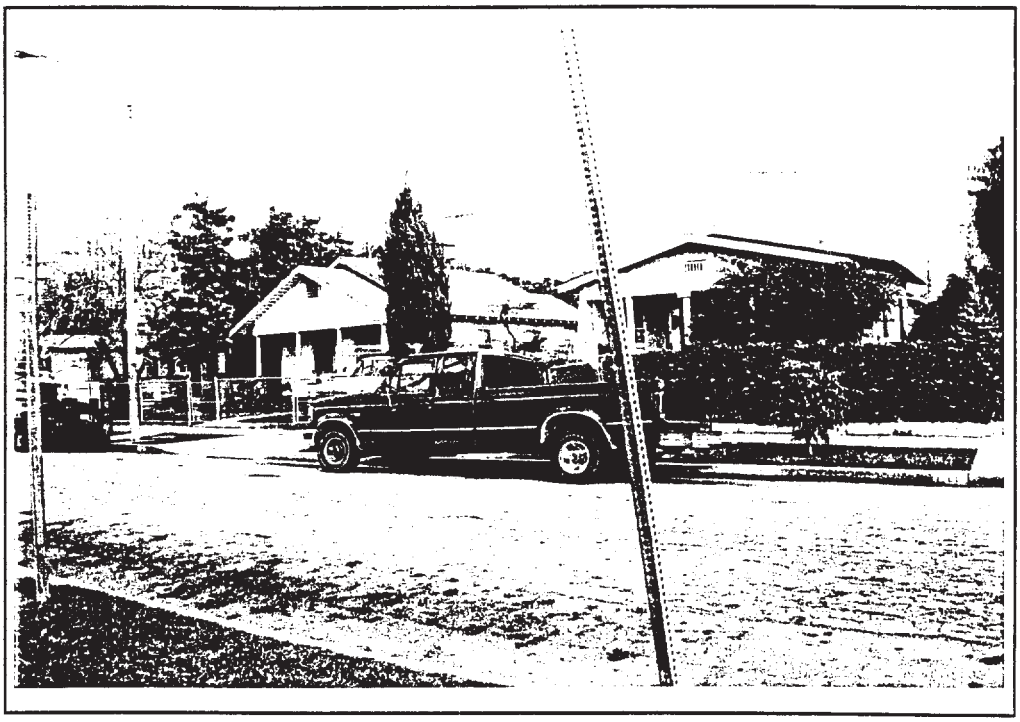
CLEMENT ST LOS ANGELES

8468 - 21 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 6/11/98
N-E CORNER OF CLEMENT AND POMEROY

1000-1002 CLEMENT ST LOS ANGELES

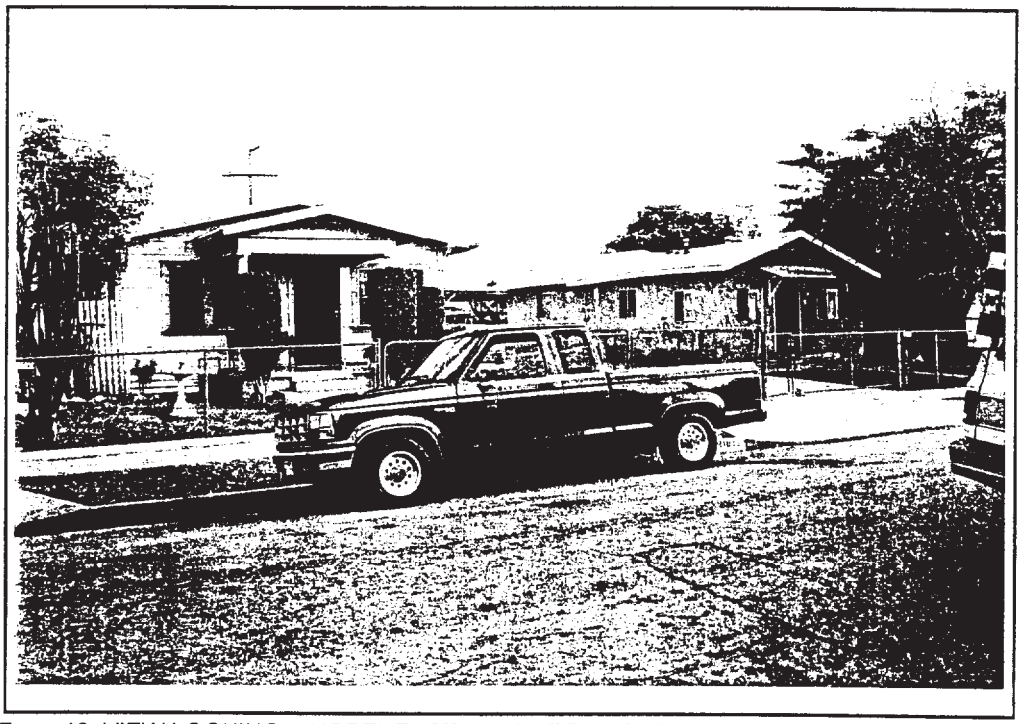
1867 - 26 VIEW LOOKING NORTHWEST DATE PHOTOGRAPHED: 1/25/99
CONTEXTUAL VIEW: FROM CLEMENT STREET TOWARD MARK STREET

1000 BLOCK POMEROY ST LOS ANGELES



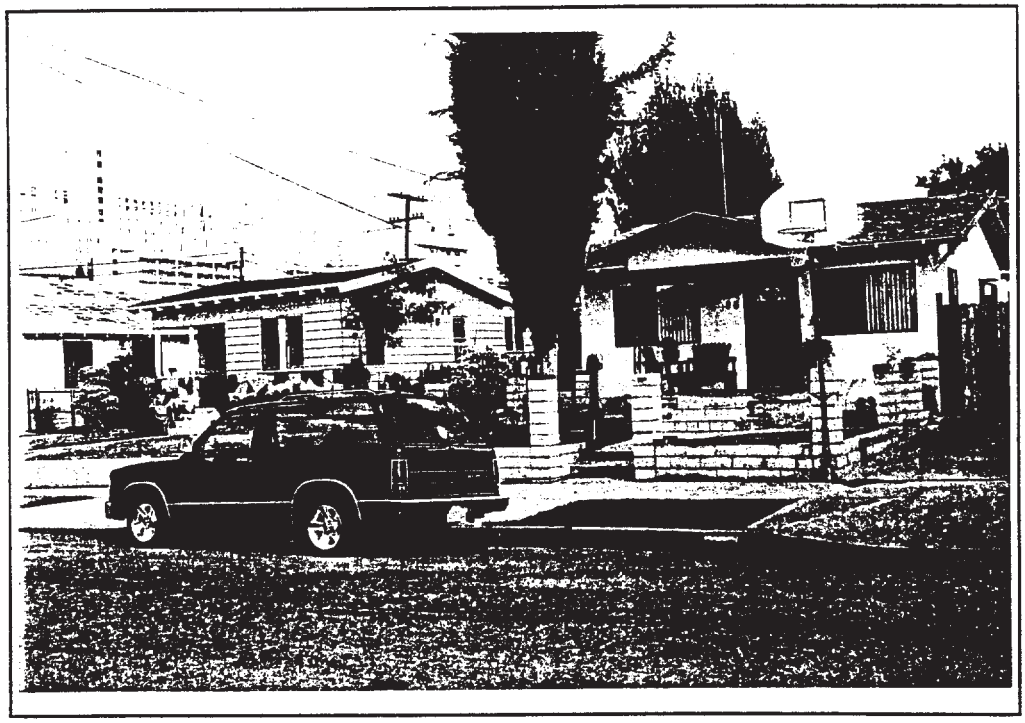
1867 - 18 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 1/25/99

1004 / 1000 MARK ST LOS ANGELES



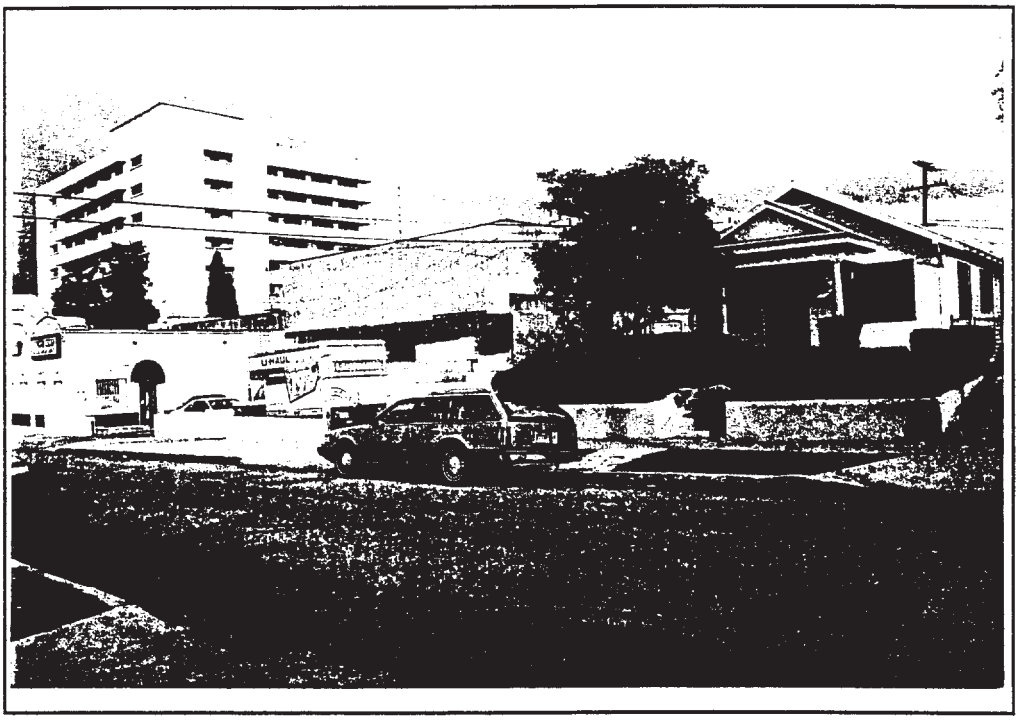
1867 - 19 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 1/25/99

1012 / 1008 MARK ST LOS ANGELES



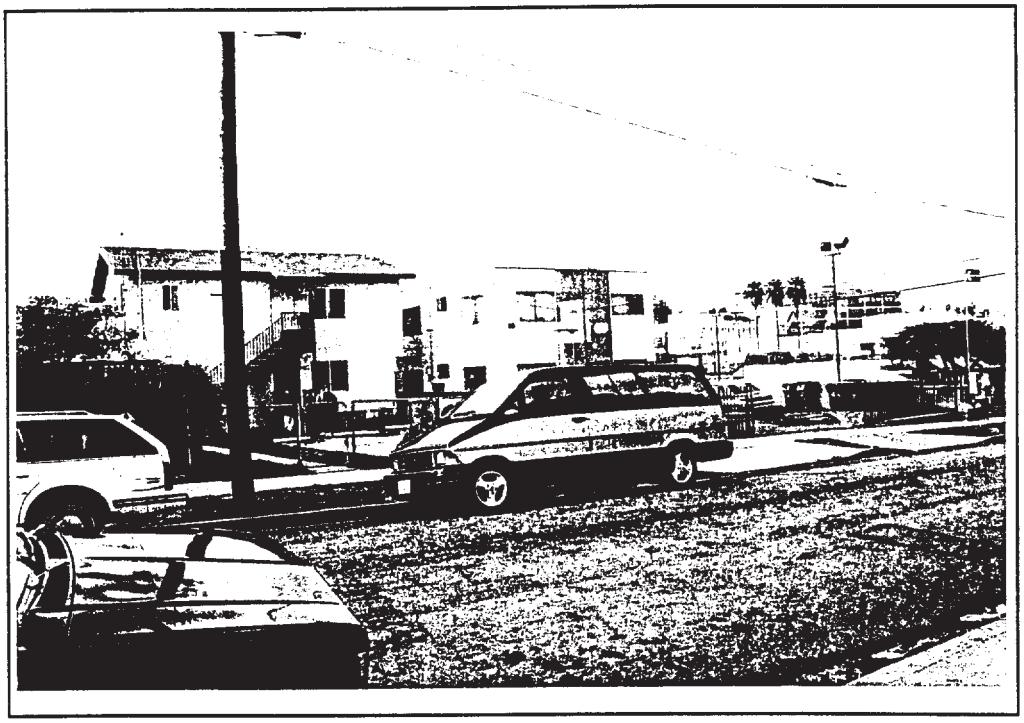
1867 - 20 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 1/25/99

1020 / 1016 MARK ST LOS ANGELES



1867 - 21 VIEW LOOKING NORTHEAST DATE PHOTOGRAPHED: 1/25/99
WITH ADJACENT COMMERCIAL BUILDINGS FACING MARENGO STREET

1024 MARK ST LOS ANGELES



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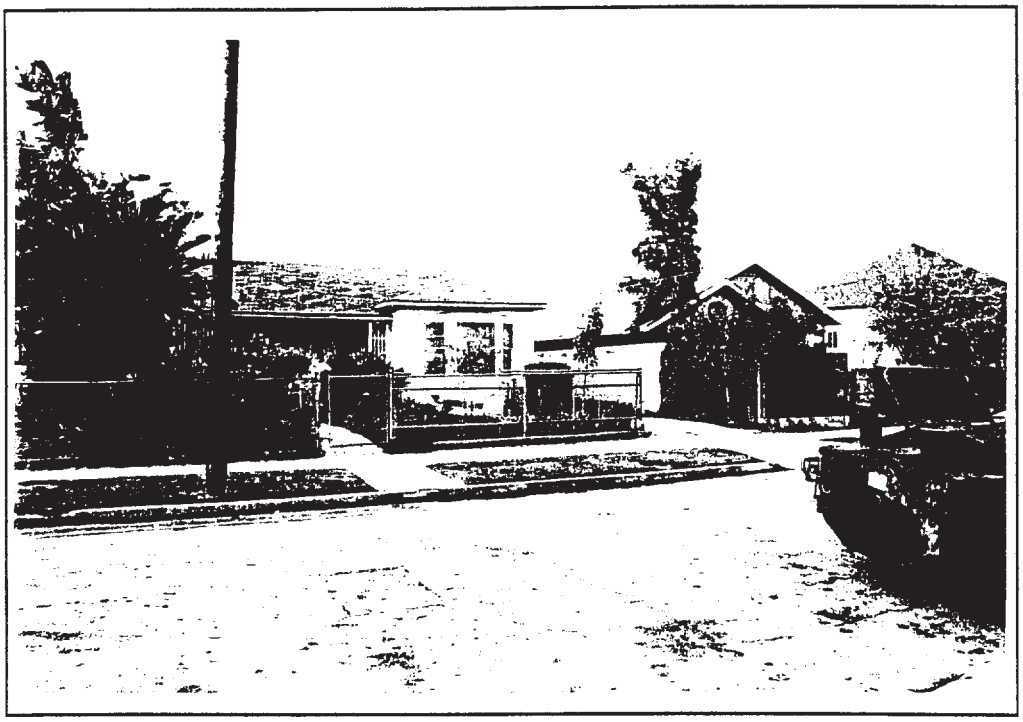

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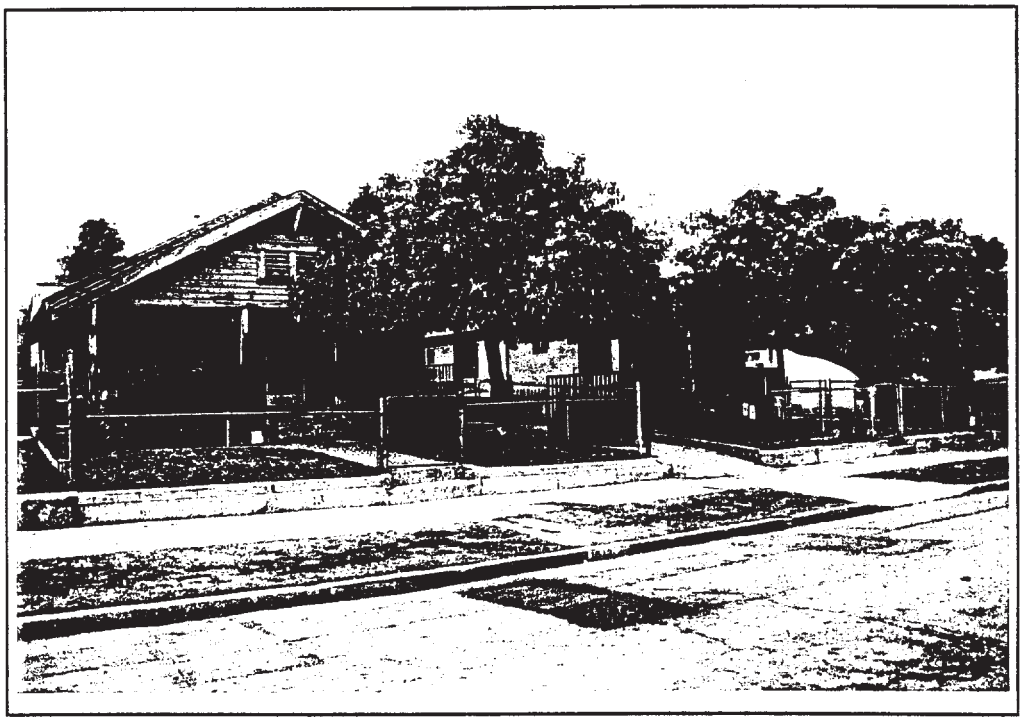

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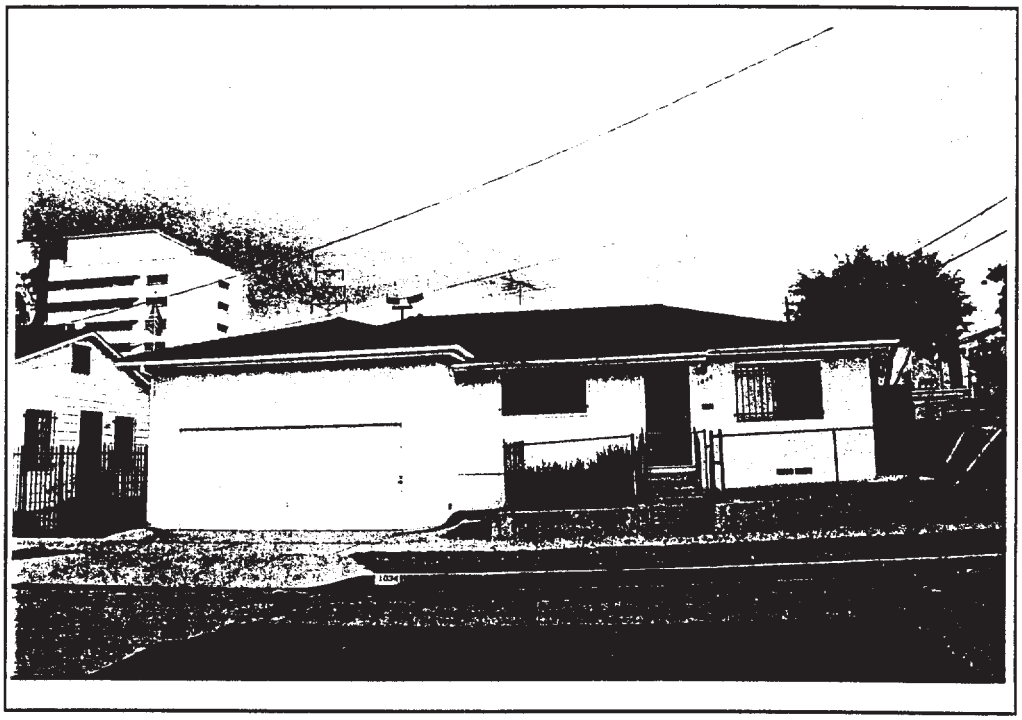

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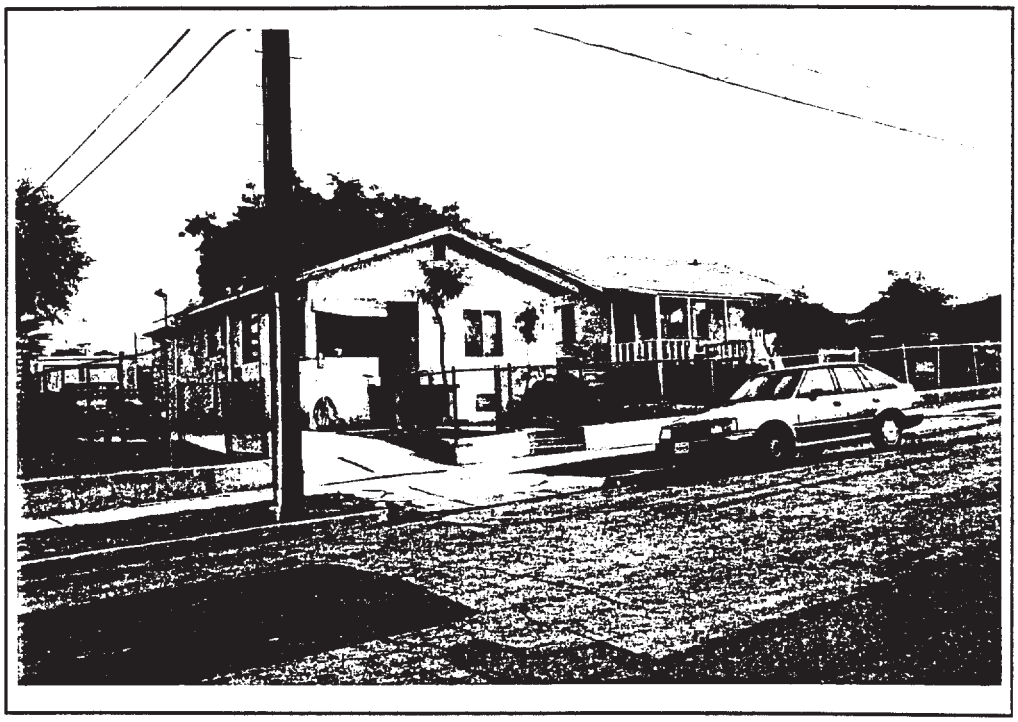

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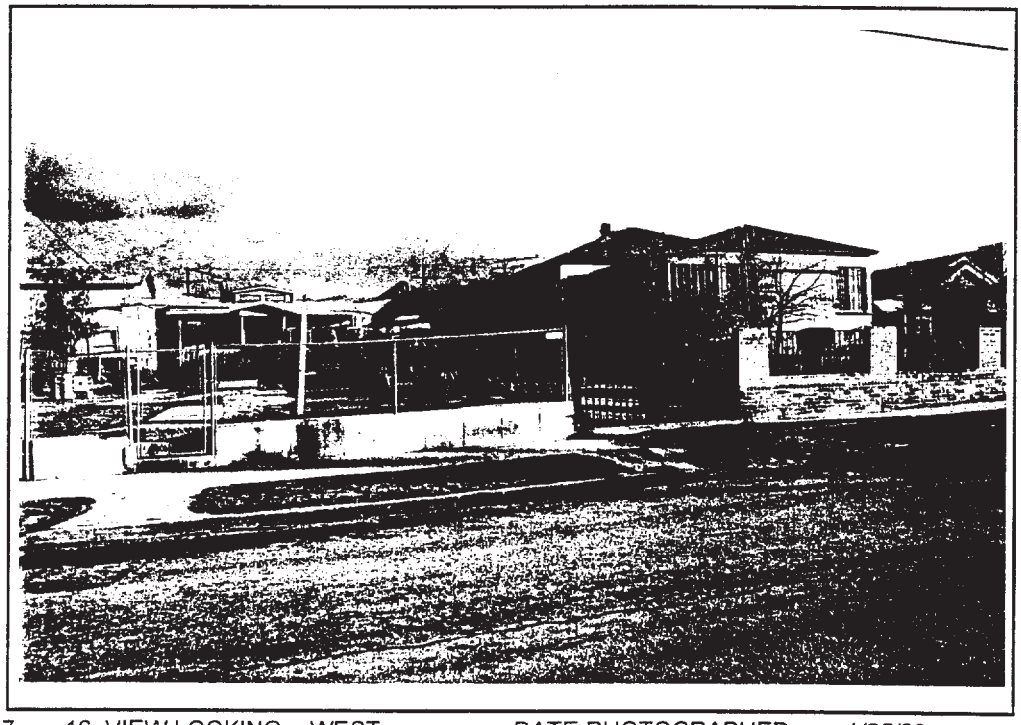

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APPENDIX E

GEOTECHNICAL INVESTIGATION PHASE I

DAMES & MOORE

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REPORT
GEOTECHNICAL INVESTIGATION PHASE 1
LAC + USC MEDICAL CENTER
REPLACEMENT PROJECT
FOR COUNTY OF LOS ANGELES
DEPARTMENT OF HEALTH SERVICES

DAMES & MOORE JOB NO. 00499-059-015
JANUARY 4, 1999

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DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

911 Wilshire Boulevard, Suite
Los Angeles, California 90017
213 996 2200 Tel
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January 4, 1999

Mr. Bradford M. Bolger
Project Director
LAC+USC Medical Center Replacement Project
1200 North State Street, Box 121
Los Angeles, CA 90033

Re: Report
Geotechnical Investigation Phase 1
LAC+USC Medical Center Replacement Project
Los Angeles, California
For Los Angeles County Department of Public Works (LACDPW)
Dames & Moore Job No. 00499-059-015

Dear Mr. Bolger:

Transmitted with this letter is our "Report, Geotechnical Investigation Phase 1, LAC+USC Medical Center Replacement Project, Los Angeles, California, For Los Angeles County Department of Public Works". This investigation was performed in accordance with our Contract No. PW11858, dated August 18, 1998. As you requested, we have performed our geotechnical investigation for the *Replacement Project* in two separate phases. This Geotechnical Investigation Phase 1 report is intended to provide detailed recommendations related to geotechnical aspects of design and construction of the *Replacement Project*, suitable for submittal to various agencies such as OSHPD and the Los Angeles County Building and Safety Division for review. Upon demolition of the existing structures at the site, a Geotechnical Investigation Phase 2 will be performed in order to meet the following objectives: obtain current subsurface information within the existing building footprints; if necessary, refine and quantify any recommendations contained in this Phase 1 report; and address any constructibility issues that could arise during design of the *Replacement Project*.

This report presents the results of our geotechnical investigation and geotechnical recommendations for design and construction of the *Replacement Project*. Reports presenting the results of our geologic and seismic hazards study, site ground motion study and environmental investigation are presented under separate covers.

The *Replacement Project* site has a unique geology comprising steeply dipping bedrock units. From a foundation standpoint, the sequence of the underlying units is relatively simple, consisting of a surficial blanket of recently placed fill soils overlying alluvium and weathered

bedrock. The fill soils would require removal or reworking, as they are not suitable for direct support of the proposed structures. The alluvium and bedrock materials are, overall, competent in nature and are suitable for direct support of the *Replacement Project* on shallow foundations.

Locally confined aquifers were identified in the steeply dipping bedrock layers, which may generate localized large hydrostatic pressures within the bedrock and on subsurface structures. Therefore, the potential effects of groundwater on subsurface walls and floor slabs would need to be accounted for during design of the structures. Groundwater levels at the site are expected to rise above the elevations of the proposed lowest floors in places; therefore some provisions, structural or otherwise, are needed to counteract the effects of groundwater on floor slabs and subsurface walls or to facilitate permanent lowering, handling and management of the groundwater.

It has been a pleasure to provide services to you on this challenging project. If you have any questions regarding this report, please contact us.

Very truly yours,

DAMES & MOORE

REGISTERED PROFESSIONAL ENGINEER
ARNEL M. BICOL
C055338
Exp. 12/31/00
CIVIL
STATE OF CALIFORNIA

Arnel M. Bicol, P.E.
Senior Engineer

Wolfgang H. Roth, Ph.D., G.E.
Principal

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1.0 INTRODUCTION

In this report we present the results of our Geotechnical Investigation Phase 1, performed for the proposed Medical Center Replacement Project (hereafter referred to as *Replacement Project*) to be constructed within the existing Los Angeles County Southern California University Hospital (LAC+USC) Medical Center campus in Los Angeles, California. The location of the proposed *Replacement Project* relative to the existing LAC+USC hospital campus, adjacent streets and topographic features, is shown on the Vicinity Map, Figure 1.

The current investigation has been performed for the Los Angeles County Department of Public Works (LACDPW) as authorized by Contract No. PW11858, dated August 18, 1998. Dames & Moore (D&M) has also performed a geologic and seismic hazard study and a specific ground motion study for the *Replacement Project*. The results of these studies are summarized in our reports dated December 30, 1998 and December 31, 1998, submitted separately. D&M is also currently performing environmental assessments of the *Replacement Project* site and vicinity and other environmental-related studies. Detailed reports summarizing the findings of these studies will be submitted under separate covers as these studies are completed.

Due to presence of existing structures at the site that are yet to be demolished, the LACDPW has requested that the geotechnical investigation for the *Replacement Project* be performed in two separate phases. This Geotechnical Investigation Phase 1 report is intended to provide detailed recommendations related to geotechnical aspects of design and construction of the *Replacement Project*, suitable for submittal to various agencies such as OSHPD and the Los Angeles County Building and Safety Division for review. Upon demolition of the existing structures at the site, a Geotechnical Investigation Phase 2 will be performed in order to meet the following objectives: obtain current subsurface information within the existing building footprints; if necessary, refine and quantify any recommendations contained in this Phase 1 report; and address any constructability issues that could arise during design of the *Replacement Project*.

Conclusions and recommendations presented in this report are based on subsurface conditions encountered at the locations of explorations performed by D&M and previous explorations and analyses performed by others. These recommendations should not be extrapolated to other areas, or used for other facilities without our prior review.

1.1 PROJECT BACKGROUND

The existing LAC+USC Medical Center currently occupies approximately 80 acres of Los Angeles County-owned land, east of downtown Los Angeles. Prior to the 1994 Northridge Earthquake, the campus was represented by over 128 buildings with a core of four hospitals: General, Women's, Psychiatric, and Pediatric. These four facilities sustained varying degrees of damage as a result of the Northridge Earthquake. The Psychiatric and Pediatric hospitals, for example, were 'red-tagged' and closed, as they were considered unsafe for occupancy.

1.2 PROPOSED REPLACEMENT PROJECT

The currently proposed Replacement Project represents a new, 600-bed medical center which will replace the existing LAC+USC Medical Center Facilities above. The site that has been selected for the Replacement Project occupies an approximately 15-acre, rectangular area roughly enclosed by Marengo Avenue, Chicago Street, Charlotte Street and State Street. The Replacement Project, which is composed of four distinct building components will include (1) a 10-level Inpatient Tower; (2) a 7-level Diagnostics and Treatment Building (D+T Building), including a Base Isolation Level; (3) a 9-level Outpatient Clinic Building; and (4) a subterranean-level Central Plant. The three hospital buildings will be physically connected: the Diagnostics and Treatment Building will be positioned between the Outpatient Clinic Building and the Inpatient Tower. The Central Plant will occupy the southeasterly corner of the site, immediately to the south of the Inpatient Tower. Rough limits of the site and proposed building layout are schematically shown in Figure 2.

1.3 PROJECT DATA

We understand that a common first floor level will connect the three hospital building components. This common level will be at +340 ft. above Mean Seal Level (MSL), representing the lowest finished floor elevation at the Outpatient Clinic Building and the Inpatient Tower. In the D+T Building, the lowest finished floor level is at +329 ft. MSL, representing the base isolator floor level. At the Central Plant, the lowest floor level will be about +323 ft. MSL. Anticipated foundation levels are typically within five (5) feet of the lowest finished floor levels. Building dimensions and maximum anticipated column loads provided to us by the Design Team are as follows:

BUILDING COMPONENT	APPROXIMATE BUILDING FOOTPRINT	TYPICAL INTERIOR COLUMN LOAD	TYPICAL EXERIOR COLUMN LOAD
Inpatient Tower	350' x 350'	1,200 kips	900 kips
D+T Building	240' x 280'	1,100 kips	800 kips
Outpatient Clinic	180' x 330'	1,200 kips	900 kips
Central Plant	140' x 420'	<500 kips (assumed)	<500 kips (assumed)

We anticipate cuts of up to 20 feet deep for the D+T Building and Central Plant, up to 15 feet deep for the Outpatient Clinic Building, and up to 10 feet deep for the Inpatient Tower. In addition, cuts up to 40 feet deep are anticipated along the north side of the Outpatient Clinic Building and Inpatient Tower. Some fill and backfill activities will be performed to bring the grade to design subgrade elevations following demolition of some of the existing buildings at the site.

1.4 PERTINENT INVESTIGATIONS

D&M has previously performed a geotechnical investigation at the LAC+USC campus back in 1993. The site of the 1993 study partially shares a common footprint with the current Replacement Project building site. The results of the D&M's 1993 investigation, which involved drilling seventeen (17) borings and laboratory testing, were summarized in the following report:

> *Geotechnical Investigation Report, For LAC+USC Medical Center Replacement Project and Marengo Parking Structure. Prepared for Internal Services Department, County of Los Angeles. Dames & Moore Job No. 00499-038-015, dated December 13, 1993.*

Other geotechnical investigations at the LAC+USC campus that are within the footprint or vicinity of the Replacement Project include the studies for the Central Steam Plant, Central Laboratory and Pediatric Pavilion, Psychiatric Hospital, School of Nursing, Graduate Hall, and the recently completed Marengo Parking Structure. The results of the previous investigations are contained in the following reports:

Report of a Foundation Investigation for a Psychopathic Hospital, Los Angeles County General Hospital, Los Angeles, California, dated July 27, 1948, By L. T. Evans.

Report of a Foundation Investigation for a Nurses' Residence, Los Angeles County General Hospital, Los Angeles, California, dated September 8, 1950, By L. T. Evans.

Report of Foundation Investigation, Proposed Nurses' Residence Wing, Britannia Street near Marengo Street, Los Angeles, California, For the Los Angeles County General Hospital, Dated February 11, 1957, By LeRoy Crandall and Associates.

Report of Foundation Investigation, Proposed Refrigeration Pad and Tunnel, Marengo and Lord Streets, Los Angeles, California, For the City of Los Angeles, Dated September 30, 1960, By LeRoy Crandall and Associates.

Geotechnical Investigation Report, For Marengo Parking Structure, Prepared for Internal Services Department, County of Los Angeles, Dames & Moore Job No. 00499-038-015, dated December 13, 1993.

The above reports were reviewed and their results compared with the subsurface data obtained during this investigation. The data obtained from past and present investigations were then used in developing some of the recommendations contained in this report.

D&M's 1993 studies at the LAC+USC Medical Center have revealed the presence of potentially crude oil-containing bedrock and contaminated groundwater at the site, and we have made special provisions during the current investigation to address these environmental-related issues if they are encountered in the field. However, specific recommendations for handling and management of potentially contaminated soil and groundwater are excluded from this geotechnical investigation report.

2.0 PURPOSE AND SCOPE OF SERVICES

The purpose of our geotechnical investigation was to explore and evaluate the subsurface conditions at the site of the proposed Replacement Project in order to develop geotechnical recommendations for design and construction of the Project. The scope of our services was outlined in our proposal dated May 20, 1998. The scope of our services included the following tasks:

1 Review of pertinent subsurface information available from the County and contained in our files;

2 Exploration of subsurface conditions by drilling and sampling 26 borings to depths ranging from 50 to 100 feet below the existing ground surface;

3 Laboratory testing of representative samples obtained during the field investigation to evaluate index, strength, compressibility, corrosivity and other pertinent parameters of the subsurface soils;

4 Engineering analyses upon which to base our geotechnical recommendations for design and construction of the Project; and

5 Preparation of this engineering report containing our findings and recommendations including:

- A brief description of the proposed project and site development;
- A summary of the field and laboratory programs;
- A summary of site reconnaissance and literature review;
- Discussion of the site surface and subsurface geotechnical conditions;
- Site preparation recommendations, including stripping, proofrolling and placements of fills and backfills;
- Discussion of recommended foundation types, allowable bearing capacity, estimated settlements and differential settlements;
- Lateral earth pressures (static and seismic) and related parameters;
- Passive earth pressure and friction recommendations for resisting lateral forces;
- Concrete slab-on-grade and pavement design recommendations;

- A discussion of the tested soils corrosivity potential, and recommendations to mitigate corrosive soils, if encountered; and

- Geotechnical construction monitoring recommendations.

3.0 FIELD AND LABORATORY TESTING PROGRAMS

The field program involved drilling and sampling exploratory borings, installation of groundwater monitoring wells and electronic piezometers, and performing a downhole seismic velocity survey at the site. All field activities were conducted under the technical supervision of a representative from our Los Angeles office. The locations of our field exploratory borings, monitoring wells, piezometers, etc. are shown in the Plot Plan, Figure 2.

3.1 HEALTH AND SAFETY

Due to potential for encountering soil and groundwater contamination at the site, all drilling and soil sampling activities were performed in strict compliance with a site-specific Health and Safety Plan prepared by a certified D&M Industrial Hygienist. The plan generally addressed the potential risks associated with conducting subsurface explorations at the site. Elements in the plan included emergency contacts, description of potential hazards, protection methods, safe work practices, respirator instructions, monitoring equipment operation, etc. A copy of the health and safety plan is provided in Appendix A.

3.2 EXPLORATORY BORINGS

Exploratory borings were drilled using a truck-mounted drilling rig equipped with 8-inch diameter hollow stem augers. Three selected borings were drilled using a 2½-inch ID core barrel with a 4½-inch OD Chrisdril diamond carbide bit to obtain a continuous subsurface profile and to assess the bedding orientation of the bedrock materials. The borings were drilled typically to depths of 50 to 100 feet below the existing ground surface. Relatively undisturbed samples of the subsurface soils were obtained from the hollow stem auger borings for further examination and laboratory testing. All borings were backfilled using cement-bentonite grout and/or bentonite chips upon completion. A comprehensive description of the exploratory drilling program, including the groundwater well and piezometer installation activities, is presented in Appendix B.

3.3 DOWNHOLE SEISMIC VELOCITY SURVEY

A downhole seismic velocity survey was performed within two of the borings in order to obtain subsurface data to support the ground motion study. The downhole survey was performed by our subconsultant geophysicist, Ryland and Associates of Pasadena, California.

In preparation for the downhole seismic velocity survey, 3-inch diameter PVC casings were installed in two selected borings located within an area of the site that are known to be underlain by relatively deeper bedrock materials. Casings were installed to depths of 30 and 100 feet below existing grade. The annulus between the casing and borehole walls was filled with grout to provide good contact between the casing and the surrounding ground. A report of the downhole seismic velocity survey which provides estimates of the compressional and shear wave velocities to depths of 30 and 100 feet beneath the site is provided in Appendix C.

3.4 GEOTECHNICAL LABORATORY TESTING

Representative samples obtained from the borings were returned to our Los Angeles laboratory where they were further examined and classified. Selected representative soil samples were tested to evaluate shear strength, compressibility characteristics, and index properties of the soils for use in engineering analyses and correlation with existing data. Results of the laboratory tests are summarized in the Logs of Borings. A description of the geotechnical laboratory testing program and detailed test results are presented in Appendix D.

3.5 SOIL CORROSIVITY TESTING

Selected representative samples obtained from the borings were tested by our corrosion subconsultant, M.J. Schiff & Associates of Claremont, California, in order to assess corrosivity effects on underground utilities and concrete foundations. Results of the tests and specific recommendations for the protection of underground utilities and concrete foundations is provided in Appendix E.

4.0 SITE CONDITIONS

4.1 GENERAL

Approximately thirty-five (35) percent of the *Replacement Project* site is presently occupied by existing buildings and structures that will be demolished in order to make room for the *Replacement Project*. Due to the large areas covered by the existing structures, we have had to drill the current borings around the building perimeters and interpolate the subsurface data between boring locations at this time; therefore, the possibility of encountering different subsurface conditions within the existing building footprints cannot be ruled out. It is planned to perform additional rounds of drilling and sampling within the existing building footprints in order to narrow down the gap in uncertainties in the subsurface conditions. The next round of explorations will be performed as soon as access into the areas becomes available.

4.2 SURFACE

The site is presently occupied by existing buildings and parking facilities including the Pediatric Pavilion, Psychiatric Hospital, School of Nursing, Graduate Hall, Parking Structure #6 and Parking Structure #11. These existing structures will all be demolished in the near future. The site has a natural hilly topography and the existing surface elevation varies from about +370 ft. MSL along the northeast corner of the new Inpatient Tower to about +340 ft. MSL along the southwest corner of the new Outpatient Clinic.

Underground utilities and existing tunnel structures are known to be present at the site and their locations were identified prior to site mobilization to avoid conflicts with the borings drilled during this investigation.

4.3 SUBSURFACE

Six (6) selected cross sections (Sections **A-A'** through **F-F'**) through the *Replacement Project* site, depicting the encountered contacts of subsurface materials and groundwater levels at the time of drilling are presented on Figures 7 through 12. The locations of the cross sections are shown in Figure 2. Subsurface conditions encountered at the *Replacement Project* site were found to be consistent with those reported during previous investigations. Approximately 3 to 8 feet of clayey fill is overlying native alluvium consisting of silty and clayey sands. The alluvium

materials are further underlain by bedrock comprising siltstone, claystone and sandstone of the Puente Formation. In some places, the fill overlies the bedrock materials directly. During our previous construction monitoring activities performed at the LAC+USC Medical Center, we found the on-site clayey fills to exhibit moderate to high expansion potential. Based on one-dimensional consolidation tests performed, the native soils exhibited little or no swell potential under the existing overburden pressures and proposed foundation loads (see Appendix D: Section D.6).

The alluvium materials are generally very dense in consistency, with the exception of the southwesterly corner of the site where medium dense to dense alluvium was encountered in the borings. The bedrock materials are highly weathered near the surface, becoming more competent and grading moderately to slightly weathered with depth. Samples obtained from the continuous cores confirm that the bedrock is thinly laminated, with occasional 1-inch to several-foot thick, interbedded, sand layers (highly weathered sandstone). The bedding orientation observed in surface outcrops and in samples retrieved from our borings was near-vertical. Moderate to hard drilling conditions were encountered during this investigation; sampling and SPT refusal was encountered in both alluvium and bedrock materials, however, rig refusal was not experienced in any of the borings to the maximum elevation drilled (+230 ft. MSL in Boring LAC B-22).

4.4 GROUNDWATER LEVELS

Subsurface data from previous investigations indicate the existence of highly variable stratigraphy and groundwater conditions across the *Replacement Project* site. Specifically, confined aquifers have been identified in steeply dipping sandstone layers, which may generate localized large hydrostatic pressures within the bedrock and on subsurface structures. Groundwater was encountered during these studies in both alluvium and bedrock at depths of 10 feet to 45 feet below existing grade.

In order to improve our understanding of the site groundwater conditions (including if and how they vary with seasonal rainfall), we have installed groundwater observation wells and isolated pore-pressure gages (electronic piezometers) aimed at individual water-bearing sandstone layers in selected locations at this time. The piezometers offer a significant advantage over the open-standpipe observation wells. Data from the piezometers should facilitate characterization of the groundwater and its dependency on rainfall on a layer-by-layer basis, and the resulting

recommendations for construction dewatering and water pressures on slabs and basement walls can be expected to be more realistic.

We are currently monitoring the wells and piezometers in order to refine our understanding of the groundwater levels at the site. The encountered contacts with groundwater at the time of drilling are shown on the logs of borings and are depicted in the subsurface cross sections. Seasonal fluctuations of up to 5 feet should be anticipated. Based on current and previous borehole data and assuming seasonal groundwater fluctuations, there is a possibility for the groundwater to rise above the level of the building floor slabs. Therefore, some construction dewatering should be anticipated during excavations for the buildings and provisions, structural or otherwise, should be allowed to counteract any effects of hydrostatic pressure on floor slabs and subsurface walls. For this purpose, the groundwater level at the site may be assumed to rise to about +345 ft. MSL.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 GENERAL

The subsurface data obtained during this investigation indicate that the materials encountered at the anticipated foundation levels are generally competent with geotechnical characteristics suitable for the use of shallow foundations. It is anticipated that the foundations of the major hospital building components would be established within the underlying weathered bedrock of the Puente Formation, on competent alluvium, or both. Along the southwest corner of the proposed Outpatient Clinic where the site is underlain by fill soils and medium dense alluvium, special provisions will be required to support this portion of the building on spread footings. Alternatively, this corner of the building may be supported on drilled piers established directly in bedrock.

Confined water in the steeply dipping sandstone layers may generate localized hydrostatic pressures within the bedrock and on subsurface structures, however, the amount of water that would need to be managed is expected to be relatively small. Localized sumps and dewatering systems should be sufficient to manage the groundwater during temporary excavations and construction. However, because of the potential for the groundwater level to rise above the floor slabs, a permanent dewatering system may be required under the buildings. Three permanent dewatering schemes/alternatives are currently envisioned including: (1) an "overflow" perimeter drain system to maintain groundwater at a specified design level; (2) a series of underdrains

connected to a sump under each building; and (3) a partial underdrain and sump system. Due to environmental constraints, there is a possibility that the water generated from the dewatering system might require treatment and NPDES permitting prior to discharging into the storm drain system.

Based on our 1993 estimates from well pumping activities at the LAC+USC Medical Center, water flow from the *Replacement Project* site may be assumed to be on the order of 100 gallons per minute (gpm). As mentioned earlier, additional rounds of groundwater well and piezometer monitoring will be performed at the site during the next several months to facilitate reevaluation of this flow estimate.

5.2 PERMANENT DEWATERING SCHEMES

Regardless of which scheme is selected, we recommend that permanent monitoring wells be installed within and around the perimeter of each building so that the groundwater levels can be monitored to evaluate the performance of the dewatering system. Dewatering of any deep excavation may affect adjacent structures. We recommend that prior to start of any dewatering, a baseline condition survey be made of all adjacent foundations and structures. All signs of existing distress shall be recorded. Descriptions of the recommended dewatering schemes are provided in the following subsections.

5.2.1 Scheme 1 – "Overflow" Perimeter Drain System

This scheme involves providing a subsurface perimeter drain system around the entire hospital building. This scheme is aimed at catching 'overflow' from potentially rising groundwater at a specified design elevation recommended to be +345 ft. MSL. The slabs and walls will be designed for a groundwater table at this elevation. The perimeter drains should be established at a maximum design invert elevation of +345 ft. MSL. All basement walls and slab-on-grade should be designed for hydrostatic pressure, based on a water height measured from the bottom of the slab to the invert of the perimeter drain. The design water level provides some allowance for the uncertainties in predicting water volumes and conductivity within the bedrock deposits, as well as the possibility that the dewatering system could become overloaded for short periods of time during wet weather. With this scheme, there is no need to provide pipe underdrains below the slab, however, the slab should be provided with a permeable gravel blanket to facilitate even distribution of the hydrostatic pressure.

5.2.2 Scheme 2 – Full Underdrain and Sump System

This scheme involves providing perimeter drains and underdrains under all floor slabs including the slabs at the base isolator level (D+T Building). The underdrains typically consist of 6-inch diameter, perforated PVC pipes, leading to a sump and pump system located within each hospital building, which would dispose of the water. This scheme is aimed at providing hydrostatic relief by maintaining the water level below the floor slabs. Therefore, the floor slabs and subsurface walls do not need to be designed for hydrostatic pressure. Adequate provisions will be required for maintenance of the underdrain system, as well as piping redundancies and backup sump pump systems.

5.2.3 Scheme 3 – Partial Underdrain and Sump System

This scheme is a compromise solution, which is intended to reduce the amount of groundwater to be pumped. It would consist of an underdrain and sump system under the first floor level slabs of the Inpatient Tower and Outpatient Clinic Buildings only, at +340 ft. MSL. The walls and slabs of the seismic isolator basement at the D+T Building would have to be designed for hydrostatic pressure with the groundwater level at +340 ft. MSL.

5.3 SITE PREPARATION

5.3.1 General Recommendations

Existing buildings, parking structures, underground tunnels, and other structures will be demolished to make room for the *Replacement Project*. Existing unengineered fills or unsuitable native soils within the proposed building footprints will need to be removed and replaced with engineered fill as appropriate. For planning and estimating purposes, the amount of existing uncertified fills and unsuitable native soils that would need to be removed is on the order of 5 to 10 feet below existing grade. It is anticipated that the proposed excavations will be up to 20 feet deep for the D+T Building and Central Plant, up to 15 feet deep for the Outpatient Clinic Building, and up to 10 feet deep for the Inpatient Tower. In addition, cuts up to 40 feet deep are planned along the north side of the Outpatient Clinic Building and Inpatient Tower. These planned cut activities are anticipated to result in the removal of a large portion of the existing fills and unsuitable soils. Unless specifically addressed in this report, the following recommendations apply to all proposed site preparation activities at the site.

Prior to general site grading, any debris, existing buildings, pavements, rubble, existing undocumented fill, or vegetation should be removed and disposed of outside the construction limits. All active or inactive utilities within the construction limits should be identified for relocation, abandonment, or protection prior to grading. Any pipes greater than 4-inch diameter to be abandoned in-place should be filled with a sand/cement slurry. The adequacy of existing backfill around pipelines to remain in place under new structures should be evaluated; loose or dumped trench backfill should be removed and replaced with properly compacted backfill.

Following site stripping and any required overexcavation, we recommend that all areas to receive fill or to be used for the future support of structural loads, be proofrolled with a rubber-tire loader or other heavy equipment to locate any soft, or loose zones. All loose/soft, or otherwise unsuitable areas should be removed or compacted in-place. If the disturbed zone is greater than about 12 inches in depth, in-place compaction will be difficult. Upon completion of proofrolling and any required overexcavation, fills and backfills may be placed in accordance with the recommendations presented in the following sections.

5.3.2 Psychiatric Pavilion

The easterly portion of the existing Psychiatric Hospital Building shares a common footprint with the new Outpatient Clinic Building. This common portion should be completely demolished and removed off site as recommended in Section 5.3.1 above. However, it is currently proposed to leave the westerly, subterranean portion of the building in place including existing walls, foundations and slab-on-grade. Provided the existing subterranean building elements (walls and floor slabs) are not in the way of the new construction, it would be possible to leave these elements in-place and backfill the exposed 'shell' to a design finished surface elevation.

All existing building elements (slabs or walls) should be demolished and removed from the site to within 5 feet of the proposed finished surface elevation. Prior to backfilling the 'shell', the existing floor slab should be provided with openings to allow adequate drainage of the backfill. This is accomplished by punching or coring through the slab in a grid pattern. Backfill should be placed and compacted in accordance with the compaction recommendations contained in Section 5.4 of this report. With the above provisions, the resulting building pad should provide adequate support for lightly- to moderately-loaded shallow foundations and pavements. The allowable bearing capacity should be confirmed upon obtaining pertinent loading information. However,

the presence of the floor slab and subsurface walls that have been left. in place would complicate any future use of deep foundations in the area.

5.3.3 Pediatric Pavilion

The Pediatric Hospital Building is located along the west side of State Street. in an area known to be underlain by less competent materials. Existing foundations are anticipated to consist of drilled. cast-in-place piers or driven piles. and small, lightly loaded footings. We understand that it is proposed to leave the entire subterranean portion of the building in place including existing walls. foundations and slab-on-grade. As with the Psychiatric Building, and provided the existing subterranean building elements are not in the way of new construction. it would be possible to leave these elements in-place and backfill the exposed 'shell' to a design finished surface elevation. Similar provisions and limitations. as Section 5.3.2 above (providing holes at a grid pattern. demolition of walls within 5 feet of design finished surface. foundation limitations. etc.). apply to this location.

5.4 Fills and Backfills

5.4.1 Compaction Criteria

Fills and backfills should be placed in loose lifts not exceeding 8 inches in thickness and moisture conditioned as required to achieve near-optimum moisture content. Structural fills and backfills should be compacted to at least 95 percent of the maximum dry density per ASTM D-1557. The compaction requirements may be reduced by the geotechnical engineer for landscape fills.

5.4.2 On-Site Sources

The weathered materials observed at the site can be excavated using a D8 or similar earthmoving equipment. Due to the high penetration resistances encountered in the borings within the bedrock materials. some ripping in the weathered bedrock in localized areas at depth may be necessary; however. no blasting is anticipated.

Most or all of the materials to be excavated would comprise predominately clayey fills. some granular alluvium and bedrock materials. Due to their predominately fine-grained nature and

high in-situ moisture contents, the clayey fills and bedrock materials would require extensive conditioning and would only be suitable for limited use in non-structural fill areas. The bedrock materials are also potentially contaminated with crude-oil and may be unsuitable for reuse as fill from an environmental standpoint. The fine-grained, native materials are also anticipated to be medium to highly expansive after being reworked in the laboratory (see Appendix D: Section D.7). It is therefore anticipated that these materials would likely be hauled away for practical reasons. If granular soils are encountered in the excavations, we recommend that these materials be stockpiled for possible reuse as backfill behind basement walls and over and around foundations.

5.4.3 Import Materials Criteria

If on-site fill sources are not available, fill materials might need to be imported to the *Replacement Project*. All imported fill and backfill soils should be predominantly granular, less than 3 inches in any dimension and be free of organic and inorganic debris. All fill and backfill materials should be observed and tested by the geotechnical engineer prior to their use in order to evaluate their suitability. Fill materials with any appreciable amount of fines (greater than 35 percent passing the #200 sieve) should be observed and evaluated by the geotechnical engineer prior to their use.

5.5 Slopes

5.5.1 Permanent Cut and Fill Slopes

All fill slopes should be constructed at 2(h): 1(v) or flatter. Benching should be performed during construction of all fill slopes with existing ground surface 5(h): 1(v) or steeper. All fill slopes should be compacted to 95 percent of the maximum dry density and in accordance with applicable County building codes.

5.5.2 Temporary Slopes

All excavations must comply with the current CAL/OSHA requirements. All cuts greater than 5 feet in depth should be sloped and/or shored. Heavy construction equipment, building materials and excavated soil should not be allowed near the top of all excavations.

Excavation in bedrock may be cut vertically to a depth of up to 5 feet. Temporary excavations deeper than 5 feet in the bedrock may be sloped at ¾(h): 1(v) or flatter to a maximum height of 10 feet. Flatter slopes will be required if clean and/or loose sandy soils or zones of adverse bedding are encountered along the slope face.

Temporary excavations deeper than 5 feet in alluvium should be sloped at 1½(h): 1(v) or flatter up to a maximum depth of 10 feet. Flatter slopes will be required if clean and/or loose sandy soils are encountered along the slope face. In alluvium, steeper cuts may be utilized for excavations less than 5 feet deep, depending on the strength and homogeneity of the soils as observed in the field.

5.6 TEMPORARY SHORING

If the available space will not permit sloping or benching of the excavations, a temporary shoring system will be required. It is assumed that the temporary shoring will be in place for 1 to 2 months only. If it is planned to keep excavations open for longer periods, up to several months to a year or more, then it might be more appropriate to assume the earth pressure recommendations for permanent shoring. Shoring systems typically consist of a soldier pile and lagging retention system: either tied-back, internally braced, or cantilevered. The shoring system is expected to require several tiers of tiebacks or braces. Augered earth anchors installed by continuous-flight, hollow-stem augers, with a high-strength steel bar or cable (tendon) inserted into the drilled hole, and then tremied with grout, would be appropriate for the project.

5.6.1 Soldier Piles

Typical soldier piles consist of steel H-sections installed in predrilled holes. The holes should be backfilled below the planned bottom of the excavation with structural concrete and with lean concrete above. Horizontal spacing between soldier piles should be limited to about 8 feet. Treated timber lagging may be required in sandy zones or in zones of adverse bedding. Any space between the lagging and excavation should be filled with lean concrete with provisions for weepholes to reduce the potential for buildup of hydrostatic pressure.

5.6.2 Design Values

The temporary shoring system should be designed to resist lateral earth pressures plus additional horizontal pressures imposed by foundations of adjacent structures. Temporary tied-back or braced excavations should be designed to resist an earth pressure equivalent to a uniform horizontal pressure (rectangular distribution) of $20H$ pounds per square foot (psf), where H is the wall height in feet. A simplified pressure distribution diagram for temporary shoring design is presented in Figure 9. The above value assumes a level backfill. For retaining a continuous 2(h):1(v) grade, temporary shoring should be designed to resist an earth pressure equivalent to a uniform horizontal pressure (rectangular distribution) of $24H$ psf.

The portion of shoring projecting above the first row of tiebacks, as well as any cantilevered shoring, can be designed for a triangular load distribution, which is equivalent to the pressure exerted by a fluid weighing 35 pounds per cubic foot (pcf). For a continuous areal surcharge placed adjacent to the shoring, an equivalent, horizontal (rectangular) pressure equivalent to thirty (30) percent of the surcharge may be assumed to act along the entire length of the shoring (see Figure 9).

Soldier piles must extend below the excavation bottom to provide lateral resistance by passive soil pressure. Allowable passive pressures may be taken as equivalent to the pressure exerted by a fluid weighing 300 pcf in alluvium and weathered bedrock and 450 pcf in fresh bedrock up to a maximum value of 4,500 psf (see Figure 9). To account for three-dimensional effects, the lateral pressure may be assumed to act on an area twice the pile width. The above values for passive pressure incorporate a factor of safety of at least 1.5.

5.6.3 Vertical Component of Anchor Load

The vertical component of the anchor load will be resisted primarily by the friction along the shaft of the soldier pile. For anchors installed at less than twenty (20) degrees from horizontal, one hundred (100) percent of the vertical component will be resisted by the shaft friction. If it is desired to use soldier piles to resist the vertical component of the anchor load for tie-backs inclined at more than twenty (20) degrees from horizontal, it is estimated that the allowable vertical capacity for cast-in-place soldier piles, embedded 15 feet into very dense alluvium or bedrock will be as follows:

SOLDIER PILE DIAMETER (INCHES)	ALLOWABLE FRICTION (KIPS)	ALLOWABLE BEARING (KIPS)	ALLOWABLE CAPACITY (KIPS)
24	70	30	100
30	85	50	135
36	105	70	175

If needed, additional axial capacity may be taken as 750 psf (adhesion) for additional embedment beyond 15 feet.

5.6.4 Lagging

The lagging material does not receive the full earth pressure acting on the shoring system as the pressure concentrates on the relatively stiff soldier piles, and less pressure is applied to the more flexible lagging due to arching effects. We recommend about a fifty (50) percent reduction of the basic earth pressure for lagging design. For both temporary and permanent conditions a uniform horizontal pressure (rectangular distribution) of $10H$ psf may be used.

5.6.5 Tie-Backs

We recommend that the anchored portion of the tieback be developed outside the active wedge of soil behind the wall. This wedge is defined by a plane drawn at 35 degrees to the vertical through the bottom of the excavation. The portion within the active wedge should be backfilled using a lean sand/cement mix. Measures should be taken to minimize or eliminate the bond of the tendon within the active wedge so that only the anchored length is stressed during loading. The anchors will need to be located so that they miss utilities, foundations and/or other structures beneath adjacent streets and buildings.

Tieback anchor capacity is most realistically evaluated from anchor load tests in the field, as the actual capacity depends on various site-specific and equipment- and method-related factors. It is anticipated that a majority of the anchors will be established within the Puente Formation bedrock. For anchors established within the Puente Formation, an allowable adhesion of 750 psf may be used for pre-drilled anchors with non-pressure grout. Anchors established in alluvium,

particularly along Marengo Street where the alluvium is predominately clayey in nature, an allowable adhesion of 450 psf should be used.

For support of re-entrant corners (corners projecting into the excavation), it is possible to use horizontally skewed tieback anchors. However, the tieback design should be adjusted to provide sufficient value of tieback bearing capacity in the direction perpendicular to the excavation face. Similarly, soldier piles should also be designed to support the horizontal component of the tieback force in the direction parallel to the excavation face.

At certain locations along the excavation periphery, long tiebacks may not be feasible due to the existing foundations of adjacent buildings. If space limitations preclude lengthening tiebacks, belled (underreamed) anchors can be used. The capacity of a belled anchor will be developed from both bearing on the area of the bell and shear on the shaft. For belled anchors within the Puente Formation, an allowable adhesion of 750 psf and allowable bearing pressure of 6,000 psf may be used.

5.6.6 Tie-Back Anchor Testing Criteria

It is recommended that all anchors be tested to verify anchor design criteria (length, diameter, grouting pressure, etc.). Each tieback anchor should be *proof-tested* to 150 percent of the design load. At 150 percent of the design load the anchor deflection should not exceed 0.04 inch over a 10-minute holding period. In addition, the geotechnical engineer should select the tieback anchors to be *performance- and creep-tested* as described below.

The first three (3) anchors installed and approximately ten (10) percent of the remaining tie-backs should be *performance-tested* to 200 percent of the design load and the anchor deflection should not exceed 0.08 inch over a 60-minute holding period. Also, the first three (3) anchors installed, and a minimum of three (3) anchors for each soil formation, should be *creep-tested* and the anchor deflection should not exceed 0.08 inch over a holding period of 24 hours.

These tests are used to verify capacity and establish load deformation behavior. They are also used to separate and identify causes of movement, check free lengths, and to help in interpreting load deformation data from the simpler proof-tests. If the anchors satisfy the creep criteria under 200 percent of the design load they may be used as production anchors.

5.6.7 Lateral Loads on Shoring Due to Adjacent Footings

Lateral loads will also be imposed on the shoring due to adjacent footing loads. The lateral stress imposed on shoring immediately adjacent to a footing edge can be estimated as follows:

DEPTH BELOW FOUNDATION	LATERAL PRESSURE DUE TO FOOTING LOAD
0	0
$B/8$	$0.20q$
$B/4$	$0.15q$
$B/2$	$0.10q$
B	$0.05q$
$2B$	0

Where B is the width of the footing (measured perpendicular to the shoring) and q is the bearing pressure on the footing. These pressures can be assumed to act along a length equal to the length of the footing (measured perpendicular to the shoring). Once the type and location of the shoring system is established, and actual location and loads on adjacent footings are determined, we can provide better estimates on the lateral pressures imposed on the shoring. Alternatively, the foundations could be underpinned.

5.6.8 Lateral Pressure Due To Point Load

If a point load is applied on the surface in the area adjacent to the excavation wall, the lateral pressure imposed on the shoring can be calculated as $K(V/H^2)$ psf, where V is the point load intensity in pounds, H is the height of excavation in feet, and K is a coefficient of lateral pressure which can be estimated as follows:

DEPTH BELOW SURFACE	COEFFICIENT OF LATERAL PRESSURE
0	0
0.1*H*	0.5
0.2*H*	1.5
0.3*H*	1.7
0.4*H*	1.4
0.6*H*	0.8
0.8*H*	0.3
1.0*H*	0.2

5.7 BASEMENT WALLS, RETAINING WALLS AND PERMANENT SHORING

Basement walls, retaining walls and permanent shoring should be designed to resist the earth pressure exerted by the retained soils, plus any additional lateral forces that will be applied to the walls or shoring elements due to surface loads placed at, or near the top, those due to potential ground water build-up and seismic loads. Adequate provisions are required to counteract the effects of hydrostatic pressure, as recommended previously. Free-draining backfill should be used behind portions of walls above the design ground-water level. Provisions should be made to collect and dispose of water that may accumulate behind the walls.

5.7.1 Static Lateral Pressures

The at-rest earth pressure against walls or permanent shoring with a level-backfill that are restrained at the top can be taken as equivalent to the pressure exerted by a fluid weighing 55 pcf. Forty percent of any uniform areal surcharge placed at the top of a restrained wall will act as a uniform horizontal pressure over the entire height of the wall.

Walls or permanent shoring that are not restrained at the top may be designed for an active earth pressure developed by an equivalent fluid weighing 35 pcf. Thirty percent of any uniform surcharge will act as a uniform horizontal pressure over the entire height of the wall. For retaining a continuous 2(h):1(v) grade, retaining walls or shoring should be designed using a larger equivalent fluid weight than that used for level grades. The following values are recommended for permanent conditions.

BACKFILL SLOPE ANGLE	BASEMENT and RETAINING WALLS and PERMANENT SHORING	
	Active Case (Unrestrained)	At-Rest Case (Restrained)
Level	35 pcf	55 pcf
2(h):1(v)	42 pcf	65 psf

The above lateral earth pressures do not include any hydrostatic pressure. Therefore, wall backfill should be free draining and provisions should be made to collect and dispose of water that may accumulate behind the walls. Light equipment should be used during backfill compaction to avoid possible overstressing of walls.

Lateral loads will also be imposed on permanent basement walls due to adjacent footing loads. Estimates on the lateral pressures imposed on permanent walls can be provided once the locations and footing loads have been determined.

5.7.2 Seismic Lateral Pressure

The seismic lateral pressure may be taken as an inverted triangular pressure distribution with a maximum pressure at the top equal to $25H$ psf. H being the height of the wall in feet. The seismic pressure should be superimposed on the static design load.

5.8 SHALLOW FOUNDATIONS

5.8.1 Spread Footings

Based on the loading data provided for the *Replacement Project* an allowable bearing pressure of 6,000 psf may be used for spread footings established in the native, moderately weathered bedrock or competent alluvium materials. Footings should be a minimum of 2 feet wide and established at a depth of at least 2 feet below the lowest adjacent final grade. The allowable bearing pressure is a net value. Therefore, the weight of the footing and the backfill over the foundation may be neglected when computing dead loads. The bearing pressure applies to dead and live load and includes a factor of safety of at least 3 against bearing failure. Unless

specifically addressed in this report, allowable bearing pressure values may be increased by 33 percent for short-term loading due to wind or seismic forces.

Total static settlements of individual spread footings will vary, depending on the width of the foundation and the actual load supported. Settlements of shallow spread footings constructed in accordance with the recommendations of this report are estimated to be on the order of 1-inch. Differential settlement between similarly shaped and loaded footings is estimated to be about half of the total settlement.

A summary of the anticipated foundation conditions for each hospital building is provided below:

5.8.1.1 Outpatient Clinic Building

The proposed finished floor is at about Elevation +340 ft. MSL, and the foundation level is at about +335 ft. MSL. Footings are anticipated to expose native bedrock materials consisting of weathered claystones and sandstones of the Puente Formation and very dense to hard alluvium materials. An allowable bearing capacity of 6,000 psf may be assumed in these soils.

However, an approximately 5,000 to 7,500 square-foot area located at the southwest corner of this building is underlain by up to 35 feet of a medium dense to dense alluvium. In order to provide uniform support for the columns in this area, we recommend the use of piers to transfer the loads to the underlying bedrock materials at depths of up to 35 feet below existing grade. For this purpose, drilled piers with a minimum diameter of 24-inches may be used. Recommended allowable capacities for drilled piers are provided in Section 5.9 of this report.

Alternatively, a reduced bearing pressure may be used in this corner of the building in order to limit foundation settlements. For this specific purpose, an allowable bearing pressure of 3,500 psf may be used for spread footings established in engineered fill overlying medium dense to dense alluvium.

Settlements of shallow spread footings designed using the reduced bearing pressure above, and constructed in accordance with the recommendations of this report are estimated to be on the order of 1-inch. Differential settlement between similarly shaped and loaded footings is estimated to be about half of the total settlement.

5.8.1.2 Inpatient Tower

The proposed finished floor is at about Elevation +340 ft. MSL and the foundation level is at about +335 ft. MSL. Footings are anticipated to expose native bedrock materials consisting of weathered claystones and sandstones of the Puente Formation and very dense to hard alluvium materials. An allowable bearing capacity of 6,000 psf may be used in these soils. However, isolated areas of medium dense alluvium should be anticipated and the footings might need to be lowered by up to 5 feet below the planned bottom elevation to be established on the more competent alluvium or bedrock.

5.8.1.3 Diagnostics and Treatment Building/Central Plant

The lowest finished floor at the D+T Building will be at about +329 ft. MSL, representing the base isolator slab level. The lowest floor at the Central Plant will be at about +323 ft. MSL. Footings are anticipated to expose native bedrock materials consisting of weathered claystones and sandstones of the Puente Formation and/or very dense to hard alluvium materials. An allowable bearing capacity of 6,000 psf may be used in these soils. In the base isolated D+T Building, where the foundation design will be using Maximum Credible Earthquake forces imposed by the isolation system, the allowable pressure may be increased by 50 percent for short-term loading.

5.8.2 Mat Foundations

Mats should be established at a minimum depth of 2 feet below the lowest adjacent finished grade or be provided with a minimum 24-inch deep by 18-inch wide thickened edges for additional confinement and to prevent water infiltration under the mat. The following design values may be used to various subgrade conditions:

SUBGRADE SUPPORT CONDITIONS	MODULUS OF SUBGRADE REACTION (PCI)
Up to 5 feet of engineered fill	35 to 50
Dense to very dense alluvium	50 to 60
Weathered bedrock	70 to 80

The mat should be adequately reinforced to resist the stresses imposed by the loads from the structures it is supporting. Any concentrated point loads may be distributed over a larger area through concrete pedestals or thickening of the slab. The mats may be designed using the above subgrade modulus values in a parametric evaluation; the more conservative values of the resulting design parameters should be used. Such analysis will provide estimated local differential settlements (deflections of mat) that can be used for design of the mat. The maximum vertical stress (allowable bearing capacity) below the mat should be limited to the corresponding soil bearing values. Static settlement of the mat is estimated to be on the order of 1 inch. Differential settlement is expected to be about half of the total settlement.

5.8.3 Allowable Frictional Coefficient and Passive Pressure

Resistance to lateral loads may be provided by frictional resistance between the bottom of the concrete and the underlying soils and by passive soil pressure against the sides of foundations. The coefficient of friction between poured-in-place concrete foundations and the underlying soils may be taken as 0.4. Passive pressure available in alluvium, weathered bedrock and engineered backfill may be taken as equivalent to the pressure exerted by a fluid weighing 300 pounds per cubic foot (pcf). In fresh bedrock, the passive pressure may be taken as equivalent to the pressure exerted by a fluid weighing 450 pcf. The above-recommended values include a factor of safety of at least 1.5; therefore, frictional and passive pressure resistances may be used in combination without reduction.

5.9 Drilled Cast-in-Place Piers

Drilled, cast-in-place piers may be required in areas where access precludes proper site preparation, for support of pedestrian bridges and for other purposes. With the exception of the southwest corner of the site, we have not been provided with details of other planned pier locations at the *Replacement Project*, although we understand that a pedestrian bridge is planned to connect the existing Marengo Parking Structure with the Outpatient Clinic or D+T Buildings.

Presence of predominately granular materials in the alluvium and bedrock units should be anticipated. Due to presence of these soils, pier construction may require special provisions to prevent or control caving of the drilled shafts. Such provisions may involve the use of casing, or wet methods using bentonitic or polymer slurries.

5.8.1 Axial Capacity

Piers with a minimum diameter of 24-inches may be used for support of the project. All piers should be embedded at least 25 feet below the pile cap and extend at least 5 feet into bedrock. Along the southwest corner of the site where the contact to bedrock is deeper, it is anticipated that drilled shafts might need to be established to depths of at least 30 feet. An allowable bearing capacity of about 10 ksf and an allowable adhesion of 750 psf may be assumed for the piers. For uplift., an average allowable adhesion of 450 psf may be used in native (alluvium and bedrock) materials. Pier axial capacities may be increased by 33 percent for temporary seismic loads.

Larger diameter piers may be used to obtain higher capacities. For this purpose, the above capacities may be assumed to be directly proportional to the pier diameter up to 36 inches. The allowable downward values given above are net capacities and the weight of the pier and the embedded portion of the pier cap are accounted for. Any downdrag load resulting from seismic or static settlement is not anticipated.

Piers should have a minimum center-to-center spacing of 3 diameters. With this spacing there is no reduction in axial capacity for group action. For piers with center-to-center spacing of 2 diameters, the axial capacity is reduced by about 33 percent. The estimated total vertical static settlement of the pier foundation should be less than ¼ inch under the allowable loads. Differential settlements between similarly loaded pier foundations should be negligible.

5.8.2 Lateral Pile Resistance

Resistance to lateral loads will be provided by the resistance of the soil against the pile, pilecaps, grade beams, and by the bending strength of the pile itself. We have performed lateral pile capacity calculations using average shear strength parameters obtained from our laboratory tests and the computer program LPILE Version 3. Based on an allowable pier-head deflection of roughly ¼ inch, the lateral capacity and maximum induced bending moments for 24-inch drilled, cast-in-place piers with the top of the pier in a semi-fixed condition may be taken as 25 kips and 150 kip-feet, respectively. Lateral capacities may be assumed to be directly proportional to the deflection up to a maximum deflection of ¾ inch.

Additional lateral resistance may be provided by passive resistance against the embedded portion of the pile cap. Passive pressure available in compacted structural fill may be taken as equivalent to the pressure exerted by a fluid weighing 300 pcf. We recommend the use of grade beams/tie

beams between pile caps to provide additional lateral resistance and to maintain foundation alignment and integrity.

Provided there is a center-to-center spacing of at least 3 pier diameters in an orientation normal to the loading and center-to-center spacing of at least 8 pier diameters in an orientation parallel to the loading direction, the full capacities above can be used. At the recommended minimum center-to-center spacing of 3 pier diameters parallel to the direction of loading, the lateral capacity should be reduced by 50 percent. Interpolation may be used for center-to-center spacing between 3 and 8 pile diameters.

5.8.3 Installation Criteria

Steel reinforcement and concrete should be placed after completion of the drilling of each pier. Pier excavations should not be allowed to stand open overnight. A minimum of 15 hours should be allowed between concrete placement in one shaft, before drilling an adjacent shaft, within 5 diameters center-to-center. Loose soils and water at the bottom of the drilled holes should be removed to the extent possible. All drilled pier construction should be performed in accordance with ACI 336.1-91, "Standard Specifications for Construction of Drilled Piers".

The potential for encountering predominantly granular soils should be anticipated, and contractors' estimates should provide for prevention or mitigation of caving soils conditions, should it become necessary. Use of special installation techniques should prevent caving of the soils and to facilitate advancing the hole to the design depths. Since the above pier capacities are dependent upon proper installation procedures, it is very important that the installation technique proposed by the contractor be discussed with, and reviewed by the geotechnical engineer prior to mobilization of any related equipment to the site.

5.10 Floor Slabs

All floor slabs should be supported on improved subgrade consisting of a minimum of 6 inches free-draining material. The material should consist of clean, coarse sand and gravel or crushed stone. This drainage blanket should be protected from infiltration of the natural materials by first laying a filter fabric at the bottom of the excavation. Any seepage water entering this material should be collected with perforated pipes leading to a sump for disposal. For the dewatering scheme involving sumps and underdrains, it is recommended that a grid of pipes be used, spaced at no more than 50 feet on centers.

A moisture barrier is recommended under all floor slabs in areas to be covered with moisture-sensitive floor coverings. A 10-mil plastic or vinyl membrane may be used for this purpose and should be placed between two layers of moist sand, each at least 2 inches thick, to protect the membrane during construction.

5.11 PAVEMENTS

Pavement subgrades at the site are anticipated to expose variable fills, alluvium and extremely weathered bedrock. Some of these soils are moisture sensitive because of their fine-grained nature. In order to provide uniform support, we recommend that the subgrade soils be compacted to 95 percent of the maximum dry density per ASTM D-1557, for a minimum of 12 inches.

A subgrade section consisting of at least 12 inches of compacted fill overlying existing subgrade materials is assumed for design purposes. The fill should be compacted to 95 percent of the maximum dry density to produce a CBR value ranging from about 15 to 20 (this range of CBR values is typical for the range of soil types at the *Replacement Project*). Based on the above assumptions and the anticipated traffic conditions the following pavement sections are recommended:

FLEXIBLE PAVEMENT COMPONENT	PAVEMENT THICKNESS (Inches)	
	Light Traffic	5- or 6-Axle Trucks
Asphalt Concrete	3	5
Class II Aggregate Base	6	8

RIGID PAVEMENT COMPONENT	PAVEMENT THICKNESS (Inches)
	5 or 6-Axle Trucks
Concrete (assumes 3,000 psi compressive strength)	6
Class II Aggregate Base	6

Aggregate base should meet Caltrans Class 2 gradation requirements and should possess a minimum R-value of 78. All aggregate base materials should be compacted to a minimum of 95 percent of the maximum dry density per ASTM D-1557.

5.12 SITE DRAINAGE

The ground surface of the site should be adequately sloped to direct water away from the building and foundations. Areas where water could pond adjacent to the building in planters, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Area drains should not be placed next to or in contact with the building. The ground surface should be adequately sloped away from structures toward the area drains. Roof drainage should be controlled and directed to proper drainage devices in an acceptable manner.

5.13 CORROSIVITY

Selected samples of the onsite soils were tested by a corrosion engineer in order to assess soil corrosivity effects on underground utilities and foundation elements. Results of these tests indicate that the site soils are severely corrosive to ferrous metals and moderately deleterious to concrete. Standard construction practices and concrete mixes may be used for concrete in contact with the site soils using Type II cement. Underground piping may require cathodic protection, epoxy coating and/or wrapping.

A copy of the report from the consulting corrosion engineer, which includes specific recommendations for the protection of underground utilities and foundation elements, is presented in Appendix B.

6.0 DESIGN REVIEW

We recommend that the geotechnical aspects of the project be reviewed by us during the design process. The scope of our services may include assistance to the design team in providing specific recommendations for special cases, reviewing the foundation design and evaluating the overall applicability of our recommendations, reviewing the geotechnical portions of the project for possible cost savings through alternative approaches and reviewing the proposed construction techniques to evaluate if they satisfy the intent of our recommendations.

7.0 CONSTRUCTION MONITORING

As required under Section 3317 of the UBC, and due to the complex foundation requirements, all earthwork and foundation construction should be monitored by a qualified engineer/technician from D&M. As such, the validity of the recommendations contained in this report is contingent upon our monitoring of the following:

- Site preparation -- site stripping, overexcavation, and recompaction;
- All shoring installations;
- All drilled cast-in-place pier installations;
- All foundation excavations;
- Placement of all compacted fills and backfills; and
- Construction of slab and pavement subgrades.

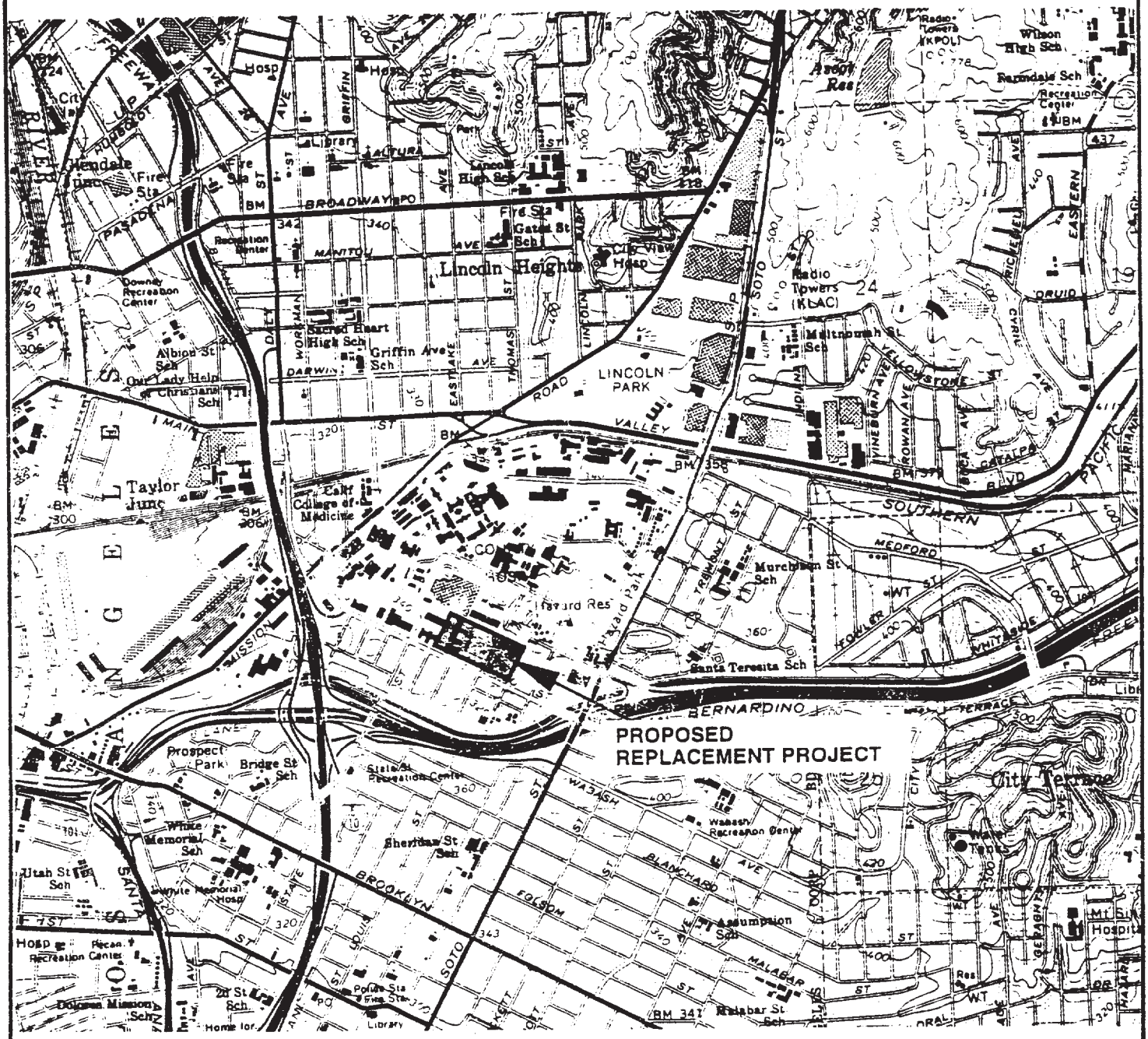
D&M should be present to observe the soil conditions encountered during construction, to evaluate the applicability of the recommendations presented in this report to the soil conditions encountered, and to recommend appropriate changes in design or construction if conditions differ from those described herein.

8.0 COMPLIANCE WITH SECTION 111 OF THE COUNTY BUILDING CODE

Based on the findings of this geotechnical investigation, and our independent geologic and seismic hazard studies, and provided that all our recommendations are incorporated into the design and construction documents, it is our unequivocal opinion that the site of the *Replacement Project* will not be subject to the hazards of landslide, settlement or slippage. It is also our unequivocal opinion that the proposed site development and construction will not adversely affect the geologic stability of property adjacent to the *Replacement Project* site.

9.0 LIMITATIONS

D&M warrants that our services are performed within the limits prescribed by our clients, with the usual thoroughness and competence of the engineering profession. No other warranty or representation, either express or implied, is included or intended in this report.



VICINITY MAP

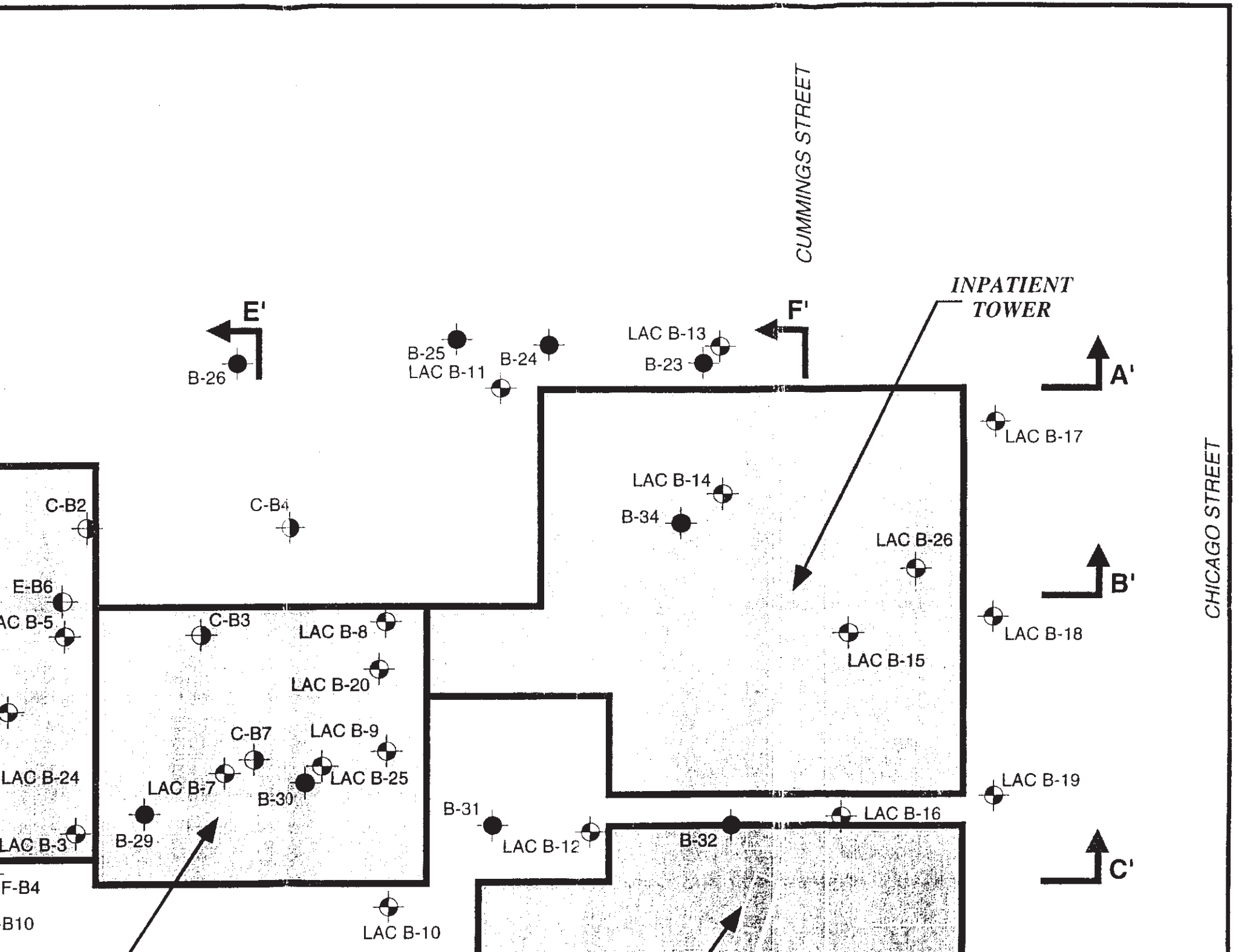
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA

For County of Los Angeles Department of Public Works

REFERENCE: USGS 7.5 Minute Series Topographic Map,
"Los Angeles, California" Quadrangle, 1966, Photorevised 1981.

Dames & Moore
FIGURE 1


CUMMINGS STREET
CHICAGO STREET
INPATIENT TOWER
E'
F'
A'
B'
C'
B-26
B-25
LAC B-11
B-24
LAC B-13
B-23
LAC B-17
C-B2
C-B4
LAC B-14
B-34
LAC B-26
E-B6
LAC B-5
C-B3
LAC B-8
LAC B-18
LAC B-20
LAC B-15
C-B7
LAC B-9
LAC B-24
LAC B-7
LAC B-25
B-30
LAC B-19
B-31
LAC B-16
B-29
LAC B-12
B-32
LAC B-3
F-B4
B10
LAC B-10

A'

Section Begin East: C
Section Begin North: 529

Section End East: 1,285
Section End North: 529

Existing Ground Surface

EXPLANATION

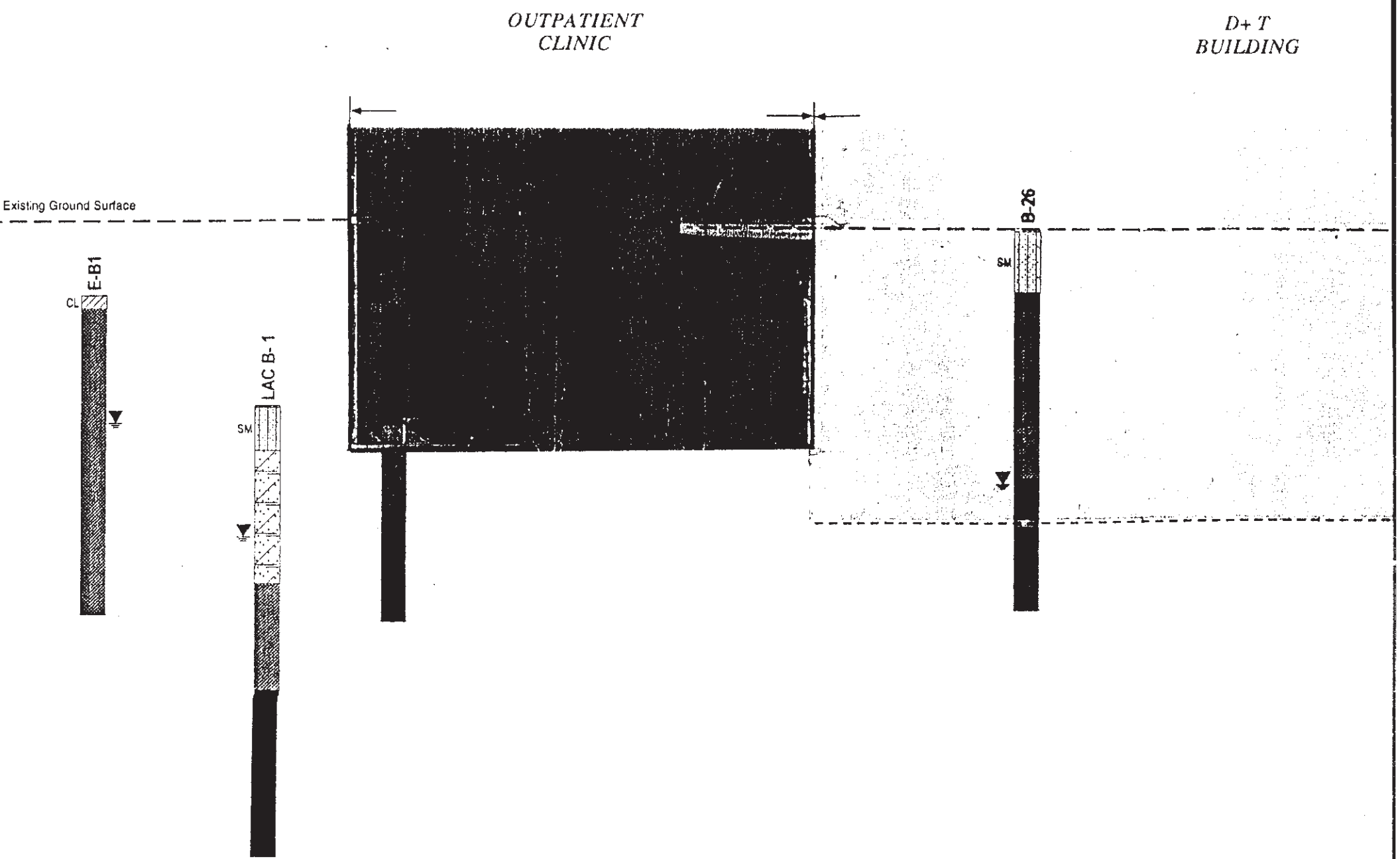
- Proposed Hospital Building
- Approximate Existing Ground Surface
- Approximate Groundwater Level in Boring

Notes:

1. Surface elevation are correct only at the boring locations.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Refer to Figure 2 for locations of the subsurface cross sections.
4. Refer to Appendix B for detailed boring log information and key to log of current borings.

CROSS SECTION A-A'

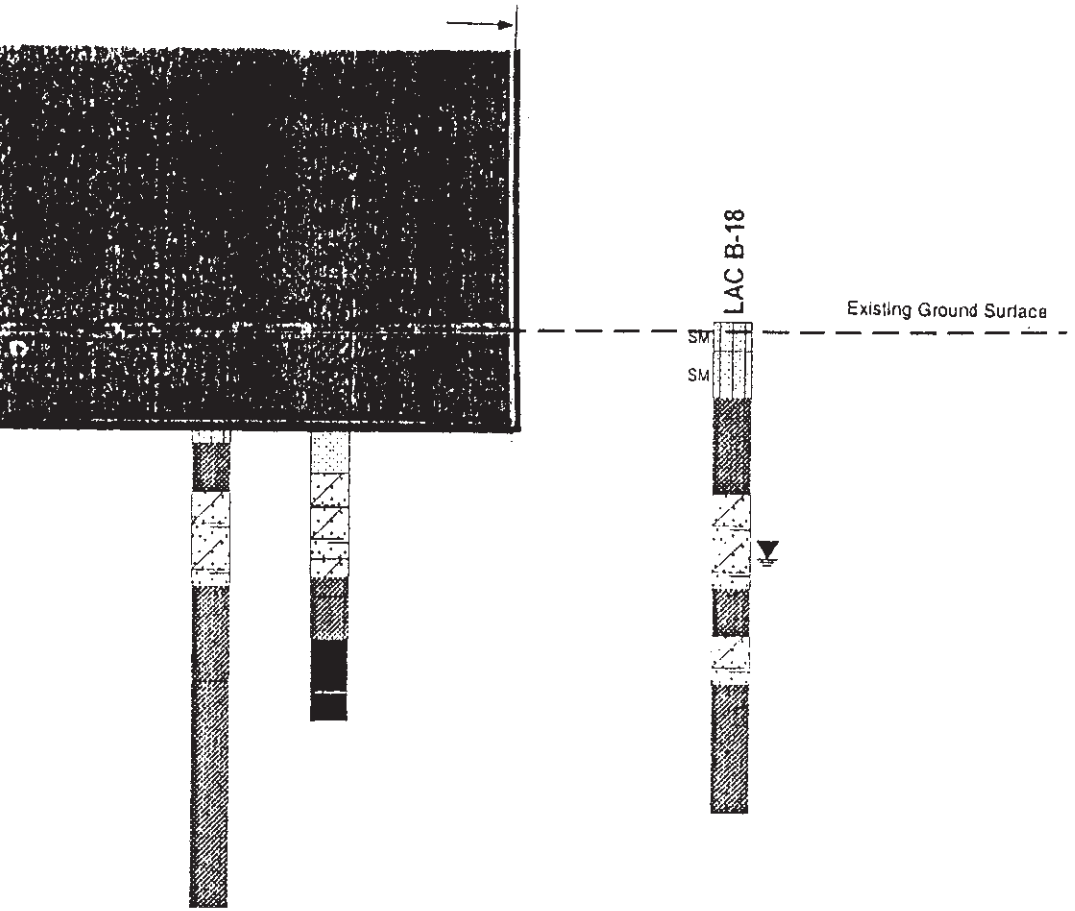
LAC+USC MEDICAL CENTER


OUTPATIENT
CLINIC
D+ T
BUILDING
Existing Ground Surface
E-B1
CL
LAC B- 1
SM
B-26
SM

Section Begin East: 0
Section Begin North: 403

Section End East: 1,280
Section End North: 403

B'



EXPLANATION

- Proposed Hospital Building
- Approximate Existing Ground Surface
- Approximate Groundwater Level in Boring

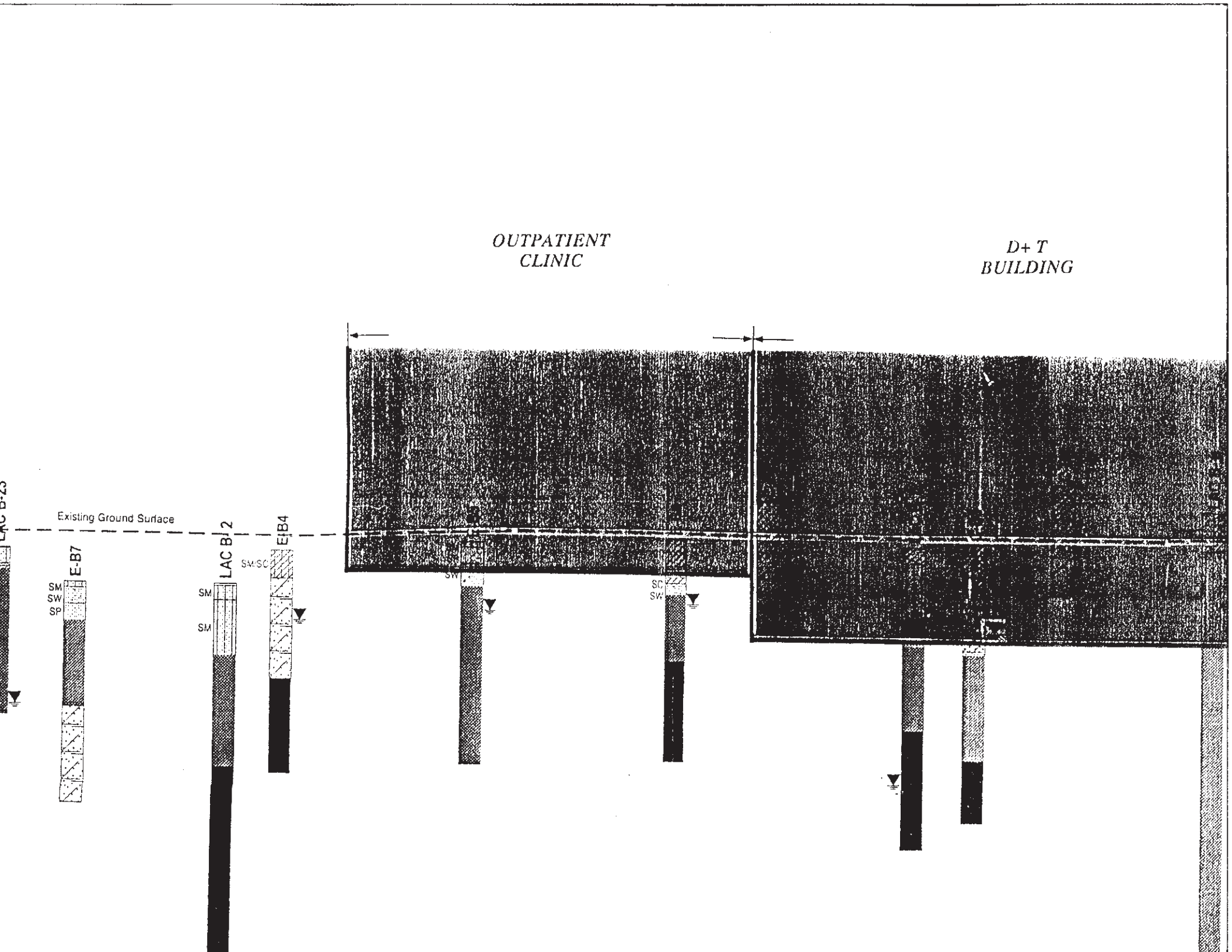
Notes:

1. Surface elevation are correct only at the boring locations.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Refer to Figure 2 for locations of the subsurface cross sections.
4. Refer to Appendix B for detailed boring log information and key to log of current borings.

CROSS SECTION B-B'

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

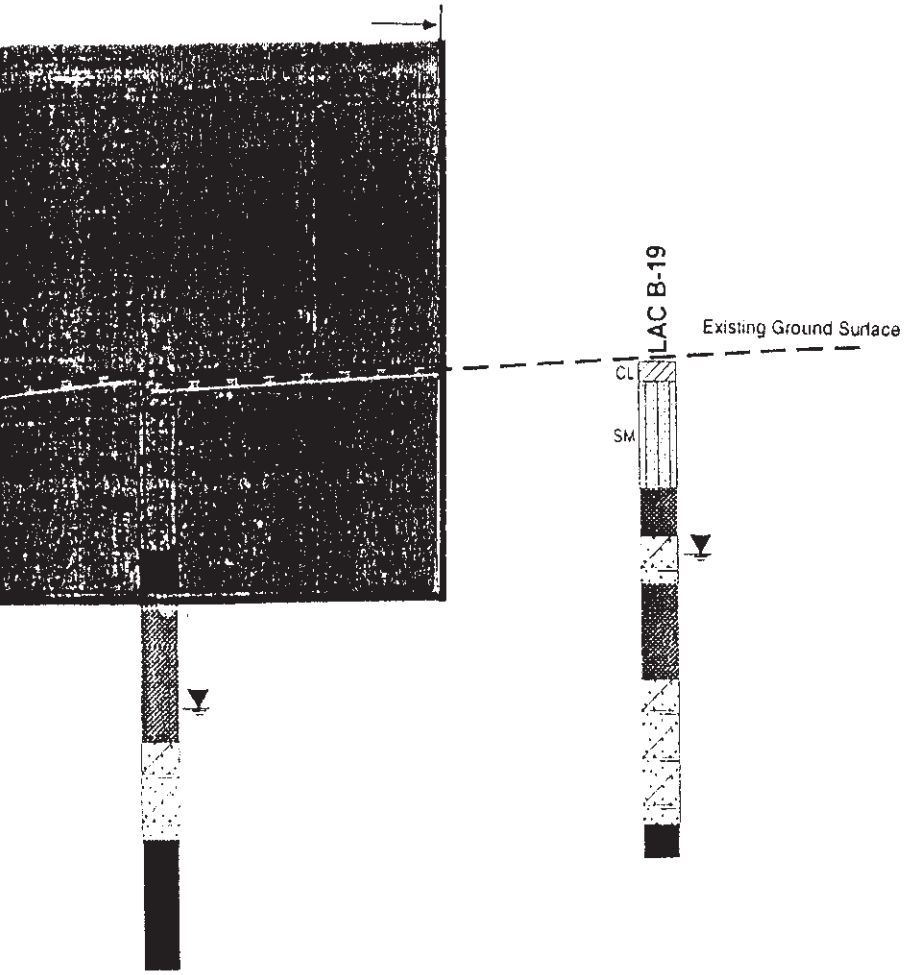
LOS ANGELES, CALIFORNIA


OUTPATIENT
CLINIC
D+ T
BUILDING
Existing Ground Surface
E-B7
SM
SW
SP
LAC B-2
SM
SM
E-B4
SM/SC
SW
SC
SW

Section Begin East: 0
Section Begin North: 203

Section End East: 1,270
Section End North: 203

C'



EXPLANATION

- Proposed Hospital Building
- Approximate Existing Ground Surface
- Approximate Groundwater Level in Boring

Notes:

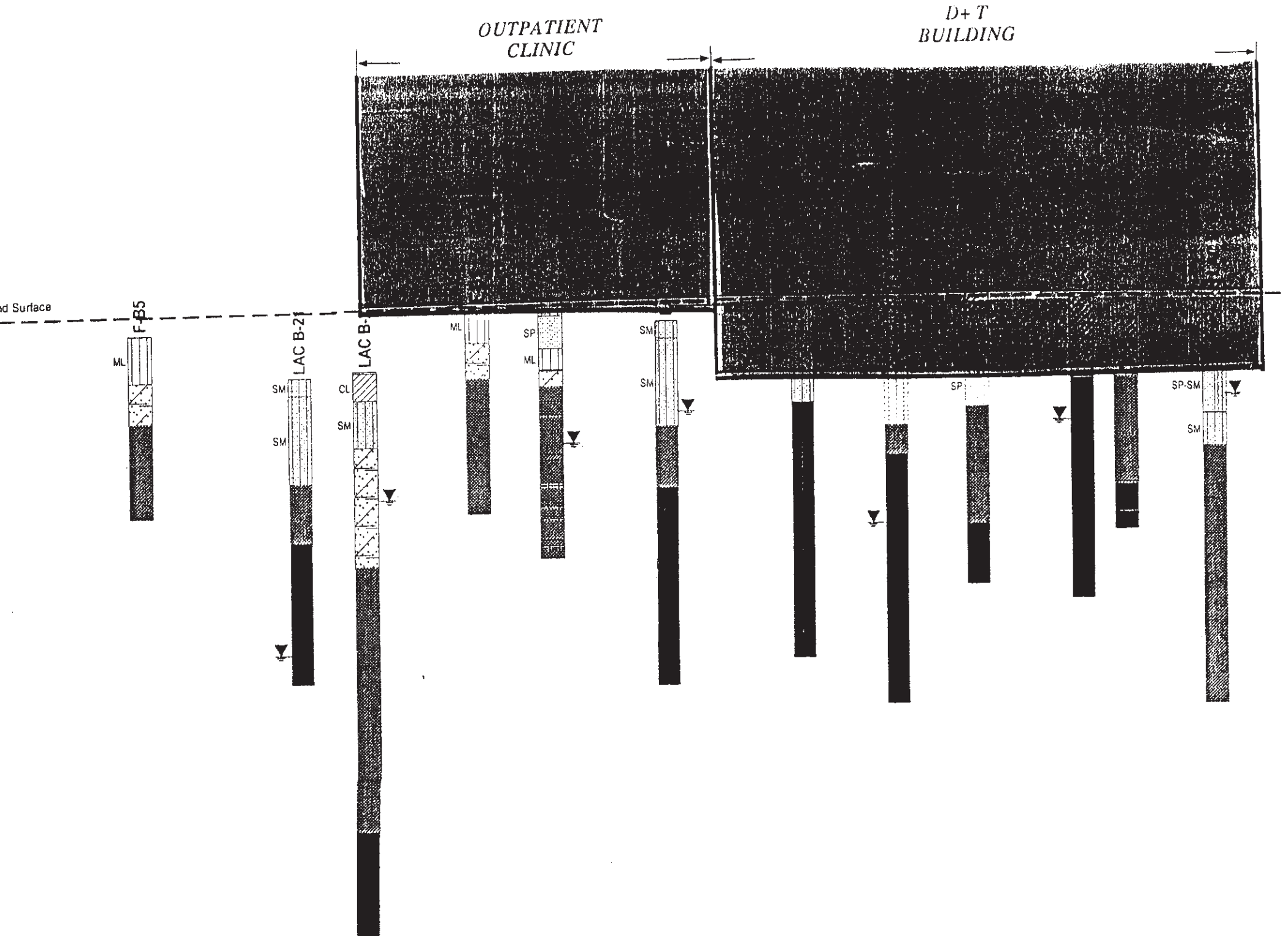
1. Surface elevation are correct only at the boring locations.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Refer to Figure 2 for locations of the subsurface cross sections.
4. Refer to Appendix B for detailed boring log information and key to log of current borings.

CROSS SECTION C-C'

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA

For County of Los Angeles Department of Public Works

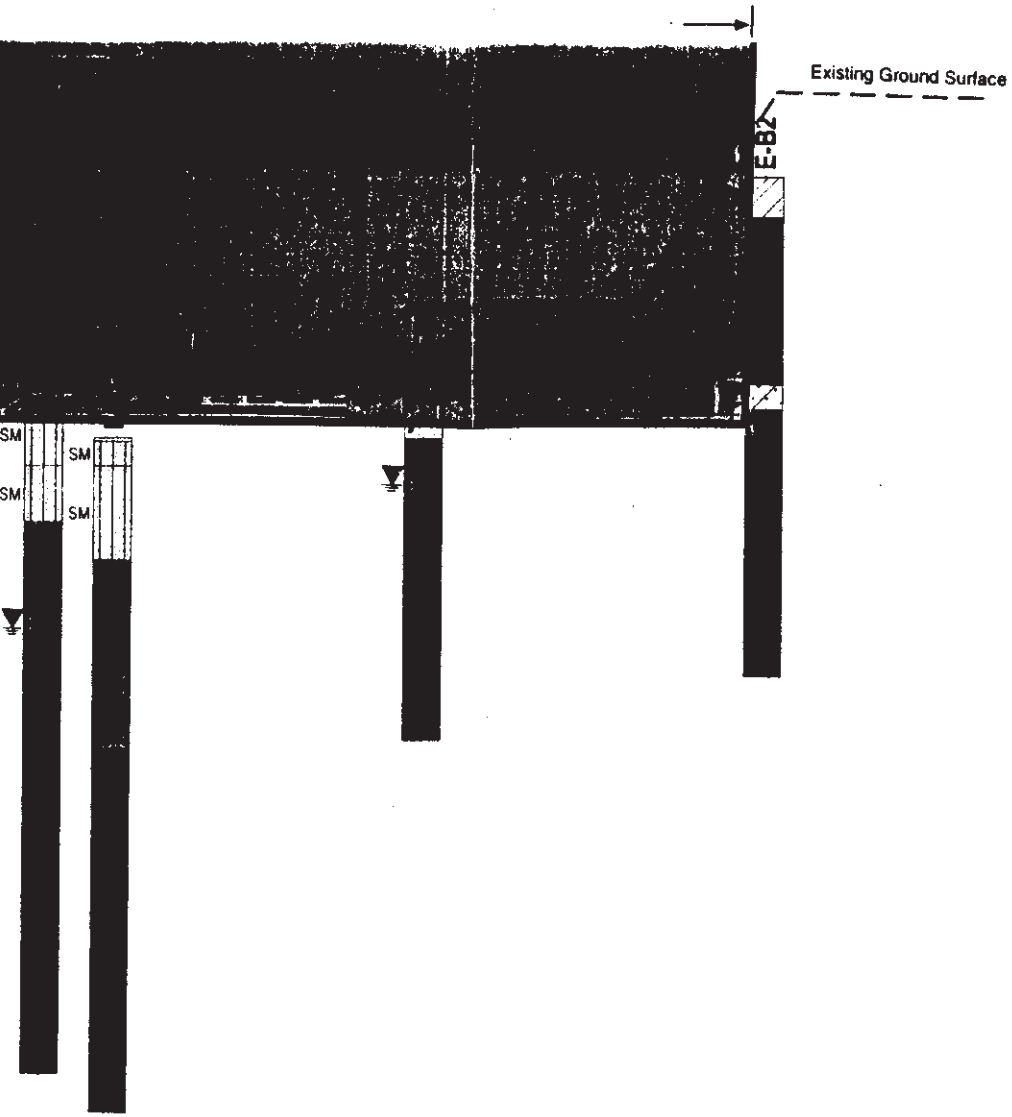

OUTPATIENT CLINIC
D+T BUILDING
ad Surface
F-B5
LAC B-21
LAC B-
ML
SM
SM
CL
SM
ML
SP
ML
SM
SM
SP
SP-SM
SM

OUTPATIENT CLINIC

D'

Section Begin East: 318
Section Begin North: 0

Section End East: 318
Section End North: 520



EXPLANATION

- Proposed Hospital Building
- Approximate Existing Ground Surface
- Approximate Groundwater Level in Boring

Notes:

1. Surface elevation are correct only at the boring locations.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Refer to Figure 2 for locations of the subsurface cross sections.
4. Refer to Appendix B for detailed boring log information and key to log of current borings.

CROSS SECTION D-D'

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA

For County of Los Angeles Department of Public Works

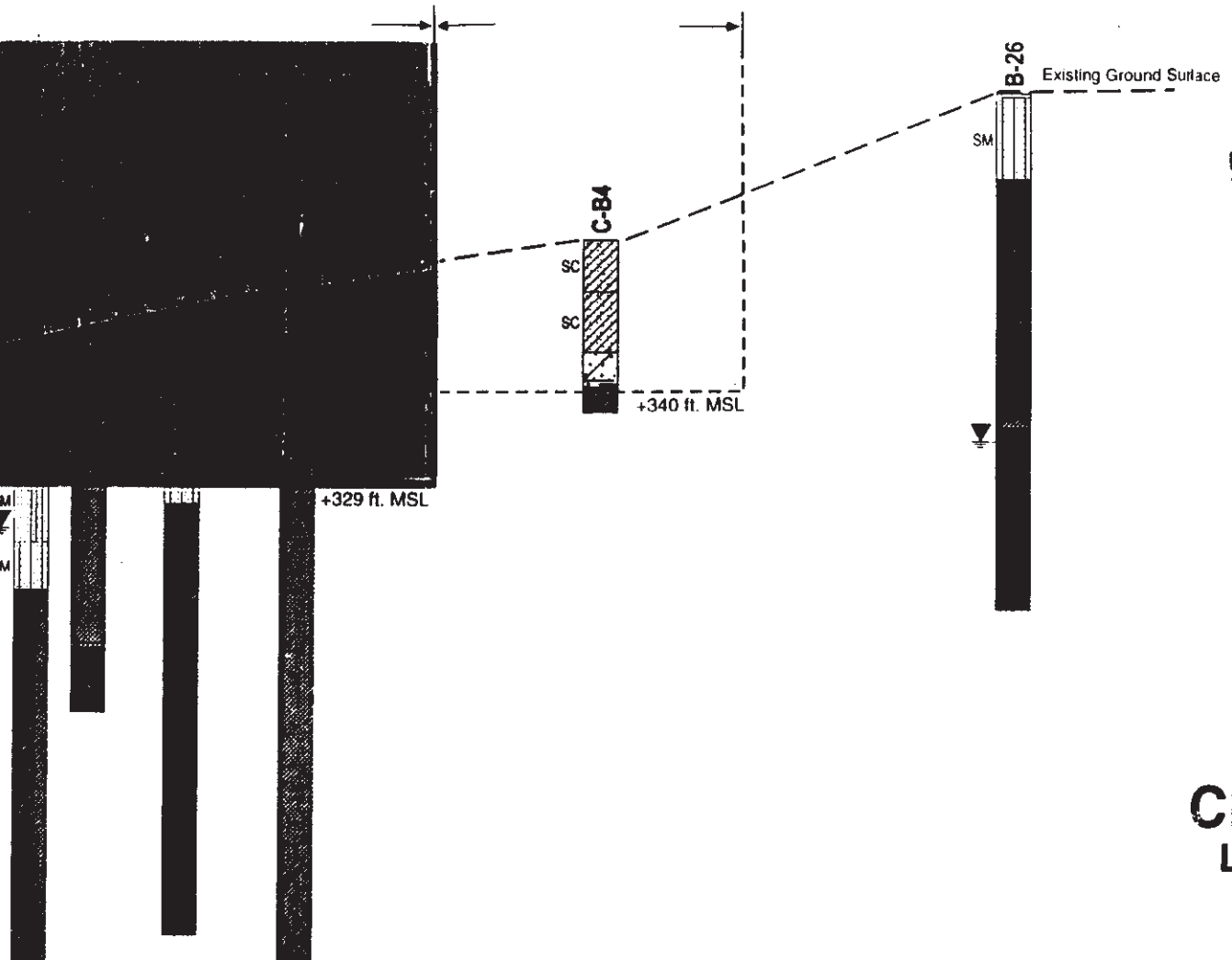
E'

Section Begin East: 626
Section Begin North: 0

Section End East: 626
Section End North: 610

D+ T BUILDING

OUTPATIENT CLINIC



EXPLANATION

- Proposed Hospital Building
- Approximate Existing Ground Surface
- Approximate Groundwater Level in Boring

Notes:

1. Surface elevation are correct only at the boring locations.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Refer to Figure 2 for locations of the subsurface cross sections.
4. Refer to Appendix B for detailed boring log information and key to log of current borings.

CROSS SECTION E-E'

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

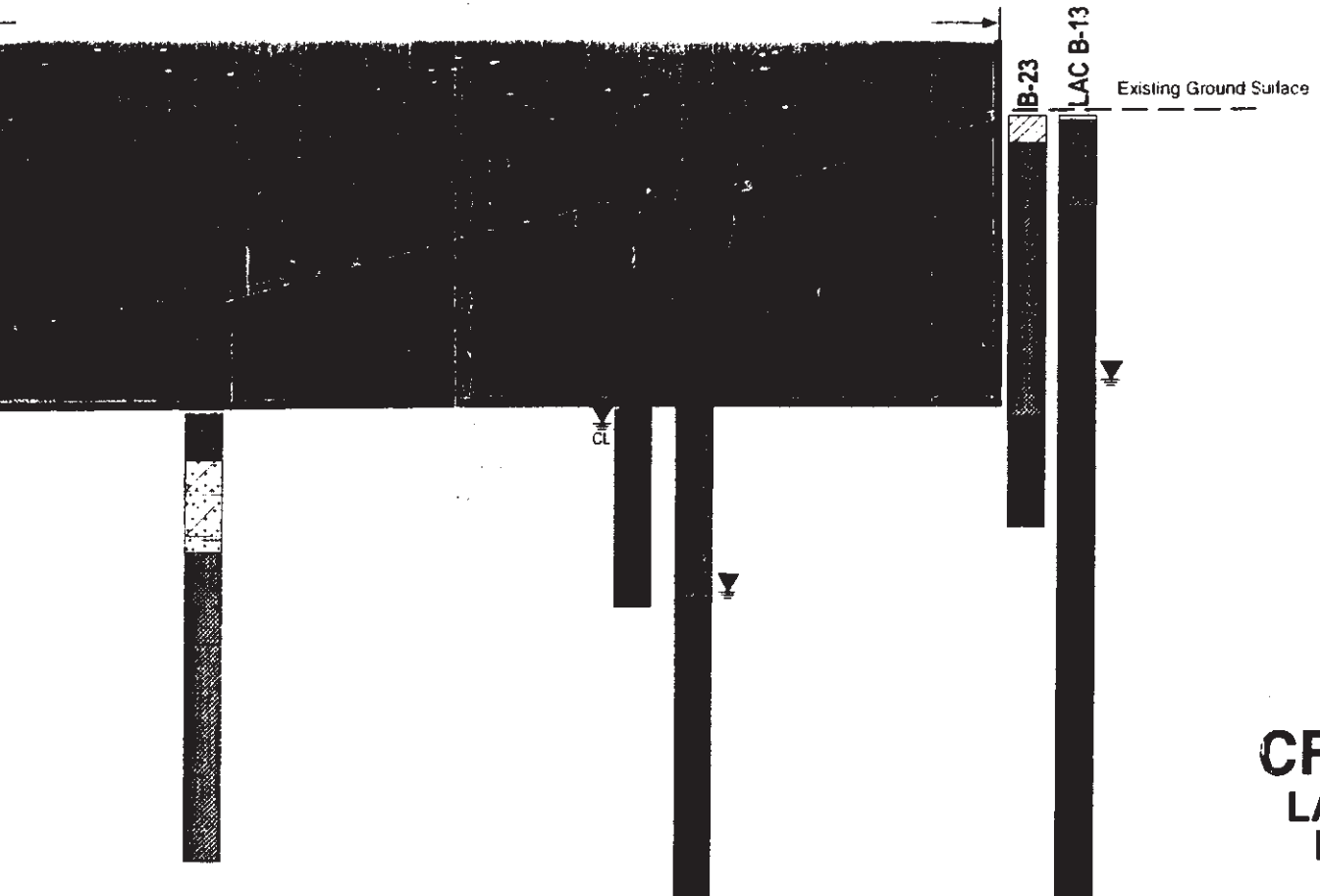
LOS ANGELES, CALIFORNIA

F'

Section Begin East: 966
Section Begin North: 0

Section End East: 966
Section End North: 610

INPATIENT TOWER



EXPLANATION

- Proposed Hospital Building
- Approximate Existing Ground Surface
- Approximate Groundwater Level in Boring

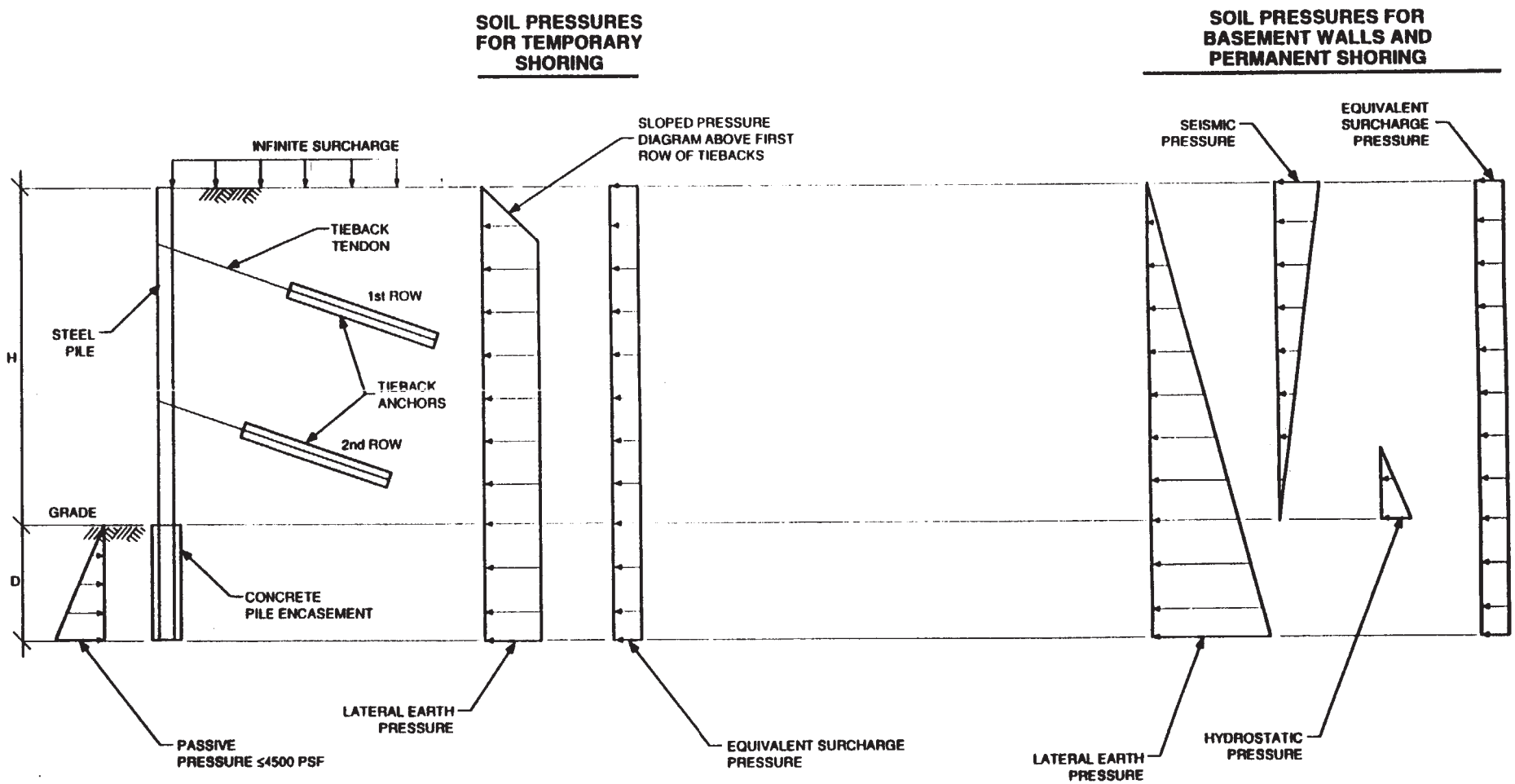
Notes:

1. Surface elevation are correct only at the boring locations.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Refer to Figure 2 for locations of the subsurface cross sections.
4. Refer to Appendix B for detailed boring log information and key to log of current borings.

CROSS SECTION F-F'

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA



SOIL PRESSURE DISTRIBUTION DIAGRAM

LAC+USC MEDICAL CENTER REPLACEMENT PROJECT
LOS ANGELES, CALIFORNIA

Dames & Moore
FIGURE 9

APPENDIX A

HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN
FOR
SUBSURFACE SOILS INVESTIGATION
LAC/USC MEDICAL CENTER REPLACEMENT PROJECT
FOR
COUNTY OF LOS ANGELES
DEPARTMENT OF HEALTH SERVICES
LOS ANGELES, CALIFORNIA

USCMED.SBA6

Job No.: 00499-038-015
Prepared by: S.C. Gulbrandsen, CIH
Date: January 1993

HEALTH AND SAFETY PLAN
FOR
SUBSURFACE SOILS INVESTIGATION
LAC/USC MEDICAL CENTER REPLACEMENT PROJECT
LOS ANGELES, CALIFORNIA

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ATTACHMENT I - RESPIRATOR INSPECTION PROCEDURES
ATTACHMENT J - INJURY AND ILLNESS PREVENTION PROGRAM

GLOSSARY OF TERMS, ACRONYMS, AND ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
analyzer	refers to the field instrument described in Section 6.1
atm	atmosphere
°C	centigrade
Carcinogen	A substance that can cause cancer
cc	cubic centimeter
CGI	Combustible Gas Indicator
CNS	Central Nervous System
DHSM	Division Health and Safety Manager
eV	Electron volts
EPA	U.S. Environmental Protection Agency
°F	fahrenheit
HSP	Health and Safety Plan
kg	kilogram
LEL	Lower Explosive Limit
Lpm	liter per minute
MSDS	Material Safety Data Sheet
m	meter
mg	milligram
mg/M^3	milligram per cubic meter
ml	milliliter
mm	millimeter
ND	Not Detected

GLOSSARY OF TERMS, ACRONYMS, AND ABBREVIATIONS, con't

NIOSH	National Institute for Occupational Safety and Health
OBZ	Operator's Breathing Zone
OEL	Occupational Exposure Limit
OSC	Office Safety Coordinator
OSHA	Occupational Safety and Health Administration
OVA	Organic Vapor Analyzer (Foxboro-Century)
PEL	Permissible Exposure Limit
PID	Photoionization Detector
PM	Project Manager
ppb	parts per billion
ppm	parts per million
REL	Recommended Exposure Limit
SSO	Site Safety Officer
SSR	Subcontractor's Safety Representative
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
UEL	Upper Explosive Limit
VOC	Volatile Organic Compound

HEALTH AND SAFETY PLAN
FOR
SUBSURFACE SOILS INVESTIGATION
LAC/USC MEDICAL CENTER REPLACEMENT PROJECT
LOS ANGELES, CALIFORNIA

1.0 SUMMARY

Previous site investigations have evidenced the potential or realized occurrence of hydrocarbon fuel contamination in soils and groundwater at the site. A fuel underground storage tank is known to be on site at near the south side of the outpatient facility. As part of an ongoing geotechnical investigation, soil samples will also be collected and analyzed for fuel hydrocarbons, and selected borings will be developed into groundwater monitoring wells. A soil gas survey will also be conducted and soil samples will be collected in the vicinity of the UST using hand auger methods.

Skin contact with potentially contaminated materials will be minimized by wearing personal protective clothing (as described in Section 7.0). Inhalation of vapors during boring and soil sampling will be minimized by air monitoring and the use of engineering controls, and respiratory protection will be used if action levels (see 6.1) are exceeded. Ingestion of contaminated materials will be minimized by good personal hygiene during decontamination (i.e., thoroughly washing face and hands with soap and water before eating or drinking).

An Foxboro Organic Vapor Analyzer (OVA) will be used to monitor for vapors. The analyzer will be used on a regular basis, typically every five to ten minutes, to monitor in the immediate vicinity of the borehole and cuttings adjacent to the borehole. If readings exceed an average of 15 ppm for more than one minute, monitoring in the operator's breathing zone (OBZ) of the person working nearest the borehole will start immediately, and personnel will don protective clothing as described in Section 7.0. Additional exposure monitoring and personal protective equipment criteria are found in Sections 6.0 and 7.0, respectively.

2.0 APPLICABILITY

The purpose of this plan, which was developed specifically for operations at the LAC/USC Medical Center, 1200 N. State, Los Angeles, California, is to assign responsibilities, establish personal protection standards and mandatory safety procedures, and provide for contingencies that may arise while operations are being conducted at the site. This plan complies with, but does not replace, Federal Health and Safety Regulations as set forth in 29 CFR 1910 and 1926, California Health and Safety Regulations as set forth in Title 8, California Code of Regulations, and guidance established by the California Environmental Protection Agency. This plan is to be used by Dames & Moore personnel as a supplement to such rules, regulations, and guidance.

The provisions of the plan are mandatory for all onsite Dames & Moore employees engaged in hazardous material management activities associated with this project which may involve health and safety hazards.

Changing and/or unanticipated site conditions may require modification of this site safety plan in order to maintain a safe and healthful work environment. Any proposed changes to this plan should be reviewed with the Dames & Moore Division Health and Safety Manager, or his designee, prior to their implementation. If this is not feasible, the site/project manager may modify the plan and record all changes in the field log book; under no circumstances will modifications to this plan conflict with Federal, state, or local health and safety regulations.

Dames & Moore is providing a copy of this Health and Safety Plan to each site subcontractor in order to fulfill its obligation under 8 CCR 5192(b) to inform subcontractors of site hazards. Each Dames & Moore subcontractor is to provide a Health & Safety Plan that complies with 8 CCR 5192 and addresses the activities of its employees relative to this project.

3.0 FACILITY BACKGROUND/WORK PLAN

3.1 SITE HISTORY

The site is the location of the Los Angeles County/USC Medical Center. The site comprises over 55 acres of land. Previous investigations at the site indicate the site may have had activities involving the use, handling, and storage of hazardous materials. During a recent geotechnical investigation related to impending construction/excavation at the site, evidence of soil contamination was encountered in the form of relatively strong hydrocarbon odor in one of the soil borings. It is known that an underground storage tank (UST) is also located near the south side of the outpatient clinic.

3.2 PURPOSE AND SCOPE OF WORK

The purpose of the project is to provide geotechnical services for construction at the site. As a result of encountering contamination, however, the geotechnical investigation will now incorporate an environmental investigation of soils and groundwater at the site. It is probable that additional investigation may be required at the site based on the results of this investigation.

Thirty-four geotechnical borings will be advanced at the site utilizing a hollow-stem auger drill rig. At least one soil sample will be collected from each of these borings. The boring depths are not likely to exceed 50' in depth. In locations where groundwater in encountered during the installation of the borings, a total of 10 ground water monitoring wells are estimated to be installed and developed. Water samples will be collected from the wells.

A soil gas survey for fuel hydrocarbons will also be conducted in locations between the geotechnical borings. Between fifty and sixty vapor probes will be installed and sampled. A mobile lab will be utilized on site.

In addition to the above activities, an investigation of subsurface conditions in the area of the underground storage tank will be conducted. Three hand auger borings will be advanced to a depth of between 6 and 10 feet deep around the perimeter of the UST. Two soil samples will be collected from each of the hand auger borings for hydrocarbon analysis.

4.0 RESPONSIBILITIES

Dames & Moore will have site safety and health oversight and coordination responsibilities for Dames & Moore personnel; each subcontractor will be held accountable for the safe and healthful performance of work by each of their employees, subcontractor, or support personnel who may enter the site.

The provisions of this health and safety plan along with the applicable regulations issued by governmental entities will be strictly adhered to by Dames & Moore.

4.1 PROJECT MANAGER (Dames & Moore)

The Project Manager (PM) shall direct onsite operations. The PM may delegate all or part of these duties to a properly-qualified Dames & Moore employee who is designated as the Site Manager. At the site the PM, assisted by the Site Safety Officer (SSO), has primary responsibility for:

1. Seeing that appropriate personal protective equipment and monitoring equipment is available and properly utilized by all onsite Dames & Moore (D&M) personnel;

2. Establishing that D&M personnel are aware of the provisions of this plan, are instructed in the work practices necessary to ensure safety, and are familiar with planned procedures for dealing with emergencies;

3. Establishing that all D&M onsite personnel have completed a minimum of 40 hours of health and safety training and have appropriate medical clearance as required by 8 CCR 5192, and have been fit tested for the appropriate respirators;

4. Seeing that D&M personnel are aware of the potential hazards associated with site operations;

5. Monitoring the safety performance of all D&M personnel to see that the required work practices are employed;

6. Correcting any D&M work practices or conditions that may result in injury or exposure to hazardous substances;

7. Preparing any accident/incident reports for D&M activities (see Section 13.0);

8. Seeing to the completion of Plan Acceptance forms by Dames & Moore personnel (See Attachments);

9. Halting D&M site operations, if necessary, in the event of an emergency or to correct unsafe work practices; and

10. Reviewing and approving this project health and safety plan.

4.2 SITE SAFETY OFFICER (Dames & Moore)

The Site Safety Officer's (SSO) duties may be carried out by the PM or other Dames & Moore site manager. The SSO, unless specifically directed by this HSP, does not offer or otherwise provide health and safety guidance to any subcontractor unless there is an imminent endangerment to personnel, in which case guidance is to be directed to the SSR only. The SSO:

1. Implements project Health and Safety Plans, and reports any deviations from the anticipated conditions described in the plan to the PM, and, if necessary, the DHSM.

2. Determines that monitoring equipment is used properly by D&M personnel and is calibrated in accordance with manufacturer's instructions or other standards, and that results are properly recorded and filed. (See Attachments for Daily Calibration Check Sheet).

3. Checks with the OSC or DHSM to see that assigned D&M personnel have current Fit-For-Duty medical and training authorizations.

4. Assumes any other duties as directed by the PM or DHSM.

5. Identifies all D&M personnel with special medical problems (e.g., allergies, perforated eardrum, etc.).

6. Conducts daily safety meetings and completes the Site Safety Briefing Report (see Attachments).

7. Provides ongoing review of the protection level needs as project work is performed, and informs the PM of the need to upgrade/downgrade protection levels as appropriate.

8. Sees that decontamination procedures listed in Section 10.0 are followed by D&M personnel.

9. Establishes monitoring of D&M personnel and records results of exposure evaluations.

10. Halts D&M site operations, if necessary, in the event of an emergency or to correct unsafe work practices.

11. Reviews and approves this project health and safety plan.

12. Implements the Injury and Illness Prevention Program.

4.3 WESTERN DIVISION HEALTH AND SAFETY MANAGER (Dames & Moore)

The Western Division Health and Safety Manager (DHSM) shall:

1. Determine the need for periodic audits of the operation to evaluate compliance with this plan.

2. Provide health and safety support as requested by the SSO and PM.

4.4 PROJECT PERSONNEL (Dames & Moore)

Project personnel involved in onsite investigations and operations are responsible for:

1. Taking all reasonable precautions to prevent injury to themselves and to their fellow employees.

2. Performing only those tasks that they believe they can do safely, and immediately reporting any accidents and/or unsafe conditions to the SSO or PM.

3. Implementing the procedures set forth in the Health and Safety Plan, and reporting any deviations from the procedures described in the Plan to the SSO or PM for action.

4. Notifying the PM and SSO of any special medical problems (i.e., allergies) and seeing that all onsite D&M personnel are aware of any such problems.

5. Reviewing project health and safety plan and signing acceptance form.

4.5 SUBCONTRACTOR'S SAFETY REPRESENTATIVE

Each subcontractor is requested to designate a Subcontractor's Safety Representative (SSR), who is the subcontractor supervisor. The SSR is responsible for the safe and healthful performance of work by his work force and subcontractors. During the subcontractor's activities onsite, the SSR will perform continuing work area inspections, and conduct safety meetings and safety orientations for all new employees. The SSR will attend periodic safety meetings with the SSO. The SSR will also investigate accidents and overexposures involving subcontractor personnel.

5.0 JOB HAZARD ANALYSIS

Potential chemical hazards at the site include gasoline and the gasoline constituents benzene; toluene; ethyl benzene; and xylenes; oil, and diesel fuel. If the gasoline is a leaded formulation, tetraethyl lead may also be encountered.

Physical hazards at this work site include those associated with:

- o cold stress;
- o slip-trip-fall type of accidents;
- o back injuries due to improper lifting;
- o muscle strains from hand augering;
- o being caught in or struck by moving equipment;
- o electrocution or explosion hazards associated with drilling or excavation activities, such as contact with overhead or underground power lines or pipelines.

5.1 COLD STRESS RECOGNITION AND CONTROL

As cool temperatures are expected to prevail during the course of this project, problems relating to heat stress are not anticipated. Protection against cold stress should be initiated when temperatures drop below 45°F. Cold stress guidance is provided in Attachment E.

5.2 CHEMICAL HAZARDS

From an occupational health standpoint, the levels of contaminants that may potentially be encountered during this investigation should not represent a significant concern. However, the site is still under investigation, so the potential for exposure to elevated levels of these contaminants may exist. Overviews of the hazards associated with exposure to the chemicals that may be encountered are presented below in terms of the following types of occupational exposure limits:

PEL - Permissible Exposure Limit (OSHA Standard)
TLV - Threshold Limit Value (ACGIH Guidance)
REL - Recommended Exposure Limit (NIOSH Guidance)
STEL - Short Term Exposure Limit
C - Ceiling

OSHA Permissible Exposure Limits (PELs), ACGIH Threshold Limit Values (TLVs), and NIOSH Recommended Exposure Limits (RELs) are time weighted averages (TWAs) are defined as concentrations for a normal 8-hour work day and 40-hour work week to which almost all workers can be repeatedly exposed without suffering adverse health effects.

Short Term Exposure Limit (STEL) is defined as the concentration to which workers can be exposed for short time periods without irritation, tissue damage, or narcosis sufficient to likely cause impairment of self-rescue or precipitate accidental injury. The STEL is a 15-minute time-weighted average that should not be exceeded at any time during the work day. STELs are used by OSHA, ACGIH and NIOSH for chemical exposure criteria.

A ceiling value (C) is a concentration that should not be exceeded at any time in any work day. Ceiling limits are used by OSHA, ACGIH and NIOSH for chemical exposure criteria.

Gasoline

PEL/TLV - 300 ppm TLV-STEL - 500 ppm

Gasoline is an eye and throat irritant at levels around the PEL, and causes narcotic effects (with symptoms including headache, nausea, dizziness, and blurred vision) at higher levels. Long term exposure can effect liver and kidney function. Some studies indicate a potential for gasoline to be an animal carcinogen, but this has not been fully established. Because gasoline is a mixture of varying proportions of dozens of hydrocarbons, a mean odor threshold has not been determined.

Benzene

PEL - 1 ppm PEL/STEL - 5 ppm TLV - 10 ppm
(0.1 ppm pending)

Benzene is a central nervous system depressant. Symptoms include headache, nausea, tremors, and fatigue, but these typically do not occur until exposure concentrations are in excess of 150 ppm. There is significant evidence that chronic exposures are carcinogenic causing a progressively malignant disease of the blood-forming organs (leukemia). Benzene is known to the State of California to cause cancer under the criteria of Proposition 65. Benzene is poorly absorbed through intact

skin, but contact with liquid benzene may cause blistering and dermatitis. Benzene vapors can cause transient eye irritation. The mean air odor threshold for benzene is 34 ppm, which yields unsatisfactory warning properties. Benzene's ionization potential (IP) is 9.25 eV.

Toluene

PEL/TLV = 100 ppm STEL = 150 ppm

Toluene is a central nervous system depressant. Symptoms include headache, nausea, dizziness and fatigue, but such symptoms typically do not occur at exposures below 200 ppm. Repeated and prolonged contact with liquid toluene may cause drying of the skin and dermatitis. Mild, transitory eye irritation may be experienced with exposure to vapors above 200 ppm. Toluene is not considered carcinogenic. ACGIH has proposed to lower the TLV to 50 ppm. Toluene's mean odor threshold is 3 ppm, which gives it good warning properties. Toluene's ionization potential (IP) is 8.82 eV, and its vapor pressure is 22 mm Hg.

Ethyl Benzene

PEL/TLV = 100 ppm

Ethyl benzene is an eye and mucous membrane irritant at levels well above the TLV. Liquid ethyl benzene is a significant skin irritant, and can cause defatting and blistering with repeated exposures. Vapor can cause transitory eye irritation at concentrations above 200 ppm. Ethyl benzene is not considered carcinogenic. The mean odor threshold is 0.5 ppm, which gives it good warning properties. Ethyl benzene's ionization potential is 8.76 eV, and its vapor pressure is 10 torr.

Xylene (o-, m-, p-isomers)

PEL/TLV = 100 ppm STEL = 150 ppm

Xylene is an eye, nose and throat irritant at concentrations nearing 200 ppm. At higher concentrations, it is a central nervous system depressant, with symptoms including nausea, fatigue, and headaches. Liquid xylene acts on the skin as an irritant and can cause dermatitis. Exposure to vapor can cause eye irritation. Xylene is not considered carcinogenic. Xylene's mean odor threshold is 1 ppm, which gives it good warning

properties. The ionization potential for the Xylene isomers are 8.56, 8.56, and 8.44 eV, respectively, and the vapor pressures range from 7 to 9 mm Hg.

If the gasoline on site is a leaded formulation, it may also contain the following compound:

Tetraethyl Lead, as Pb (TEL, Lead tetraethyl)

PEL = 0.075 mg/m^3 - Skin TLV = 0.1 mg/m^3 - Skin

Tetraethyl lead is a colorless liquid (often dyed) that has a pleasant or slight musty odor. Like other lead compounds, TEL is particularly toxic to the central nervous system; other effects include hypothermia, anorexia, pallor, nausea, hallucinations, and eye irritation. Routes of exposure are ingestion, inhalation, and skin absorption. Because of its low vapor pressure, the skin may be a more significant route of exposure than inhalation. Good personal hygiene and the diligent use of appropriate gloves and coveralls are important in preventing TEL exposure. The IP of tetraethyl lead is 11.1 eV, and its vapor pressure is 0.2 mm Hg.

Used Motor Oil

Crankcase oil consists of several classes of hydrocarbon including linear and branched alkanes, cycloalkanes, alkylbenzenes, naphthalenes and polycyclic aromatic hydrocarbons (PAHs).

The systemic toxicity of motor oil is considered to be low. Accidental ingestion of large quantities of motor oil produces gastrointestinal irritation in humans with symptoms including nausea, vomiting and diarrhea. Repeated long-term dermal exposure in humans may produce skin rash and oil acne. No occupational exposure limits have been established.

Diesel Fuel (Fuel Oil)

Diesel fuel is mildly toxic by ingestion. When inhaled, many of the constituents function as central nervous system depressants, with characteristic symptoms (headaches, nausea, dizziness, incoordination, and vomiting). Diesel fuel has been shown to be a strong skin irritant.

Few chronic inhalation or ingestion studies of the toxic effects of diesel vapors/fuels are available. Skin painting studies of experimental animals suggest the potential for weak tumor-producing activity.

Because diesel fuel is a complex mixture of varying proportions of hydrocarbons, a mean odor threshold has not been determined.

The following potential exposures may exist at the site:

- o Skin contact with contaminated materials (soil, water);
- o Inhalation of vapors or particulates; and
- o Ingestion of contaminated materials, especially if poor personal hygiene is practiced.

Skin contact with potentially contaminated materials will be minimized by the use of personal protective clothing (as described in Section 7.0). Inhalation of vapors or particulates during the drilling process, or during soil or water sampling will be minimized by air monitoring and the use of engineering controls, and respiratory protection will be used if action levels (see 6.1) are exceeded. Ingestion of contaminated materials will be minimized by the use of appropriate personal hygiene procedures during decontamination (i.e., thoroughly washing face and hands with soap and water after leaving the work area and prior to eating or drinking).

5.3 NOISE HAZARDS

The primary noise hazard at this site is from the drilling equipment. Previous surveys indicate that such equipment may produce continuous and impact noise at or above the action level of 85 dBA. All D&M personnel within 25 feet of operating equipment shall wear hearing protective devices (either muffs or plugs). All D&M personnel are in the Dames & Moore Hearing Conservation Program and have had baseline and, where appropriate, annual audiograms. Personnel will wash their hands with soap and water prior to inserting ear plugs to avoid initiating ear infections.

5.4 UNDERGROUND UTILITIES

Dames & Moore will attempt to locate all underground utility locations prior to the commencement of drilling activities. Resources include site plans, utility companies, and regional utility locating services. In California, Underground Services Alert (USA) must be contacted at least two, but not more than fourteen, days prior to excavating or drilling on public property (i.e., streets, sidewalks, etc).

The deactivation of utilities should be certified by the proper utility company personnel, and the certification retained in the permanent log.

5.5 HAZARD COMMUNICATION

Materials which are considered hazardous materials under the OSHA Hazard Communication Standard may be used during this project for decontamination or equipment calibration purposes. In accordance with the Dames & Moore Hazard Communication Program, the MSDSs for the hazardous materials listed below are included in Attachment H. The SSO will make copies of these MSDSs available to any subcontractors (i.e. drillers, excavators) on this project.

- TSP or Alconox (decontamination)

5.6 HEAVY EQUIPMENT

Operation of heavy equipment in drilling, excavation or other activities presents potential physical hazards to personnel. The following precautions should be observed whenever heavy equipment is in use:

- Personal protective equipment (PPE) such as steel-toed shoes, safety glasses or goggles, and hard hats should be worn whenever such equipment is present.

- Personnel should at all times be aware of the location and operation of heavy equipment, and take precautions to avoid getting in the way of its operation. Never assume that the equipment operator sees you; make eye contact and use hand signals to inform the operator of your intent.

- Traffic safety vests are required for D&M personnel working near mobile heavy equipment, such as backhoes and other excavators.

- Never walk directly in back of, or to the side of, heavy equipment without the operator's knowledge.

- When an equipment operator must operate in tight quarters, the equipment subcontractor should provide a person to assist in guiding the operator's movements.

- Keep all non-essential personnel out of the work area.

- All heavy equipment that is used in the exclusion zone should remain in that zone until its task is completed. The equipment subcontractor should completely decontaminate such equipment in the designated equipment decontamination area as required.

5.7 DRILL RIG WORK PRACTICES

The drill rig operator has superior knowledge regarding, and is responsible for drill rig maintenance and safety. The following information, taken from the National Water Well Association's Manual of Safe Operating Procedures, provides general guidelines for safe practices onsite.

Movement of Drill Rigs

The following safety guidelines relate to offroad movement of drill rigs:

- Before moving a drill rig, first walk the route of travel, inspecting for depressions, slumps, gullies, ruts, and similar obstacles.

- Always check the brakes of a drill rig carrier before traveling, particularly on rough, uneven, or hilly ground.

- Discharge all passengers before moving a drill rig on rough or hilly terrain.

- Engage the front axle of 4x4 or 6x6 vehicles or carriers when traveling off the highway on a hilly terrain.

- Use caution when traveling on a hillside. Conservatively evaluate the hillside capability of drill rigs, because the addition of drilling tools may raise the center of mass. When possible, travel directly uphill or downhill.

- Attempt to cross obstacles such as small logs, small erosion channels or ditches squarely, not at an angle.

- When lateral or overhead clearance is close, use the assistance of someone on the ground as a guide.

Underground utilities are as dangerous as overhead lines. Be aware and always suspect the existence of underground utilities such as electrical power, gas, petroleum, telephone, sewer, and water. Ask for assistance:

- If a sign warning of underground utilities is located on a site boundary. Do not assume that underground utilities are located on or near the boundary or property line under the sign; telephone the utility company and check it out. The underground utilities may be a considerable distance away from the warning sign.

- Always contact the owners of the utility lines or the nearest underground utility location service before drilling. The utility personnel should determine the location of underground lines and should mark and flag these locations. Determine, with the utility personnel, what specific precautions must be taken to assure safety.

Housekeeping On and Around The Drill Rig

To complete the first requirement for safe field operations, the safety supervisor of the drilling crew must understand and fulfill his responsibility for maintenance and "housekeeping" on and around the drill rig. Suitable storage locations should be provided for all tools, materials, and supplies. The locations should allow for the convenient handling of tools, materials or supplies without danger that these could fall on or hit a member of the drill crew or a visitor.

Avoid storing or transporting tools, materials, or supplies within or on the mast (derrick) of the drill rig. Pipe, drill rods, bits, casing, augers, and similar drilling tools should be stacked in an orderly manner on racks or sills to prevent spreading, rolling, or sliding.

Penetration hammers or other types of driving hammers should be placed at a safe location on the ground or secured to prevent movement when not in use. Work areas, platforms, walkways, scaffolding, and other access ways should be kept free of materials, obstructions, and substances such as ice, excess grease, or oil that could cause a surface to become slick or otherwise hazardous. Keep all controls, control linkages, and warning and operation lights and lenses free of oil, grease, and/or ice.

Do not store gasoline in any portable container other than a non-sparking, red container with a flame arrestor in the fill spout. The word "gasoline" must be clearly visible on the container.

Use of Hand Tools

There are many kinds of hand tools that can be used on or around a drill rig. The most important rule is "use the tool for its intended purpose." The following are a few specific and general suggestions that apply to the safe use of several hand tools often used on and around drill rigs.

- When a tool becomes damaged, either repair it before using it again or discard it.
- When using a hammer, any kind of hammer, for any purpose, wear safety glasses and require all others around you to do the same.
- When using a chisel, any kind of chisel, for any purpose, wear safety glasses and require all others around you to do the same.
- Keep all tools cleaned and stored in an orderly manner when not in use.
- Replace hook and heel jaws when they become visibly worn.
- When breaking tool joints on the ground or on a drilling platform, position your hands so that your fingers will not be caught between the wrench handle and the ground or the platform, should the wrench slip or the joint suddenly let go.

Use of Augers

The following general procedures should be used when advancing a boring with continuous flight or hollow-stem augers:

- Prepare to start an auger boring with the drill rig level, the clutch or hydraulic rotation control disengaged, the transmission in low gear, and the engine running at a low RPM.

- The operator and tool handler should establish a system of responsibility for the series of various activities required for auger drilling, such as connecting and disconnecting auger sections, and inserting and removing the auger fork. The operator must be sure that the tool handler is well away from the auger column and that the auger fork has been removed before starting rotation.

- Only use the manufacturer's recommended method of securing the auger to the power coupling. Do not touch the coupling or the auger with your hands, a wrench, or any other tool during rotation.

- Whenever possible, use tool hoists to handle auger sections.

- Never place your hands or fingers under the bottom of an auger section when hoisting the auger over the top of the auger section in the ground or other hard surfaces such as the drill rig platform.

- Never allow your feet to get under the auger section that is being hoisted.

- When rotating augers, stay clear of the rotating auger and other rotating components of the drill rig. Never reach behind or around a rotating auger for any reason.

- Never use your hands or feet to remove cuttings away from auger.

- Augers should be cleaned only when the drill rig is in neutral, and the augers have stopped rotating.

Start-Up Procedures

All drill rig personnel and visitors should be instructed to "stand clear" of the drill rig immediately prior to and during and starting of an engine. Before starting a drill rig engine, make sure that all of the gear boxes are in neutral, all hoist levers are disengaged, all hydraulic levers are in the correct non-actuating positions, and the cathead rope is not on the cathead.

Drill Rig Operation

Safety requires the attention and cooperation of every worker and site visitor. The following procedures are related to safety during drilling operations:

- Do not drive the drill rig from hole to hole with the mast in the raised position. Before raising the mast, look up to check for overhead obstructions.

- Before raising the mast, clear all drill rig personnel (with the exception of the operator) and visitors from the areas immediately to the rear and the sides of the mast. In addition, inform them that the mast is being raised.

- Before the mast of a drill rig is raised and drilling is commenced, the drill rig must first be leveled and stabilized with leveling jacks and/or solid cribbing. The drill rig should be re-leveled if it settles after the initial set up. Lower the mast only when leveling jacks are down, and do not raise the leveling jack pads until the mast is completely lowered. Before starting drilling operations, secure and/or lock the mast, if required by the drill manufacturer's recommendations.

- The drill rig operator should operate a drill rig only from the position of the controls. The operator should shut down the drill engine before leaving the vicinity of the drill. "Horsing around" within the vicinity of the drill rig and tool and supply storage areas is strictly prohibited, even when the drill rig is shut down. Watch for slippery ground when mounting/dismounting the platform.

- Drilling operations should be terminated during an electrical storm.

- Consuming alcoholic beverages, depressants, stimulants, or any other chemical substance while on the job is strictly prohibited.

- All unattended boreholes must be adequately covered or otherwise protected to prevent drill rig personnel, site visitors or animals from stepping or falling into the hole. When the drilling project has been completed, all open boreholes should be covered, protected or backfilled adequately and according to local or state regulations.

6.0 EXPOSURE MONITORING PLAN

Heat stress, noise, and chemical exposures may be encountered at this site. Heat stress monitoring and prevention is addressed in Section 5.1. Noise levels will not be monitored; D&M personnel will wear hearing protection as described in Section 5.3.

6.1 CHEMICAL EXPOSURE MONITORING

The field instrumentation described in this subsection has been specifically selected for the contaminants that may be reasonably anticipated to be encountered during the course of this project. Selection factors include anticipated airborne concentrations, potential interferences, ionization potentials, instrument sensitivity, and occupational exposure limits. The action levels described below are established with the expectation that these specific instruments will be used. DO NOT SUBSTITUTE INSTRUMENTS WITHOUT THE CONSENT OF THE HSP PREPARER OR THE DHSM.

A Foxboro Organic Vapor Analyzer (OVA) will be used to monitor for hydrocarbon vapors. The analyzer will be used on a regular basis, typically every five to ten minutes, to monitor in the immediate vicinity of the borehole and cuttings adjacent to the borehole. If readings exceed an average of 15 ppm for more than one minute, monitoring in the operator's breathing zone (OBZ) of the person working nearest the borehole will start immediately, and personnel will don protective clothing as described in Section 7.0.

An OBZ reading above 15 ppm for more than one minute will require the use of half-face respirators with organic vapor cartridges. An OBZ reading above 75 ppm for more than one minute will require the use of full-face respirators with organic vapor cartridges. If the OVA reads more than 300 ppm instantaneously (>5 seconds) or 150 ppm for more than one minute, work will stop, and workers will move upwind while the vapors dissipate; if elevated levels remain for more than five minutes, the boring and cuttings will be covered with clean soil, plastic sheeting, or foam, and the DHSM, HSP Preparer or PM will be contacted for further guidance.

A summary of the response criteria is presented below.

(OBZ - Operator's Breathing Zone)

Analyzer Reading*	Location	Time Period	Action
<15 ppm	Borehole	----------	Continue periodic monitoring.
>15 ppm	Borehole	>1 minute	Monitor OBZ; don protective clothing as described in 7.0; establish work zones described in 8.1.
<15 ppm	OBZ	----------	No respirators required.
>15 ppm	OBZ	>1 minute	Half-face respirators with organic vapor cartridges; establish decon area as described in 9.0.
>75 ppm	OBZ	>1 minute	Full-face respirators with organic vapor cartridges.
>150 ppm OR >300 ppm	OBZ OBZ	>1 minute instantaneous	Stop work; move upwind while vapors dissipate. If elevated levels remain, cover boring and cuttings, evacuate upwind and notify DHSM or PM.

* above background readings

6.2 EXPLOSIVE ATMOSPHERES

The potential exists for explosive atmospheres at the site due to the presence of gasoline which has a low flash point. A Combustible Gas Indicator/O_2 (CGI/O2) meter will be used to monitor ambient conditions at all times during drilling operations. Oxygen concentrations should be measured prior to taking combustible gas readings to determine that there is sufficient oxygen (>10%) to operate the Combustible Gas Indicator. Decisions will be based on the Lower Explosive Limit (LEL) as determined by the Combustible Gas Indicator as follows:

LEL Reading	Action
<10% LEL	Continue operations
10% - 20% LEL	Continuous Monitoring
>20% LEL	Shutdown Operations and evaluate source, ventilate

Fire suppression equipment (Two 20-pound ABC fire extinguishers or fire hoses) is to be present at all times during operation of drilling equipment in areas where fire potential exists.

6.3 BACKGROUND READINGS

All direct-reading instrument readings will be evaluated relative to background readings, not "meter zero". Prior to the start of work at each shift, and whenever there is a significant shift in wind direction, instrument readings will be obtained upwind of the site work zone in order to determine the level of "background" readings from local vehicle traffic, emissions from nearby operations unrelated to the site, etc. Site readings will be evaluated against these background readings (i.e., if an action level is listed as 20 ppm, it is evaluated as 20 ppm above background).

6.4 DATA LOGGING

All exposure monitoring data, including background readings, will be logged in the field log book. The results of daily instrument calibrations can either be logged on the form provided in the Attachments or in the field log book. All monitoring instruments will be calibrated, in accordance with the manufacturer's instructions or the guidance found in the Attachments, prior to the start of each shift. Calibration should also be performed when inconsistent or erratic readings are obtained. If an instrument cannot be calibrated to specification,

or becomes otherwise inoperable, all invasive site work (i.e., drilling, excavating) will cease until the instrument is appropriately repaired or replaced; the PM, DHSM or HSP Preparer should be contacted for further guidance.

6.5 DUST CONTROL

If drilling operations generate sustained visible dust, a water mist will be applied to reduce dust generation. If the mist is not effective in reducing dust generation, personnel will don respirators (half-face or full-face as appropriate for analyzer readings) with combination organic vapor-HEPA cartridges (such as MSA's GMC-H cartridges).

The sand and portland cement which may be used in groundwater monitoring well construction may contain free silica (quartz). Airborne exposure to silica dust may occur during handling of these materials. Half-face respirators with HEPA cartridges should be worn for those sand and cement handling operations where there is a reasonable possibility for exposure to sustained airborne dust from the pouring and mixing of dry sand or cement.

7.0 PERSONAL PROTECTIVE EQUIPMENT

Minimum Protective Equipment for Site Personnel:

- Hardhat
- Safety glasses
- Steel-toed boots

Work/Exclusion Zone Requirements

- Hardhat
- Eye protection (face shield or safety glasses)
- Chemical-resistant steel-toed boots
- Ear protection in vicinity of drilling/heavy equipment
- Cotton coveralls (optional)

If analyzer reading greater than 15 ppm above background in work area for more than one minute, add:

- Tyvek coveralls
- Nitrile gloves
- Surgical latex or vinyl gloves (inner)

If analyzer reading greater than 15 ppm above background in OBZ for more than one minute, add:

- Half-face respirator with organic vapor cartridges

If analyzer reading greater than 75 ppm above background in OBZ for more than one minute, add:

- Full-face respirator with organic vapor cartridges

If potential for liquid contact (i.e., well development and sampling)

- Use poly-coated Tyvek coveralls in place of uncoated Tyvek

7.1 LIMITATIONS OF PROTECTIVE CLOTHING

The protective equipment ensembles selected for this project are anticipated to provide protection against the types and concentrations of hazardous materials that may potentially be encountered during field operations. However, no protective garment, glove or boot is resistant to all chemicals at any concentration; in fact, chemicals may continue to permeate or degrade a garment even after the source of contamination is removed.

In order to obtain optimum usage from PPE, the following procedures are to be followed by all Dames & Moore personnel:

- When using disposable coveralls, don a clean, new garment after each rest break or at the beginning of each shift;

- Inspect all clothing, gloves and boots both prior to and during use for:

  - Imperfect seams
  - Non-uniform coatings
  - Tears
  - Poorly functioning closures

- Inspect reusable garments, boots and gloves both prior to and during use for:

  - Visible signs of chemical permeation such as swelling, discoloration, stiffness or brittleness

  - Cracks or any signs of puncture or abrasion

Any reusable garments exhibiting any such characteristics will be discarded.

7.2 DURATION OF WORK TASKS

The duration of work tasks in which personnel use PPE ensembles that include chemical protective clothing (including uncoated Tyvek) will be established by the SSO. Variables to be considered include ambient temperature and other weather conditions, the capacity of individual personnel to work in the required level of PPE in heat and cold, and the limitations of specific PPE ensembles. The minimum rest breaks are as follows:

- Fifteen minutes midway between shift startup and lunch
- Lunch break (30 to 60 minutes)
- Fifteen minutes midway between lunch and shift end

Rest breaks are to be taken in the support zone or other clean area after personnel have completed the decontamination process, including soap and water wash of hands and face. Additional rest breaks will be scheduled according to heat stress monitoring protocols as described in Attachment E.

8.0 SITE CONTROL

8.1 GENERAL

Barricades and barricade tape should be used to delineate a work zone for safety purposes around the work area. The barriers should be set in a 25 foot radius (as practical) around the work area to provide sufficient maneuvering space for personnel and equipment. A short piece of barricade tape can be affixed to a secure upright or drill rig mast to serve as a wind-direction tell-tale. A five foot opening in the barricades at the support zone (upwind of the work area) will serve as the personnel and equipment entry and exit point. The personnel decontamination station will be established at this point if formal decontamination procedures are required (see 9.0). All entry to and exit from the work area will be made at this opening in order to control potential sources of contamination and leave contaminated soil and debris in the work area.

At the end of the shift, all boring/sampling holes and excavations must be covered or otherwise secured. All cuttings and decontamination fluids are to be handled in accordance with relevant regulations and instructions from the PM.

The PM or SSO will determine an upwind evacuation area prior to each shift, and all personnel will be notified of its location. A horn or other signalling device will be used to signal an evacuation in the event of an emergency. Three blasts of the horn will be the signal to immediately stop work and proceed to the evacuation area.

The SSO will see that all site visitors sign the visitors' log and that all Dames & Moore personnel who enter the work zone do so only after presenting evidence of both their participation in a medical surveillance program and completion of health and safety training programs that fulfill the requirements of this plan.

The SSO will provide site hazard and emergency action information to all site visitors before they enter the site; this can be done by providing a copy of this HSP to the visitor.

8.2 WORK ZONES

If OVA readings exceed the first criteria in Section 6.1, requiring the use of chemical protective equipment, work zones must be established as described below. This criteria is 15 ppm above background for more than one minute in the work area.

- Exclusion Zone - a 25 foot (as practical) circle around the work area will be defined before work starts. The encircled area will constitute the "Exclusion Zone". This zone is where potentially hazardous contaminants and physical hazards to the workers will be contained. Full personal protection will be required in this area. Plastic sheeting (visqueen) and/or tarps may be used as necessary to control cuttings spilled to the ground during drilling operations. The size of the Exclusion Zone may be altered to accommodate site conditions and to ensure contaminant containment.

- Contamination Reduction Zone (CRZ) - a corridor leading from the Exclusion Zone will be defined, and will lead from the work area to a break area. All decontamination activities will occur in the CRZ. A waste container will be placed at the end of the corridor so contaminated disposal equipment can be placed inside and covered. Surface/soil contamination in this area should be controlled using plastic sheeting. No Dames & Moore personnel will be permitted into the Contamination Reduction Zone or Exclusion Zone unless they are in full compliance with the requirements of this Plan.

- Support Zone - a Support Zone, the outermost part of the site, must be defined for each field activity. Support equipment is located in this uncontaminated or clean area. Normal work clothes are appropriate within this zone. The location of this zone depends on factors such as accessibility, wind direction (upwind of work area), and resources (i.e., roads, shelter, utilities).

9.0 DECONTAMINATION PROCEDURES

If the OVA readings indicate respirator use (15 ppm over background in the OBZ for more than one minute), the following steps will be followed whenever personnel leave the exclusion zone/work area:

1. Remove all equipment, sample containers, and notes to the CRZ. Obtain decontamination solutions and decon the shovels, auger flights, etc. by brushing them under a water rinse. A high-pressure steam cleaner may also be used for decon. All waste and spent decon solutions will be properly contained.

2. Scrub boots and gloves with a stiff bristle brush and water. Washtubs and chairs will be provided.

3. Remove outer gloves (and boot covers, if used).

4. Remove Tyvek coverall; discard in provided container.

5. Remove hardhat and eye protection.

6. Remove respirator.

7. Remove inner gloves.

8. Wash hands and face.

The decontamination area will be covered with plastic sheeting which will be replaced when torn or heavily soiled, and at the end of each shift. A schematic of a "Minimum Layout of Personnel Decontamination Station" is provided in Attachment C for reference.

Each worker will be responsible for cleaning, sanitizing and storing their own respirator in accordance with manufacturer's guidance (i.e., washing in warm water and detergent or sanitizing solution, air drying, and storing in a plastic storage bag; see Attachment I). Cartridges will be changed as soon as breakthrough occurs (detection of organic vapor odor while wearing the respirator) and at the end of each shift. Respirators will be kept in storage bags or boxes when not in use.

All spent decontamination fluids (rinse waters, etc.) shall be handled as directed by the PM and in accordance with relevant regulations.

9.1 SANITATION

Potable water will be made available at the site, either from a pressurized source or commercially-available bottled water. Drinking cups will be supplied so personnel will neither drink directly from the source of water nor have to share drinking cups. Sources of non-potable water shall be clearly labeled as such.

Unless toilet facilities are available on site or transportation is readily available to transport personnel to nearby (within five minutes) toilet facilities, portable toilet facilities, such as chemical toilets, will be provided on site.

Washing facilities will be provided on site, and will be located in the decontamination area or the support area. Soap, clean water, wash basins and single-use towels will be available for personnel use.

9.2 DECONTAMINATION-MEDICAL EMERGENCIES

In the event of physical injury or other serious medical concerns, immediate first-aid is to be administered in lieu of further decontamination efforts.

See Emergency Decontamination chart for a decision tree for emergency decontamination.

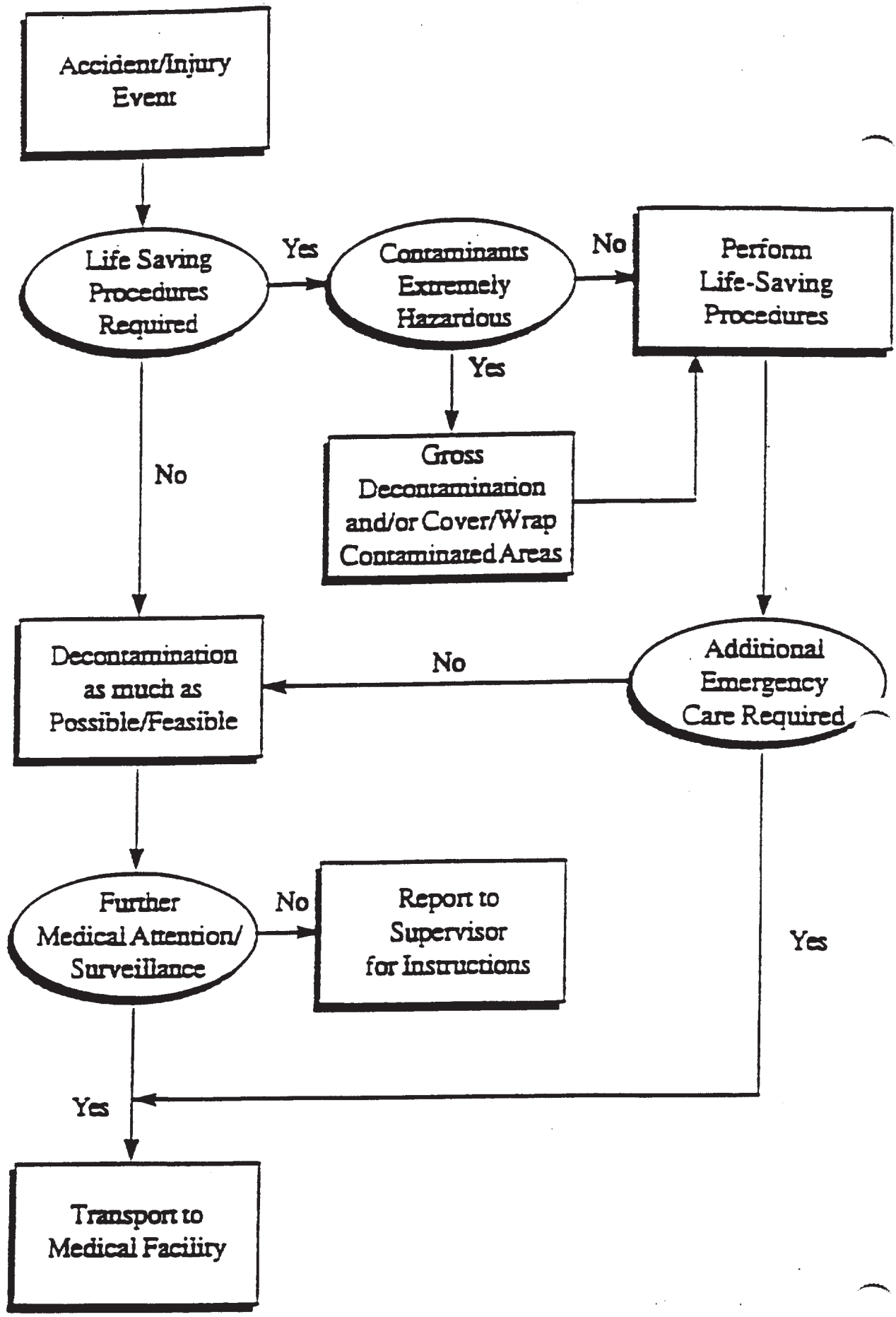
9.3 DECONTAMINATION OF TOOLS

When all work activities have been completed, contaminated tools used by D&M personnel will be either completely decontaminated or properly disposed as hazardous waste.

It is expected that all tools will be constructed of non-porous, non-absorbent materials. This will aid the decontamination process. Any tool, or part of a tool, which is made of a porous/absorbent material will be discarded and disposed of as a hazardous waste if it cannot be properly decontaminated.

Tools will be placed on a decontamination pad or into a bucket and thoroughly washed using a soap solution and brushing, followed by a fresh water rinse. All visible particles are to be removed before the tool is considered clean.

At the direction of the DHSM, the SSO may periodically take swipe samples from decontaminated tools for analysis to evaluate the effectiveness of this program.



Emergency Decontamination

10.0 SAFE WORK PRACTICES

10.1 GENERAL

1. Eating, drinking, chewing gum or tobacco, and smoking are prohibited in the contaminated or potentially contaminated area or where the possibility for the transfer of contamination exists.

2. All personnel will enter designated work areas only through the contamination reduction zone (CRZ). All personnel leaving an exclusion/work zone must exit through the CRZ and pass through the decontamination station as described in 9.0.

3. Personnel will wash their hands and face thoroughly with soap and water prior to eating, drinking or smoking.

4. Avoid contact with potentially contaminated substances. Do not walk through puddles, pools, mud, etc. Avoid, whenever possible, kneeling on the ground, leaning or sitting on equipment or ground. Do not place monitoring equipment on potentially contaminated surfaces (i.e., ground, etc.)

5. All field crew members should make use of their senses to alert them to potentially dangerous situations in which they should not become involved (i.e., presence of strong, irritating or nauseating odors).

6. Only those vehicles and equipment required to complete work tasks should be permitted within the exclusion/work zone (drill rigs, excavators, and similar items). All non-essential vehicles should remain within the support zone.

7. Containers, such as drums, will be moved only with the proper equipment and will be secured to prevent dropping or loss of control during transport.

8. Field survey instruments, such as OVAs and HNus, will be covered with plastic or similar covering to minimize the potential for contamination.

9. No matches or lighters will be permitted in the work area/exclusion zone or contamination reduction zone.

10. Contaminated protective equipment, such as respirators, hoses, boots and disposable protective clothing, will not be removed from the work area/exclusion zone or decontamination area until it has been cleaned, or properly packaged and labeled.

11. Prevent, to the extent possible, spillages. In the event that a spillage occurs, contain liquid if possible.

12. Prevent splashing of the contaminated materials.

13. Field crew members shall be familiar with the physical characteristics of site operations, including:

- o Wind direction in relation to contaminated area;
- o Accessibility to equipment and vehicles;
- o Communications;
- o Areas of known or suspected contamination;
- o Site access; and
- o Nearest water sources.

14. The number of personnel and equipment in the exclusion zone should be minimized but only to the extent consistent with workforce requirements of safe site operations.

15. All wastes generated during Dames & Moore and/or subcontractor activities at the site will be disposed of as directed by the PM.

16. All personal protective equipment will be used as specified and required.

17. The buddy system will be used at all times when performing sampling for hazardous material when the first action level criteria has been exceeded or when working in remote areas.

18. Personnel are to immediately notify the SSO or Site Manager if any indications potential explosions, or unusual conditions are observed.

10.2 SAMPLING PRACTICES

For all sampling activities, the following standard safety procedures shall be employed:

1. All sampling equipment should be cleaned before proceeding to the site.

2. At the sampling site, sampling equipment should be cleaned after each use.

3. Work in "cleaner" areas should be conducted first where practical.

4. All unauthorized personnel will remain outside exclusion zones at all times.

5. Before conducting hand augering, stretch or "warm-up" the body; avoid twisting or wrenching motions.

10.3 HEALTH AND SAFETY EQUIPMENT LIST

Hardhats
Safety glasses
Ear plugs or muffs
Tyvek and polycoated Tyvek coveralls
Chemical resistant steel-toed boots
Work gloves *
Nitrile gloves
Surgical vinyl inner gloves
Plastic sheeting (visqueen)
55 gal 17-H drums (for contaminated solids) and 17-E drums (for liquids)*
Drum liners
Barricade tape and barricades
Wash tubs and scrub brushes
Decon solution (i.e., TSP)
Folding chairs *

5 or 10 gal portable eyewash *
Respirator sanitizing equipment *
First Aid kit
Drinking water
Gatorade or similar drink
Type ABC fire extinguishers
Half-face and full-face respirators (NIOSH/MSHA approved)
Organic vapor cartridges
Combination organic vapor-HEPA cartridges
Organic Vapor Analyzer (OVA) and calibration kit
Combustible Gas Indicator and calibration kit
Garden sprayer
Compressed gas horn *
Duct tape

* optional

11.0 EMERGENCY RESPONSE PLAN

It is Dames & Moore's policy to evacuate personnel from areas involved in hazardous material emergencies and to summon outside assistance from agencies with personnel trained to deal with the specific emergency. This section outlines the procedures to be followed by Dames & Moore personnel in the event of a site emergency. These procedures are to be reviewed during the onsite safety briefings conducted by the SSO.

In the event of a fire or medical emergency, the following numbers can be called for assistance:

Fire:	911
Ambulance:	911
Hospital:	(213) 226-2345
	County of Los Angeles/USC Medical Center
Police:	911

The site activities will be conducted at a hospital.

11.1 PLACES OF REFUGE

In the event of a site emergency requiring evacuation, all personnel will evacuate to a pre-designated area located a safe distance from any health or safety hazard (typically the Dames & Moore site office, unless conditions dictate otherwise) and safely away from the area of influence. The SSO will designate a primary assembly area prior to the start of work each day. The daily pre-designated assembly area may have to be re-designated by the SSO in the event of an emergency where the area of influence affects the primary assembly area. Once assembled, the SSO shall take a head count. The SSO will evaluate the assembly area to determine if the area is outside the influence of the situation; if not, the SSO will redirect the group to a new assembly area where a new head count will be taken.

During any site evacuation, all employees shall be instructed to observe wind direction indicators. During evacuation, employees will be instructed to travel upwind or crosswind of the area of influence. The SSO will provide specific evacuation instructions, via the site emergency radio if necessary, to site personnel regarding the actual site conditions.

11.2 FIRE

Type ABC fire extinguishers will be available onsite to contain and extinguish small fires. The local fire department should be summoned (911) in the event of any fire on site.

11.3 COMMUNICATION

A communication network must be set up to alert site personnel of emergencies and to summon outside emergency assistance. Where voice communication is not feasible an alarm system (i.e., sirens, horns, etc.) should be set up to alert employees of emergencies. Radio communication may also be used to communicate with personnel in the exclusion zone. Where phone service is not readily available, radios or portable phones should be used to communicate with outside agencies. Site personnel should be trained on the use of the site emergency communication network. Emergency phone numbers should be posted at the phone or radio used for outside communication. The SSO is responsible for establishing the communication network prior to the start of work, and for explaining it to all site personnel during the site safety briefing.

The following hand signals will be used by personnel in the event of an emergency:

Signal	Definition
Hands clutching throat	Out of air/can't breathe
Hands on top of head	Need assistance
Thumbs up	OK/I'm alright/I understand
Thumbs down	No/negative
Arms waving upright	Send back support
Grip partner's wrist	Exit area immediately

11.4 EMERGENCY RESPONSE PROCEDURES

11.4.1 Emergency Response Team

The emergency response team will consist of employees who assume the following roles:

- Emergency Care Provider/s

  Provide first aid/CPR as needed.

- Communicator

  The role of the communicator is to maintain contact with appropriate emergency services, providing as much information as possible, such as the number injured, the type and extent of injuries, and the exact location of the accident scene. The communicator should be located as close to the scene as possible in order to transmit to the emergency care providers any additional instructions that may be given by emergency services personnel in route.

- Site Supervisor

  The site supervisor (usually the SSO) should survey and assess existing and potential hazards, evacuate personnel as needed, and contain the hazard. Follow up responsibilities include replacing or repairing damaged equipment, documenting the incident, and notifying appropriate personnel / agencies described under incident reporting. It also includes reviewing and revising site safety and contingency plans as necessary.

In the event of an emergency, follow the procedure outlined in Figure 11-1. Notify site personnel of the situation. Survey the scene to determine if the situation is safe, to determine what happened, and to search for other victims.

11.5 MEDICAL EMERGENCY RESPONSE PLAN

At least one Dames & Moore employee on site will hold a current certificate in American Red Cross Standard First Aid. This training provides four hours of Adult CPR and four hours of Basic First Aid. If a medical emergency exists consult the emergency phone number list and request an ambulance immediately. Perform First Aid/CPR as necessary, stabilize the injured, decontaminate if necessary, and extricate only if the environment they are in is dangerous or unsafe and ONLY if the rescuers are appropriately protected for potential hazards they may encounter during the rescue. This is particularly appropriate for confined space entry. The rescuers should not perform confined space entry rescue unless they are adequately protected and have appropriate equipment. When emergency services personnel arrive, communicate all first aid activities that have occurred. Transfer responsibility for care of the injured/ill to the emergency services personnel.

The following items and emergency response equipment will be located within easy access at all times:

- First Aid Kit,
- American Red Cross Standard First Aid Manual,
- Eyewash - A 15 minute eyewash or an appropriate amount of portable sterile eyewash bottles will be available on site for flushing foreign particles or contaminants out of eyes. The SSO will demonstrate the proper operation of the unit(s) prior to the start of work,
- Emergency Phone Numbers List, and
- Portable radios for emergency communications in remote areas.

11.6 INCIDENT REPORT

ALL site injuries and illnesses must be reported to the SSO and PM immediately following first-aid treatment. The SSO will also notify the DHSM (John Danby-Sacramento). Work is to be stopped until the PM or SSO and DHSM have determined the cause of the incident and have taken the appropriate action to prevent a reoccurrence. Any injury or illness, regardless of severity, is to be reported to the DHSM on the accident report form (see Attachments).

11.7 OPERATION SHUTDOWN

Under certain extreme hazardous situations the onsite geologist, SSO or SSR may request that site operations be temporarily suspended while the underlying hazard is corrected or controlled. During operation shutdown, all personnel will be required to stand upwind to prevent exposure to fugitive emissions. The SSO will have ultimate authority for operations shutdown and restart.

11.8 SPILL OR HAZARDOUS MATERIALS RELEASE

Small spills are immediately reported to the SSO and are dealt with according to the chemical manufacturers' recommended procedures found on the MSDS. Steps will be taken to contain and/or collect small spills for approved storage and disposal.

In the unlikely event of a larger release of hazardous materials as a result of site activities, site personnel will evacuate to the predesignated assembly area. The local Designated Emergency Response Authority (DERA) will be notified by the SSO immediately and appropriate actions will be taken to protect the public health and mitigate the contaminant release. The DERA can be reached through the local police or fire department. The following emergency contacts will be made by the Site Safety Officer or Site Manager:

Local Health Department

Hazardous Materials Response Unit (phone)

National Response Center 1-800-424-8802

State Office of Emergency Services

Hazardous Materials Unit (phone)

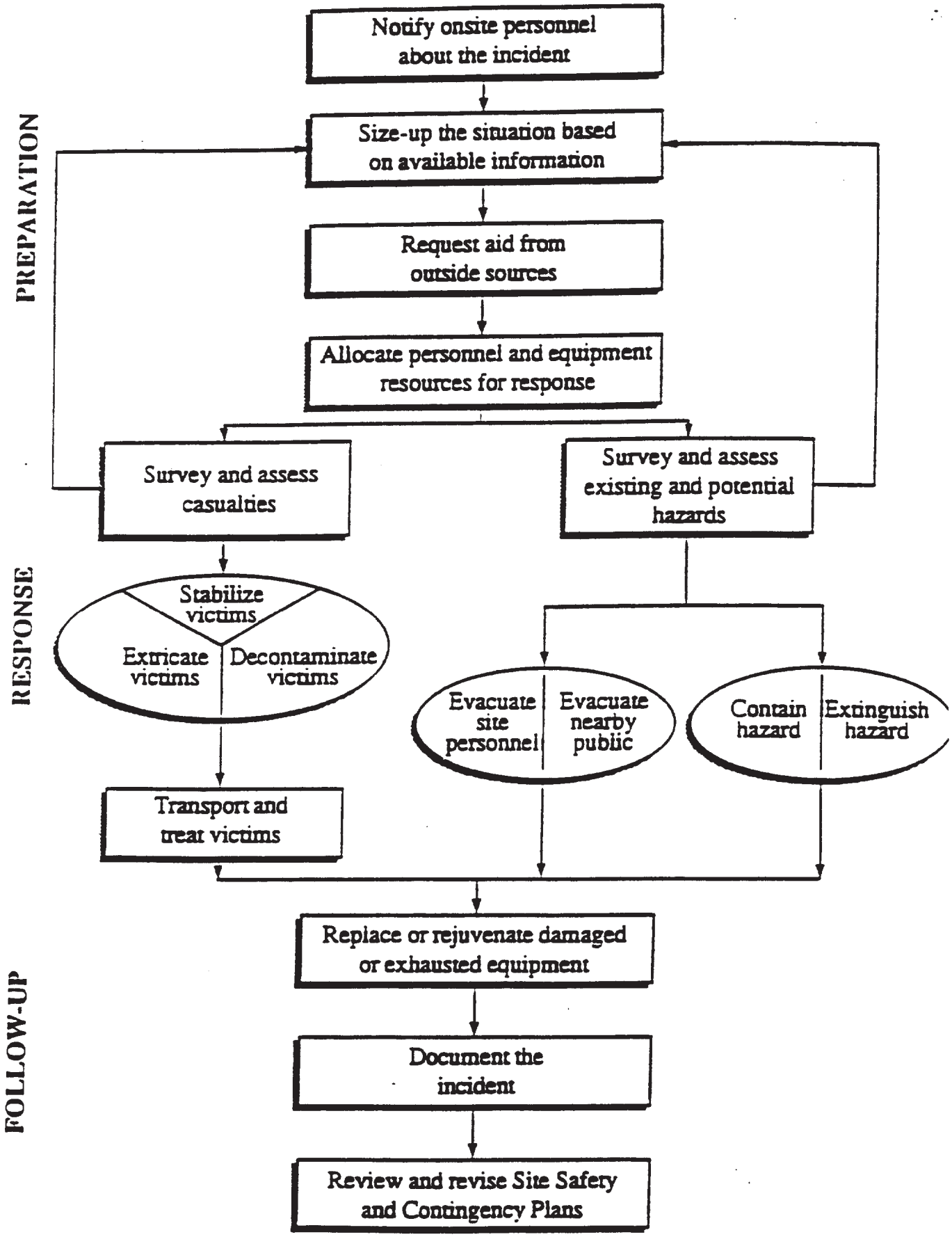
Dames & Moore Project Manager (phone)

John Danby, Dames & Moore Health and Safety Manager 1-916-387-7554

11.9 COMMUNITY SAFETY

There is a low potential for migration of chemicals from the site as a result of project activities. In the unlikely event that significant release of contaminants occur during the course of the field work, the appropriate state and local authorities will be notified immediately and appropriate actions will be taken to protect the public health and mitigate the contaminant release.

Emergency Response Procedures



12.0 TRAINING AND MEDICAL SURVEILLANCE

All Dames & Moore site personnel will have met the requirements of 8 CCR 5192(e), including:

- Forty hours or initial off-site training or its recognized equivalent;
- Eight hours of annual refresher training for all personnel;
- Eight hours of supervisor training for personnel serving as Site Safety Officers;
- Three days of work activity under the supervision of a trained and experienced supervisor.

All Dames & Moore site personnel are participating in medical surveillance programs that meet the requirements of 8 CCR 5192(f). The PM will maintain current copies of training certificates and statements of medical program participation for all site personnel.

In addition, all Dames & Moore site personnel will review this HSP and sign a copy of the safety plan compliance agreement, which is found in the Attachments. The PM will maintain these agreements at the site, and forward them to the DHSM at the conclusion of the operation.

Prior to the start of operations at the site, the SSO will conduct a site safety briefing, which will include all personnel involved in site operations. At this meeting, the SSO will discuss:

- Contents of this HSP,
- Types of hazards at the site and means for minimizing exposure to them,
- The type of monitoring that will be performed,
- Action levels for upgrade and downgrade of personal protective equipment,
- Personal protective equipment that will be used,
- Decontamination protocol,

- Site control measures, including safe operating practices and communication,
- Location and use of emergency equipment,
- D&M Injury and Illness Prevention Program; and
- Evacuation signals and procedures.

Subsequent site safety briefings will be conducted prior to each shift to review pertinent safety issues, discuss any problems, and outline safety aspects of the shift's tasks.

For each briefing, the SSO will complete a Site Safety Briefing form (see Attachment E) and submit each on a regular basis to the DHSM.

13.0 RECORDKEEPING

The PM and SSO are responsible for site recordkeeping. Prior to the start of work, they will review this plan; if there are no changes to be made, they will sign the approval form and forward a copy to the DHSM.

All D&M personnel will review the HSP and sign the plan acceptance form in Attachment A; copies of these forms will be forwarded to the DHSM.

The SSO will conduct a Site Safety Briefing in accordance with Section 12 prior to each shift and have all attendees sign the form in Attachment D; copies will be forwarded to the DHSM.

Any accident or exposure incident will be investigated and the form in Attachment B will be completed and forwarded to the office administrative manager and the DHSM.

All instrument readings and calibrations, PPE use and changes, health and safety-related issues, and deviations from or problems with this HSP will be recorded in the Field Log. These portions of the Log will be transmitted to the DHSM for review at the completion of field operations.

APPENDIX B

FIELD EXPLORATION PROGRAM

APPENDIX B FIELD EXPLORATION PROGRAM

B.1 GENERAL

The field exploration program was initiated on October 18, 1998 and completed on November 18, 1998 under the technical supervision of a qualified geotechnical engineer or engineering geologist from our Los Angeles office. The subsurface conditions at the site were explored by drilling a total of 25 borings to depths ranging from 50 to 100 feet below the existing ground surface. The locations of the borings are shown on the Plot Plan, Figure 2. The boring locations had been pre-numbered in the field to facilitate utility clearance and site coordination. However, due to unanticipated access constraints, boring location LAC B-6 could not be drilled during the current phase of our investigation. Therefore, this location will be drilled as part of our Geotechnical Investigation Phase 2 for the *Replacement Project*.

In addition to drilling and sampling, five (5) of the borings were developed as groundwater monitoring wells. In addition, three (3) pore-pressure gages (electronic piezometers) aimed at individual water-bearing sandstone layers, were installed in selected borings. D&M is currently in the process of monitoring the wells and piezometers. Results of our groundwater monitoring will be presented under a separate cover.

B.2 EXPLORATORY BORINGS

Borings were drilled using an 8-inch diameter, hollow-stem auger, truck-mounted drilling rig. Our geologist maintained logs of the borings and classified soils encountered according to the Unified Soil Classification System, obtained relatively undisturbed samples of the subsurface materials, and noted conditions that were observed which could affect the project. A Key to Log of Borings and description of the Unified Soil Classification System is presented on Figure A-1 of this Appendix. All cuttings generated during drilling were drummed and the borings backfilled with cement-bentonite grout upon completion.

Relatively undisturbed soils were obtained using a Dames & Moore Type-U Sampler, as shown on Figure A-2. The sampler was driven 18 inches into the subsurface soils using a 140-pound hammer dropping 30 inches. Blow counts were recorded at 6-inch intervals for each sample

taken. Soil samples obtained in brass rings were packaged and sealed in the field to prevent moisture loss and disturbance and were returned to our laboratory for further testing.

Standard Penetration Test (SPT) blow counts were taken at the depths indicated on the Logs of Borings. SPTs were performed in general accordance with ASTM D-1589. Logs of Borings are presented on Figures A-3 through A-21.

B.3 GROUNDWATER MONITORING WELLS

Five (5) the exploratory borings (Borings LAC B1, LAC B17, LAC B19, LAC B20, and LAC B21) were developed into groundwater monitoring wells. After completion of drilling, well casing/screen was assembled and suspended in each borehole. Filter pack consisting of #3 Monterrey sand was placed around the well screen. The filter pack was tremied into the borehole and extended at least 2 feet above the top of the screen. A bentonite seal, minimum 4 feet thick, consisting of ¼-inch diameter chips or pellets was placed above the filter pack and water was poured into the borehole to hydrate the bentonite. The bentonite seal was allowed to hydrate before backfilling the borehole. The remainder of the borehole was backfilled by Portland cement grout to within 12 inches of the ground surface. Well boxes were installed at the top of each borehole and grouted-in-place flush with the ground surface.

B.4 PORE PRESSURE GAUGES

A total of three (3) vibrating-wire, pore pressure gauges (piezometers) were installed in Borings LAC B23, LAC B24 and LAC B25, upon completion of drilling. Borehole drilling and sampling, and pore pressure gauge installation were performed by Layne Christiansen Environmental Drilling of Fontana, California.

The piezometers were manufactured by RST Instruments Company of Bothell, Washington. The piezometers were installed within water-bearing sandstone layers at depths of 21½ to 42 feet below the existing ground surface. Each borehole was drilled using a Mobil CME-95 hollow-stem-auger drill rig. In order to facilitate closer examination of the most productive water-bearing unit in which to install the piezometers, each borehole was cored using a 2½-inch ID core barrel with a 4½-inch OD Chrisdril diamond carbide bit.

Once the water-bearing unit was identified, a 1-inch diameter by 3-inch long vibrating-wire piezometer, with a 50-foot long cable was installed in the borehole. In general, each piezometer was encased in a filter bag filled with #3 Monterey sand and then sandwiched between two layers of hydrated bentonite in the borehole. The remainder of the borehole was backfilled by Portland cement grout to within 12 inches of the ground surface. Well boxes were installed at the top of each borehole and grouted-in-place flush with the ground surface.

The following are attached and complete this appendix:

Figure B-1 Unified Soil Classification System and Key to Log of Borings
Figure B-2 Dames & Moore Type-U Sampler
Figure B-3 Log of Boring (Boring LAC B-1)
Figure B-4 Log of Boring (Boring LAC B-2)
Figure B-5 Log of Boring (Boring LAC B-3)
Figure B-6 Log of Boring (Boring LAC B-4)
Figure B-7 Log of Boring (Boring LAC B-5)
Figure B-8 Log of Boring (Boring LAC B-7)
Figure B-9 Log of Boring (Boring LAC B-8)
Figure B-10 Log of Boring (Boring LAC B-9)
Figure B-11 Log of Boring (Boring LAC B-10)
Figure B-12 Log of Boring (Boring LAC B-11)
Figure B-13 Log of Boring (Boring LAC B-12)
Figure B-14 Log of Boring (Boring LAC B-13)
Figure B-15 Log of Boring (Boring LAC B-14)
Figure B-16 Log of Boring (Boring LAC B-15)
Figure B-17 Log of Boring (Boring LAC B-16)
Figure B-18 Log of Boring (Boring LAC B-17)
Figure B-19 Log of Boring (Boring LAC B-18)
Figure B-20 Log of Boring (Boring LAC B-19)
Figure B-21 Log of Boring (Boring LAC B-20)
Figure B-22 Log of Boring (Boring LAC B-21)
Figure B-23 Log of Boring (Boring LAC B-22)
Figure B-24 Log of Boring (Boring LAC B-23)
Figure B-25 Log of Boring (Boring LAC B-24)

Figure B-26 Log of Boring (Boring LAC B-25)
Figure B-27 Log of Boring (Boring LAC B-26)

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	SM	SILTY SANDS, SAND - SILT MIXTURES
			SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Dual symbols are used to indicate gravels or sand with 5-12% fines and soils with fines classifying as CL-ML. Symbols separated by a slash indicate borderline soil classifications.

Other Material Symbols

- Moderately to highly weathered Puente Formation
- Slightly weathered Puente Formation
- Sandstone, Puente Formation

Sampler and Symbol Descriptions

- Dames & Moore Type-U sample
- Standard Penetration Test
- No Recovery
- Bk Bulk sample
- Disturbed Type-U Sample
- Pitcher Tube Sample
- Shelby Tube Sample
- Rock Core Sample
- Approximate depth of perched water or groundwater

Note: Number of blows required to advance driven sample 12" (or length noted) is recorded; blow count recorded for seating interval (initial 6" of drive) is indicated by an asterisk.

Laboratory and Field Test Abbreviations

CBR	California Bearing Ratio Test
COL	Collapse Potential test (test result in parentheses)
COMP	Compaction test
CON	Consolidation test
CORR	Corrosivity test
DSCD	Consolidated drained direct shear test (normal pressure and shear strength results shown)
EI	Expansion Index test (test result in parentheses)
LL=29	Liquid limit (Atterberg limits test)
PI=11	Plasticity Index (Atterberg limits test)
PP	Pocket Penetrometer test (test result in parentheses)
R-Value	Resistance Value test
SA	Sieve Analysis (-200 result in parentheses)
SE	Sand Equivalent test (test result in parentheses)
SWELL	Swell Load test (test result in parentheses)
TV	Torvane test (test result in parentheses)
-200	Percent passing #200 sieve (test result in parentheses)

KEY TO LOG OF BORING

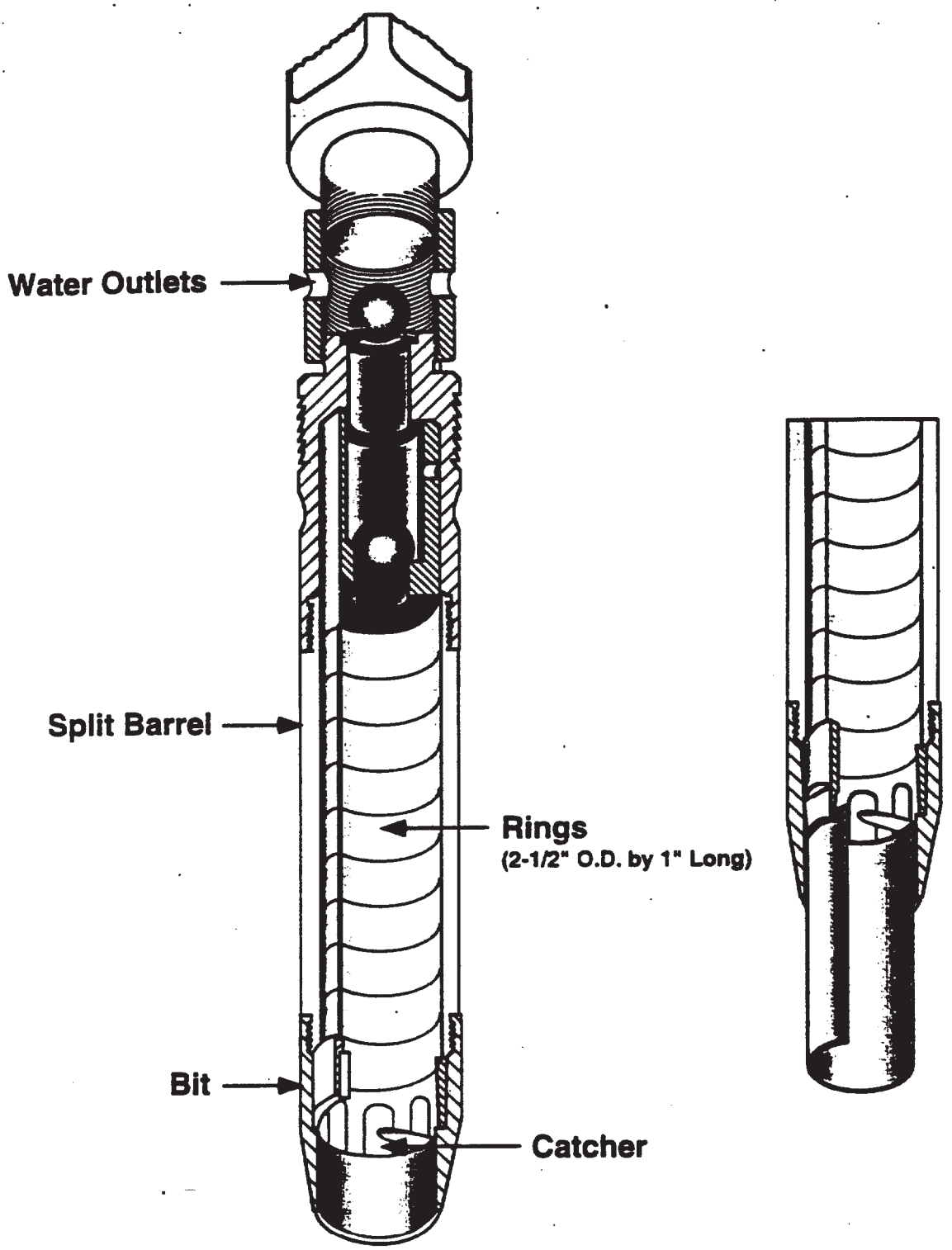
GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

DAMES & MOORE GROUP — A DAMES & MOORE GROUP COMPANY

Figure B-1



TYPE U SAMPLER

Dames & Mc
FIGURE B-

Date(s) Drilled	11/11/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 21-feet		
Comments	Monitoring Well LAC MW-1 Installed		

Boring LAC B- 1

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	347.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					SM	4-inch thick Concrete Pavement				
							FILL: Brown silty fine SAND, slightly moist (dense)				
340							PUENTE FORMATION: Light brown SANDSTONE, moderately to highly weathered, slightly moist				
	10	◪		60				16			
		■		50/4"			Grades mottled brown and gray	27	96		
330											
	20	◪		50/5"			Grades brown to light brown, wet	19			
		■		70/6"			Grades mottled brown and gray	31	94		
320											
	30	◪		50/5"			Mottled yellowish-brown and gray SILTSTONE and SANDSTONE, moist, bedding dips at 45 degrees	22	108		
		■		75/5"				26	99		
310											
	40	◪		50/5"				25	105		
		■		75/6"			Grades slightly weathered	15	107		
300											
	50	◪		50/4"				20	110		
290											
	60	◪		100/5.5"				21			

Bentonite chips

#3 Lonestar Sand

Schedule 40 PVC Screen with 0.02 slot openings

Bottom Well Cap

Bentonite chips

CON

Report DMG15, Project File C:\PROGRA~1\GINTW\LACUSC1.GPJ, Data Template DMLA.GDT Printed 1/5/99

This log is part of the report prepared by Dames & Moore for this project and should be read together with the report. This summary applies only at the location of the exploration and at the time of drilling or excavation. Subsurface conditions may differ at other locations and may change at this location with time. Data presented are a simplification of actual conditions encountered.

LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-3

DAMES & MOORE GROUP

A DAMES & MOORE GROUP COMPANY

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT **Boring LAC B-1**

FOR: County of Los Angeles, Department of Public Works **Sheet 2 of 2**

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TES REMARI AND WELL DESCRIPTION
280	70	◪		100/6"				17			
270	80										
260	90										
250	100										
240	110										
230	120										
220	130										
210	140										

Report DMG15; Project File: C:\PROGRA~1\GINTW\LACUSC1.GPJ; Data Template DMLA.GDT Printed 1/5/99

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Figure B-3

Date(s) Drilled	10/30/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments			

Boring LAC B- 2

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	338.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	5-inch thick Asphaltic Concrete Pavement			
						SM	FILL: Mottled brown and gray silty fine to medium SAND with fine gravel, moist (very dense)			
				50/6"			ALLUVIUM: Mottled brown and gray silty fine to medium SAND, moist (very dense)	10	107	-200(25) CORR
330	10			50/6"				15		
				65			PUENTE FORMATION: Brown SILTSTONE, moderately to highly weathered	24	102	-200(85)
320	20			57			Grades mottled yellowish-brown and gray	26	97	
				50/6"						CON
310	30			63				28	97	
				60			Grades mottled dark brown and gray, slightly weathered	37	84	
300	40			60				32	91	
				50/5"				40	79	CON
290	50			82				43	78	
				50/4"			Grades dark gray			
280	60			50/3"				35	84	

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-4

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT Boring LAC B-

FOR: County of Los Angeles, Department of Public Works Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER T and REMARKS
270	70			50/4"				36	87	
				80				24		
260	80									
250	90									
240	100									
230	110									
220	120									
210	130									
200	140									

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Figure B-4

Date(s) Drilled	10/19/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 45-feet		
Comments			

Boring LAC B- 3

Sheet 1 of 1

Job Number	00499-089-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	339.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	FILL: Brown silty fine SAND with some coarse gravel, slightly moist (very dense)			
						SM	ALLUVIUM: Brown silty fine to medium SAND, slightly moist (very dense)	10	105	-200(21) CORR
330	10			50/3"			Grades light brown	6		-200(11)
				50			Grades yellowish-brown	14		-200(26)
320	20			22			PUENTE FORMATION: Greenish-gray to brownish-yellow SILTSTONE, moderately to highly weathered, moist	29	96	
				30				30	92	CON
310	30			50/5"			Grades mottled dark brown and gray, slightly weathered	27	94	
				20/5"				26	97	
300	40			50/5"				25	96	
				60/6"			Grades wet	27	94	
290	50			50				18	108	
				50				16	96	
280	60							21	89	

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-5

Date(s) Drilled	10/20/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 24-feet		
Comments			

Boring LAC B- 4

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	342.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
340	0					SM	6-inch thick Asphaltic Concrete Pavement FILL: Reddish-brown silty fine to coarse SAND with some fine gravel, slightly moist (very dense)			
				55				5	102	
						SM	ALLUVIUM: Brown silty fine to medium SAND, moist (very dense)			
	10			79				10	101	
330							PUENTE FORMATION: Yellowish-brown to brown SILTSTONE and SANDSTONE, moderately to highly weathered, moist, bedding dips at 30 degrees			
				38				33	90	
	20			57			Grades mottled yellowish-brown and gray	37	87	
320										
				32			Grades wet	16	103	
	30			40			Grades dark brown, slightly weathered	30	90	
310										
				33				41	79	
	40			62				26	98	
300										
				50/6"				27	93	
	50			50/5"				25	100	
290										
				50/3"				22	97	
	60			50/3"			Grades mottled gray and dark brown	24	102	
280										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-6

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B- 4

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	70			50/5"				22	96	
				50/4"						
270										
	80									
260										
	90									
250										
	100									
240										
	110									
230										
	120									
220										
	130									
210										
	140									
200										

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Figure B-6

Date(s) Drilled	11/3/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 43-feet		
Comments			

Boring LAC B- 5

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	54.0
Approximate Ground Surface Elevation(ft)	346.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SC	FILL: Brown clayey fine to coarse SAND, moist (very dense)			
						SM	ALLUVIUM Reddish-brown silty fine to medium SAND, moist (very dense)			
340				50/4"				8	122	
	10			50/5"			Grades light brown	8		-200(32) CORR
							PUENTE FORMATION: Mottled gray, dark brown and brown SILTSTONE, moderately to highly weathered, moist			
330				50/6"						
	20			40/6"				33	87	CON
320				50/6"						
	30			60				34	88	
							Grades mottled brown and gray, slightly weathered			
310				50/5"				24	106	
	40			62			Bedding dips at 54 degrees	29	90	
							Grades wet			
300				77			Bedding dips at 40 degrees	26	97	
	50			60/6"						
290										
	60									

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-7

Date(s) Drilled	11/5/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 40-feet		
Comments			

Boring LAC B- 7

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	70.0
Approximate Ground Surface Elevation(ft)	344.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	FILL: Reddish-brown silty fine to coarse SAND with some fine to medium gravel, moist, (dense)			
340						SM	ALLUVIUM Brown silty fine to medium SAND, moist (very dense)	8		
	10			53/6"				8		
				50/5"						
330				50/5"			Grades mottled brown and gray	20	105	
	20			40				27	105	-200(87)
320				50			PUENTE FORMATION: Mottled brown and gray SILTSTONE, slightly weathered, moist, bedding dips at 45 degrees	33	85	
	30			70			Grades mottled dark brown and greenish-gray	29	104	
310				87				25	95	
	40			90			Grades wet	21	111	
300				53/6"				27	93	
	50			70/6"						
290				56/6"			Bedding dips at 50 degrees	20	94	
	60			50/4"			Grades gray to black	7		
280										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-8

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
				65/6"				20	94	
	70			70				18		
270	80									
260	90									
250	100									
240	110									
230	120									
220	130									
210	140									
200										

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Figure B-8

Date(s) Drilled		Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments			

Boring LAC B- 8

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	81.5
Approximate Ground Surface Elevation(ft)	353.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SP-SC	**FILL:** Dark brown fine SAND with clay, moist (medium dense)			
350				23				19	97	-200(11) LL=46, PI=27
						SM	**ALLUVIUM:** Brown silty fine to medium SAND, moist (very dense)			
	10			50/3"				9	95	200(20)
340										
				50/4"				4	96	-200(7)
	20			60/6"				10		-200(14) CORR
330							**PUENTE FORMATION:** Mottled greenish-gray and yellowish-brown SILTSTONE and SANDSTONE, moderately to highly weathered, moist			
				50				35	87	
	30			62				31	88	
320										
				40			Grades mottled gray and dark brown, bedding dips at 45 degrees	32	89	
	40			50			Grades yellowish-brown			
310										
				50/4"				32	89	
	50			91				27	91	
300										
				50/5"				24	96	
	60			50/5"				26		
290										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-9

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT **Boring LAC B- 8**

FOR: County of Los Angeles, Department of Public Works **Sheet 2 of 2**

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REMARKS
				57/6"				20	97	
	70			50/6"				22	92	
280				50/4"				19	96	
	80			50/6"				17	85	
270										
	90									
260										
	100									
250										
	110									
240										
	120									
230										
	130									
220										
	140									
210										

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Figure B-9

Date(s) Drilled	10/21/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 20-feet		
Comments			

Boring LAC B- 9

Sheet 1 of 2

Job Number	00498-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	345.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SC	3-inch thick Asphaltic Concrete Pavement			
							FILL:			
						SM	Reddish-brown clayey fine to coarse SAND, moist (very dense)			
340				57			ALLUVIUM: Brown silty fine to medium SAND, moist (very dense)	12	108	-200(29)
	10			60/6"						
						SP-SM	Brown fine to medium SAND with silt, moist (very dense)			
330				50				6	107	-200(12)
	20			50			▼ Grades mottled gray and brown, wet	20	118	-200(8)
						SM	Brown silty fine to medium SAND, wet (very dense)			
320				50/4"				24	97	-200(25)
	30			50/5"			PUENTE FORMATION: Mottled greenish-gray and yellowish-brown SILTSTONE and SANDSTONE, slightly weathered, moist	32	89	
310				50			Grades mottled greenish-gray, dark brown and yellowish-brown	27	96	
	40			50/3"				39	85	
300				50/6"				17	104	
	50			50/6"				18	94	
290				50/5"				18	95	
	60			55/6"				16	100	
280										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-10

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B- 9

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REMARKS
280				50/6"				15	106	
	70			50/4"				17		
270										
	80									
260										
	90									
250										
	100									
240										
	110									
230										
	120									
220										
	130									
210										
	140									
200										

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Figure B-10

Date(s) Drilled	10/20/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 19.5-feet		
Comments			

Boring LAC B-10

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	340.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
340	0					SM	**FILL:** Reddish-brown silty fine to coarse SAND with some fine gravel, slightly moist (dense)			
						SM	**ALLUVIUM:** Reddish-brown silty fine to medium SAND, slightly moist (very dense)	5	106	-200(13)
				50/6"		ML	Yellowish-brown to gray clayey SILT, with some sand, slightly moist (hard)			
330	10			56				25	82	-200(88) LL=49, PI=13
						CH	Yellowish-brown to gray CLAY, slightly moist (hard)			
				43				24	103	LL=53, PI=34
320	20			54			Grades wet	25	91	
						SM	Mottled gray and brown silty fine to medium SAND, wet (loose)			
				11						
						SP	Mottled gray and brown fine to medium SAND, wet (very dense)			
310	30			60/6"				15	112	-200(4)
							PUENTE FORMATION: Mottled gray and brown SILTSTONE and CLAYSTONE, slightly weathered			
				44				29	95	
300	40			39				34	88	
				50/5"				28	93	
290	50			52/6"				30		
				55/6"				31		
280	60			50/5"				35	80	

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LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

Figure B-11

Date(s) Drilled	10/28/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 44-feet		
Comments			

Boring LAC B-11

Sheet 1 of 2

Job Number	00498-059-015
Total Depth Drilled (ft)	91.5
Approximate Ground Surface Elevation(ft)	374.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	6-inch thick Asphaltic Concrete Pavement over 3-inch thick Aggregate Base			
370						CL	FILL: Brown silty fine SAND with some fine gravel, moist (medium dense)			
		■		6			COLLUVIUM: Dark brown silty CLAY, moist (soft)			LL=40, PI=19
	10	◪		38			PUENTE FORMATION: Brown SILTSTONE, moderately weathered	29	92	
360		■		25						
	20	◪		50/5"				19		DSCD 1500, 3000, 6000 1464, 2484, 4548
350		■		35				22	99	
	30	◪		37				24	101	
340		■		52/6"				25	97	CON
	40	◪		41				36	84	
330		■		50/5"			Grades wet	36	84	CON
	50	◪		60				34	89	
320		◪		58			Bedding dips at 55 degrees	29	95	
	60	◪		69			Grades dark gray, slightly weathered Bedding dips at 67 degrees	34	86	
310										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-12

DAMES & MOORE GROUP

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT **Boring LAC B-1**

FOR: County of Los Angeles, Department of Public Works

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
				49			Grades mottled greenish-gray and dark brown	56	72	
	70			50				36	84	
300				65			Grades dark brown, bedding dips at 67 degrees	40	84	
	80			50/6"				24	92	
290				57/6"				23	105	
	90			93				27	98	
280										
	100									
270										
	110									
260										
	120									
250										
	130									
240										
	140									
230										

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Figure B-12

Date(s) Drilled	10/23/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 19.5-feet		
Comments			

Boring LAC B-12

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	59.5
Approximate Ground Surface Elevation(ft)	343.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SP	**FILL:** Reddish-brown fine to coarse SAND with some fine gravel, moist (dense)			
340						SM	**ALLUVIUM:** Reddish-brown silty fine to medium SAND, moist (very dense)	29	95	
	10			50/4"		ML-CL	Brown to brownish-yellow clayey SILT to silty CLAY, moist (hard)			
				49				34	86	
330				36				21	100	
	20			50/5"			**PUENTE FORMATION:** Gray silty SANDSTONE, moderately to highly weathered, wet	22	101	
320				50/5"						
	30			50/6"				22	102	
310							Dark gray to dark brown SILTSTONE, slightly weathered, moist			
				50/5"				42	79	
	40			50/4"				39	82	
300				50				13	109	
	50			50/5"				9	106	
290				50/5"				20	104	
	60									
280										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-13

Date(s) Drilled	10/27/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 29-feet		
Comments			

Boring LAC B-13

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	101.5
Approximate Ground Surface Elevation(ft)	372.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						6-inch thick Asphaltic Concrete Pavement			
370							**PUENTE FORMATION:** Brown to yellowish-brown SILTSTONE, moderately to highly weathered, slightly moist			
		■		50/5"				25	98	
	10	◪		50			Grades brown, slightly weathered	24	80	
360										
		■		50				23	99	
	20	◪		80				26	98	
350										
		■		57/6"						DSCD 2000, 4000, 8000 1825, 3372, 5844
							▼ Grades wet			
	30	◪		50/6"				24	93	
340										
		■		50/5"				29	93	
	40	◪		70			Grades mottled gray and brown	36	80	
330										
		■		50/6"				39	83	
	50	◪		65				41	81	
320										
		■		55/6"				41	82	
	60	◪		55/6"			Grades gray	41	78	
310										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-14

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT **Boring LAC B-13**

FOR: County of Los Angeles, Department of Public Works **Sheet 2 of 2**

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REMARKS
		■		50/4"			Grades mottled dark brown and dark gray	33	90	
	70	◪		50/5"				27	95	
300		■		50/4"				27	93	
	80	◪		60/6"						
290		◪		50/5"				24	95	
	90	◪		60/6"				22	89	
280		◪		50/6"				24	86	
	100	◪		70/6"				19	105	
270										
	110									
260										
	120									
250										
	130									
240										
	140									
230										

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Figure B-14

Date(s) Drilled	10/29/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 43-feet		
Comments			

Boring LAC B-14

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	81.5
Approximate Ground Surface Elevation(ft)	363.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						9-inch thick Asphaltic Concrete Pavement			
						ML	**COLLUVIUM:**			
360							Brown clayey SILT, slightly moist (hard)			
				46				13	108	-200(85)
							PUENTE FORMATION:			
	10			50/6"			Brown SANDSTONE, dry	10		SA (34)
350										
				85			Grades moist	11	98	
							Light brown to brown SILTSTONE, moderately to hightly			
	20			50/4"			weathered, moist (dense)	22	107	
340										
				52/6"				25	91	
	30			50/4"				24	104	
330										
				50/5"			Grades mottled light brown and gray	32	90	
	40			50				31	97	
320							Grades wet			
				50/6"			Grades greenish-gray, slightly weathered	37	86	
	50							24	112	
310										
			NR	60						
	60			61/6"			Grades dark brown			
300										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-15

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-14

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REMARKS
				65/6"						
	70			50/1"			Grades mottled gray and dark brown			
290										
				70/6"						
	80			78/6"						
280										
	90									
270										
	100									
260										
	110									
250										
	120									
240										
	130									
230										
	140									
220										

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Figure B-15

Date(s) Drilled	11/4/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments			

Boring LAC B-15

Sheet 1 of 1

Job Number	00499-089-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	352.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					CL	**ALLUVIUM:** Dark brown CLAY			
350						SM	Brown silty fine to medium SAND with some gravel, moist (very dense)			
				83				6	91	SA(26)
	10			50/5"				5		
340							**PUENTE FORMATION:** Mottled brown and gray CLAYSTONE and SANDSTONE, moderately to highly weathered, moist			
				35				8	114	
							Brown SANDSTONE, moist			
	20			50/6"				5	94	
330										
				50/5"			Grades wet	19	106	-200(26)
							Mottled brown, dark brown and yellowish-brown CLAYSTONE, moderately to highly weathered, moist			
	30			50/5"				19	90	LL=54,PI=31
320										
				50				43	83	
							Mottled brown, dark brown and yellowish-brown SILTSTONE, moderately to highly weathered, moist			
	40			50/4"				32	67	
310										
				50/6"				23	94	
	50			50/2"				24	92	
300										
				50/3"				29		
	60			53/6"				27	101	
290										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-16

Date(s) Drilled	11/13/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 35-feet		
Comments			

Boring LAC B-16

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	347.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					CL	**ALLUVIUM:** Dark brown CLAY			
						ML	Brown medium to coarse sandy SILT, moist (very loose)			
340		■		6				18	106	-200(83)
	10	◪		50/6"		SM	Brown silty fine to medium SAND, moist (very dense)	10	90	-200(24)
		■		50/4"				12	107	
330							**PUENTE FORMATION:**			
	20	◪		66			Mottled brown and gray CLAYSTONE, moderately to highly weathered, moist	27	94	
		■		46				22	102	
320							Brown SILTSTONE, slightly weathered, very moist to wet			
	30	◪		36				23	105	
		■		50/4"				19	115	-200(52)
310							Brown SANDSTONE, wet			
	40	◪		60/6"				17	116	-200(5)
		◪		52/6"			Grades dark brown	19	112	
300							Dark brown SILTSTONE, slightly weathered, moist			
	50	◪		50				34	87	
		◪		65/6"				35	88	
290										
	60	◪		50/6"						

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-17

Date(s) Drilled	11/18/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 28-feet		
Comments	Monitoring Well LAC MW-17 Installed		

Boring LAC B-17

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	370.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
370	0					CL	**ALLUVIUM:** Brown to reddish-brown silty CLAY with some fine sand, moist (very stiff)				
		■		37				16	102		Bentonite chips
360	10	◪		35			Grades with less sand	19	110		#3 Lonestar Sand -200(82)
		■		50/3"			**PUENTE FORMATION:** Brown SANDSTONE, moderately to highly weathered, dry	7	11		Schedule 40 PVC Screen with 0.020 slot openings
350	20	◪		74			Mottled yellowish-brown and gray, CLAYSTONE, moderately to highly weathered, slightly moist	28	93		-200(30) -200(94)
		■		50				25	102		CON DSCD 1000, 3000, 5000 1456, 2800, 3920
340	30	◪		36				22	97		-200(56)
		■		50/4"			Brownish-yellow SILTSTONE AND SANDSTONE, moderately weathered, bedding dips at 45 degrees	23	102		
330	40	◪		50				24	98		Bottom Well Cap
		■		50/3"			Grades greenish-gray to dark brown, slightly weathered	31	91		-200(83) -200(93)
320	50	◪		50/5"							
310	60	◪		50				21	98		

Report: DMG15, Project File: C:\PROGRA~1\GINT\WLACUSC1.GPJ, Data Template: DMLA.GDT Printed: 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

Figure B-18

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT **Boring LAC B-17**

FOR: County of Los Angeles, Department of Public Works **Sheet 2 of 2**

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TE REMARK AND WELL DESCRIPTION
300	70			70/6"				16	90		
290	80										
280	90										
270	100										
260	110										
250	120										
240	130										
230	140										

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DAMES & MOORE GROUP
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Figure B-18

Boring LAC B-18

Sheet 1 of 1

Date(s) Drilled	10/23/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 26-feet		
Comments			

Job Number	00499-059-015
Total Depth Drilled (ft)	51.5
Approximate Ground Surface Elevation(ft)	352.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
350	0					SM	FILL: Brown silty fine to coarse SAND with some fine gravel, dry to slightly moist (dense)			
						SM	ALLUVIUM Brown silty fine to medium SAND, slightly moist (very dense)			
				50/5"				7		
							PUENTE FORMATION: Gray to yellowish-gray SILTSTONE, moist, moderately to highly weathered			
	10			74				22	97	-200(85)
340				50/5"				21	106	
							Mottled gray to yellowish-brown SANDSTONE, moist			
	20			50/5"				15	107	
330							Grades wet			
				60/6"				20	99	-200(13)
							Mottled gray and yellowish-brownish SILTSTONE and CLAYSTONE, moderately to highly weathered, moist			
	30			73				48	73	
320							Mottled gray and yellowish-brown SANDSTONE, wet			
				50/4"				35	84	
							Mottled dark gray to yellowish-brown SILTSTONE and SANDSTONE, moderately to highly weathered, moist, bedding dips at 40 degrees			
	40			50/5"				31	74	
310										
				50/6"				28	92	
	50			50/5"				39	83	
300										
	60									
290										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-19

DAMES & MOORE GROUP

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Date(s) Drilled	11/10/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 35-feet		
Comments	Monitoring Well LAC MW-19 Installed		

Boring LAC B-19

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	348.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					CL	ALLUVIUM: Dark brown CLAY				
						SM	Brown silty fine to medium SAND, slightly moist (very dense)				
340	10			50/3"				5	105		-200(26)
				50/5"				4			-200(22)
							PUENTE FORMATION: Brown CLAYSTONE, moderately to highly weathered, moist	20	98		#8 Enviroplug Bentonite
330				50/3"			Brown SANDSTONE, moist				#3 Lonestar Sand
	20			50/3"				7			-200(24)
				70			Mottled brown and gray CLAYSTONE, moderately to hightly weathered, moist	22	107		CON DSCD 1000, 2000, 1668, 1932,
320											
	30			44			Grades mottled brown, yellowish-brown and gray	23	106		
							Brown SANDSTONE, very moist				
				50				22	107		Schedule 40 PVC Screen with 0.020 slot opening
310											
	40			50/5"			Grades wet	21	113		-200(13)
				75/5"				18	104		Bottom Well Cap
300											-2000(15)
	50			100/3"			Dark gray SILTSTONE, slightly weathered, moist, bedding dips at 45 degrees	31			-200(95)
290	60										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-20

Date(s) Drilled	11/17/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments	Monitoring Well LAC MW-20 installed		

Boring LAC B-20

Sheet 1 of 2

Job Number	00498-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	349.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					CL	**FILL:** Brown silty CLAY				
						SM	**ALLUVIUM:** Brown silty fine to medium SAND with some gravel, slightly moist (very dense)				
340	10			50/2"				5			SA(18)
				60				10	100		-200(33)
330	20			60/6"				13			-200(28)
				50/4"			**PUENTE FORMATION:** Mottled greenish-gray and yellowish-brown SILTSTONE, moderately to highly weathered, slightly moist	30	95		-200(68) DSCD 1500, 3000, 6000 2108, 2974, 5028
320	30			50			Grades brown	27			
				50/5"			Mottled dark brown and greenish-gray SILTSTONE, slightly weathered, slightly moist	34	87		
310	40			50/5"			Grades mottled dark and gray, with crude oil staining	24	87		-200(94)
				80			Grades dark brown	30	89		-200(95)
300	50			65			Grades mottled dark brown and gray	16	104		
290	60			80/6"				18	102		

Bentonite chips
#3 Lonestar Sand
Schedule 40 PVC Screen with 0.020 slot openings
Bottom Well Cap
Bentonite chips

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LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

DAMES & MOORE GROUP
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Figure B-21

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-2

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TF REMAR AND WELL DESCRIPTION
280	70			60/3"				5	110		
270	80										
260	90										
250	100										
240	110										
230	120										
220	130										
210	140										

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Figure B-21

Date(s) Drilled	11/12/98	Logged By	RAF
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 47-feet		
Comments	Monitoring Well LAC MW-21 Installed		

Boring LAC B-21

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	51.5
Approximate Ground Surface Elevation(ft)	330.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
330	0					SM	FILL: Brown silty fine to coarse SAND with some fine to coarse gravel, slightly moist (dense)				Portland cement
						SM	ALLUVIUM: Brown silty fine to medium SAND, slightly moist (very dense)				Bentonite chips
320	10			62			Grades brown to yellowish-brown	26	97		#3 Lonestar Sand
				70			Grades (dense)	22	100		
310	20			60			PUENTE FORMATION: Mottled gray and yellowish-brown SILTSTONE and SANDSTONE, moderately to highly weathered, slightly moist	30	96		Schedule 40 PVC Screen with 0.020 slot openings
				50/5"				35	88		
300	30			90			Grades gray, slightly weathered	30	110		
				50/4"				27	92		Bottom Well Cap
290	40			60			Bedding dips at 44 degrees	39	89		Bentonite chips
				100/6"			Grades wet	26	93		
280	50			60				39	93		
270	60										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-22

Date(s) Drilled	10/6/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 21.5-feet		
Comments	Downhole Seismic Refraction Survey Performed		

Boring LAC B-22

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	101.5
Approximate Ground Surface Elevation(ft)	331.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
330	0					CL	4-inch thick Asphaltic Concrete Pavement **ALLUVIUM:** Brown silty CLAY with some sand, slightly moist				Cement-Bentonite Grout
				15		SM	Yellowish-brown to yellowish-red silty fine SAND with some clay, moist (medium dense)				
320	10			22			**PUENTE FORMATION:** Mottled yellowish-brown and greenish-gray SANDSTONE, moderately to highly weathered, moist				
				33							
310	20			30			Grades wet				
				31							
300	30			16			Yellowish-brown to dark brown SILTSTONE, moderately to highly weathered, slightly moist				Schedule 40 PVC Pipe
				30							
290	40			33			Grades light gray with sand layers				
				50							
280	50			38			Grades dark brown				
				49							
270	60			40			Grades mottled gray, dark brown and yellowish-brown				

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-23

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-22

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
260	70			65							
				65							
				74							
250	80			50/2"			Grades gray, slightly weathered				
				71							
240	90			50/5"							
				46							
230	100			57							Bottom Well Cap
220	110										
210	120										
200	130										
190	140										

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Figure B-23

Date(s) Drilled	10/7/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 29.5-feet		
Comments	Downhole Seismic Refraction Survey Performed		

Boring LAC B-23

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	30.0
Approximate Ground Surface Elevation(ft)	344.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
340	0					SM	2-inch thick Asphaltic Concrete Pavement				
							FILL:				
				37		SC	Brown silty fine SAND (loose)				Cement-Bentonite Grout
							2-inch thick Asphaltic Concrete Pavement over 4-inch thick Aggregate Base				
							Light brown clayey fine SAND, moist				
							PUENTE FORMATION:				
	10			32			Mottled greenish-gray and yellowish-brown SILTSTONE, moderately to highly weathered, slightly moist				
330				36							Schedule 40 PVC Pipe
	20			38							
320				43							
				36			Grades wet				Bottom Well
	30										
310											
	40										
300											
	50										
290											
	60										
280											

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LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

Figure B-24

Date(s) Drilled	10/12/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	CME 95	Hammer Data	
Sampling Method(s)	Continuous Core		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 25.5-feet		
Comments	Piezometer P-1 Installed		

Boring LAC B-24

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	44.0
Approximate Ground Surface Elevation(ft)	343.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0						4-inch thick Asphaltic Concrete Pavement				
						SM	FILL: Brown silty fine to coarse SAND with some gravel				No Recovery from 0.5 to 4.5 feet
340						SP	ALLUVIUM: Brown fine SAND with some fine to coarse gravel and cobbles				
	5										
						ML	Brown fine sandy SILT, damp, abundant ciacium cabonate nodules (very dense)				
	10										
330							PUENTE FORMATION: Brown SANDSTONE, moderately to highly weathered Encountered 1/8" thick brownish-yellow to greenish gray SILTSTONE layer at 12-feet, bedding dips at 40 degrees				No Recovery from 13.5 to 15 feet
	15						Brown SILTSTONE, moderately to highly weathered				Cement Grout
							Encountered 1-inch thick sandstone layer and 1/4-inch oxidized siltstone layer at 17.5-feet, bedding dips at 38 degrees				No Recovery from 18.5 to 20.5 feet
	20						Encountered 2-inch thick sandstone layer at 20-feet, bedding dips at 40 degrees				Bentonite chips
320							Encountered 1-inch thick sandstone layer at 22.5-feet				No Recovery from 23.5 to 25.5 feet
	25										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-25

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-24

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	25						Grades wet				#3 Lonestar sand
											Piezometer
							Encountered 1-inch thick Sandstone layer at 26.5-feet, bedding dips at 40 degrees				
							Encountered 1-inch thick sandstone layer at 27.5-feet bedding dips at 40 degrees				No Recovery 28.5 to 31 feet
	30										Bentonite chips
							Encountered 4-inch thick sandstone layer at 31.5-feet bedding dips at 45 degrees				
310							Encountered 4-inch thick sandstone layer at 32-feet bedding dips at 45 degrees				
	35						Encountered 3-inch thick sandstone layer at 35.5-feet , bedding dips at 45 degrees				
							Encountered 2-inch thick sandstone layer at 37.5-feet, bedding dips at 45 degrees				No Recovery from 38.5 to 40.5 feet
	40										
							Encountered 1-inch thick sandstone layer at 41-feet, bedding dips at 45 degrees				
							Encountered 3-inch thick sandstone layer at 42-feet, bedding dips 45 degrees				
300							Encountered 2-inch thick sandstone layer at 42.5-feet, bedding dips at 45 degrees				
	45										
	50										
290											
	55										

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Figure B-25

Date(s) Drilled	10-12-98	Logged By	PM
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	CME 75	Hammer Data	
Sampling Method(s)	Continuous Core		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 22-feet		
Comments	Piezometer P-2 Installed		

Boring LAC B-25

Sheet 1 of 2

Job Number	00499-059-016
Total Depth Drilled (ft)	40.0
Approximate Ground Surface Elevation(ft)	343.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0						4-inch thick Asphaltic Concrete Pavement over 6-inch thick Aggregate Base				
						SM	FILL: Brown silty fine SAND				No recovery from 1 to 6 feet
340						CL	Dark brown CLAY, moist, very stiff				
	5						Grades with asphalt debris				
						GC	ALLUVIUM: Yellowish-brown clayey sandy GRAVEL, moist, very dense, 10-15% gravel and cobbles, subangular to subrounded				No recovery from 9 to 11 feet
	10										Cement Grout
330							Grades brown				
							PUENTE FORMATION: Dark gray SILTSTONE, highly weathered				No recovery from 14 to 16 feet
	15										Bentonite chips
							Grades light brown to brownish-yellow, bedding dips at 5 degrees				
	20										No recovery from 19 to 21 feet
											#3 Lonestar sand
							Grades wet				Piezometer
320											
	25						Greenish-gray to brownish-yellow SILTSTONE and				

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-26

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-25

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TE REMARK AND WELL DESCRIPTION
	25						SANDSTONE, moderately to highly weathered, bedding dips 45 degrees				
	30										Bentonite chips
310							Encountered 1-inch thick sandstone layer at 32-feet, bedding dips 40 degrees				
	35						Encountered 1-inch thick sandstone at 32.5-feet, bedding dips 40 degrees Grades mottled dark greenish-gray and dark brown, slightly weathered				
	40						Encountered 1/4-inch thick siltstone layer at 37 feet, bedding dips 45 degrees				
300											
	45										
	50										
290											
	55										

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Figure B-26

Date(s) Drilled	10-13-98	Logged By	PM
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	CME 75	Hammer Data	
Sampling Method(s)	Continuous Core		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 42-feet		
Comments	Piezometer P-3 installed		

Boring LAC B-26

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	45.0
Approximate Ground Surface Elevation(ft)	355.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					SM	FILL: Brown silty fine SAND				No recovery from 0.5 to 4.5 feet
350	5					CL	Brown, CLAY, moist, very stiff, calcium carbonate lined peel faces				
						SP	ALLUVIUM: Yellowish-red SAND, dense, 10-15% gravel and cobbles, subangular to subrounded				No recovery from 9 to 11 feet
	10										
											No recovery from 14 to 15.5 feet
340	15										Cement Grout
							PUENTE FORMATION: Yellowish-red SANDSTONE, moderately to highly weathered				No recovery from 19 to 20.5 feet
	20						Encountered 1/8-inch thick layer diping at 10 degrees				
330	25						Grades greenish-gray to brownish-yellow with very fine				No recovery from 24 to

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-27

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT **Boring LAC B-26**

FOR: County of Los Angeles, Department of Public Works **Sheet 2 of 2**

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TE... REMARK... AND WELL DESCRIPTION
330	25						silty sand				28 feet
							Encountered 1-inch thick layer diping at 10 degrees				No recovery from 29 to 30 feet
	30						Mottled greenish-gray and yellowish-red SILTSTONE and SANDSTONE, moderately to highly weathered, bedding dips 45 degrees				
							Encountered 1-inch thick sandstone layer, bedding dips 45 degrees				
320	35						Encountered 1-inch thick sandstone layer at 36.5-feet, bedding dips at 45 degrees				Bentonite chips
							Grades mottled dark greenish-gray and dark brown, slightly weathered				
	40										#3 Lonestar sand
							Encountered 1-inch thick sandstone layer at 41.5-feet, bedding dips at 45 degrees				Piezometer
											Bentonite chips
310	45										
	50										
300	55										

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Figure B-27

APPENDIX C

DOWNHOLE SEISMIC VELOCITY SURVEY

DOWNHOLE SHEAR WAVE INVESTIGATION
Proposed Structures
County USC Medical Center
Los Angeles, California

RYLAND ASSOCIATES, INC.

Project Number 98-15-53

October 17, 1998

Prepared for
Dames and Moore
Los Angeles, California

INTRODUCTION

Downhole shear wave surveys were conducted at two sites on the proposed new County USC Medical Center complex in eastern Los Angeles, California. The purpose of this investigation was to determine shear wave velocities at intervals in the upper 100 feet of earth materials.

The survey made use of two borings (B22 & B23) drilled for site investigation. The survey was conducted in October, 1998.

METHODOLOGY

The location of the boring is shown on the project investigation map prepared by Dames and Moore. The survey was conducted in 100 foot (B22) and 30 foot (B23) vertical borings cased with two inch diameter plastic pipe.

Shear waves were generated using an 8 pound sledge hammer striking horizontally on the ends of a wooden plank coupled to the surface by the weight of a truck. To aid in the detection of shear waves on the seismic records the polarity of the energy source was reversed at each interval by striking opposite ends of the plank.

A downhole seismometer with three mutually perpendicular ground-motion sensitive transducers was placed in the boring. This geophone was secured at prescribed depths by an inflatable bladder

At each depth energy was initiated into the ground and then reversed. A solid state accelerometer

mounted on the hammer provided the exact time of impulse. The seismic waves were recorded by a Geometrics 1225 seismograph. This device can be used to enhance or "build-up" the signal from several impacts to improve data quality. Data is viewed on a screen and printed on a paper record.

Recording stations were at five foot intervals in the hole. The deepest recordings were made at 100 feet in B22, and 30 feet in B23.

OBSERVATIONS

The graphical results of the investigation are shown on Figures 1a and 1b. The arrival times of the shear waves are plotted versus depth. Straight line segments indicate changes in velocity with depth. Use of incremental velocities between consecutive data points in downhole surveys is often not appropriate and should be used with great caution; in addition to geologic stratigraphy, they may be influenced by local variations in grouting and boring diameter, changes in seismic waveform, and third-dimensional effects.

The following layers of contrasting shear wave velocity were observed:

BORING B22

Layer	Depth	Shear Wave Velocity
1	0-32 feet	950 ft/sec
2	32-63	1430
3	63-100	1780 average OR
3	63-75+	2500
4	75+-100	1670

BORING B23

Layer	Depth	Shear Wave Velocity
1	0-24 feet	1100 ft/sec
2	24-30	1620 (Based on one data point)

The upper 15 feet may be influenced by cultural activity including grading, construction, etc, as well as the grouting of the hole itself.

Some scatter in the data suggests some variations in the profile from these averaged velocities. These variations are relatively small and would not have significant influence on site response. Phase shifts and waveform changes may also introduce some error in the calculations. These horizons were based solely on geophysical data although boring logs were available for correlation. Data quality was generally just fair to good.

On B22, the velocity breaks agree grossly with the increase in blow counts. There is some indication of a somewhat lower velocity zone below 75 feet.

The compressional wave profile was more difficult to determine, probably due to construction or higher cement grouting near the surface. The data are as follows:

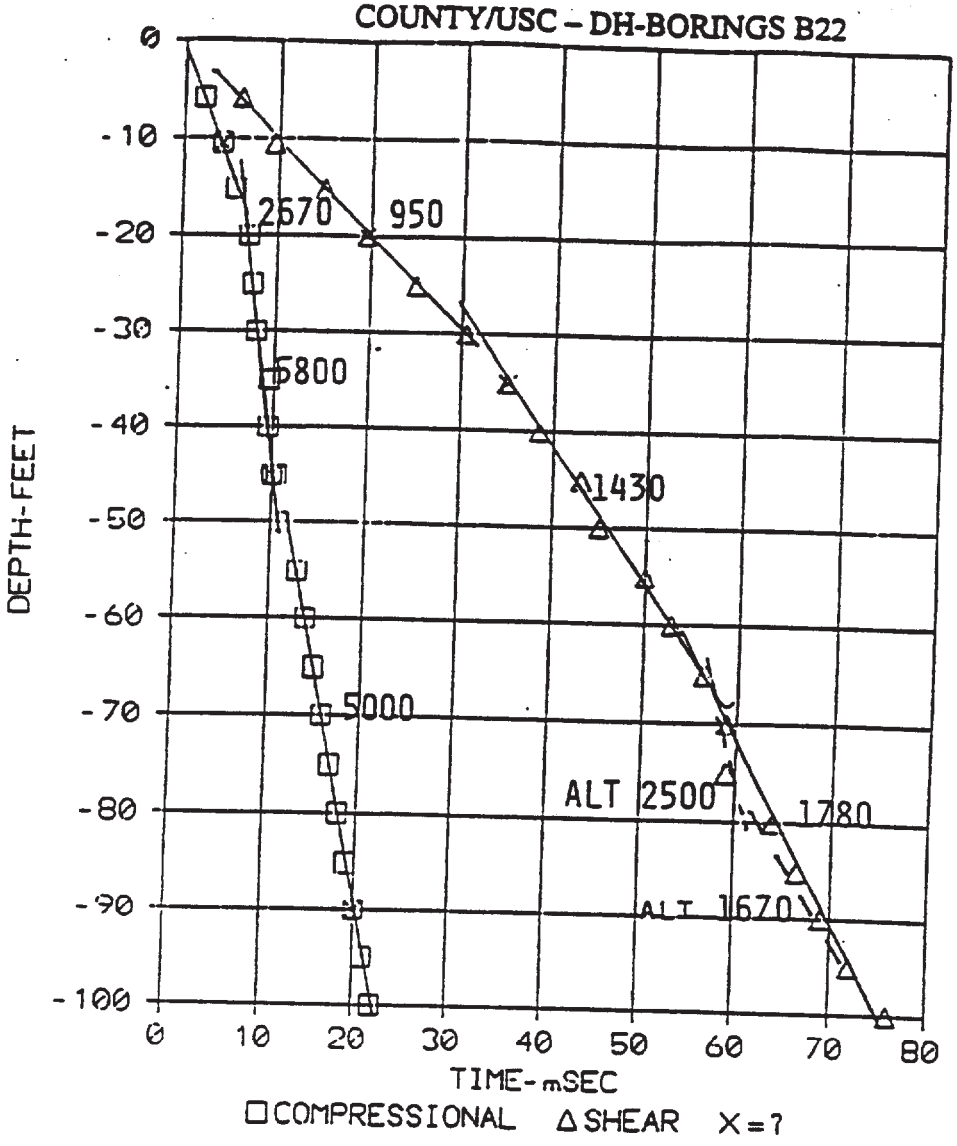
BORING B22

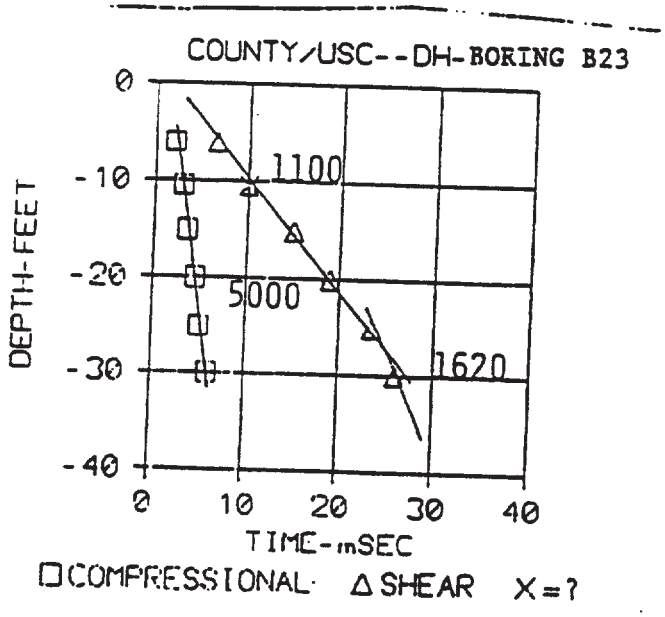
Layer	Depth	Compressional Wave Velocity
1	0-20 feet	2670 ft/sec
2	20-45	5800
3	45-100	5000

BORING B23

Layer	Depth	Compressional Wave Velocity
1	0-30 feet	5000 ft/sec

In Boring B22, there is a rough correspondence of the velocity increase near the water table where velocities typical of saturated materials (500+/- ft/sec) are encountered; this does not seem to be the case in B23.


COUNTY/USC – DH-BORINGS B22
DEPTH-FEET
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
2670
950
5800
1430
5000
ALT 2500
1780
ALT 1670
0
10
20
30
40
50
60
70
80
TIME-mSEC
□COMPRESSIONAL Δ SHEAR X=?


COUNTY/USC--DH-BORING B23
DEPTH-FEET
0
-10
-20
-30
-40
1100
5000
1620
0
10
20
30
40
TIME-mSEC
□COMPRESSIONAL Δ SHEAR X=?

APPENDIX B

LABORATORY TESTING PROGRAM

APPENDIX D LABORATORY TESTING PROGRAM

D.1 GENERAL

Laboratory tests were performed on selected representative samples as an aid in classifying the soils and to evaluate the physical properties of the soils affecting foundation design and construction procedures. Tests performed are indicated on the Logs of Borings. A description of the laboratory testing program is presented below.

D.2 MOISTURE AND DENSITY TESTS

Moisture content and density tests were performed on a number of samples recovered from the borings. The results of these tests were used to compute existing soil overburden pressures, to correlate strength and compressibility data from tested samples with those not tested, and to aid in evaluating soil properties. The tests were performed in accordance with ASTM Test Methods D-2937 and D-2216, respectively. The results of these tests are presented on the Logs of Borings.

D.3 SIEVE ANALYSIS

Sieve analyses (percent passing through the No. 200 sieve) were performed on selected samples of soils encountered at the site. These tests were performed to evaluate the gradation characteristics of the soils and to aid in their classification. The tests were performed in accordance with ASTM Test Methods D-422 and D-1140, respectively. The results are presented on the Logs of Borings.

D.4 ATTERBERG LIMITS

Atterberg limits tests were performed to aid in soil classification and to evaluate the plasticity characteristics of the fine-grained materials. The tests were performed in accordance with ASTM Test Method D-4318. The results of these tests are shown on the Logs of Borings.

D.5 DIRECT SHEAR TESTS

Consolidated-drained direct shear tests were performed on selected samples to evaluate the shear strength of representative site soils. The tests were performed in accordance with ASTM Test

Method D-3080. The results of these tests are shown on the Logs of Borings. A summary of shear strength data showing direct shear test results from numerous tests performed on the on-site subsurface soils, including tests performed during the current investigation, is presented in Figure D-7.

D.6 CONSOLIDATION TESTS

One dimensional consolidation tests were performed on representative samples to evaluate the compressibility characteristics of site soils. The tests were performed in accordance with ASTM Test Method 2435. Consolidation test results are presented on Figures D-8 through D-14.

D.7 EXPANSION POTENTIAL

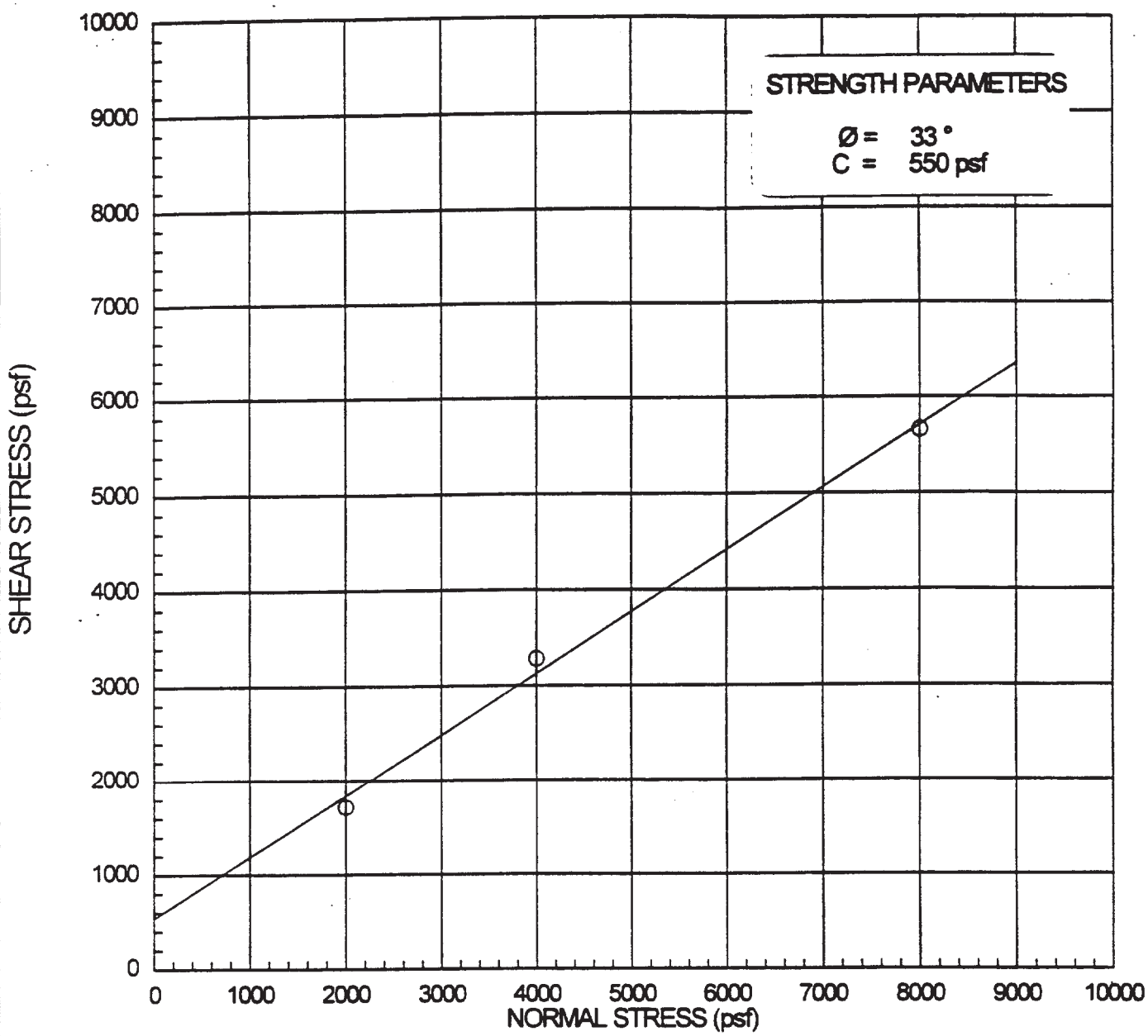
Based on the consolidation tests, the alluvium and bedrock materials exhibited very little or no swell potential under saturated, in-situ conditions.

The potential for expansion of reworked, on-site soils was evaluated by performing Expansion Index (EI) tests in accordance with ASTM Test Method D-4829. The results of the EI tests are presented in the following table:

SAMPLE LOCATION AND DEPTH	SOIL PROPERTIES BEFORE TEST			SOIL PROPERTIES AFTER TEST			EXPANSION INDEX
	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	DEGREE OF SATURATION (%)	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	DEGREE OF SATURATION (%)	
LAC B-14 25 feet	90.7	15.4	48.3	84.8	36.8	100	69
LAC B-16 5 feet	105.9	11.4	52.1	99.0	25.2	96.7	72

The following are attached and complete this appendix:

Figure D-1 through D-6	Direct Shear Test Results
Figure D-7	Direct Shear Test Summary
Figure D-8 through D-14	Consolidation Test Results
Figure D-15 through D-17	Expansion Index Test Results



BORING NO.	SAMPLE NO.	DEPTH (ft.)	STRAIN RATE (in/min)	NORMAL STRESS (psf)	SHEAR STRESS (psf)
B-1	4	25 Surface El.353 ft.	0.0040	○ 2000	1716
				○ 4000	3288
				○ 8000	5663

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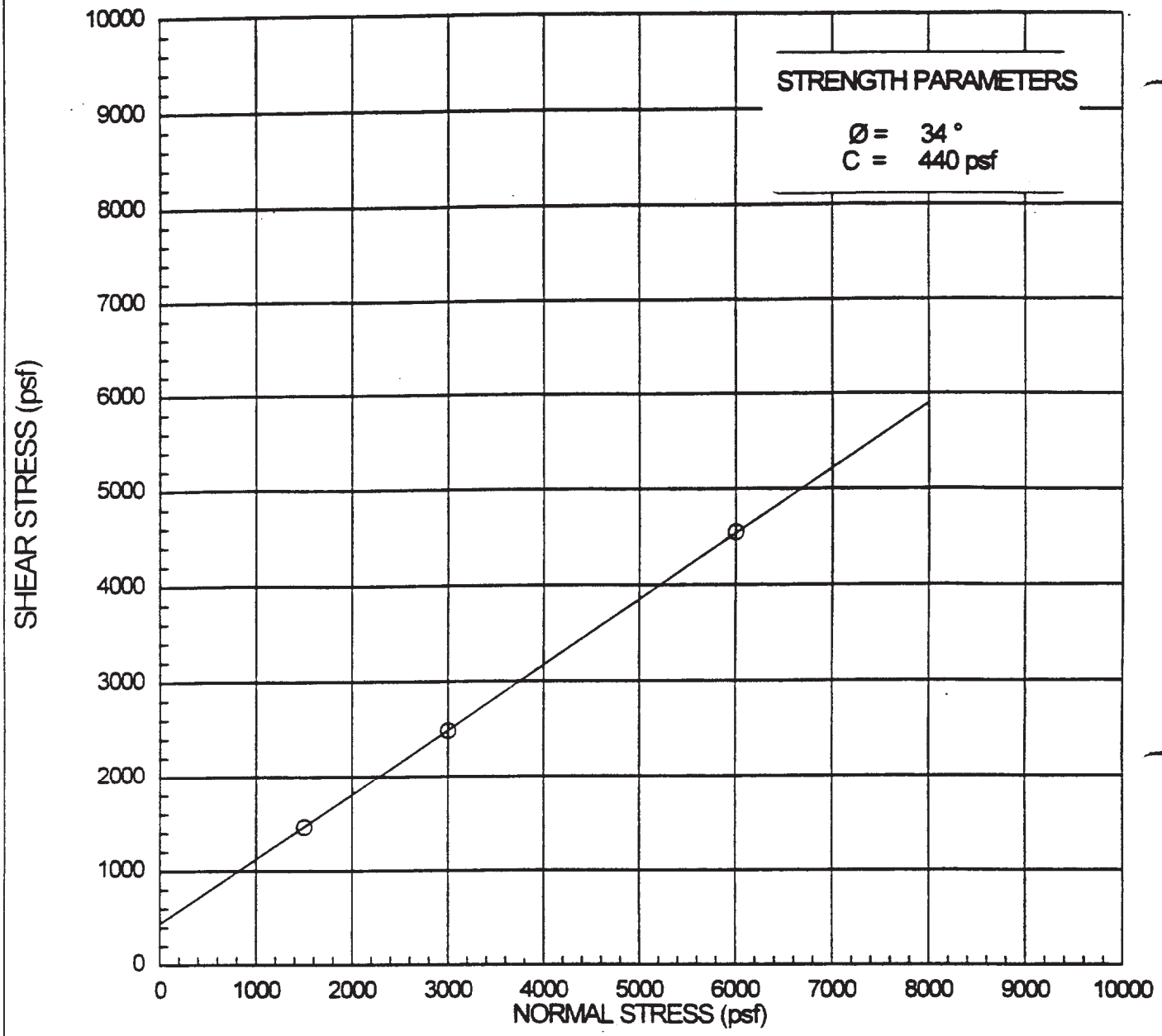
LAC + USC Medical Center Replacement Project

DIRECT SHEAR TEST RESULTS
CONSOLIDATED DRAINED
ASTM D 3080

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

FIGURE D-1



BORING NO.	SAMPLE NO.	DEPTH (ft.)	STRAIN RATE (in/min)	NORMAL STRESS (psf)	SHEAR STRESS (psf)
B-11	5	25 Surface El.374 ft.	0.0020	○ 1500	1464
				○ 3000	2484
				○ 6000	4548

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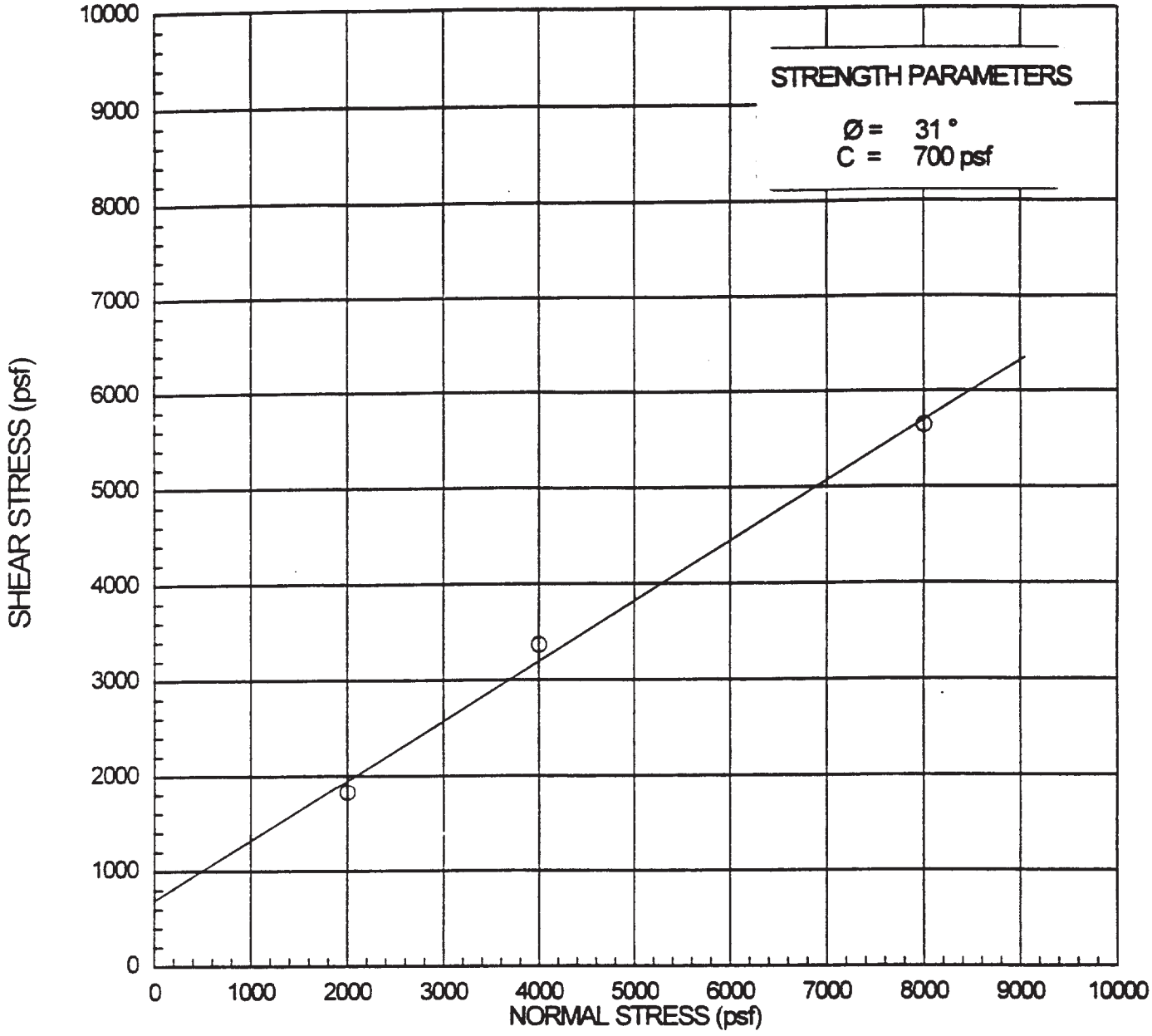
DIRECT SHEAR TEST RESULTS
CONSOLIDATED DRAINED
ASTM D 3080

FIGURE D-2



BORING NO.	SAMPLE NO.	DEPTH (ft.)	STRAIN RATE (in/min)	NORMAL STRESS (psf)	SHEAR STRESS (psf)
B-13	5	25 Surface El.370 ft.	0.0020	○ 2000	1825
				○ 4000	3372
				○ 8000	5644

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DIRECT SHEAR TEST RESULTS
CONSOLIDATED DRAINED
ASTM D 3080

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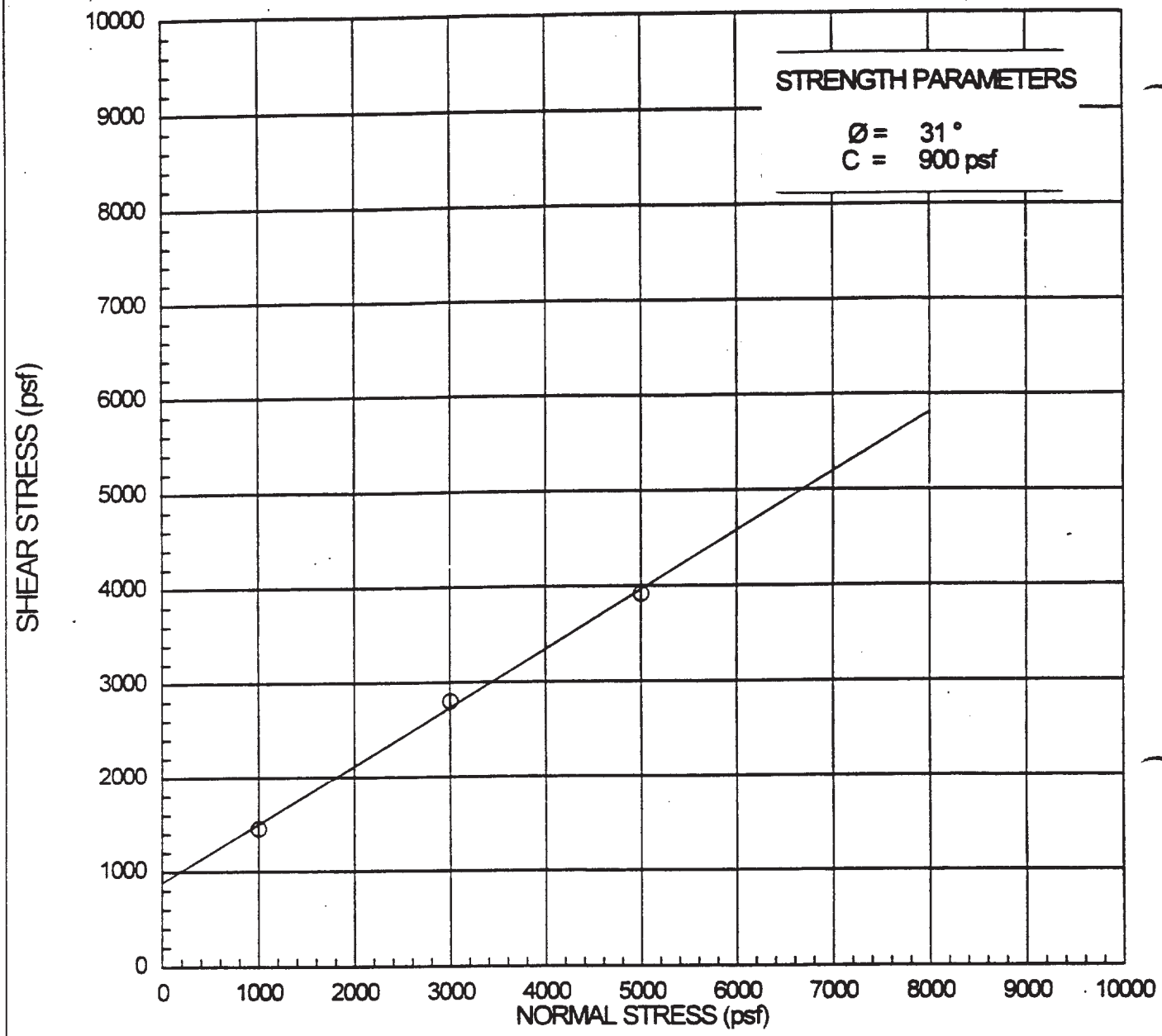
FIGURE D-3



BORING NO.	SAMPLE NO.	DEPTH (ft.)	STRAIN RATE (in/min)	NORMAL STRESS (psf)	SHEAR STRESS (psf)
B-17	5	25 Surface El.364 ft.	0.0025	○ 1000	1456
				○ 3000	2800
				○ 5000	3920

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DIRECT SHEAR TEST RESULTS
CONSOLIDATED DRAINED
ASTM D 3080

DAMES & MOORE
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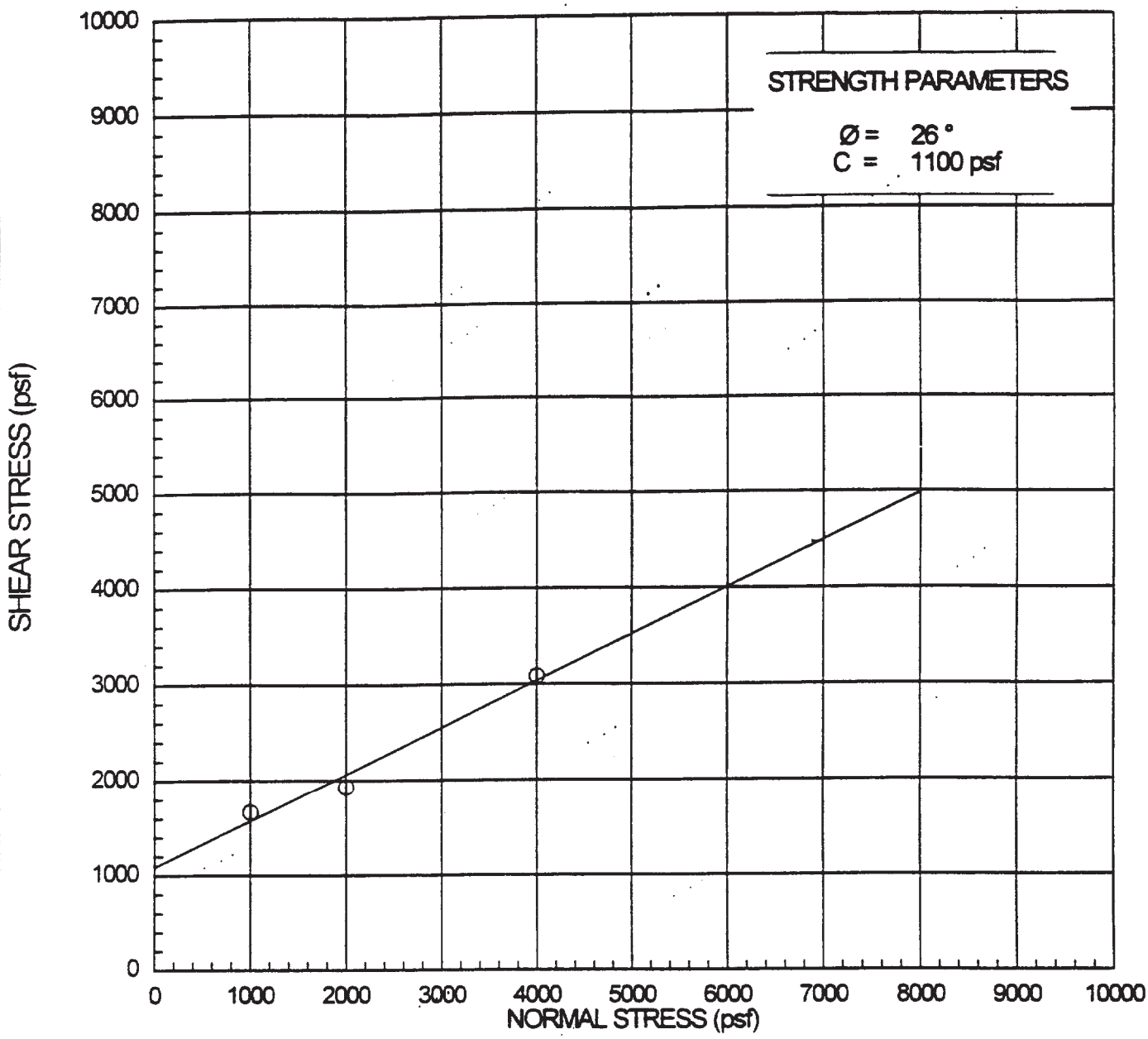
FIGURE 4



BORING NO.	SAMPLE NO.	DEPTH (ft.)	STRAIN RATE (in/min)	NORMAL STRESS (psf)	SHEAR STRESS (psf)
B-19	5	25 Surface El.347. ft.	0.0020	○ 1000	1668
				○ 2000	1932
				○ 4000	3084

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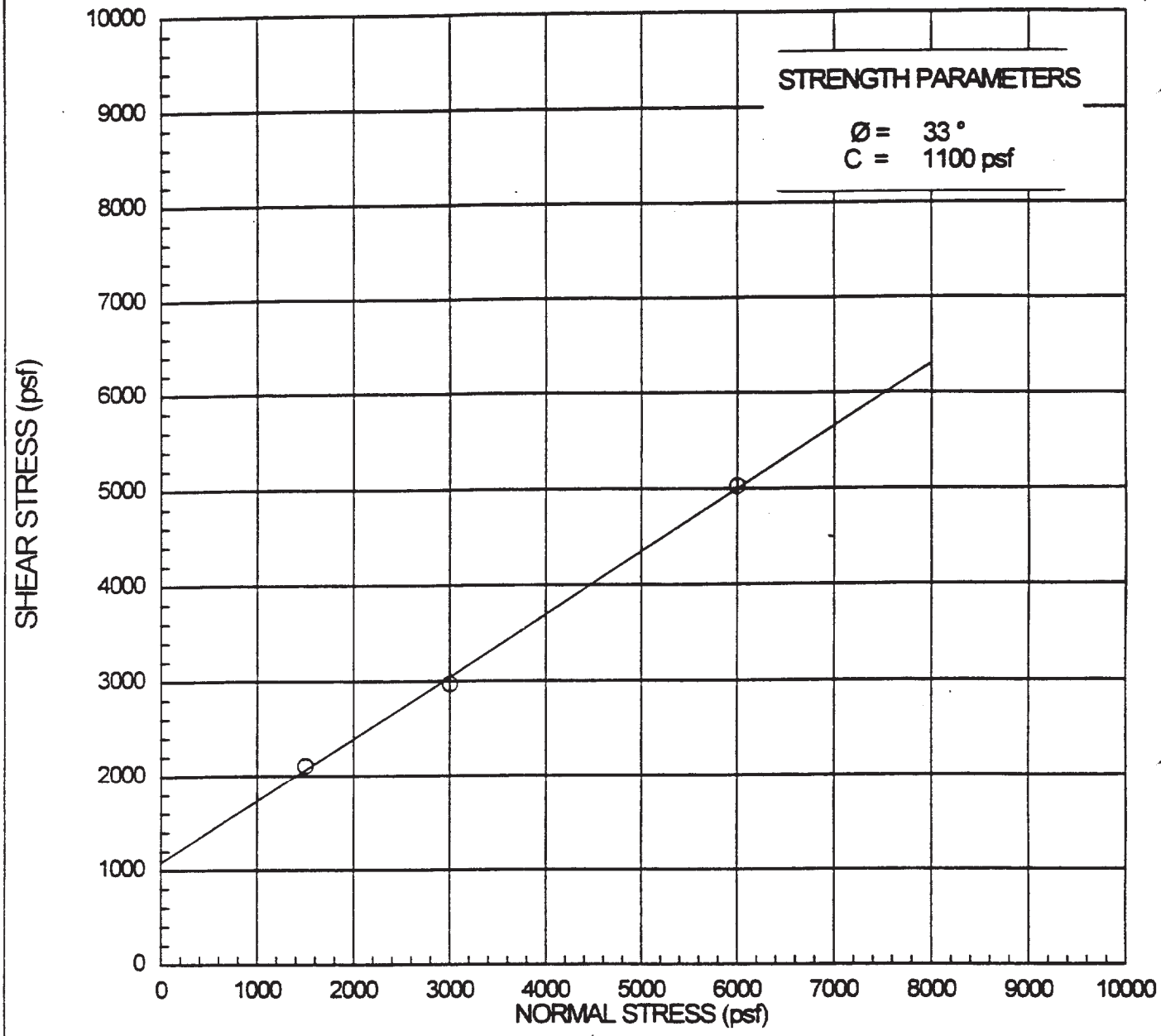
DIRECT SHEAR TEST RESULTS
CONSOLIDATED DRAINED
ASTM D 3080

FIGURE D-5



BORING NO.	SAMPLE NO.	DEPTH (ft.)	STRAIN RATE (in/min)	NORMAL STRESS (psf)	SHEAR STRESS (psf)
B-20	4	25 Surface El.350 ft.	0.0025	○ 1500	2108
				○ 3000	2974
				○ 6000	5028

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DIRECT SHEAR TEST RESULTS
CONSOLIDATED DRAINED
ASTM D 3080

FIGURE

DIRECT SHEAR TEST SUMMARY
LAC+USC MEDICAL CENTER REPLACEMENT PROJECT
LOS ANGELES, CALIFORNIA

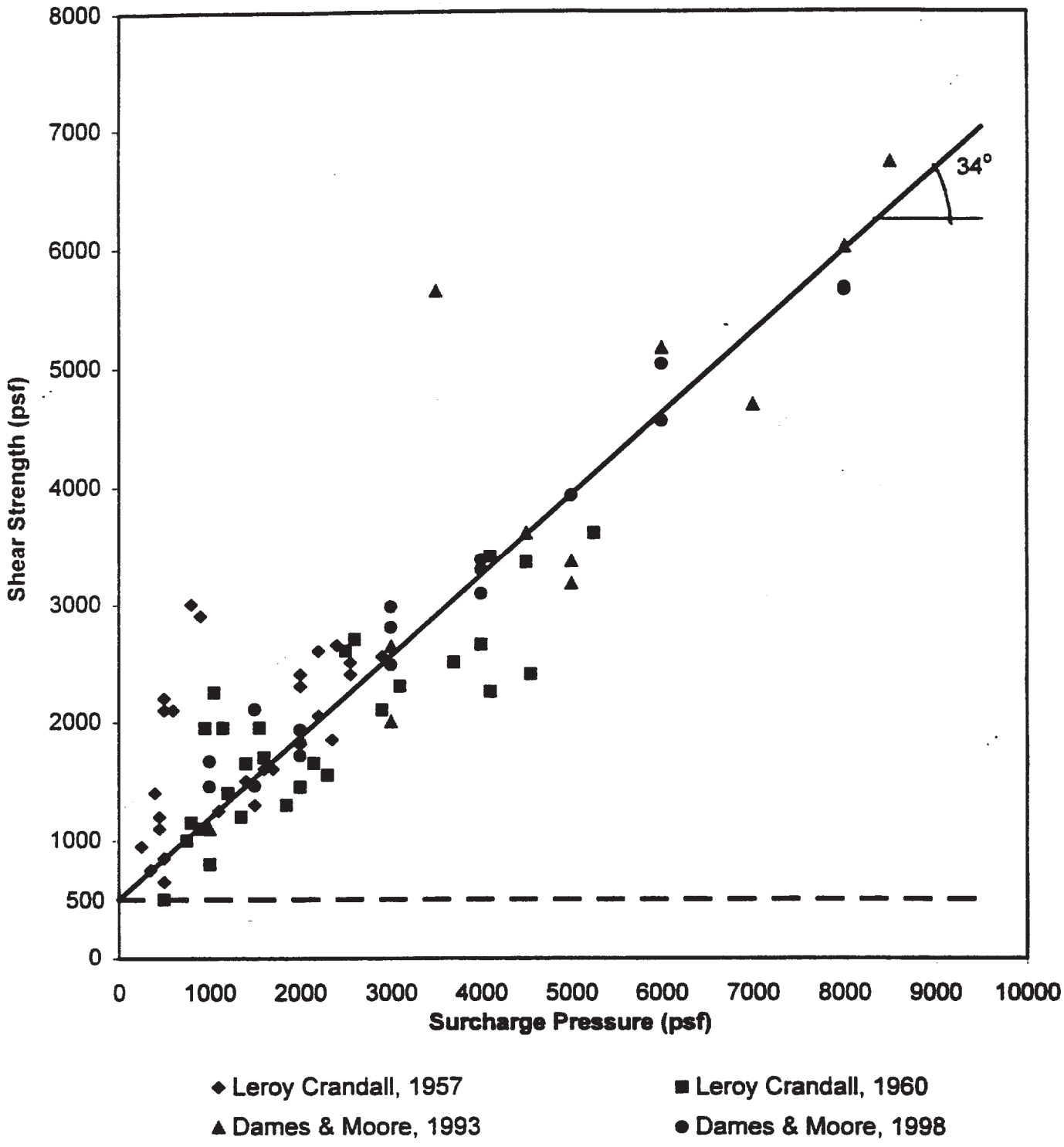
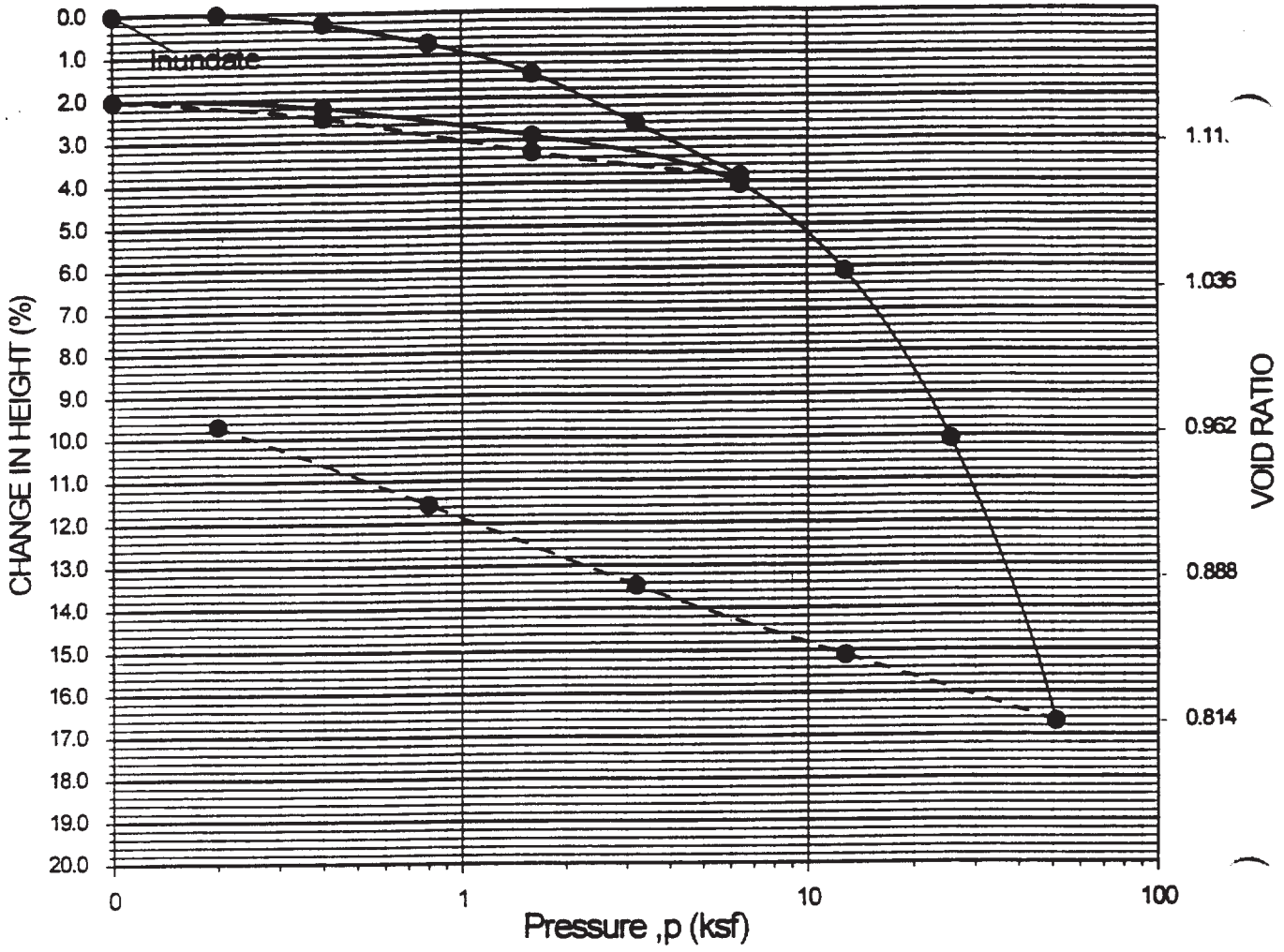


FIGURE D-7



BORING NO.	SAMPLE NO.	DEPTH (ft.)	MOISTURE CONTENT (%) Initial / Final	DRY DENSITY (pcf) Initial / Final	VOID RATIO Initial / Final	DEGREE OF SATURATION (%) Initial / Final §
B-2	9	45	40.4 / 36.7	77.4 / 85.7	1.177 / 0.966	93 / 100

Surface Elevation : 338 ft.

§ Assumed Specific Gravity = 2.70

ONE-DIMENSIONAL CONSOLIDATION
(ASTM D2435)

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LAC + USC Medical Center Replacement Project

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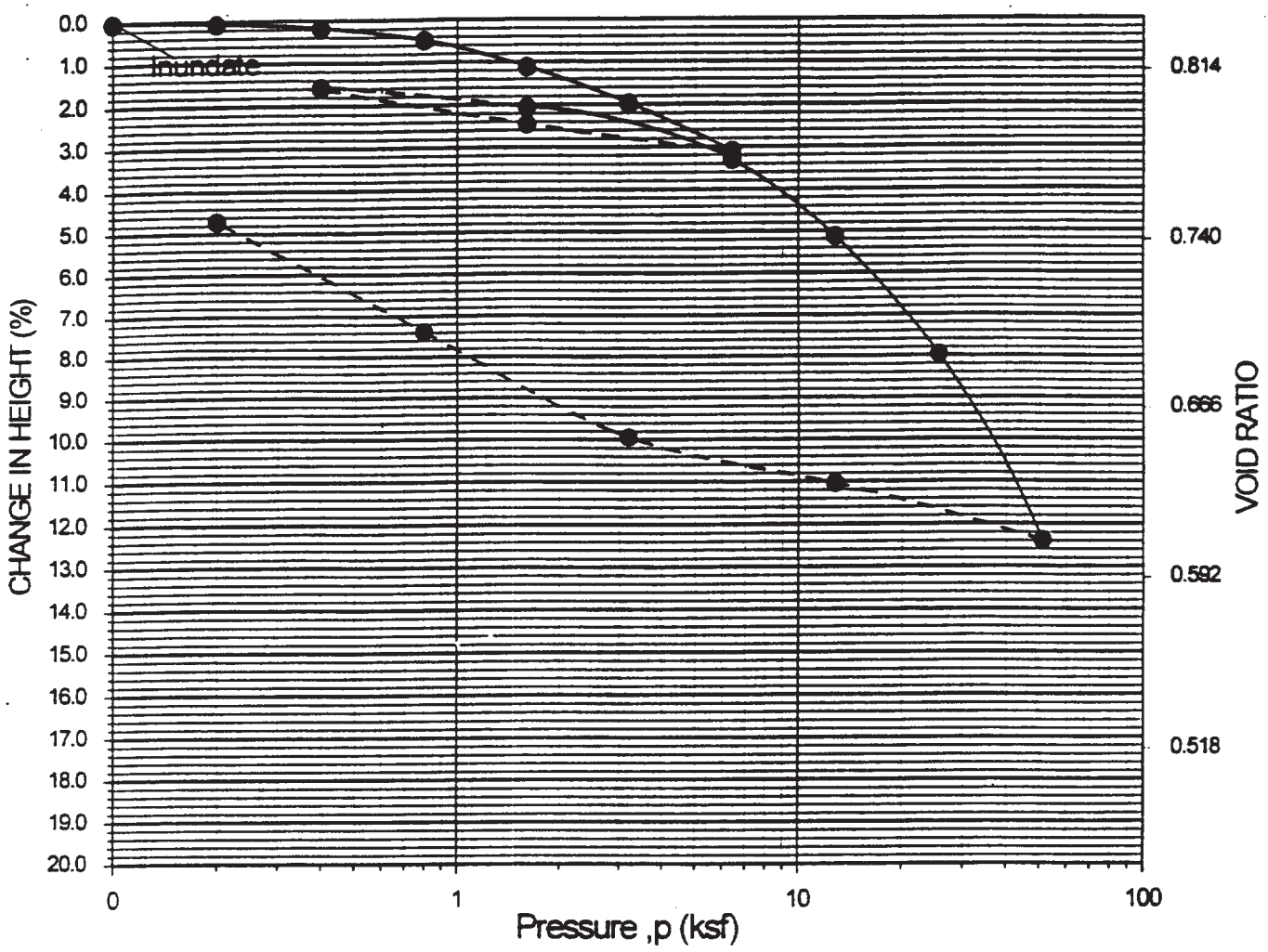
FIGURE D-6



BORING NO.	SAMPLE NO.	DEPTH (ft.)	MOISTURE CONTENT (%) Initial / Final	DRY DENSITY (pcf) Initial / Final	VOID RATIO Initial / Final	DEGREE OF SATURATION (%) Initial / Final §
B-3	5	25	30.0 / 29.1	91.8 / 96.4	0.836 / 0.749	97 / 100

Surface Elevation : 340 ft.

§ Assumed Specific Gravity = 2.70

ONE-DIMENSIONAL CONSOLIDATION
(ASTM D2435)

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LAC + USC Medical Center Replacement Project

DAMES & MOORE
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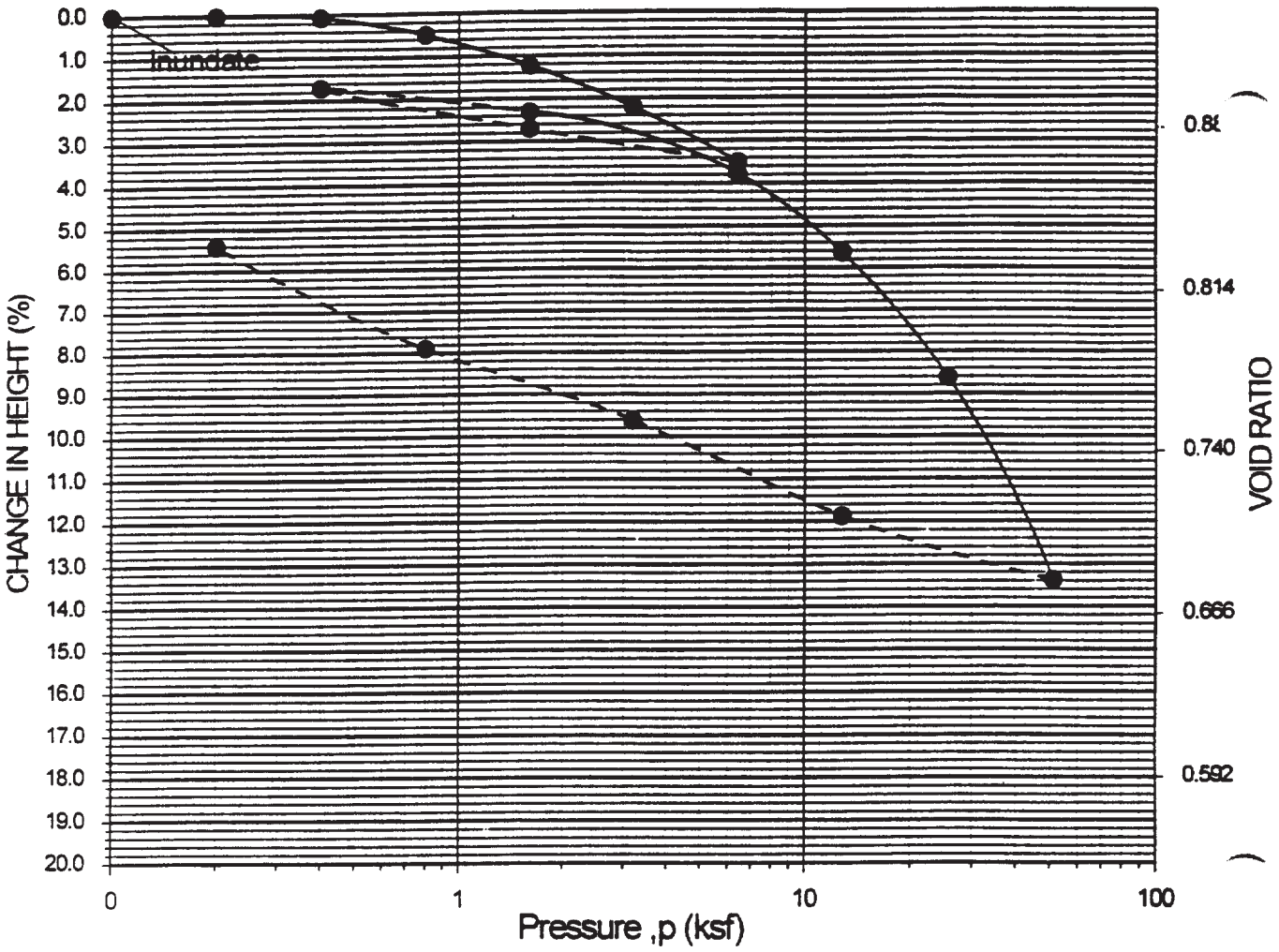
FIGURE D-9



BORING NO.	SAMPLE NO.	DEPTH (ft.)	MOISTURE CONTENT (%) Initial / Final	DRY DENSITY (pcf) Initial / Final	VOID RATIO Initial / Final	DEGREE OF SATURATION (%) Initial / Final §
B-5	4	20	32.7 / 32.8	86.8 / 91.8	0.941 / 0.836	94 / 100

Surface Elevation : 345 ft.

§ Assumed Specific Gravity = 2.70

ONE-DIMENSIONAL CONSOLIDATION
(ASTM D2435)

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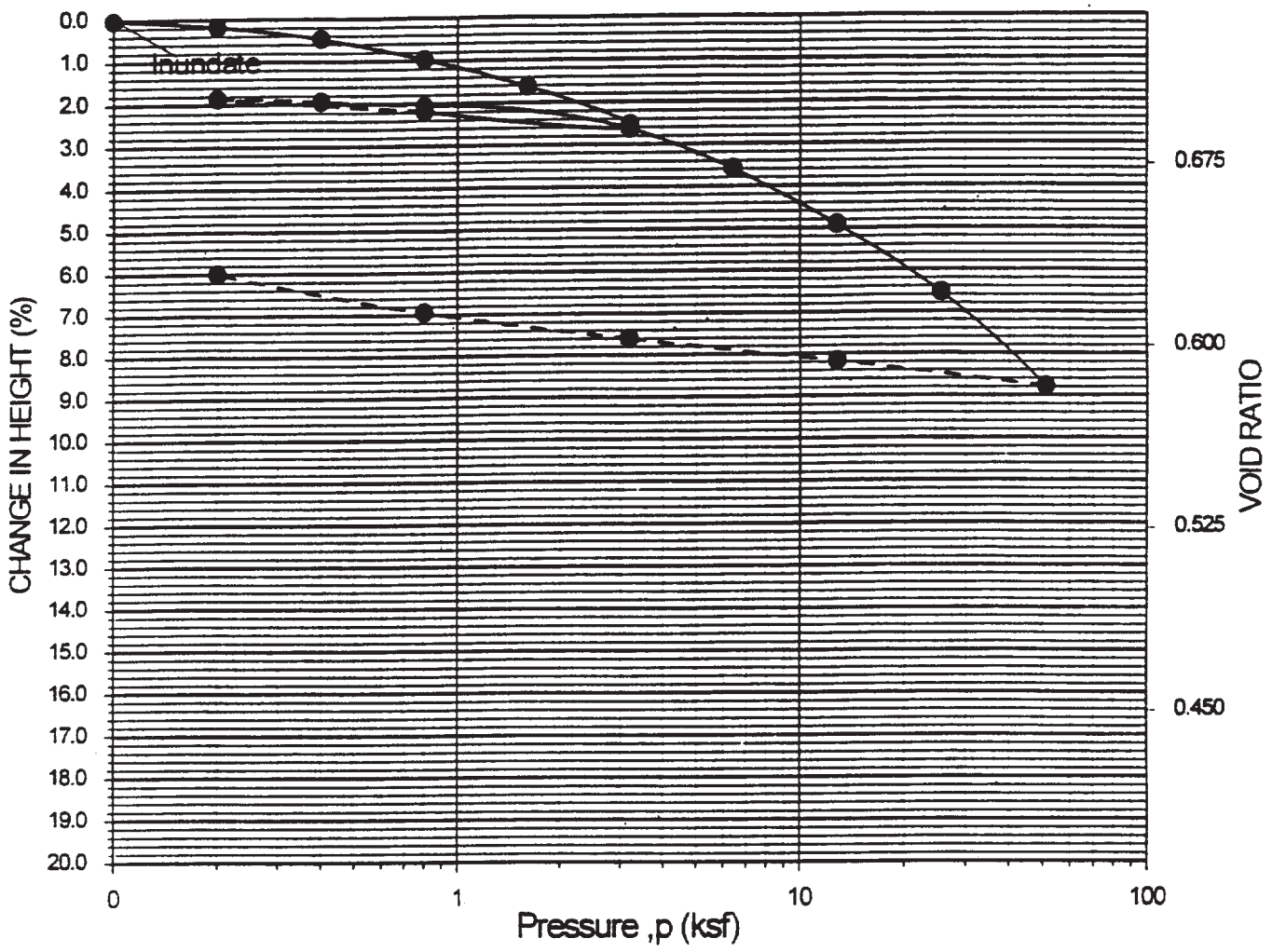
FIGURE D-10



BORING NO.	SAMPLE NO.	DEPTH (ft.)	MOISTURE CONTENT (%) Initial / Final	DRY DENSITY (pcf) Initial / Final	VOID RATIO Initial / Final	DEGREE OF SATURATION (%) Initial / Final §
B-11	7	35	24.5 / 23.7	97.1 / 103.3	0.736 / 0.632	90 / 100

Surface Elevation : 374 ft.

§ Assumed Specific Gravity = 2.70

ONE-DIMENSIONAL CONSOLIDATION
(ASTM D2435)

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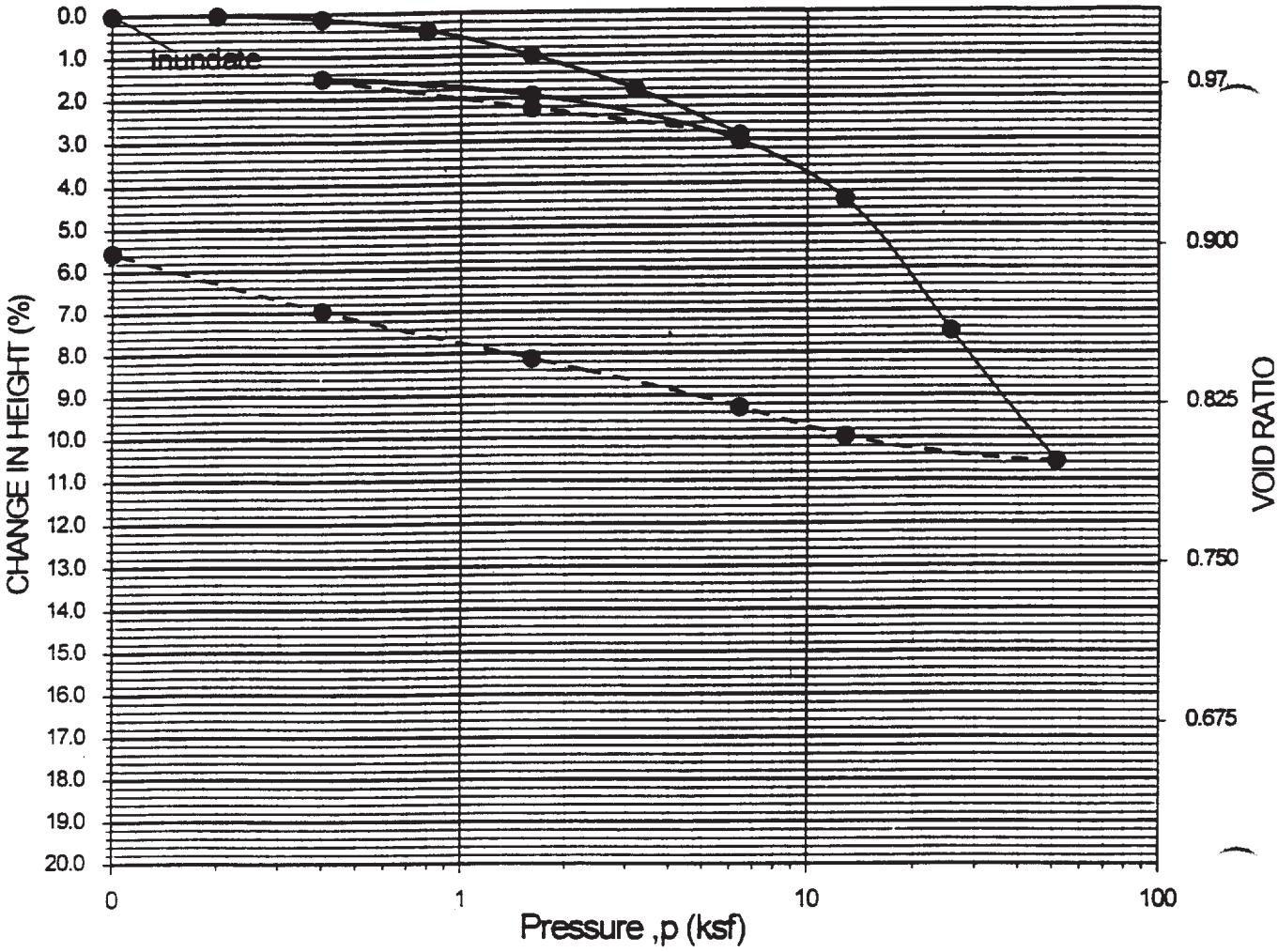
FIGURE D-11



BORING NO.	SAMPLE NO.	DEPTH (ft.)	MOISTURE CONTENT (%) Initial / Final	DRY DENSITY (pcf) Initial / Final	VOID RATIO Initial / Final	DEGREE OF SATURATION (%) Initial / Final §
B-11	9	45	35.5 / 35.7	83.9 / 88.8	1.010 / 0.898	95 / 100

Surface Elevation : 374 ft.

§ Assumed Specific Gravity = 2.70

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(ASTM D2435)

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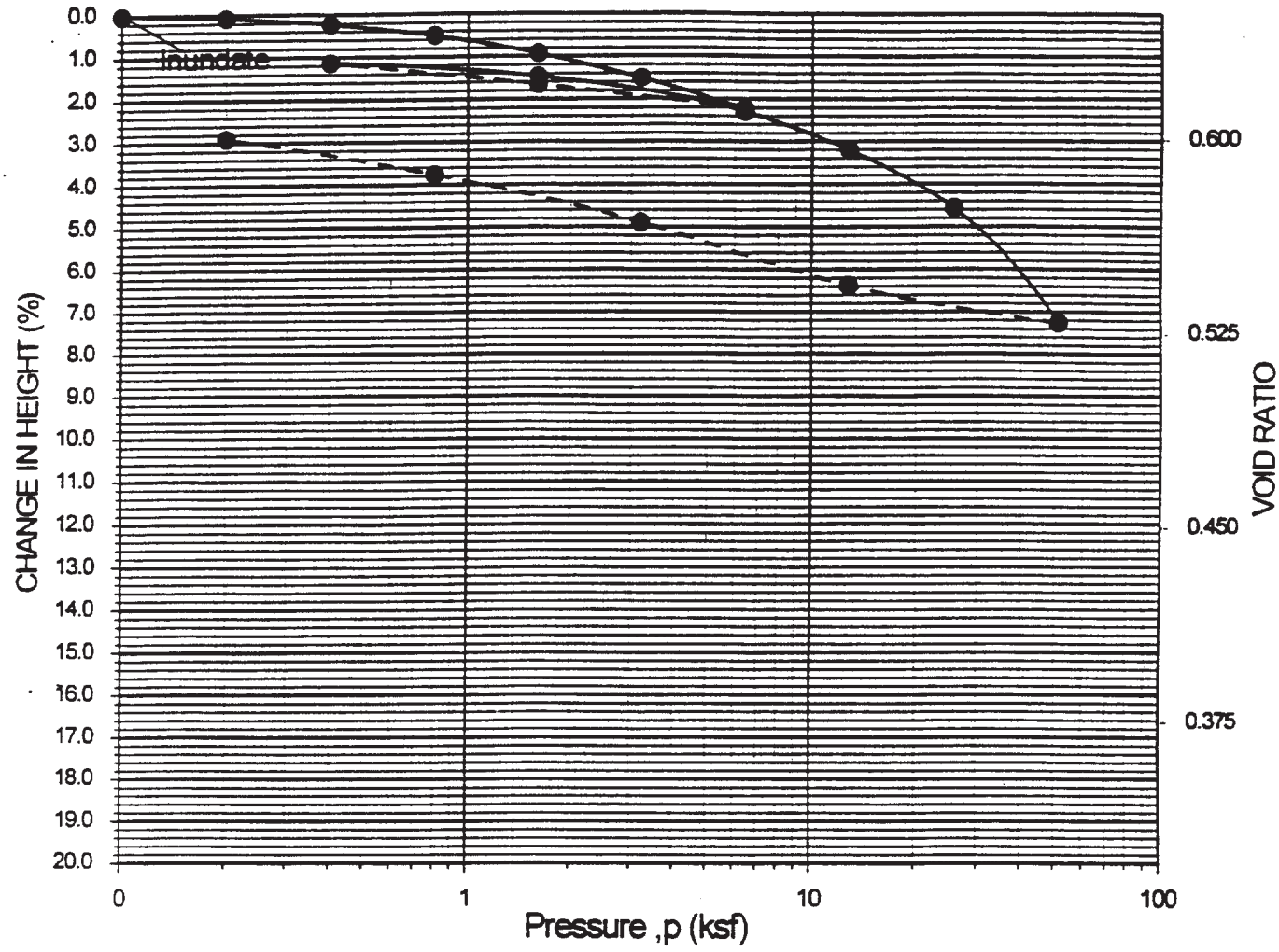
FIGURE D-12



BORING NO.	SAMPLE NO.	DEPTH (ft.)	MOISTURE CONTENT (%) Initial / Final	DRY DENSITY (pcf) Initial / Final	VOID RATIO Initial / Final	DEGREE OF SATURATION (%) Initial / Final §
B-17	5	25	25.4 / 25.3	102.2 / 105.3	0.649 / 0.601	100 / 100

Surface Elevation : 364 ft.

§ Assumed Specific Gravity = 2.70

ONE-DIMENSIONAL CONSOLIDATION
(ASTM D2435)

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LAC + USC Medical Center Replacement Project

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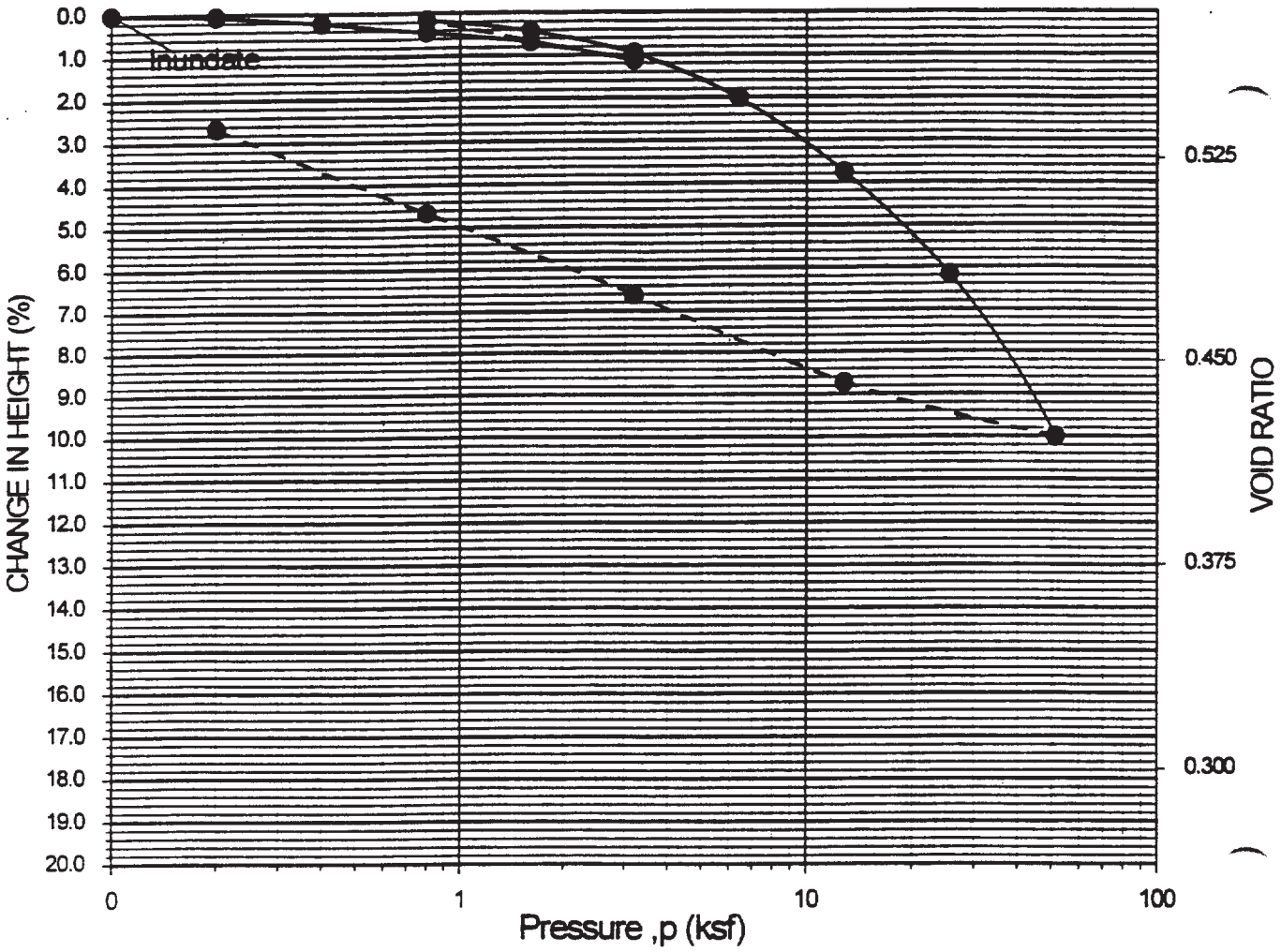
FIGURE D-13



BORING NO.	SAMPLE NO.	DEPTH (ft.)	MOISTURE CONTENT (%) Initial / Final	DRY DENSITY (pcf) Initial / Final	VOID RATIO Initial / Final	DEGREE OF SATURATION (%) Initial / Final §
B-19	5	25	21.5 / 21.5	106.7 / 109.6	0.579 / 0.537	100 / 100

Surface Elevation : 347 ft.

§ Assumed Specific Gravity = 2.70

ONE-DIMENSIONAL CONSOLIDATION
(ASTM D2435)

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FIGURE D-14

APPENDIX E

CORROSIVITY TESTING

M.J. SCHIFF & ASSOCIATES, INC.
Consulting Corrosion Engineers - Since 1959
1308 Monte Vista Avenue, Suite 6
Upland, CA 91786
Phone: 909.931.1360 / Fax: 909.931.1361
E-mail: mjsa@mjs-a.com
http://www.mjs-a.com

December 8, 1998

DAMES & MOORE
911 Wilshire Boulevard, Suite 700
Los Angeles, California 90017

Attention: Mr. Philip Hadfield

Re: Soil Corrosivity Study
LAC USC Medical Center
Los Angeles, California
Your #00499-059-015, MJS&A #98485

INTRODUCTION

Laboratory tests have been completed on 12 soil samples you provided from your borings for the referenced hospital project. The purpose of these tests was to determine if the soils may have deleterious effects on underground utilities, hydraulic elevator cylinders, and concrete foundations. We assume that the samples provided are representative of the most corrosive soils at the site.

The scope of this study is limited to a determination of soil corrosivity and general corrosion control recommendations for materials likely to be used for construction. If the architects and/or engineers desire more specific information, designs, specifications, or review of design, we will be happy to work with them as a separate phase of this project.

TEST PROCEDURES

The electrical resistivity of each sample was measured in a soil box per ASTM G57 in its as-received condition and again after saturation with distilled water. Resistivities are at about their lowest value when the soil is saturated. The pH of the saturated samples was measured. A 5:1 water:soil extract from each sample was chemically analyzed for the major anions and cations and for ammonium and nitrate. Test results are shown on Table 1.

SOIL CORROSIVITY

A major factor in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. Corrosion currents, following Ohm's Law, are inversely proportional to soil resistivity. Lower electrical resistivities result from higher moisture and chemical contents and indicate corrosive soil.

A correlation between electrical resistivity and corrosivity toward ferrous metals is:

Soil Resistivity in ohm-centimeters			Corrosivity Category
over		10,000	mildly corrosive
2,000	to	10,000	moderately corrosive
1,000	to	2,000	corrosive
below		1,000	severely corrosive

Other soil characteristics that may influence corrosivity towards metals are pH, chemical content, soil types, aeration, anaerobic conditions, and site drainage.

Electrical resistivities were in mildly corrosive to corrosive categories with as-received moisture. When saturated, the resistivities dropped into moderately to severely corrosive categories.

Soil pH values varied from 6.8 to 7.8. This range is neutral to mildly alkaline and does not particularly increase soil corrosivity.

The chemical content of the samples was low and moderate. No concentration was high enough to be of particular concern.

Ammonium and nitrate were detected but in low concentrations.

Tests were not made for sulfide and negative oxidation-reduction (redox) potential because they would not exist in these aerated samples.

This soil is classified as severely corrosive to ferrous metals.

CORROSION CONTROL

The life of buried materials depends on thickness, strength, loads, construction details, soil moisture, etc., in addition to soil corrosivity, and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of materials that would be subject to significant corrosion.

Steel Pipe

Abrasive blast underground steel utilities and apply a high quality dielectric coating such as polyurethane, extruded polyethylene, a tape coating system, hot applied coal tar enamel, or fusion bonded epoxy.

Bond underground steel pipe with rubber gasketed, mechanical, grooved end, or other nonconductive type joints for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.

Electrically insulate each buried steel pipeline from dissimilar metals, cement-mortar coated and concrete encased steel, and above ground steel pipe to prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection.

Apply cathodic protection to steel piping as per NACE International RP-0169-96.

As an alternative to dielectric coating and cathodic protection, apply a 3/4 inch cement mortar coating or encase in cement-slurry or concrete 3 inches thick, using any type of cement.

Hydraulic Elevator

Coat hydraulic elevator cylinders as described above. Electrically insulate each cylinder from building metals by installing dielectric material between the piston platen and car, insulating the bolts, and installing an insulated joint in the oil line. Apply cathodic protection to hydraulic cylinders as per NACE International RP-0169-96. As an alternative to electrical insulation and cathodic protection, place each cylinder in a plastic casing with a plastic watertight seal at the bottom.

The elevator oil line should be placed above ground if possible but, if underground, should be protected as described above for steel utilities.

Iron Pipe

Encase ductile iron water piping in 8 mil thick low-density polyethylene or 4 mil thick high-density, cross-laminated polyethylene plastic tubes or wraps per AWWA Standard C105 or coat with a polyurethane intended for underground use. As an alternative, encase iron piping with cement slurry or concrete at least 3 inches thick surrounding the pipe, using any type of cement. Bond all nonconductive type joints for electrical continuity. Electrically insulate underground iron pipe from dissimilar metals and from above ground iron pipe with insulated joints.

Encase cast iron drain lines in 8 mil thick low-density polyethylene or 4 mil thick high-density, cross-laminated polyethylene plastic tubes or wraps per AWWA Standard C105. As an alternative,

encase iron piping with cement slurry or concrete at least 3 inches thick surrounding the pipe, using any type of cement. Electrically insulate underground iron pipe from dissimilar metals and from above ground iron pipe with insulated joints.

Copper Tube

Bare copper tubing for cold water should be bedded and backfilled in clean sand or silty sand from the site. Hot water tubing may be subject to a higher corrosion rate. Hot copper can be protected by applying cathodic protection or preventing soil contact. Soil contact may be prevented by placing the tubing above ground or inside a plastic pipe. The amount of cathodic protection current needed can be minimized by coating the tubing.

Underground Fuel Storage Tanks and Piping

Underground fuel tanks must be protected in accordance with California Underground Storage Tank Regulations dated 1994, issued by the State Water Resources Control Board. It requires that underground storage tanks used for storage of motor vehicle fuel shall be composed of fiberglass-reinforced plastic, cathodically protected steel, or steel clad with fiberglass-reinforced plastic.

Consult the referenced California code for complete construction requirements.

California Underground Storage Tank Regulations, 1994 states: "All corrodible underground piping, if in direct contact with backfill material, shall be protected against corrosion. Piping constructed of fiberglass-reinforced plastic, steel with cathodic protection, or steel isolated from direct contact with backfill, fulfills this corrosion protection requirement. Cathodic protection shall meet the requirements of section 2635(a)(2)."

Plastic and Vitrified Clay Pipe

No special precautions are required for plastic and vitrified clay piping placed underground from a corrosion viewpoint. Protect any iron valves and fittings with a double polyethylene wrap per AWWA C105 or as described below for bare steel appurtenances. Where concrete thrust blocks are to be placed against iron, use a single polyethylene wrap to prevent concrete/iron contact and to eliminate the slipperiness of a double wrap.

All Pipe

On all pipe, coat bare steel appurtenances such as bolts, joint harnesses, or flexible couplings with a coal tar or elastomer based mastic, coal tar epoxy, moldable sealant, wax tape, or equivalent after assembly.

Where metallic pipelines penetrate concrete structures such as building floors or walls, use plastic sleeves, rubber seals, or other dielectric material to prevent pipe contact with the concrete and reinforcing steel.

Concrete

Any type of cement may be used for concrete structures and pipe because the sulfate concentration is negligible, 0 to 0.1 percent, per Uniform Building Code (UBC) Table 19-A-3 and American Concrete Institute (ACI-318) Table 4.3.1.

Standard concrete cover over reinforcing steel may be used for concrete structures and pipe in contact with these soils. Use 2 inches minimum cover over embedded steel at the edges of concrete slabs and footings above grade as well as below.

Please call if you have any questions.

Respectfully Submitted,
M.J. SCHIFF & ASSOCIATES, INC.

James T. Keegan

Reviewed by,

Paul R. Smith

Paul R. Smith, P.E.

Enc: Table 1

Docs-98\98485.doc

M. J. Schiff & Associates, Inc.
Consulting Corrosion Engineers - Since 1959
1308 Monte Vista Avenue, Suite 6
Upland, CA 9178-8224
Phone: 909/931-1360

Table 1 - Laboratory Tests on Soil Samples

LA USC Medical Center
Your #00499-059-015, MJS&A #98485
27-Nov-98

Sample ID			B-8, #6, 30' siltstone	B-5, #1, 5' clayey gravel	B-10, #1, 5' silty sand	B-2, #1, 5' siltstone sandstone	B-3, #1, 5' silty sand/gravel
Resistivity		**Units**					
as-received		ohm-cm	1,500	30,000	46,000	2,900	83,000
saturated		ohm-cm	1,050	3,000	3,000	2,000	7,900
pH			6.9	7.8	7.1	6.8	7.4
Electrical Conductivity		mS/cm	0.16	0.15	0.06	0.05	0.03
Chemical Analyses							
Cations							
calcium	Ca^{2+}	mg/kg	16	12	16	16	ND
magnesium	Mg^{2+}	mg/kg	19	15	ND	ND	ND
sodium	Na^{1+}	mg/kg	95	131	16	ND	na
Anions							
carbonate	CO_3^{2-}	mg/kg	ND	ND	ND	ND	ND
bicarbonate	HCO_3^{1-}	mg/kg	85	354	ND	49	ND
chloride	Cl^{1-}	mg/kg	67	11	ND	ND	ND
sulfate	SO_4^{2-}	mg/kg	155	67	72	ND	ND
Other Tests							
ammonium	NH_4^{1+}	mg/kg	na	1.4	0.3	1.1	0.5
nitrate	NO_3^{1-}	mg/kg	na	1.3	6.0	1.3	2.4
sulfide	S^{2-}	qual	na	na	na	na	na
Redox		mv	na	na	na	na	na

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

M. J. Schiff & Associates, Inc.
Consulting Corrosion Engineers - Since 1959
1308 Monte Vista Avenue, Suite 6
Upland, CA 91786-8224
Phone 909/931.1360

Table 1 - Laboratory Tests on Soil Samples

LA USC Medical Center
Your #00499-059-015, MJS&A #98485
27-Nov-98

Sample ID			B-17, #6, 30' siltstone	B-12, #3, 15' clay	B-1, #3, 15' SM/ML	B-13, #8, 40' siltstone	B-15, #4, 20' SP/SM
Resistivity		**Units**					
as-received		ohm-cm	1,200	1,600	1,700	1,100	18,500
saturated		ohm-cm	1,100	740	1,500	690	3,950
pH			7.2	7.3	7.3	7.0	7.4
Electrical							
Conductivity		mS/cm	0.23	0.17	0.10	0.23	0.05
Chemical Analyses							
Cations							
calcium	Ca^{2+}	mg/kg	60	48	12	80	ND
magnesium	Mg^{2+}	mg/kg	15	17	15	17	ND
sodium	Na^{1+}	mg/kg	128	120	70	92	34
Anions							
carbonate	CO_3^{2-}	mg/kg	ND	ND	ND	ND	ND
bicarbonate	HCO_3^{1-}	mg/kg	244	439	122	98	ND
chloride	Cl^{1-}	mg/kg	64	11	21	21	11
sulfate	SO_4^{2-}	mg/kg	191	72	108	345	57
Other Tests							
ammonium	NH_4^{1+}	mg/kg	na	na	na	na	na
nitrate	NO_3^{1-}	mg/kg	na	na	na	na	na
sulfide	S^{2-}	qual	na	na	na	na	na
Redox		mv	na	na	na	na	na

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

M. J. Schiff & Associates, Inc.
Consulting Corrosion Engineers - Since 1959
1308 Monte Vista Avenue, Suite 6
Upland, CA 91786-8224
Phone 909/931.1360

Table 1 - Laboratory Tests on Soil Samples

LA USC Medical Center
Your #00499-059-015, MJS&A #98485
27-Nov-98

Sample ID			B-11, #5, 25' siltstone	B-21, #1, 10' SM
Resistivity		**Units**		
as-received		ohm-cm	1,600	4,400
saturated		ohm-cm	910	3,200
pH			7.2	7.1
Electrical				
Conductivity		mS/cm	0.19	0.11
Chemical Analyses				
Cations				
calcium	Ca^{2+}	mg/kg	44	28
magnesium	Mg^{2+}	mg/kg	7	12
sodium	Na^{1+}	mg/kg	102	55
Anions				
carbonate	CO_3^{2-}	mg/kg	ND	ND
bicarbonate	HCO_3^{1-}	mg/kg	146	293
chloride	Cl^{1-}	mg/kg	32	ND
sulfate	SO_4^{2-}	mg/kg	189	ND
Other Tests				
ammonium	NH_4^{1+}	mg/kg	na	na
nitrate	NO_3^{1-}	mg/kg	na	na
sulfide	S^{2-}	qual	na	na
Redox		mv	na	na

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

APPENDIX F

GEOLOGIC AND SEISMIC HAZARDS STUDY

DAMES & MOORE

A DAMES & MOORE GROUP COMPANY

GEOLOGIC AND SEISMIC HAZARDS STUDY
LAC & USC MEDICAL CENTER
REPLACEMENT PROJECT
LOS ANGELES, CALIFORNIA
FOR THE COUNTY OF LOS ANGELES
PUBLIC WORKS DEPARTMENT

D&M JOB NO. 00499-059-015

DECEMBER 30, 1998

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

6 Hutton Centre Drive, Suite
Santa Ana, California 92707
714 433 2000 Tel
714 433 2364 Fax

December 30. 1998

Medical Center Replacement Project
1200 North State Street
Box 121
Los Angeles. California 90033

Attention: Mr. Bradford Bolger, Project Director

Subject: Geologic and Seismic Hazards Study
LAC + USC Medical Center
Replacement Project
Los Angeles. California
Dames & Moore Job No. 00499-059-015
For: The County of Los Angeles Public Works Department

Dear Mr. Bolger:

Dames & Moore is pleased to submit this report regarding our geologic and seismic hazards study for the LAC+USC Medical Center Replacement Project. This study was conducted in conjunction with our geotechnical evaluation and ground-motion seismic hazard analysis. This report describes the geologic conditions at the site. and includes our assessment of how geologic and seismic hazards may impact the facility. Our geologic and seismic hazards assessment was performed in accordance with current guidelines and relevant criteria established by the Office of Statewide Health Planning and Development (OSHPD), the 1995 California Building Code (CBC). and the California Division of Mines and Geology (CDMG).

Thank you for this opportunity to assist you on this project. If questions arise. please call the undersigned at 714-433-2000.

Sincerely.

DAMES & MOORE

David C. Seymour, R.G.. C.E.G.
Senior Engineering Geologist

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1.0 INTRODUCTION

In this report we present the results of our geologic and seismic hazards study for the LAC+USC Medical Center Replacement Project. This study was performed in conjunction with our geotechnical evaluation and ground-motion seismic hazard analysis that are presented in separate reports. Geotechnical and seismic data collected for these studies were incorporated into this geologic and seismic hazards study for the site. Our geologic and seismic hazards assessment was performed in accordance with current guidelines and relevant criteria established by the Office of Statewide Health Planning and Development (OSHPD), the 1995 California Building Code (CBC), and the California Division of Mines and Geology (CDMG). The location and approximate layout of existing facilities at the site are depicted on Figures 1 and 2.

The purpose of our study was to assess how geologic and seismic hazards may impact development of the site. Available geologic and seismic reports and maps, along with recently collected subsurface geologic and geophysical data were reviewed as part of our assessment. Geotechnical and seismic data from our accompanying geotechnical and ground-motion studies are included in this report where appropriate.

2.0 GEOLOGIC CONDITIONS

2.1 Regional Geologic Setting

The proposed LAC+USC Medical Center lies within the Peninsular Ranges geomorphic province of California, which extends approximately 900 miles from Los Angeles to the southern tip of Baja California. Northwest trending mountain ranges, faults and basins dominate this province. One of the major geologic features of this province is the Los Angeles basin, which rests at its northwestern end. The Los Angeles basin is a northwest trending structural depression, up to 6 miles deep, and covers an area approximately 50 miles long by 20 miles wide (Yerkes et al., 1965). It is bounded on the north by the Transverse Ranges geomorphic province, which is noted for its east-west trending structures.

Yerkes et al. (1965) divided the Los Angeles basin into four major structural blocks, which are bounded by major zones of faulting and folding. The LAC+USC Medical Center lies within the central block of the basin, which is bounded by the Newport-Inglewood fault zone to southwest, the Santa Monica mountains to the northwest, and the Elysian Park anticline and Whittier fault system to the northeast (Yerkes et al., 1965). Major structural features within the central block include the Elysian Hills along the northeast boundary, the Coyote Hills, and parts of the Repetto Hills (Yerkes, et al, 1965). Rocks underlying the central block consist of middle Miocene to Holocene age marine and non-marine sedimentary rocks, up to 31,000 feet thick (Yerkes et al, 1965). Figure 3 shows the regional geologic conditions surrounding the LAC+USC Medical Center as mapped by Lamar (1970).

2.2 Site Geologic Conditions

The LAC+USC Medical Center is elevated approximately 350 feet above mean sea level, and located at approximately 34.060°N, 118.204°W. The site rests upon the southeastern end of the Repetto Hills, which along with the Elysian and Montebello Hills are a part of a large fold system known as the Elysian Park anticlinorium (Lamar, 1970; Bullard and Lettis, 1993). These hills have been uplifted as a result of compressional forces acting in the central portion of the Los Angeles basin. Buried beneath the hills is a blind thrust fault, which was responsible for the 1987 Whittier Narrows earthquake.

The Repetto Hills are underlain by Miocene age marine sedimentary rocks of the Puente Formation, and covered by late Pleistocene to Holocene age alluvial sediments (Lamar, 1970; Dibblee, 1989). These alluvial sediments were deposited by the Los Angeles River and its tributaries.

The LAC+USC Medical Center is underlain by artificial fill and alluvial soils, which overlie marine siltstones of the Puente Formation. The approximate lateral limits of these units are shown on Figure 2. In addition, boring logs from the recent geotechnical investigation are included in Appendix B. The boring locations relative to the proposed hospital buildings are shown in Figure 2. Additional information on the subsurface geologic conditions and planned cut/fill for the proposed project is presented in the associated Dames & Moore geotechnical report. Following are descriptions of the various earth units underlying the site.

2.2.1 Artificial Fill (Map Symbol: Af)

Artificial fill encountered in our borings consisted of clayey and silty sands, typically medium dense to dense, and varied in thickness from 3 to 8 feet.

2.2.2 Colluvium and Alluvium (Map Symbol: Qcol and Qal)

Colluvial soils were encountered in a few of the borings, overlying alluvium. The colluvial soil encountered was typically less than 5 feet thick and consisted of stiff silty clay. Due to the scattered occurrence and limited thickness, colluvial deposits were not depicted on the plot plan (Figure 2).

Alluvial soils were encountered in several borings in the central and southern portions of the site. Alluvial soils encountered in our borings consisted of very dense silty gravels and sands with cobbles, mottled gray, brown, and reddish brown. Alluvial soils varied from approximately 10 to 30 feet in thickness and increased in thickness from north to south across the site.

2.2.3 Bedrock (Map Symbol: Tp)

Bedrock of the Miocene age Puente Formation was encountered in our borings underlying artificial fill and alluvial soils. Bedrock consisted of interbedded sequences of fine sandstone and clayey siltstone, which was highly to slightly weathered and massive to thinly bedded.

2.3 Geologic Structure

The LAC+USC Medical Center rests on the southwestern limb of a southeasterly plunging anticline (Lamar, 1970). This anticline is one of several folds within the Elysian Park anticlinorium, and has tilted the underlying Puente Formation rocks to near vertical conditions. According to regional mapping by Lamar (1970) and Dibblee (1989) bedding underlying the LAC+USC Medical Center dips from 70 to 85 degrees to the southwest. Continuous core samples of bedrock in borings B-24, B-25, and B-26 included 1- to 4-inch thick sandstone interbeds dipping from 40 to 45 degrees in the upper 45 feet. Steeper bedding inclinations of approximately 70 degrees were noted in boring B-11 at depths of 60 to 70 feet, indicating a general increase in dip with depth. Figure 4 depicts the general subsurface geologic conditions underlying the site.

2.4 Faulting

The LAC+USC Medical Center lies between several active and potentially active faults, including the Elysian Park, Newport-Inglewood, Raymond, San Gabriel, Santa Monica, Sierra Madre-San Fernando, Verdugo, and Whittier faults (Figure 5). These faults lie within a 15-mile radius of the campus. The closest active faults are the Raymond and Whittier faults, which lie approximately four miles north and two miles southeast. As defined by the California State Mining and Geology Board, an active fault is a fault that has had surface displacement within Holocene time, approximately 11,000 years (Hart, 1997). Active fault traces do not cross LAC+USC Medical Center; however, the campus does overlie the southeast portion of the Elysian Park blind thrust fault (Working Group, 1995). The CDMG (1998a) map of known active fault zones to be used with the 1997 Uniform Building Code is presented in Appendix C.

The Elysian Park thrust fault is a blind thrust and does not intersect the ground surface. The Elysian Park blind thrust is the result of compressional forces acting between the Santa Monica-Raymond fault system to the north and the Whittier-Elsinore fault system to the southeast (Bullard and Lettis, 1993). Over the last several 100,000 years these forces have uplifted the Elysian, Repetto, and Montebello Hills. On occasion earthquakes have occurred along blind thrusts like the Elysian Park thrust fault, as evidenced by the 1987 Whittier Narrows and 1994 Northridge earthquakes.

2.5 Groundwater

The site is located along the northern edge of the Los Angeles Forebay of the Central Basin, a sub-basin of the Los Angeles Coastal Plain. Within the forbay area, the site is situated along the southern edge of the Elysian Park-Repetto Hills, which are bisected by Los Angeles Narrows, a north-south trending valley underlain by Quaternary age alluvium deposited by the Los Angeles River. Quaternary age water-bearing deposits of the forebay area pinch out northward against Tertiary age sedimentary, including the Puente Formation. The regional groundwater flow in the site vicinity is generally towards the southwest (CDWR, 1961).

Subsurface exploration of the site indicated that relatively complex hydrogeologic conditions exist beneath the site. Groundwater was encountered in most of the borings drilled at the site, at depths ranging from approximately 20 to 45 feet. Groundwater was encountered in both the underlying alluvial and bedrock units. Within the bedrock, groundwater was typically encountered in steeply dipping sandstone beds under semi-confined conditions.

2.6 Seismic Hazard Zone and Soil Profile Type

According to Figure 16A-2 of the 1995 CBC, the site is located in Seismic Zone 4. A Seismic Zone Factor of Z=0.40 should be used.

Based on our review of the available geotechnical, geologic, and geophysical data, we classify the underlying soil and bedrock as Soil Profile Type S_1, with a Site Coefficient (S) of 1.0. This soil profile type was selected per the definitions in Table 2.1 of Article 2 of OSHPD Senate Bill 1953, which corresponds to Table 16A-J of the 1995 version of the California Building Code.

Downhole geophysical surveys were performed by Ryland Associates, Inc. (Ryland) in borings B-22 and B-23 to determine the shear wave velocities of the underlying soil and bedrock units. Surveys conducted in Borings B-22 and B-23 were completed to depths of 101 and 30 feet, respectively. The survey results are included in Ryland's report dated October 17, 1998 (Appendix D). The results of the survey in B-22 indicate that the alluvial soil in the upper 30 feet has a shear wave velocity of approximately 950 feet/sec (290 m/sec), while the underlying bedrock has shear wave velocities varying from approximately 1,430 feet/sec (436 m/sec) to 2,500 feet/sec (762 m/sec). According to Ryland's report, a low velocity layer (1,670 feet/sec) may underlie the 2,500 feet/sec layer at a depth of 75 feet. Since shear wave velocities of 2,500 feet/sec may exist within the upper 100 feet of the underlying bedrock, we expect that such velocity would be attainable within the upper 200 feet, which would satisfy the Soil Profile Type S_1 definition.

3.0 GEOLOGIC AND SEISMIC HAZARDS

Geologic and seismic hazards are those hazards that could impact a site due to the surrounding geologic and seismic conditions. Geologic hazards include landsliding, erosion, subsidence, volcanic eruptions, and poor soil conditions. Seismic hazards include phenomena that occur during an earthquake such as ground shaking, ground rupture, and liquefaction. How these hazards may impact the site have been assessed and are summarized in the following sections. Our assessment of these hazards was based on guidelines established by the California Division of Mines and Geology (1982 and 1996). In addition, the Safety Element of the Los Angeles County General Plan (1990) was reviewed.

3.1 Geologic Hazards

Geologic hazards such as landsliding, erosion, subsidence, poor soil conditions and volcanic eruptions have a low potential of impacting the site. Slopes at LAC+USC are low in height with shallow inclinations. As such, these slopes have a low potential for landsliding under normal conditions. Most of the site is landscaped or covered with asphalt or concrete and is not readily susceptible to erosion. Subsidence beneath the campus due to oil or groundwater withdrawal is unlikely to occur because the site is located a considerable distance from such activities. Relatively stiff soil and rock conditions underlie the site, which reduces the potential of damage due to poor soil conditions.

3.2 Tectonic Setting and Seismicity

The LAC+USC Medical Center is located in southern California, which is considered an active seismic area resting along the margin of the North American and Pacific tectonic plates. The numerous earthquakes, faults and folds attest to the seismic activity that occurs within Southern California. Most of the displacement between the North America and Pacific plates occurs along the San Andreas fault and associated major faults, such as the San Jacinto, Newport-Inglewood, and Whittier-Elsinore faults, which lie southeast, west, and east of the site respectively. However, numerous smaller faults also contribute to the seismicity of the region and help to create various fault-bounded crustal blocks. These smaller active faults include the Raymond and Verdugo fault zones, which are located approximately 4½ and 7 miles north of the site, respectively. Figure 5 shows the approximate location of the site with respect to the major active surface faults in southern California. The approximate distance (in kilometers) between the site and the surface trace of the nearest Holocene segment of several of these faults are summarized in Table 1.

Table 1
Distance to Major Faults and Upper Bound Earthquakes

Fault Name	Approximate Distance from Site (km)	Upper Bound Earthquake (M_L)
Raymond	7.5	6.5
Hollywood	9.5	6.6
Elysian Park Thrust	11*	6.8
Verdugo	11.5	6.7
Newport-Inglewood	14	7.0
Sierra Madre	18.5	7.4
San Fernando	27.5	6.7
Palos Verdes	30	7.0
Whittier-Elsinore	31	6.9
San Andreas (Mojave)	52	7.5

* Distance to the subsurface fault plane.

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Table 1
Distance to Major Faults and Upper Bound Earthquakes

Fault Name	Approximate Distance from Site (km)	Upper Bound Earthquake (M_w)
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Hollywood	9.5	6.6
Elysian Park Thrust	11*	6.8
Verdugo	11.5	6.7
Newport-Inglewood	14	7.0
Sierra Madre	18.5	7.4
San Fernando	27.5	6.7
Palos Verdes	30	7.0
Whittier-Elsinore	31	6.9
San Andreas (Mojave)	52	7.5

* Distance to the subsurface fault plane.

Southern California has endured numerous earthquakes in historic times, many of which are shown on Figure 6. This figure shows the epicenters of historically significant earthquakes with magnitude greater than 4.5 that have occurred in southern California since 1812. The largest of these earthquakes was the 1857 earthquake along the San Andreas fault zone, with an estimated magnitude of around 8. Other significant earthquakes near LAC+USC Medical Center were the 1933 Long Beach (M_W=6.4), the 1971 San Fernando (M_W=6.6), the 1987 Whittier Narrows (M_W=6.0), and the 1994 Northridge (M_W=6.7) earthquakes (Table 2). The Whittier Narrows earthquake occurred on a blind thrust fault, which was not recognized prior to the earthquake. The epicenter of the Whittier Narrows earthquake was only seven miles east of the site.

Table 2
Significant Earthquakes (M≥6) Affecting the Site

Earthquake	Epicentral Distance (km)	Moment Magnitude (M_W)
1933 Long Beach	44	6.4
1971 San Fernando	44	6.6
1987 Whittier	12	6.0
1994 Northridge	35	6.7
1857 Ft. Tejon	263	7.9

Recent studies by the United States Geological Survey and the California Division of Mines and Geology (Petersen et al, 1996) provide seismic data for numerous faults within California. These data include estimates for maximum moment magnitude, fault length and type, and slip rate. Estimated maximum moment magnitudes for earthquakes along the Newport-Inglewood, Raymond and Whittier faults by Petersen et al (1996) are 6.9, 6.5, and 6.8, respectively.

3.3 Seismic Hazards

Seismic hazards are those hazards associated with earthquakes such as ground shaking, ground rupture, liquefaction, differential compaction or seismic settlement, and other phenomena. LAC+USC Medical Center, like most sites in southern California, is most susceptible to ground shaking generated during earthquakes on nearby faults. The intensity of ground shaking, or strong ground motion, is highly dependent upon on the distance of the fault to the site, the magnitude of the earthquake, and the underlying soil conditions. LAC+USC Medical Center is not considered susceptible to the other seismic hazards such as ground rupture or liquefaction. These hazards and how they may affect LAC+USC Medical Center are discussed in the following sections.

3.3.1 Primary Ground Rupture

Primary ground rupture is ground deformation that occurs along the surface trace of the causative fault during an earthquake. According to Hart (1997), the site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on our review of available geologic data, active faults do not cross the LAC+USC Medical Center campus; therefore, primary ground rupture is not a concern.

3.3.2 Strong Ground Motion

Strong ground motion occurs as energy is released during an earthquake. The intensity of ground motion is dependent upon the distance between the site and the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the site. Ground motion is typically measured as a percentage of the acceleration of gravity (g), where g is equal to 32 feet per second squared. Earthquakes occurring on faults closest to the site would most likely generate the largest ground motions. The closest active faults to LAC+USC Medical Center are the Raymond and Whittier faults, which have the potential for generating earthquakes with maximum moment magnitudes of 6.5 and 6.8 (Petersen et al, 1996). There are no mapped active faults within 2 km of the site as mapped by CDMG (1998a) for use in conjunction with the 1997 UBC (Appendix C).

Peak ground accelerations measured at or near the site during historic earthquakes vary from approximately 0.1 to 0.5 g, with the highest recorded value from the 1994 Northridge earthquake. Quantitative estimates of strong ground motion are included in a separate ground-motion analysis report prepared by Dames & Moore for this project.

3.3.3 Liquefaction

Liquefaction is the transformation of a cohesionless soil from a solid to a liquid state caused by an increase in pore pressure and a reduction in effective stress. Liquefaction can occur when loose saturated cohesionless (sandy) soils are subjected to strong ground shaking during an earthquake. According to the Seismic Hazards Map of the Los Angeles Quadrangle prepared by the CDMG (1998b), the site is located outside zones of potential liquefaction (Figure 7).

Soil and bedrock materials underlying the site consist of very dense silty gravels and sands and indurated siltstone and sandstone. Since relatively dense soils and rock underlie the site, its potential for liquefaction is considered very low, even under shallow groundwater conditions.

3.3.4 Seismically-Induced Settlement and Differential Compaction

Seismically induced settlement and differential compaction occurs when relatively soft or loose soils experience a reduction in strength caused by strong ground motion. Soil conditions subject to these hazards include porous poorly cemented soils, or areas where weak soils of variable

thickness overlie firm soil or bedrock. The site is underlain by relatively dense soil and bedrock materials, which are not prone to settlement under earthquake loading conditions.

3.3.5 Earthquake Induced Flooding

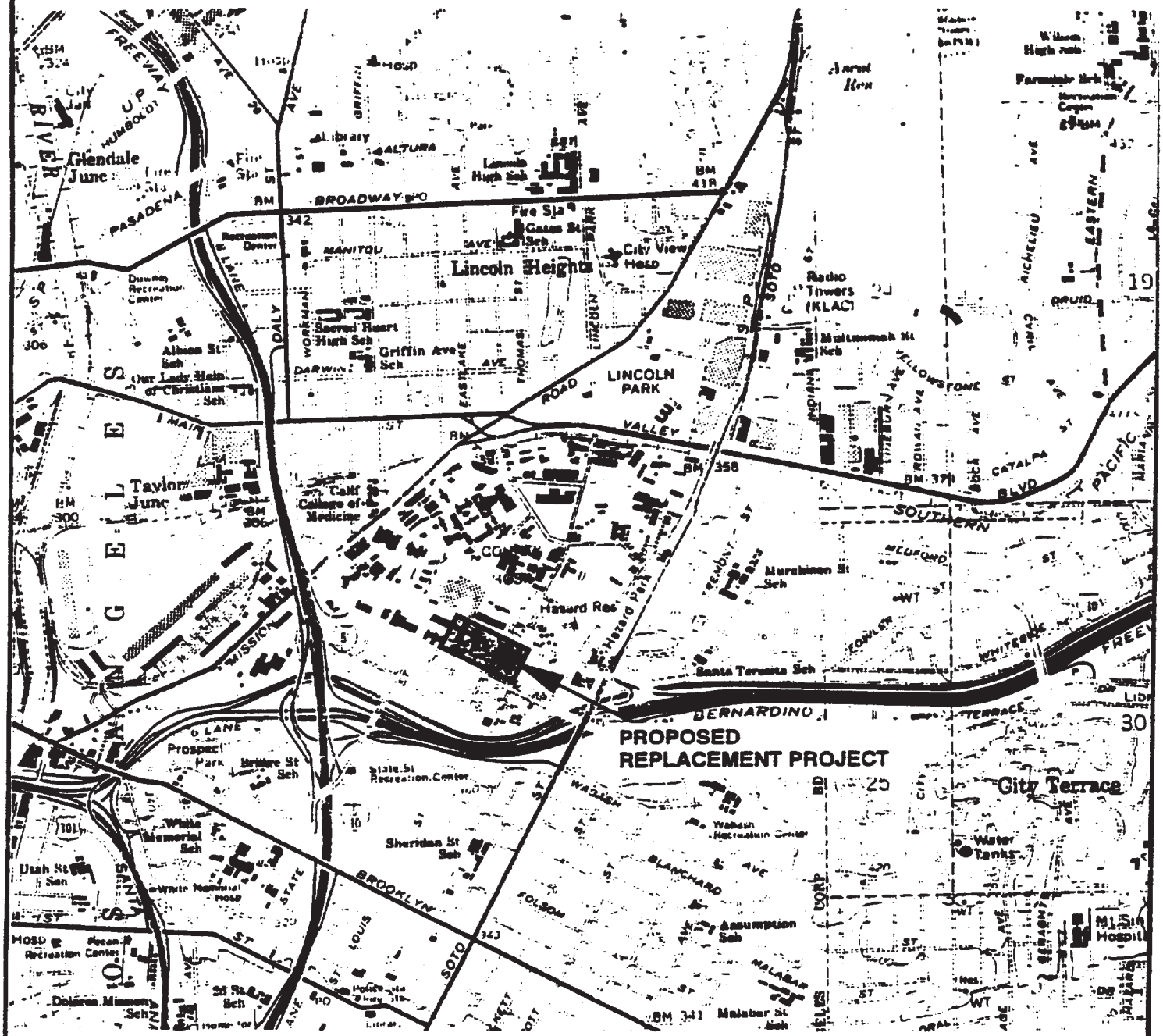
Earthquake induced flooding occurs when nearby water retaining structures, such as dams or storage tanks, are breached or damaged during an earthquake. According to the Los Angeles County Safety Element (1990), LAC+USC Medical Center is located within a non-inundation area within the Ascot dam inundation path, which is located about 2 miles northeast of the site. As such, the site should not incur flood damage if the Ascot dam where to fail during an earthquake. Another water storage facility, the Hazard Reservoir, is located approximately 1,000 feet northeast of the site. The Los Angeles Department of Water and Power operate this facility. Due to its proximity, minor flood damage could occur at the site if the facility were to fail during an earthquake.

3.3.6 Other Seismic Hazards

Other seismic hazards include tsunami, seiches, and earthquake-induced landslides. These hazards will not effect the site due to the site's distance from the Pacific Ocean, nearby enclosed bodies of water, and the low height and shallow inclination of slopes at the site.

4.0 CLOSURE

Our services were provided in accordance with the generally accepted professional geotechnical engineering and engineering geologic principles and practices in Los Angeles County at this time. We make no other warranty either express or implied.



VICINITY MAP

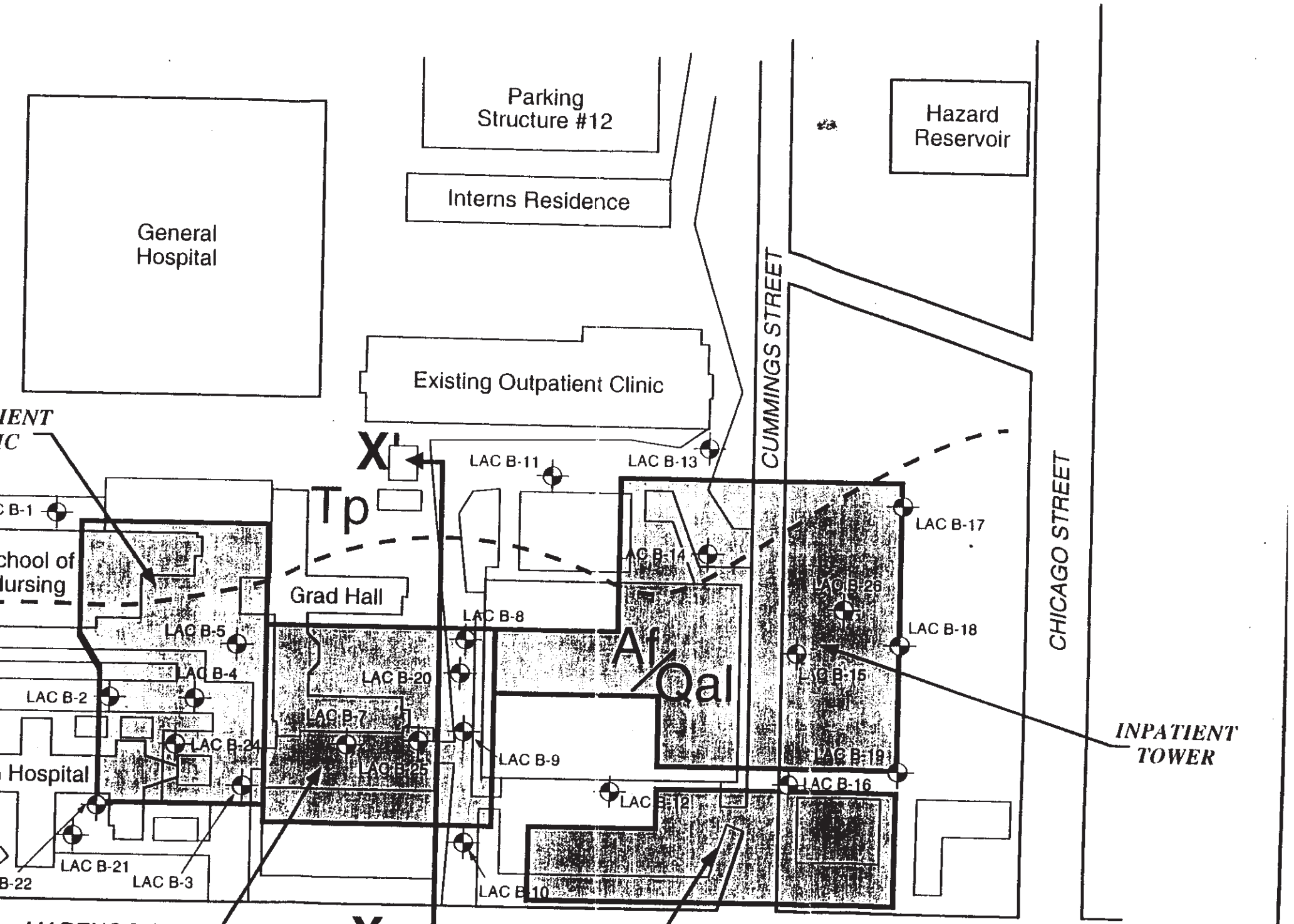
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA

For County of Los Angeles Department of Public Works

REFERENCE: USGS 7.5 Minute Series Topographic Map,
"Los Angeles, California" Quadrangle, 1966, Photorevised 1981.

Dames & Moore
FIGURE 1


Parking
Structure #12
Hazard
Reservoir
Interns Residence
General
Hospital
Existing Outpatient Clinic
CUMMINGS STREET
CHICAGO STREET
X'
X
Tp
Grad Hall
Af/Qal
LAC B-1
LAC B-2
LAC B-3
LAC B-4
LAC B-5
LAC B-7
LAC B-8
LAC B-9
LAC B-10
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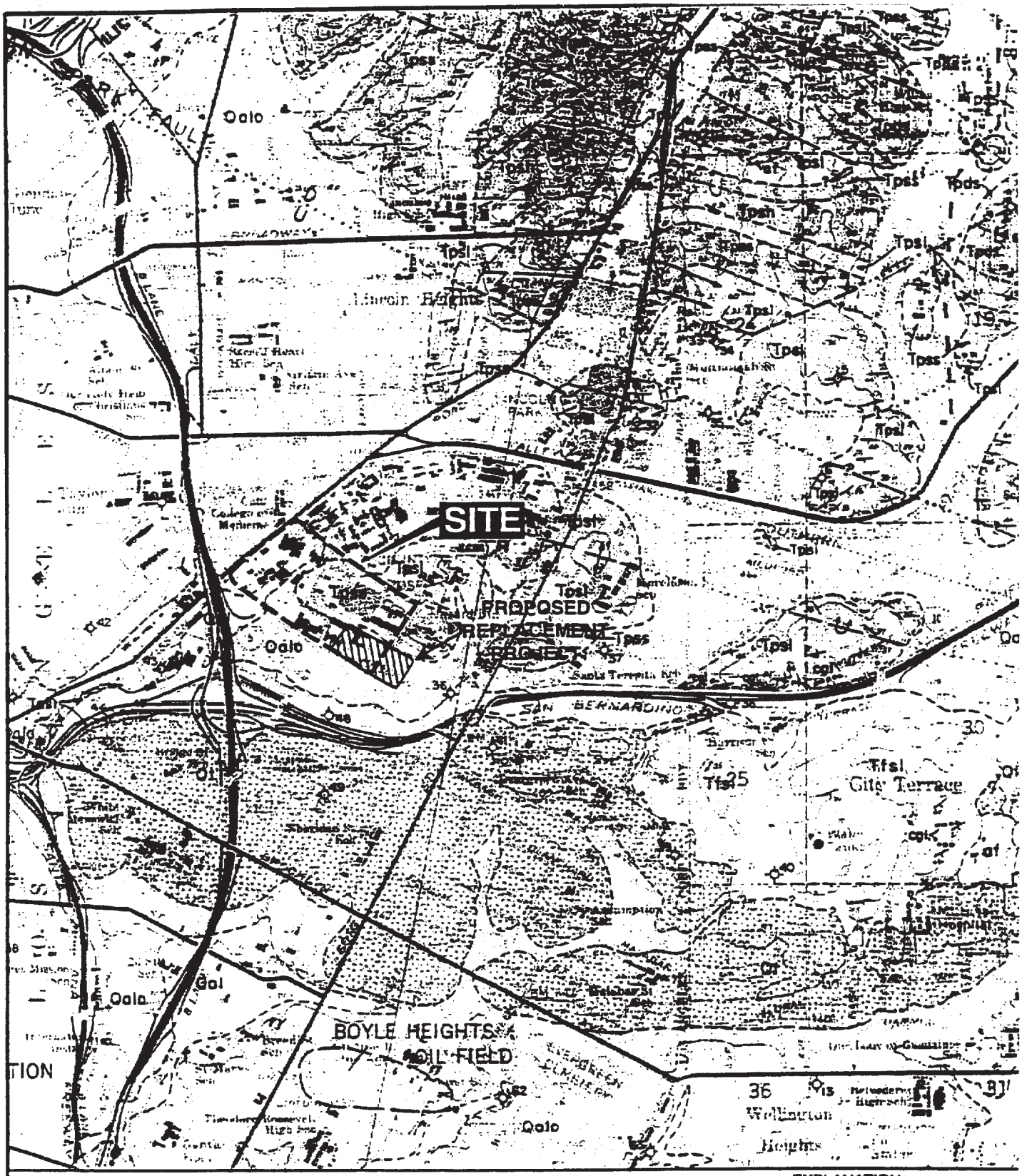
lursing
Hospital



EXPLANATION:

af	*Artificial Fill*
Qal/Qalo	*Alluvium*
Qt	*Terrace Deposits*
Tfsl	*Fernando formation*
Tpss/sh/sl	*Puente formation*

N

0 1000 2000

Approximate Scale in Feet

FIGURE 3

REGIONAL GEOLOGIC MAP

LAC & USC MEDICAL CENTER

LOS ANGELES, CALIFORNIA

For Los Angeles County Department of Public Works

REFERENCE: Geologic Map of the Elysian Park - Repetto Hills Area, Los Angeles County California, CDMG Special Report 101, 1970.

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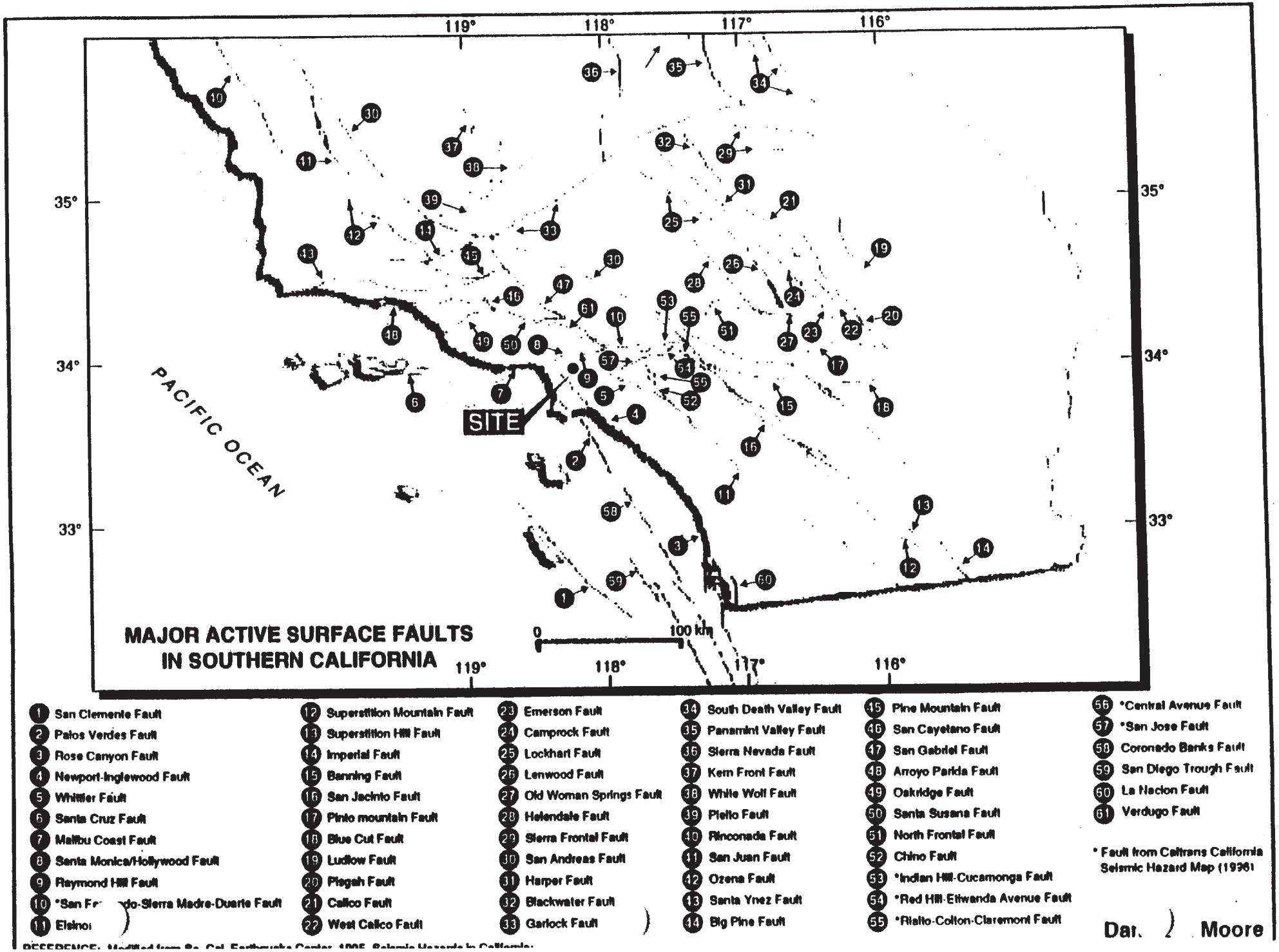
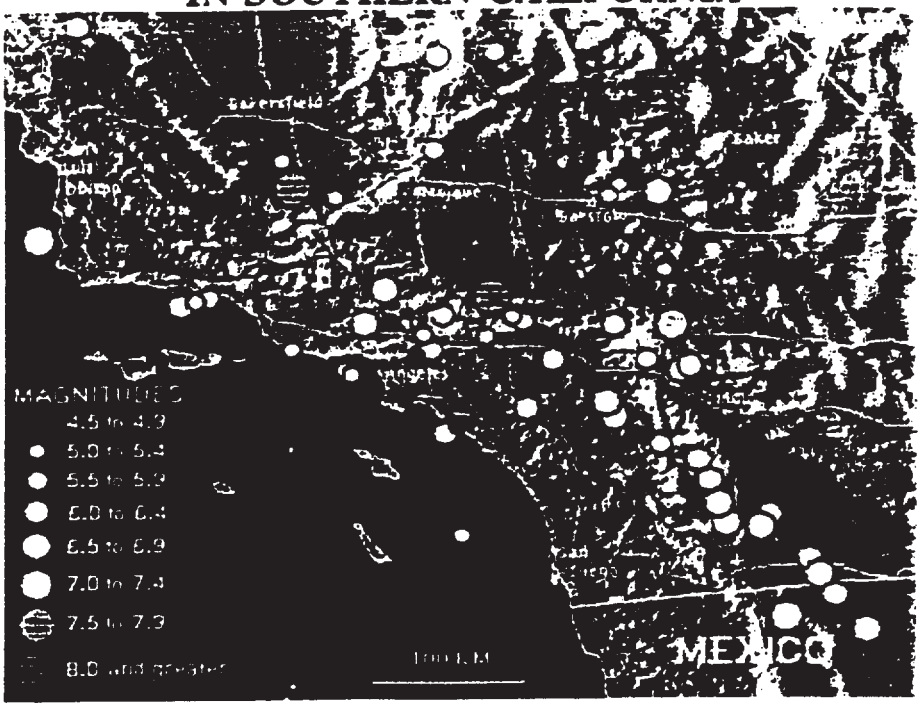
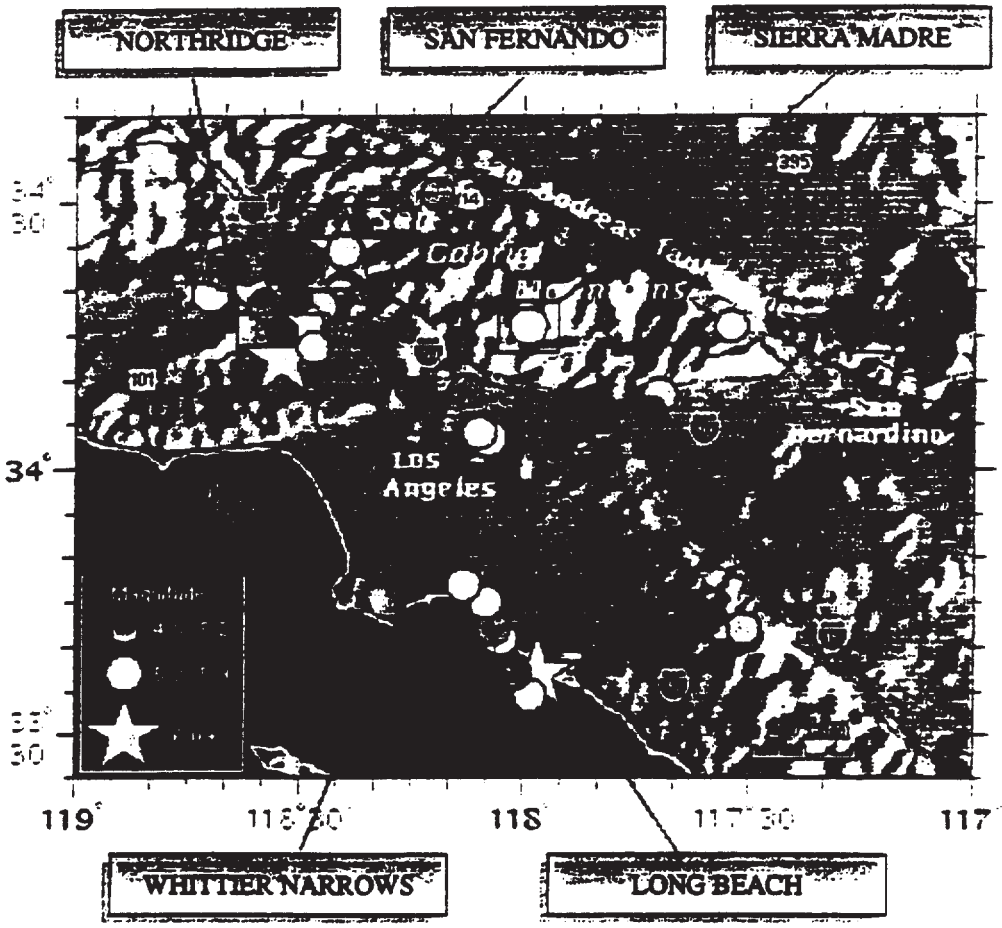

119°
118°
117°
116°
35°
34°
33°
PACIFIC OCEAN
SITE
0
100 km
MAJOR ACTIVE SURFACE FAULTS
IN SOUTHERN CALIFORNIA
1 San Clemente Fault
2 Palos Verdes Fault
3 Rose Canyon Fault
4 Newport-Inglewood Fault
5 Whittier Fault
6 Santa Cruz Fault
7 Malibu Coast Fault
8 Santa Monica/Hollywood Fault
9 Raymond Hill Fault
10 *San Fe do-Sierra Madre-Duarte Fault
11 Elsinor
12 Superstition Mountain Fault
13 Superstition Hill Fault
14 Imperial Fault
15 Banning Fault
16 San Jacinto Fault
17 Pinto mountain Fault
18 Blue Cut Fault
19 Ludlow Fault
20 Pisgah Fault
21 Calico Fault
22 West Calico Fault
23 Emerson Fault
24 Camprock Fault
25 Lockhart Fault
26 Lenwood Fault
27 Old Woman Springs Fault
28 Helendale Fault
29 Sierra Frontal Fault
30 San Andreas Fault
31 Harper Fault
32 Blackwater Fault
33 Garlock Fault
34 South Death Valley Fault
35 Panamint Valley Fault
36 Sierra Nevada Fault
37 Kern Front Fault
38 White Wolf Fault
39 Pleito Fault
40 Rinconada Fault
41 San Juan Fault
42 Ozena Fault
43 Santa Ynez Fault
44 Big Pine Fault
45 Pine Mountain Fault
46 San Cayetano Fault
47 San Gabriel Fault
48 Arroyo Parida Fault
49 Oakridge Fault
50 Santa Susana Fault
51 North Frontal Fault
52 Chino Fault
53 *Indian Hill-Cucamonga Fault
54 *Red Hill-Etiwanda Avenue Fault
55 *Rialto-Colton-Claremont Fault
56 *Central Avenue Fault
57 *San Jose Fault
58 Coronado Banks Fault
59 San Diego Trough Fault
60 La Nacion Fault
61 Verdugo Fault
* Fault from Caltrans California Seismic Hazard Map (1996)
Dar.) Moore

EPICENTERS OF HISTORICAL EARTHQUAKES IN SOUTHERN CALIFORNIA



Selected Earthquakes Since 1812 (Major Faults in Blue. Highways in Yellow)



Selected Earthquakes in Los Angeles Basin Since 1932
(Major Faults in Blue. Highways in Gray)

Footnote: Maps do not show all of the recorded earthquakes, only selected quakes of historical significance.
Base: Southern California Earthquake Center Web Page (www.sceedc.scec.org). September 1998.

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FIGURE 6

APPENDIX A
REFERENCES

Bullard, T.F., and Lettis, W.R., 1993, Quaternary Fold Deformation Associated with Blind Thrust Faulting, Los Angeles Basin, California: Journal of Geophysical Research, Vol. 98, No. B5, p. 8349-8369.

California Department of Water Resources Southern District, 1961, Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A, Ground Water Geology: California Department of Water Resources Bulletin 104, 191 p.

California Division of Mines and Geology, 1997, Guidelines for Evaluating and Mitigating Seismic Hazards in California: California Division of Mines and Geology, Special Publication 117.

California Division of Mines and Geology, 1998a, Maps of known Active Fault Near-Source Zones in California and adjacent portions of Nevada to be used with 1997 Uniform Building Code.

California Division of Mines and Geology, 1998b, Seismic Hazard Zones, Los Angeles Quadrangle, Preliminary Map, September 30, 1998.

County of Los Angeles, 1990, Hazard Reduction in Los Angeles County, Technical Appendix to the Safety Element of the Los Angeles County General Plan: County of Los Angeles Department of Regional Planning, California, dated December, 1990.

Dibblee, T.W., 1989, Geologic Map of the Los Angeles Quadrangle, Los Angeles County, California: Dibblee Geological Foundation Map #DF-22, Scale 1:24,000.

Hart, E.W., 1997, Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps: California Division of Mines and Geology, Special Publication 42.

Jennings, C.W., 1994, Fault Activity Map of California and Adjacent Areas: California Division of Mines and Geology, Geologic Data Map No. 6, Scale 1:750,000.

Lamar, D.L., 1970, Geology of the Elysian Park-Repetto Hills Area. Los Angeles County, California: California Division of Mines and Geology, Special Report 101.

Peterson, M.D., Bryant, W.A., Cramer, C.H., Cao, T., and Reichle. M.S., 1996, Probabilistic Seismic Hazard Assessment for the State of California: California Division of Mines and Geology, Open-File Report 96-08.

Working Group on California Earthquake Probabilities. 1995, Seismic Hazards in Southern California: Probable Earthquakes, 1994 to 2024: Bulletin of the Seismological Society of America, Vol. 85, No. 2, pp. 379-439, April 1995.

Yerkes, R.F., McCulloh, T.H., Schoellhamer, J.E., and Vedder, J.G., 1965, Geology of the Los Angeles Basin California - An Introduction, Geology of the Eastern Los Angeles Basin, Southern California: U.S. Geological Survey, Professional Paper 420-A.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	SM	SILTY SANDS, SAND - SILT MIXTURES
			SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Dual symbols are used to indicate gravels or sand with 5-12% fines and soils with fines classifying as CL-ML. Symbols separated by a slash indicate borderline soil classifications.

Other Material Symbols

- Moderately to highly weathered Puente Formation
- Slightly weathered Puente Formation
- Sandstone, Puente Formation

Sampler and Symbol Descriptions

- Dames & Moore Type-U sample
- Standard Penetration Test
- No Recovery
- Bk Bulk sample
- Disturbed Type-U Sample
- Pitcher Tube Sample
- Shelby Tube Sample
- Rock Core Sample
- Approximate depth of perched water or groundwater

Note: Number of blows required to advance driven sample 12" (or length noted) is recorded; blow count recorded for seating interval (initial 6" of drive) is indicated by an asterisk.

Laboratory and Field Test Abbreviations

CBR	California Bearing Ratio Test
COL	Collapse Potential test (test result in parentheses)
COMP	Compaction test
CON	Consolidation test
CORR	Corrosivity test
DSCD	Consolidated drained direct shear test (normal pressure and shear strength results shown)
EI	Expansion Index test (test result in parentheses)
LL=29	Liquid limit (Atterberg limits test)
PI=11	Plasticity Index (Atterberg limits test)
PP	Pocket Penetrometer test (test result in parentheses)
R-Value	Resistance Value test
SA	Sieve Analysis (-200 result in parentheses)
SE	Sand Equivalent test (test result in parentheses)
SWELL	Swell Load test (test result in parentheses)
TV	Torvane test (test result in parentheses)
-200	Percent passing #200 sieve (test result in parentheses)

KEY TO LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

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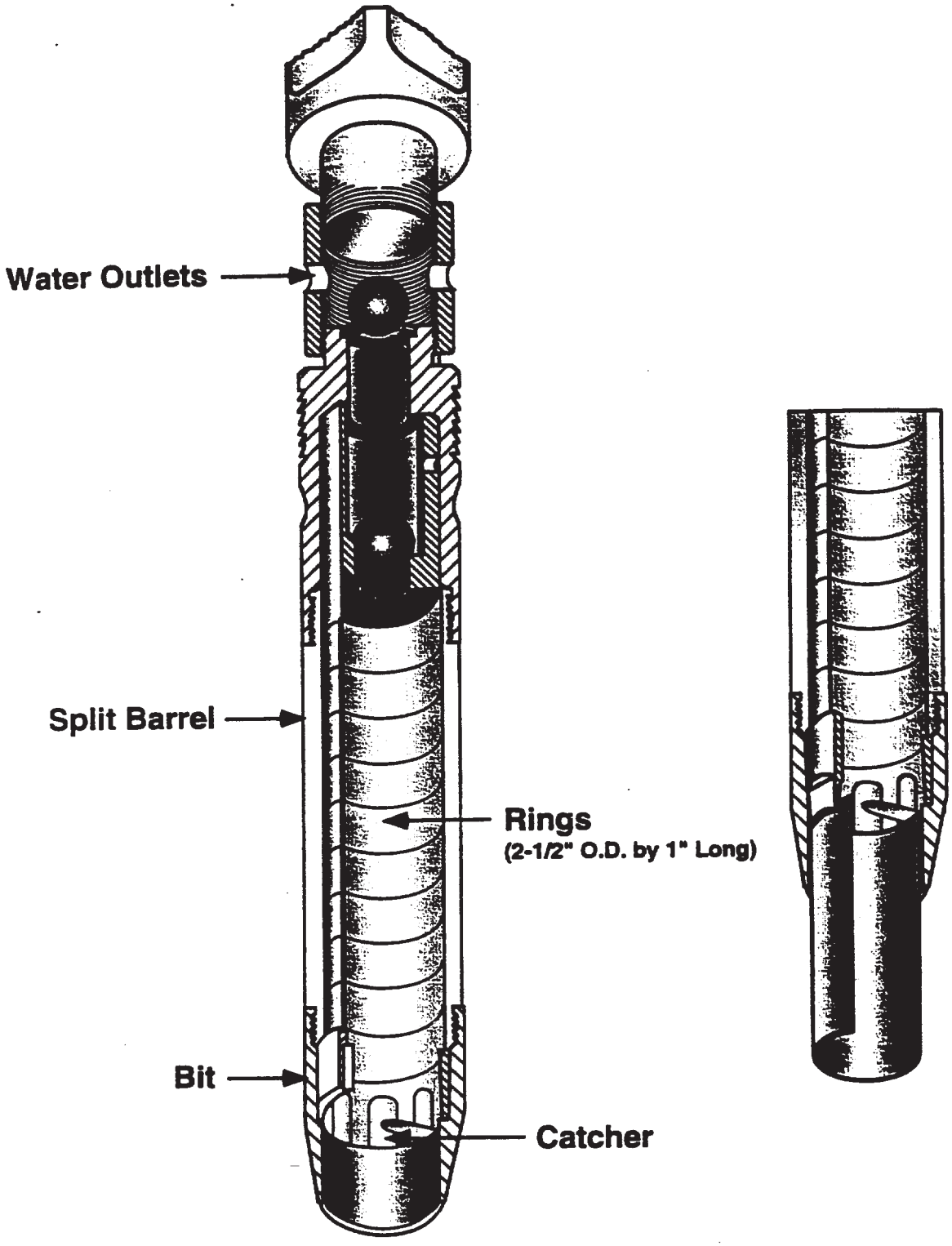
Figure B-1



TYPE U SAMPLER

Date(s) Drilled	11/11/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 21-feet		
Comments	Monitoring Well LAC MW-1 Installed		

Boring LAC B- 1

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	347.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					SM	4-inch thick Concrete Pavement FILL: Brown silty fine SAND, slightly moist (dense)				
340							PUENTE FORMATION: Light brown SANDSTONE, moderately to highly weathered, slightly moist				
	10	■		60				16			
		■		50/4"			Grades mottled brown and gray	27	96		
330											
	20	■		50/5"			Grades brown to light brown, wet	19			
		■		70/6"			Grades mottled brown and gray	31	94		
320											
	30	■		50/5"			Mottled yellowish-brown and gray SILTSTONE and SANDSTONE, moist, bedding dips at 45 degrees	22	108		
		■		75/5"				26	99		
310											
	40	■		50/5"				25	105		
		■		75/6"			Grades slightly weathered	15	107		
300											
	50	■		50/4"				20	110		
290											
	60	■		100/5.5"				21			

Bentonite chips
#3 Lonestar Sand
Schedule 40 PVC Screen with 0.02 slo openings
Bottom Well Cap
Bentonite chips
CON

Report DMG15; Project File: C:\PROGRA~1\GINT\WLACUSC1.GPJ; Data Template DMLA.GDT Printed 1/5/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-3

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B- 1

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TES REMARK AND WEL DESCRIPTION
280	70			100/6"				17			
270	80										
260	90										
250	100										
240	110										
230	120										
220	130										
210	140										

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Figure B-3

Date(s) Drilled	10/30/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments			

Boring LAC B- 2

Sheet 1 of 2

Job Number	00499-089-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	338.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	5-inch thick Asphaltic Concrete Pavement			
						SM	FILL: Mottled brown and gray silty fine to medium SAND with fine gravel, moist (very dense)			
				50/6"			ALLUVIUM: Mottled brown and gray silty fine to medium SAND, moist (very dense)	10	107	-200(25) CORR
330	10			50/6"				15		
				65			PUENTE FORMATION: Brown SILTSTONE, moderately to highly weathered	24	102	-200(85)
320	20			57			Grades mottled yellowish-brown and gray	26	97	
				50/6"						CON
310	30			63			Grades mottled dark brown and gray, slightly weathered	28	97	
				60				37	84	
300	40			60				32	91	
				50/5"				40	79	CON
290	50			82				43	78	
				50/4"			Grades dark gray			
280	60			50/3"				35	84	

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-4

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B- 2

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REMA
270	70			50/4"				36	87	
				80				24		
260	80									
250	90									
240	100									
230	110									
220	120									
210	130									
200	140									

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Figure B-4

Date(s) Drilled	10/13/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 45-feet		
Comments			

Boring LAC B- 3

Sheet 1 of 1

Job Number	00499-069-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	339.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	FILL: Brown silty fine SAND with some coarse gravel, slightly moist (very dense)			
						SM	ALLUVIUM: Brown silty fine to medium SAND, slightly moist (very dense)	10	105	-200(21) CORR
330	10			50/3"			Grades light brown	6		-200(11)
				50			Grades yellowish-brown	14		-200(26)
320	20			22			PUENTE FORMATION: Greenish-gray to brownish-yellow SILTSTONE, moderately to highly weathered, moist	29	96	
				30				30	92	CON
310	30			50/5"			Grades mottled dark brown and gray, slightly weathered	27	94	
				20/5"				26	97	
300	40			50/5"				25	96	
				60/6"			Grades wet	27	94	
290	50			50				18	108	
				50				16	96	
280	60							21	89	

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LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

Figure B-5

Date(s) Drilled	10/20/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Data Measured	Groundwater encountered at a depth of 24-feet		
Comments			

Boring LAC B- 4

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	342.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
340	0					SM	6-inch thick Asphaltic Concrete Pavement FILL: Reddish-brown silty fine to coarse SAND with some fine gravel, slightly moist (very dense)			
				55				5	102	
						SM	ALLUVIUM: Brown silty fine to medium SAND, moist (very dense)			
	10			79				10	101	
330							PUENTE FORMATION: Yellowish-brown to brown SILTSTONE and SANDSTONE, moderately to highly weathered, moist, bedding dips at 30 degrees			
				38				33	90	
	20			57			Grades mottled yellowish-brown and gray	37	87	
320							Grades wet			
				32				16	103	
							Grades dark brown, slightly weathered			
	30			40				30	90	
310										
				33				41	79	
	40			62				26	98	
300										
				50/6"				27	93	
	50			50/5"				25	100	
290										
				50/3"				22	97	
	60			50/3"			Grades mottled gray and dark brown	24	102	
280										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-6

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-4

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
				50/5"				22	96	
270	70			50/4"						
260	80									
250	90									
240	100									
230	110									
220	120									
210	130									
200	140									

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Figure B-6

Date(s) Drilled	11/3/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 43-feet		
Comments			

Boring LAC B- 5

Sheet 1 of 1

Job Number	00498-089-015
Total Depth Drilled (ft)	64.0
Approximate Ground Surface Elevation(ft)	346.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SC	**FILL:** Brown clayey fine to coarse SAND, moist (very dense)			
						SM	**ALLUVIUM** Reddish-brown silty fine to medium SAND, moist (very dense)			
340		■		50/4"				8	122	
	10	◪		50/5"			Grades light brown	8		-200(32) CORR
330		■		50/6"			**PUENTE FORMATION:** Mottled gray, dark brown and brown SILTSTONE, moderately to highly weathered, moist			
	20	■		40/6"				33	87	CON
320		■		50/6"						
	30	◪		60				34	88	
310		◪		50/5"			Grades mottled brown and gray, slightly weathered	24	106	
	40	◪		62			Bedding dips at 54 degrees	29	90	
							Grades wet			
300		◪		77			Bedding dips at 40 degrees	26	97	
	50	◪		60/6"						
290										
	60									

Report: DMG4, Project File: C:\PROGRA~1\GINTW\LACUSC1.GPJ, Data Template DMLA.GDT Printed 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-7

Date(s) Drilled	11/5/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 40-feet		
Comments			

Boring LAC B- 7

Sheet 1 of 2

Job Number	00499-069-015
Total Depth Drilled (ft)	70.0
Approximate Ground Surface Elevation(ft)	344.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	FILL: Reddish-brown silty fine to coarse SAND with some fine to medium gravel, moist, (dense)			
340						SM	ALLUVIUM Brown silty fine to medium SAND, moist (very dense)	8		
	10			53/6"				8		
				50/5"						
330				50/5"			Grades mottled brown and gray	20	105	
	20			40				27	105	-200(87)
320				50			PUENTE FORMATION: Mottled brown and gray SILTSTONE, slightly weathered, moist, bedding dips at 45 degrees	33	85	
	30			70			Grades mottled dark brown and greenish-gray	29	104	
310				87				25	95	
	40			90			Grades wet	21	111	
300				53/6"				27	93	
	50			70/6"						
290				56/6"			Bedding dips at 50 degrees	20	94	
	60			50/4"			Grades gray to black	7		
280										

Report DMG4, Project File C:\PROGRA~1\GINTW\LACUSC1.GPJ, Data Template DMLA.GDT Printed 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-8

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER T and REM
	70			65/6"				20	94	
				70				18		
270	80									
260	90									
250	100									
240	110									
230	120									
220	130									
210	140									
200										

Report: DMG4; Project File: C:\PROGRA~1\GINTW\LACUSC1.GPJ; Data Template: DMLA.GDT Printed: 1/4/99

DCM GROUP DAMES & MOORE

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Figure B-8

Date(s) Drilled		Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments			

Boring LAC B- 8

Sheet 1 of 2

Job Number	00498-058-015
Total Depth Drilled (ft)	81.5
Approximate Ground Surface Elevation(ft)	383.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SP-SC	**FILL:** Dark brown fine SAND with clay, moist (medium dense)			
350				23				19	97	-200(11) LL=46, PI=27
						SM	**ALLUVIUM:** Brown silty fine to medium SAND, moist (very dense)			
	10			50/3"				9	95	200(20)
340				50/4"				4	96	-200(7)
	20			60/6"				10		-200(14) CORR
330				50			**PUENTE FORMATION:** Mottled greenish-gray and yellowish-brown SILTSTONE and SANDSTONE, moderately to highly weathered, moist	35	87	
	30			62				31	88	
320				40			Grades mottled gray and dark brown, bedding dips at 45 degrees	32	89	
	40			50			Grades yellowish-brown			
310				50/4"				32	89	
	50			91				27	91	
300				50/5"				24	96	
	60			50/5"				26		
290										

Report: DMG4; Project File: C:\PROGRA~1\GINTW\LACUSC1.GPJ; Data Template DMLA.GDT Printed 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-9

DAMES & MOORE GROUP

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B- 8

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REMA
				57/6"				20	97	
	70			50/6"				22	92	
280				50/4"				19	96	
	80			50/6"				17	85	
270										
	90									
260										
	100									
250										
	110									
240										
	120									
230										
	130									
220										
	140									
210										

Report: DMG4; Project File: C:\PROGRA~1\GINTW\LACUSC1.GPJ; Data Template DMLA.GDT Printed: 1/4/99

DAMES & MOORE GROUP

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Figure B-9

Date(s) Drilled	10/21/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 20-feet		
Comments			

Boring LAC B- 9

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	346.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SC	3-inch thick Asphaltic Concrete Pavement			
							FILL:			
						SM	Reddish-brown clayey fine to coarse SAND, moist (very dense)			
340				57			ALLUVIUM: Brown silty fine to medium SAND, moist (very dense)	12	108	-200(29)
	10			60/6"						
						SP-SM	Brown fine to medium SAND with silt, moist (very dense)			
330				50				6	107	-200(12)
	20			50			▼ Grades mottled gray and brown, wet	20	118	-200(8)
						SM	Brown silty fine to medium SAND, wet (very dense)			
320				50/4"				24	97	-200(25)
	30			50/5"			PUENTE FORMATION: Mottled greenish-gray and yellowish-brown SILTSTONE and SANDSTONE, slightly weathered, moist	32	89	
310				50			Grades mottled greenish-gray, dark brown and yellowish-brown	27	96	
	40			50/3"				39	85	
300				50/5"				17	104	
	50			50/6"				18	94	
290				50/5"				18	95	
	60			55/6"				16	100	
280										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-10

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REM
280				50/6"				15	106	
	70			50/4"				17		
270										
	80									
260										
	90									
250										
	100									
240										
	110									
230										
	120									
220										
	130									
210										
	140									
200										

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Figure B-10

Date(s) Drilled	10/20/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 19.5-feet		
Comments			

Boring LAC B-10

Sheet 1 of 1

Job Number	00499-058-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	340.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
340	0					SM	**FILL:** Reddish-brown silty fine to coarse SAND with some fine gravel, slightly moist (dense)			
						SM	**ALLUVIUM:** Reddish-brown silty fine to medium SAND, slightly moist (very dense)	5	106	-200(13)
						ML	Yellowish-brown to gray clayey SILT, with some sand, slightly moist (hard)			
330	10			50/6"				25	82	-200(88) LL=49, PI=13
				56		CH	Yellowish-brown to gray CLAY, slightly moist (hard)			
				43				24	103	LL=53, PI=34
320	20			54			Grades wet	25	91	
				11		SM	Mottled gray and brown silty fine to medium SAND, wet (loose)			
						SP	Mottled gray and brown fine to medium SAND, wet (very dense)			
310	30			60/6"				15	112	-200(4)
				44			**PUENTE FORMATION:** Mottled gray and brown SILTSTONE and CLAYSTONE, slightly weathered	29	95	
300	40			39				34	88	
				50/5"				28	93	
290	50			52/6"				30		
				55/6"				31		
280	60			50/5"				35	80	

Report DMG4, Project File C:\PROGRA~1\GINTW\LACUSC1.GPJ, Data Template DMLA.GDT Printed 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

Figure B-11

Date(s) Drilled	10/28/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 44-feet		
Comments			

Boring LAC B-11

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	91.5
Approximate Ground Surface Elevation(ft)	374.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	6-inch thick Asphaltic Concrete Pavement over 3-inch thick Aggregate Base			
370						CL	FILL: Brown silty fine SAND with some fine gravel, moist (medium dense)			
		■		6			COLLUVIUM: Dark brown silty CLAY, moist (soft)			LL=40, PI=19
	10	◪		38			PUENTE FORMATION: Brown SILTSTONE, moderately weathered	29	92	
360		■		25						
	20	◪		50/5"				19		DSCD 1500, 3000, 6000 1464, 2484, 4548
350		■		35				22	99	
	30	◪		37				24	101	
340		■		52/6"				25	97	CON
	40	◪		41				36	84	
330		■		50/5"			Grades wet	36	84	CON
	50	◪		60				34	89	
320		◪		56			Bedding dips at 55 degrees	29	95	
	60	◪		69			Grades dark gray, slightly weathered Bedding dips at 67 degrees	34	86	
310										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-12

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-1

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
				49			Grades mottled greenish-gray and dark brown	56	72	
	70			50				36	84	
300				65			Grades dark brown, bedding dips at 67 degrees	40	84	
	80			50/6"				24	92	
290				57/6"				23	105	
	90			93				27	98	
280										
	100									
270										
	110									
260										
	120									
250										
	130									
240										
	140									
230										

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Figure B-12

Date(s) Drilled	10/23/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 19.5-feet		
Comments			

Boring LAC B-12

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	59.5
Approximate Ground Surface Elevation(ft)	343.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SP	FILL: Reddish-brown fine to coarse SAND with some fine gravel, moist (dense)			
340						SM	ALLUVIUM: Reddish-brown silty fine to medium SAND, moist (very dense)	29	95	
				50/4"						
	10			49		ML-CL	Brown to brownish-yellow clayey SILT to silty CLAY, moist (hard)	34	86	
330										
				36				21	100	
	20			50/5"			PUENTE FORMATION: Gray silty SANDSTONE, moderately to highly weathered, wet	22	101	
320										
				50/5"						
	30									
310				50/6"				22	102	
							Dark gray to dark brown SILTSTONE, slightly weathered, moist			
				50/5"				42	79	
	40									
300				50/4"				39	82	
				50				13	109	
	50									
290				50/5"				9	108	
				50/5"				20	104	
	60									
280										

Report: DMG4, Project File: C:\PROGRA~1\GINT\W\LACUSC1.GPJ, Data Template DMLA.GDT Printed 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-13

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Date(s) Drilled	10/27/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 29-feet		
Comments			

Boring LAC B-13

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	101.5
Approximate Ground Surface Elevation(ft)	372.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
370	0						6-inch thick Asphaltic Concrete Pavement **PUENTE FORMATION:** Brown to yellowish-brown SILTSTONE, moderately to highly weathered, slightly moist			
		■		50/5"				25	98	
	10	◪		50			Grades brown, slightly weathered	24	80	
360		■		50				23	99	
	20	◪		80				26	98	
350		■		57/6"						DSCD 2000, 4000, 8000 1825, 3372, 5644
	30	◪		50/6"			Grades wet	24	93	
340		■		50/5"				29	93	
	40	◪		70			Grades mottled gray and brown	36	80	
330		■		50/6"				39	83	
	50	◪		65				41	81	
320		■		55/6"				41	82	
	60	◪		55/6"			Grades gray	41	78	
310										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-14

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-13

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TES and REMA
		■		50/4"			Grades mottled dark brown and dark gray	33	90	
	70	◪		50/5"				27	95	
300										
		■		50/4"				27	93	
	80	◪		60/6"						
290										
		◪		50/5"				24	95	
	90	◪		60/6"				22	89	
280										
		◪		50/6"				24	86	
	100	◪		70/6"				19	105	
270										
	110									
260										
	120									
250										
	130									
240										
	140									
230										

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Figure B-14

Date(s) Drilled	10/29/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 43-feet		
Comments			

Boring LAC B-14

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	81.5
Approximate Ground Surface Elevation(ft)	383.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					ML	9-inch thick Asphaltic Concrete Pavement			
360							COLLUVIUM: Brown clayey SILT, slightly moist (hard)			
				46				13	108	-200(85)
	10			50/6"			PUENTE FORMATION: Brown SANDSTONE, dry	10		SA (34)
350										
				85			Grades moist	11	98	
	20			50/4"			Light brown to brown SILTSTONE, moderately to hightly weathered, moist (dense)	22	107	
340										
				52/6"				25	91	
	30			50/4"				24	104	
330										
				50/5"			Grades mottled light brown and gray	32	90	
	40			50				31	97	
320							Grades wet			
				50/6"			Grades greenish-gray, slightly weathered	37	86	
	50							24	112	
310										
			NR	80						
	60			61/6"			Grades dark brown			
300										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-15

DAMES & MOORE GROUP

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Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TE and REMA
	70			65/6"			Grades mottled gray and dark brown			
290				50/1"						
	80			70/6"						
280				78/6"						
	90									
270										
	100									
260										
	110									
250										
	120									
240										
	130									
230										
	140									
220										

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Figure B-15

Date(s) Drilled	11/4/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments			

Boring LAC B-15

Sheet 1 of 1

Job Number	00499-089-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	352.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
350	0					CL	**ALLUVIUM:** Dark brown CLAY			
						SM	Brown silty fine to medium SAND with some gravel, moist (very dense)			
				83				6	91	SA(26)
	10			50/5"				5		
340							**PUENTE FORMATION:** Mottled brown and gray CLAYSTONE and SANDSTONE, moderately to highly weathered, moist			
				35				8	114	
							Brown SANDSTONE, moist			
	20			50/6"				5	94	
330										
				50/5"			Grades wet	19	106	-200(26)
							Mottled brown, dark brown and yellowish-brown CLAYSTONE, moderately to highly weathered, moist			
	30			50/5"				19	90	LL=54,PI=31
320										
				50				43	83	
							Mottled brown, dark brown and yellowish-brown SILTSTONE, moderately to highly weathered, moist			
	40			50/4"				32	67	
310										
				50/6"				23	94	
	50			50/2"				24	92	
300										
				50/3"				29		
	60			53/6"				27	101	
290										

Report DMG4. Project File C:\PROGRA~1\GINTW\LACUSC1.GPJ. Data Template DMLA.GDT Printed: 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-16

DAMES & MOORE GROUP

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Date(s) Drilled	11/13/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 35-feet		
Comments			

Boring LAC B-16

Sheet 1 of 1

Job Number	00499-059-016
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	347.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					CL	**ALLUVIUM:** Dark brown CLAY			
						ML	Brown medium to coarse sandy SILT, moist (very loose)			
340		■		6				18	106	-200(83)
	10	◪		50/6"		SM	Brown silty fine to medium SAND, moist (very dense)	10	90	-200(24)
		■		50/4"				12	107	
330										
	20	◪		66			**PUENTE FORMATION:** Mottled brown and gray CLAYSTONE, moderately to highly weathered, moist	27	94	
		■		46				22	102	
320							Brown SILTSTONE, slightly weathered, very moist to wet			
	30	◪		36				23	105	
		■		50/4"				19	115	-200(52)
310							Brown SANDSTONE, wet			
	40	◪		60/6"				17	116	-200(5)
		◪		52/6"			Grades dark brown	19	112	
300							Dark brown SILTSTONE, slightly weathered, moist			
	50	◪		50				34	87	
		◪		65/6"				35	88	
290										
	60	◪		50/6"						

Report DMG4; Project File C:\PROGRA~1\GINT\WLACUSC1.GPJ; Data Template DMLA.GDT Printed 1/4/99

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LOG OF BORING

GEOTECHNICAL INVESTIGATION
LAC + USC MEDICAL CENTER REPLACEMENT PROJECT
FOR: County of Los Angeles, Department of Public Works

Figure B-17

Date(s) Drilled	11/18/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 28-feet		
Comments	Monitoring Well LAC MW-17 Installed		

Boring LAC B-17

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	370.0

Elevation (ft)	Depth (ft)	SAMPLES Type	Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
370	0					CL	**ALLUVIUM:** Brown to reddish-brown silty CLAY with some fine sand, moist (very stiff)				
				37				16	102		Bentonite chips
											#3 Lonestar Sand
360	10			35			Grades with less sand	19	110		-200(82)
							PUENTE FORMATION: Brown SANDSTONE, moderately to highly weathered, dry				
				50/3"				7	11		Schedule 40 PVC Screen with 0.020 slot openings
350	20			74			Mottled yellowish-brown and gray, CLAYSTONE, moderately to highly weathered, slightly moist	28	93		-200(30) -200(94)
				50				25	102		CON DSCD 1000, 3000, 5000 1456, 2800, 3920
340	30			36				22	97		-200(56)
				50/4"			Brownish-yellow SILTSTONE AND SANDSTONE, moderately weathered, bedding dips at 45 degrees	23	102		
330	40			50				24	98		Bottom Well Cap
				50/3"			Grades greenish-gray to dark brown, slightly weathered	31	91		-200(83) -200(93)
320	50			50/5"							
310	60			50				21	98		

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-18

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-17

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TES REMARK AND WE DESCRIPTION
300	70			70/6"				16	90		
290	80										
280	90										
270	100										
260	110										
250	120										
240	130										
230	140										

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Figure B-18

Date(s) Drilled	10/23/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 26-feet		
Comments			

Boring LAC B-18

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	61.5
Approximate Ground Surface Elevation(ft)	362.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
350	0					SM	FILL: Brown silty fine to coarse SAND with some fine gravel, dry to slightly moist (dense)			
						SM	ALLUVIUM Brown silty fine to medium SAND, slightly moist (very dense)	7		
				50/5"						
340	10			74			PUENTE FORMATION: Gray to yellowish-gray SILTSTONE, moist, moderately to highly weathered	22	97	-200(85)
				50/5"				21	106	
							Mottled gray to yellowish-brown SANDSTONE, moist			
330	20			50/5"				15	107	
				60/6"			Grades wet	20	99	-200(13)
320	30			73			Mottled gray and yellowish-brownish SILTSTONE and CLAYSTONE, moderately to highly weathered, moist	48	73	
				50/4"			Mottled gray and yellowish-brown SANDSTONE, wet	35	84	
310	40			50/5"			Mottled dark gray to yellowish-brown SILTSTONE and SANDSTONE, moderately to highly weathered, moist, bedding dips at 40 degrees	31	74	
				50/6"				28	92	
300	50			50/5"				39	83	
290	60									

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-19

Date(s) Drilled	11/10/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 35-feet		
Comments	Monitoring Well LAC MW-19 Installed		

Boring LAC B-19

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	51.5
Approximate Ground Surface Elevation(ft)	348.0

Elevation (ft)	Depth (ft)	Sample Type	Sample Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					CL	**ALLUVIUM:** Dark brown CLAY				
						SM	Brown silty fine to medium SAND, slightly moist (very dense)				
				50/3"				5	105		-200(26)
340	10			50/5"				4			-200(22)
							PUENTE FORMATION: Brown CLAYSTONE, moderately to highly weathered, moist				#8 Enviroplug Bentonite
				50/3"				20	98		
330	20			50/3"			Brown SANDSTONE, moist	7			#3 Lonestar Sand -200(24)
				70			Mottled brown and gray CLAYSTONE, moderately to hightly weathered, moist	22	107		CON DSCD 1000, 2000, 40 1668, 1932, ?
320	30			44			Grades mottled brown, yellowish-brown and gray	23	106		
				50			Brown SANDSTONE, very moist	22	107		Schedule 40 PVC Screen with 0.020 slot opening
310	40			50/5"			Grades wet	21	113		-200(13)
				75/5"				18	104		Bottom Well Cap -2000(15)
300	50			100/3"			Dark gray SILTSTONE, slightly weathered, moist, bedding dips at 45 degrees	31			-200(95)
290	60										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-20

Date(s) Drilled	11/17/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	No groundwater encountered		
Comments	Monitoring Well LAC MW-20 Installed		

Boring LAC B-20

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	71.5
Approximate Ground Surface Elevation(ft)	349.0

Elevation (ft)	Depth (ft)	SAMPLES Type	Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					CL	FILL: Brown silty CLAY				
						SM	ALLUVIUM: Brown silty fine to medium SAND with some gravel, slightly moist (very dense)				Bentonite chips
340	10			50/2"				5			#3 Lonestar Sand
				60				10	100		SA(18)
330	20			60/6"				13			-200(33)
				50/4"			PUENTE FORMATION: Mottled greenish-gray and yellowish-brown SILTSTONE, moderately to highly weathered, slightly moist	30	95		-200(26)
320	30			50			Grades brown	27			-200(68) DSCD 1500, 3000, 6000 2108, 2974, 5028
				50/5"			Mottled dark brown and greenish-gray SILTSTONE, slightly weathered, slightly moist	34	87		Schedule 40 PVC Screen with 0.020 slot openings
310	40			50/5"			Grades mottled dark and gray, with crude oil staining	24	87		Bottom Well Cap -200(94) Bentonite chips
				80			Grades dark brown	30	89		-200(95)
300	50			65			Grades mottled dark brown and gray	16	104		
290	60			80/6"				18	102		

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-21

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-20

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TES REMARK AND WEL DESCRIPTION
280	70			60/3"				5	110		
270	80										
260	90										
250	100										
240	110										
230	120										
220	130										
210	140										

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DAMES & MOORE GROUP

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Figure B-21

Date(s) Drilled	11/12/98	Logged By	RAF
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 47-feet		
Comments	Monitoring Well LAC MW-21 Installed		

Boring LAC B-21

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	51.5
Approximate Ground Surface Elevation(ft)	330.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
330	0					SM	**FILL:** Brown silty fine to coarse SAND with some fine to coarse gravel, slightly moist (dense)				Portland cement
						SM	**ALLUVIUM:** Brown silty fine to medium SAND, slightly moist (very dense)				Bentonite chips
320	10			62			Grades brown to yellowish-brown	26	97		#3 Lonestar Sand
				70			Grades (dense)	22	100		
310	20			60			**PUENTE FORMATION:** Mottled gray and yellowish-brown SILTSTONE and SANDSTONE, moderately to highly weathered, slightly moist	30	96		Schedule 40 PVC Screen with 0.020 slot openings
				50/5"				35	88		
300	30			90			Grades gray, slightly weathered	30	110		
				50/4"				27	92		Bottom Well Cap
290	40			60			Bedding dips at 44 degrees	39	89		Bentonite chips
				100/6"			Grades wet	26	93		
280	50			60				39	93		
270	60										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-22

DAMES & MOORE GROUP — A DAMES & MOORE GROUP COMPANY

Date(s) Drilled	10/6/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 21.5-feet		
Comments	Downhole Seismic Refraction Survey Performed		

Boring LAC B-22

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	101.5
Approximate Ground Surface Elevation(ft)	331.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
330	0					CL	4-inch thick Asphaltic Concrete Pavement **ALLUVIUM:** Brown silty CLAY with some sand, slightly moist				Cement-Bentonite Grout
				15		SM	Yellowish-brown to yellowish-red silty fine SAND with some clay, moist (medium dense)				
320	10			22			**PUENTE FORMATION:** Mottled yellowish-brown and greenish-gray SANDSTONE, moderately to highly weathered, moist				
				33							
310	20			30			Grades wet				
				31							
300	30			16			Yellowish-brown to dark brown SILTSTONE, moderately to highly weathered, slightly moist				Schedule 40 PVC Pipe
				30							
290	40			33			Grades light gray with sand layers				
				50							
280	50			38			Grades dark brown				
				49							
270	60			40			Grades mottled gray, dark brown and yellowish-brown				

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-23

DCM GROUP DAMES & MOORE

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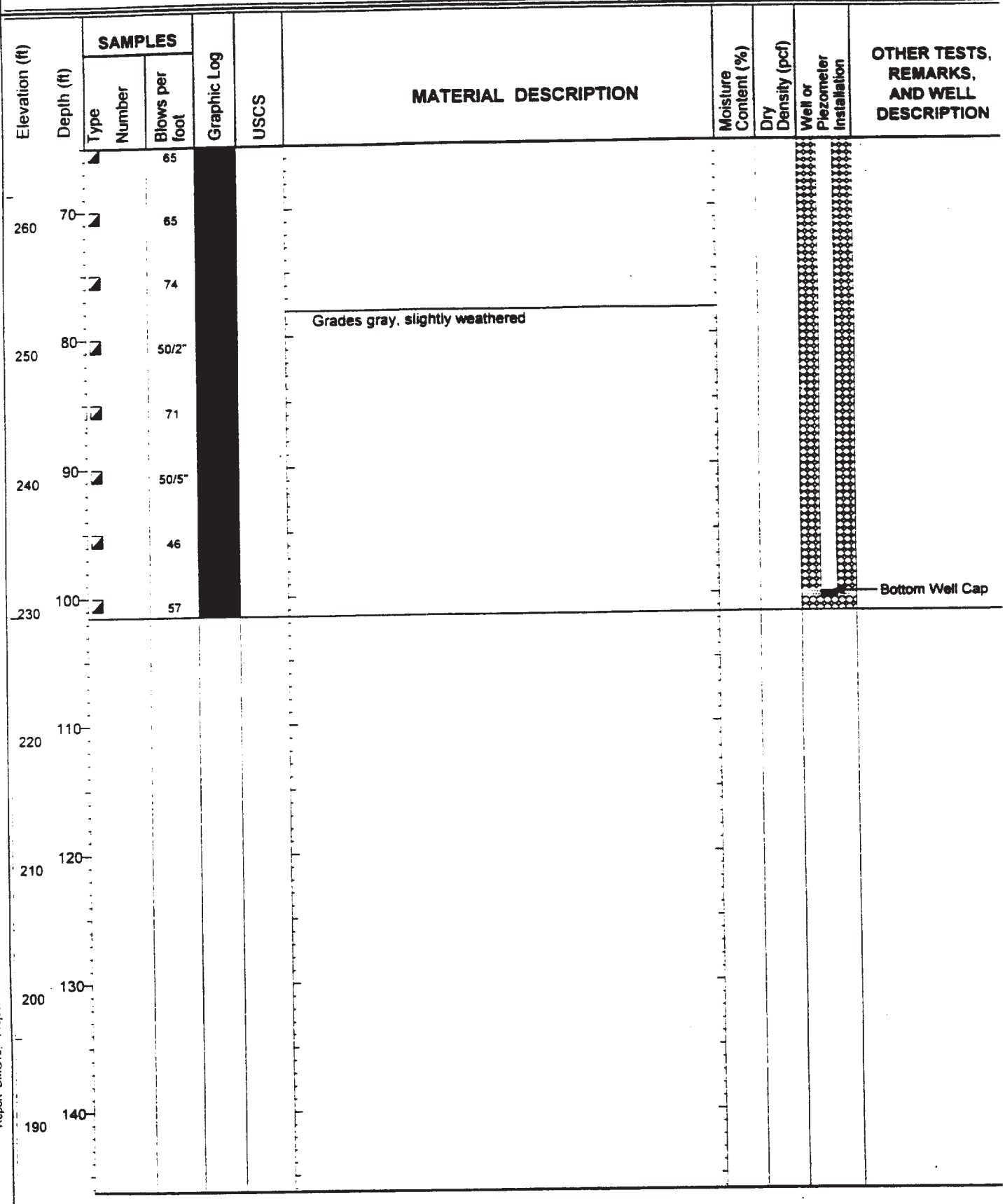
GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-22

Sheet 2 of 2



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DAMES & MOORE GROUP

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Figure B-23

Date(s) Drilled	10/7/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	B-61	Hammer Data	140-lb., 30-in. drop
Sampling Method(s)	Dames & Moore Type-U, Standard Penetration Test		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 29.5-feet		
Comments	Downhole Seismic Refraction Survey Performed		

Boring LAC B-23

Sheet 1 of 1

Job Number	00499-059-015
Total Depth Drilled (ft)	30.0
Approximate Ground Surface Elevation(ft)	344.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
340	0					SM	2-inch thick Asphaltic Concrete Pavement				
							FILL:				
				37			Brown silty fine SAND (loose)				
						SC	2-inch thick Asphaltic Concrete Pavement over 4-inch thick Aggregate Base				Cement-Bentonite Grout
							Light brown clayey fine SAND, moist				
							PUENTE FORMATION:				
				32			Mottled greenish-gray and yellowish-brown SILTSTONE, moderately to highly weathered, slightly moist				
330	10			36							Schedule 40 PVC Pipe
				38							
320	20			43							
				36			▼ Grades wet				Bottom Well
310	30										
300	40										
290	50										
280	60										

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-24

DAMES & MOORE GROUP

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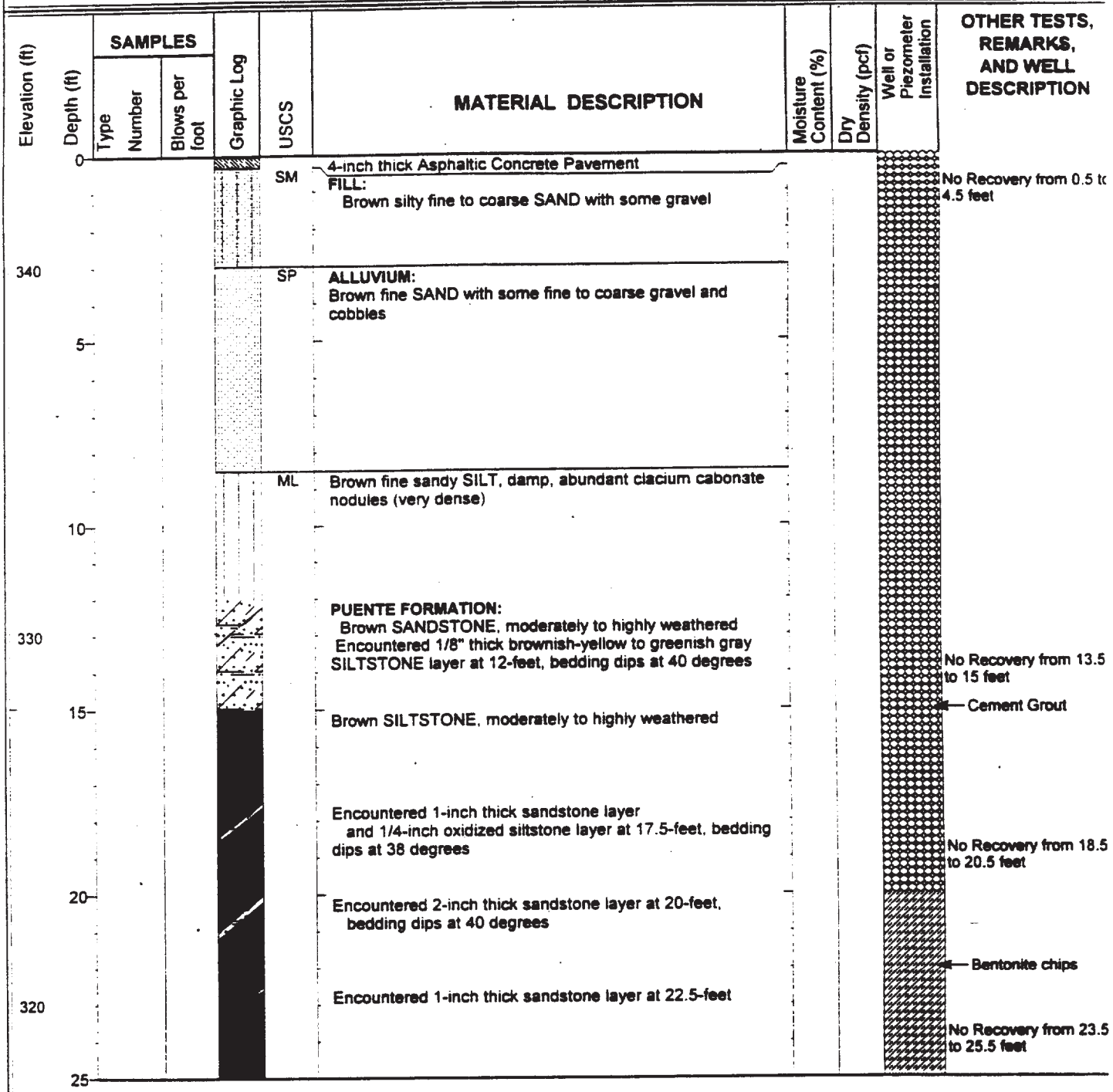
Date(s) Drilled	10/12/98	Logged By	PM
Drilling Method	Hollow Stem	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	CME 95	Hammer Data	
Sampling Method(s)	Continuous Core		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 25.5-feet		
Comments	Piezometer P-1 Installed		

Boring LAC B-24

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	44.0
Approximate Ground Surface Elevation(ft)	343.0



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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-25

DAMES & MOORE GROUP

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-24

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TES REMARK AND WE DESCRIPTION
	25						Grades wet				#3 Lonestar sand
							Encountered 1-inch thick Sandstone layer at 26.5-feet, bedding dips at 40 degrees				Piezometer
							Encountered 1-inch thick sandstone layer at 27.5-feet bedding dips at 40 degrees				No Recovery 28.5 to 31 feet
	30										Bentonite chips
310							Encountered 4-inch thick sandstone layer at 31.5-feet bedding dips at 45 degrees				
							Encountered 4-inch thick sandstone layer at 32-feet bedding dips at 45 degrees				
	35						Encountered 3-inch thick sandstone layer at 35.5-feet . bedding dips at 45 degrees				
							Encountered 2-inch thick sandstone layer at 37.5-feet, bedding dips at 45 degrees				No Recovery from 38.5 to 40.5 feet
	40										
							Encountered 1-inch thick sandstone layer at 41-feet, bedding dips at 45 degrees				
							Encountered 3-inch thick sandstone layer at 42-feet, bedding dips 45 degrees				
300							Encountered 2-inch thick sandstone layer at 42.5-feet, bedding dips at 45 degrees				
	45										
	50										
290											
	55										

Report DMG15, Project File C:\PROGRA~1\GINTW\LACUSC1.GPJ, Data Template DMLA.GDT, Printed 1/4/99

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Figure B-25

Date(s) Drilled	10-12-98	Logged By	PM
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	CME 75	Hammer Data	
Sampling Method(s)	Continuous Core		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 22-feet		
Comments	Piezometer P-2 Installed		

Boring LAC B-25

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	40.0
Approximate Ground Surface Elevation(ft)	343.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0						4-inch thick Asphaltic Concrete Pavement over 6-inch thick Aggregate Base				
						SM	FILL: Brown silty fine SAND				No recovery from 1 to 6 feet
340											
	5					CL	Dark brown CLAY, moist, very stiff				
							Grades with asphalt debris				
						GC	ALLUVIUM: Yellowish-brown clayey sandy GRAVEL, moist, very dense, 10-15% gravel and cobbles, subangular to subrounded				No recovery from 9 to feet
	10										Cement Grout
330							Grades brown				
							PUENTE FORMATION: Dark gray SILTSTONE, highly weathered				No recovery from 14 to 16 feet
	15										Bentonite chips
							Grades light brown to brownish-yellow, bedding dips at 5 degrees				
											No recovery from 19 to 21 feet
	20										#3 Lonestar sand
							Grades wet				Piezometer
320											
	25						Greenish-gray to brownish-yellow SILTSTONE and				

Report DMG15. Project File C:\PROGRA~1\GINTW\LACUSC1.GPJ. Data Template DMLA.GDT Printed 1/4/99

This log is part of the report prepared by Dames & Moore for this project and should be read together with the report. This summary applies only at the location of the exploration and at the time of drilling or excavation. Subsurface conditions may differ at other locations and may change at this location with time. Data presented are a simplification of actual conditions encountered.

LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Figure B-26

DAMES & MOORE

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GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-25

Sheet 2 of 2

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TES REMARK AND WE DESCRIPTION
	25						SANDSTONE, moderately to highly weathered, bedding dips 45 degrees				
	30										Bentonite chips
310							Encountered 1-inch thick sandstone layer at 32-feet, bedding dips 40 degrees				
	35						Encountered 1-inch thick sandstone at 32.5-feet, bedding dips 40 degrees Grades mottled dark greenish-gray and dark brown, slightly weathered				
	40						Encountered 1/4-inch thick siltstone layer at 37 feet, bedding dips 45 degrees				
300											
	45										
	50										
290											
	55										

Report DMG15, Project File C:\PROGRA~1\GINT\WLACUSC1.GPJ, Data Template DMLA.GDT Printed 1/4/99

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Figure B-26

Date(s) Drilled	10-13-98	Logged By	PM
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8-inch O.D.
Drill Rig Type	CME 75	Hammer Data	
Sampling Method(s)	Continuous Core		
Approximate Groundwater Depth and Date Measured	Groundwater encountered at a depth of 42-feet		
Comments	Piezometer P-3 Installed		

Boring LAC B-26

Sheet 1 of 2

Job Number	00499-059-015
Total Depth Drilled (ft)	45.0
Approximate Ground Surface Elevation(ft)	355.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Well or Piezometer Installation	OTHER TESTS, REMARKS, AND WELL DESCRIPTION
	0					SM	FILL: Brown silty fine SAND				No recovery from 0.5 to 4.5 feet
350	5					CL	Brown, CLAY, moist, very stiff, calcium carbonate lined peel faces				
						SP	ALLUVIUM: Yellowish-red SAND, dense, 10-15% gravel and cobbles, subangular to subrounded				No recovery from 9 to 1 feet
	10										
											No recovery from 14 to 15.5 feet
340	15										Cement Grout
							PUENTE FORMATION: Yellowish-red SANDSTONE, moderately to highly weathered				No recovery from 19 to 20.5 feet
	20						Encountered 1/8-inch thick layer diping at 10 degrees				
							Grades greenish-gray to brownish-yellow with very fine				No recovery from 24 to
330	25										

Report DMG15, Project File C:\PROGRA~1\GINTW\LACUSC1.GPJ, Data Template DMLA.GDT Printed 1/5/99

This log is part of the report prepared by Dames & Moore for this project and should be read together with the report. This summary applies only at the location of the exploration and at the time of drilling or excavation. Subsurface conditions may differ at other locations and may change at this location with time. Data presented are a simplification of actual conditions encountered.

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LOG OF BORING

GEOTECHNICAL INVESTIGATION

LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

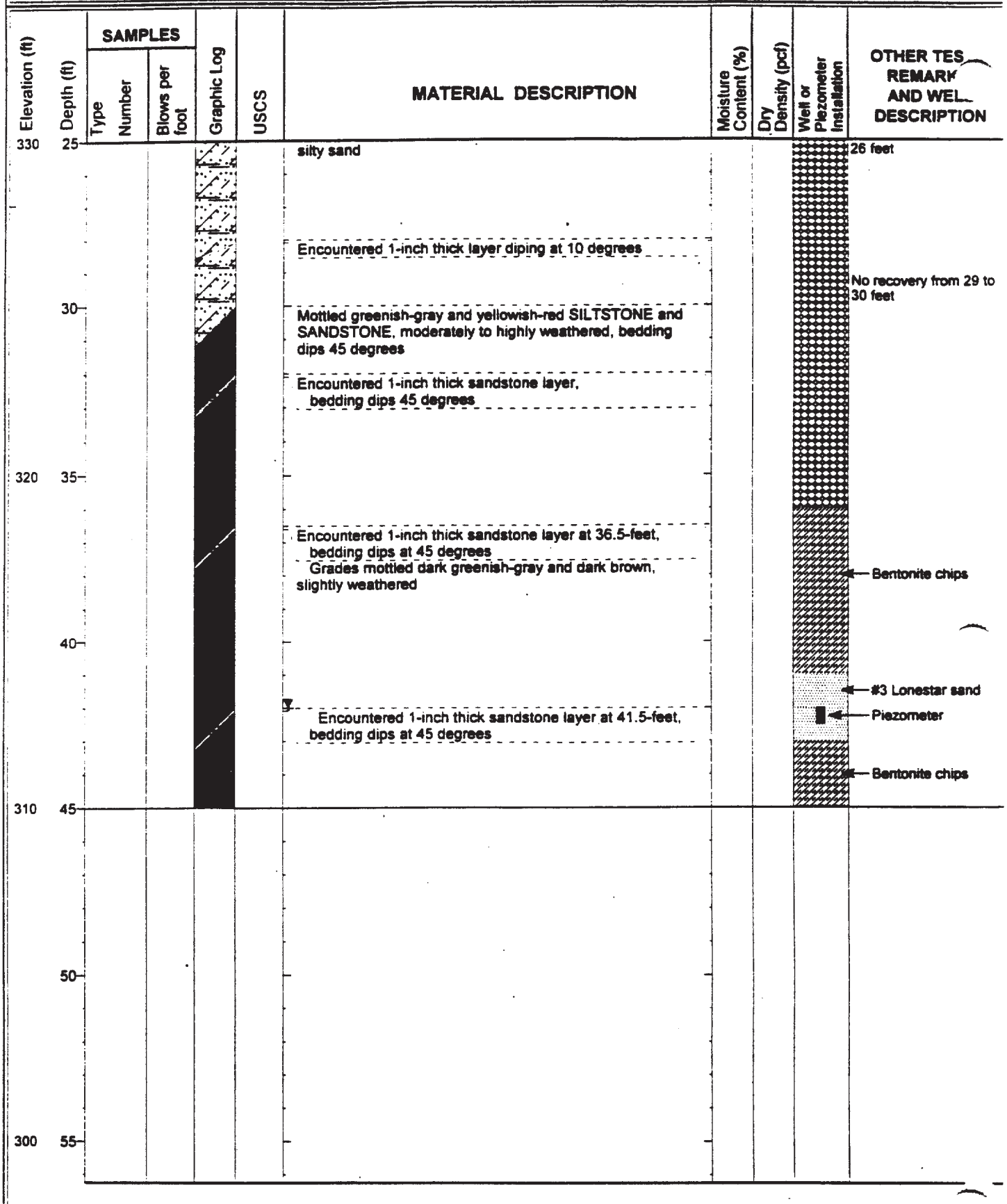
Figure B-27

GEOTECHNICAL INVESTIGATION LAC + USC MEDICAL CENTER REPLACEMENT PROJECT

FOR: County of Los Angeles, Department of Public Works

Boring LAC B-26

Sheet 2 of 2



Report DMG15, Project File C:\PROGRA~1\GINT\WLACUSC1.GPJ, Data Template DMLA.GDT Printed 1/5/99

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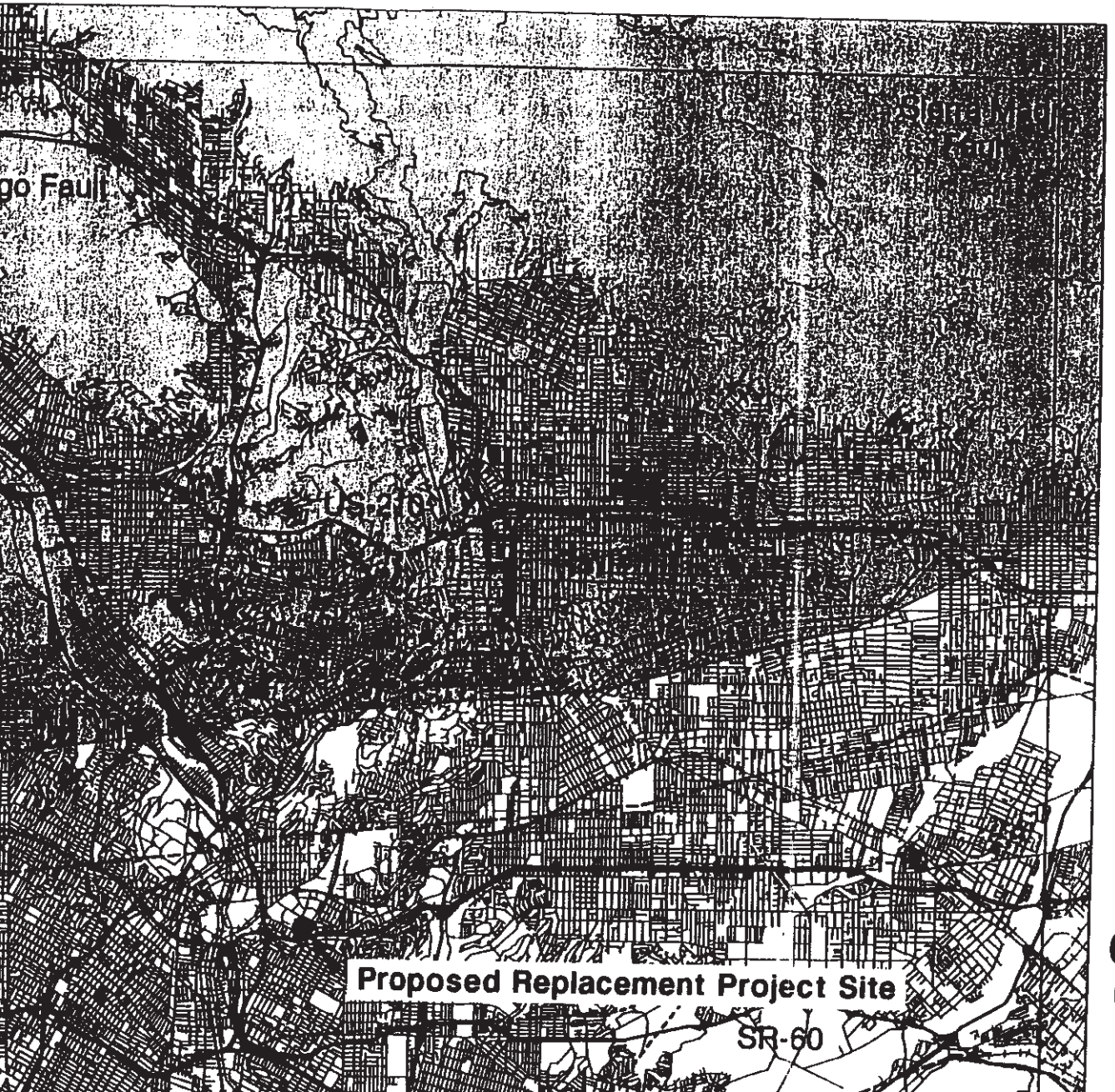
Figure B-27

lt Near-Source Zones

tended to be used in conjunction with
n Building Code, Tables 16-S and 16-T

M-32

California Department of Conservation
Division of Mines and Geology



LEGEND

See expanded legend and index map

Shaded zones are within 2 km of known seismic sources.

A fault

B fault

Contours of closest horizontal distance to known seismic sources.

5 km

10 km

15 km

0 5 10

Kilometers

DOWNHOLE SHEAR WAVE INVESTIGATION
Proposed Structures
County USC Medical Center
Los Angeles, California

RYLAND ASSOCIATES, INC.

Project Number 98-15-53

October 17, 1998

Prepared for
Dames and Moore
Los Angeles, California

INTRODUCTION

Downhole shear wave surveys were conducted at two sites on the proposed new County USC Medical Center complex in eastern Los Angeles, California. The purpose of this investigation was to determine shear wave velocities at intervals in the upper 100 feet of earth materials.

The survey made use of two borings (B22 & B23) drilled for site investigation. The survey was conducted in October, 1998.

METHODOLOGY

The location of the boring is shown on the project investigation map prepared by Dames and Moore. The survey was conducted in 100 foot (B22) and 30 foot (B23) vertical borings cased with two inch diameter plastic pipe.

Shear waves were generated using an 8 pound sledge hammer striking horizontally on the ends of a wooden plank coupled to the surface by the weight of a truck. To aid in the detection of shear waves on the seismic records the polarity of the energy source was reversed at each interval by striking opposite ends of the plank.

A downhole seismometer with three mutually perpendicular ground-motion sensitive transducers was placed in the boring. This geophone was secured at prescribed depths by an inflatable bladder.

At each depth energy was initiated into the ground and then reversed. A solid state accelerometer

BORING B23

Layer	Depth	Shear Wave Velocity
1	0-24 feet	1100 ft/sec
2	24-30	1620 (Based on one data point)

The upper 15 feet may be influenced by cultural activity including grading, construction, etc, as well as the grouting of the hole itself.

Some scatter in the data suggests some variations in the profile from these averaged velocities. These variations are relatively small and would not have significant influence on site response. Phase shifts and waveform changes may also introduce some error in the calculations. These horizons were based solely on geophysical data although boring logs were available for correlation. Data quality was generally just fair to good.

On B1, the velocity breaks agree grossly with the increase in blow counts. There is some indication of a somewhat lower velocity zone below 75 feet.

The compressional wave profile was more difficult to determine, probably due to construction or higher cement grouting near the surface. The data are as follows:

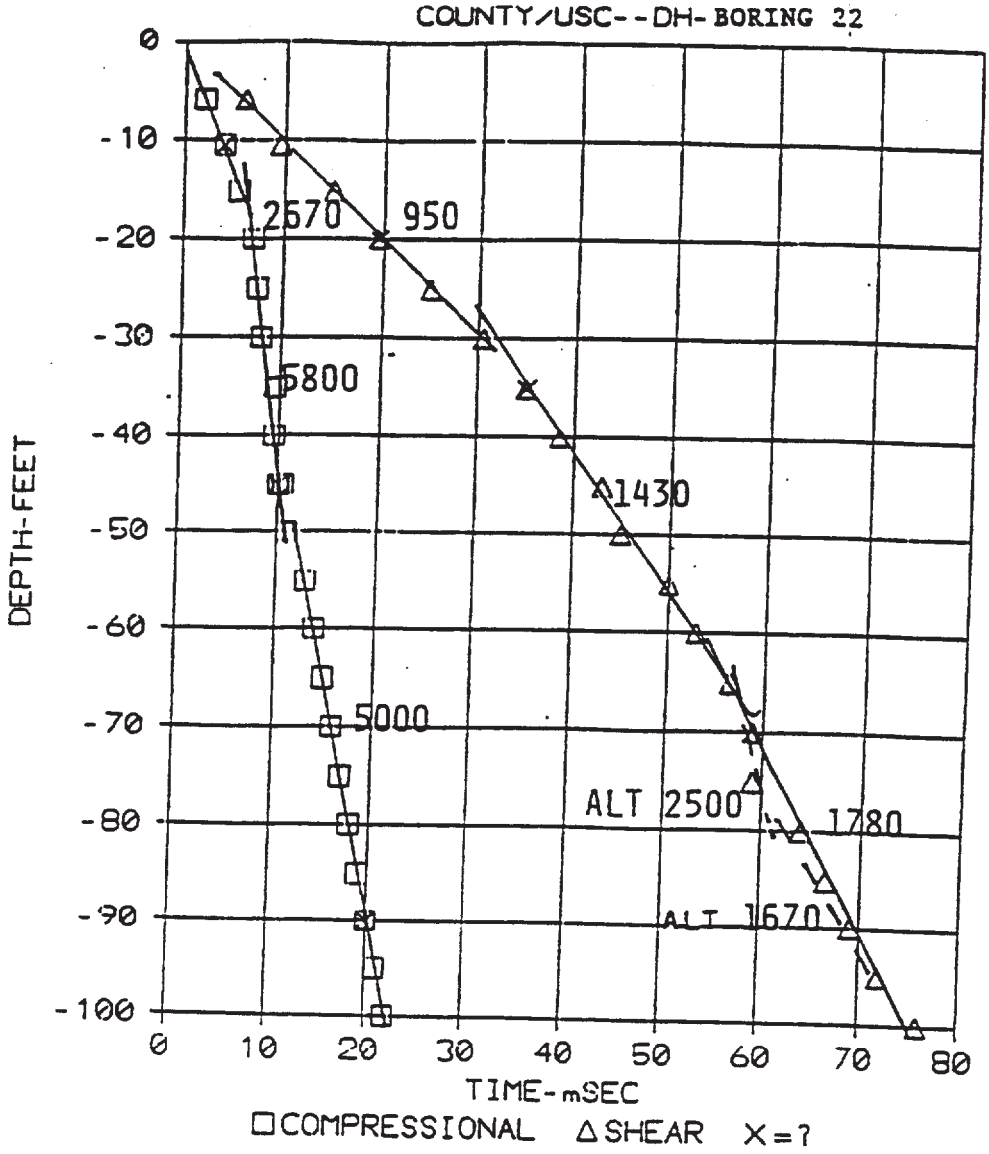
BORING B22

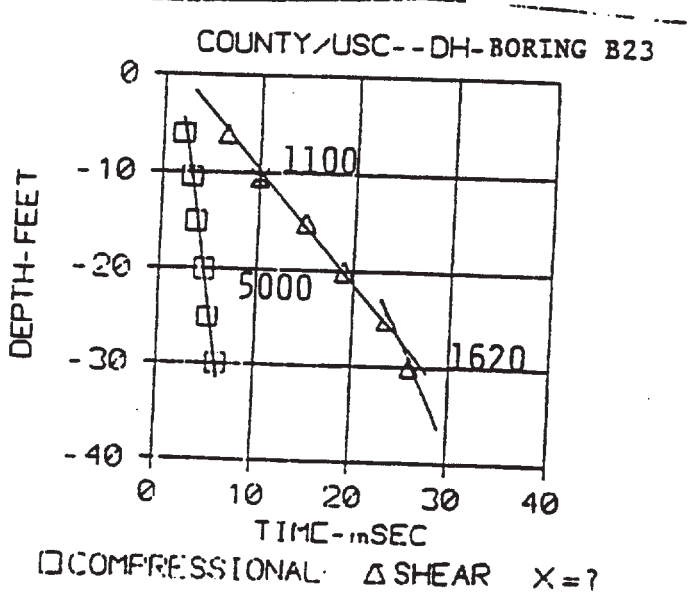
Layer	Depth	Compressional Wave Velocity
1	0-20 feet	2670 ft/sec
2	20-45	5800
3	45-100	5000

BORING B23

Layer	Depth	Compressional Wave Velocity
1	0-30 feet	5000 ft/sec

In Boring X, there is a rough correspondence of the velocity increase near the water table where velocities typical of saturated materials (5000+/- ft/sec) are encountered; this does not seem to be the case in BZ.


COUNTY/USC--DH-BORING 22
DEPTH-FEET
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
2670
950
5800
1430
5000
ALT 2500
1780
ALT 1670
0
10
20
30
40
50
60
70
80
TIME-mSEC
□COMPRESSIONAL Δ SHEAR X=?


COUNTY/USC--DH-BORING B23
DEPTH-FEET
0
-10
-20
-30
-40
1100
5000
1620
0
10
20
30
40
TIME-mSEC
□COMPRESSIONAL Δ SHEAR X=?

APPENDIX G

PHASE I ENVIRONMENTAL ASSESSMENT

DAMES & MOORE

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REPORT
PHASE I ENVIRONMENTAL SITE ASSESSMENT
LAC-USC MEDICAL CENTER
REPLACEMENT PROJECT
LOS ANGELES, CALIFORNIA

PREPARED FOR:
COUNTY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS
D&M JOB NO. 00499-059-015

JANUARY 5, 1999

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OTHER

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

911 Wilshire Boulevard, Suite 700
Los Angeles, California 90017
213 996 2200 Tel
213 996 2458 Fax

January 5, 1999

Mr. Bradford Bolger, Project Director
Medical Center Replacement Project
1200 North State Street, Box 121
Los Angeles, California 90033

Re: Report
Phase I Environmental Site Assessment
LAC-USC Medical Center
Replacement Project
Los Angeles, California
Dames & Moore Job No. 00499-059-015

Dear Mr. Bolger:

Transmitted with this letter is one copy of our report entitled "Phase I Environmental Site Assessment Update" for the LAC-USC Medical Center Replacement Project in the City of Los Angeles, California. We trust this report provides you with the information you require at this time. Should you have any questions regarding the information presented in this report, or need further assistance, please contact us.

Sincerely,
DAMES & MOORE

Robert A. Forster
Geologist

Richard N. Stout, R. G.
Managing Principal in Charge

S:\RAF\LAC-USC\PHASE_I\LACUSC_1.RPT

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FIGURES

Figure 1 - Vicinity Map

Figure 2 - Site Plan

APPENDICES

Appendix A - Site Photographs

Appendix B - EDR-Radius Map Report

EXECUTIVE SUMMARY

Presented in this report are the results of the Dames & Moore Phase I Environmental Site Assessment, conducted for the Los Angeles County-University of Southern California (LAC-USC) Medical Center Replacement Project.The scope of work performed is in accordance with our proposal to the County of Los Angeles Department of Public Works, dated May 20, 1998. The format and content of this Phase I ESA is in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process E-1527-97.

The purpose of this Phase I ESA was to review past and present land use practices and site conditions to assess potential environmental impacts and to identify Recognized Environmental Conditions (RECs) in connection with the subject property. By definition under ASTM designation E-1527, the term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The subject property at the time of the site visit included the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, Parking Structures #6 , #11, and #12, the former Burger King Restaurant, the former strip mall, and ten trailers used for office space. The LAC-USC Medical Center experienced severe damage during the 1994 Northridge Earthquake, and many of the buildings have been "red-tagged" since the event. The majority of the buildings in the Replacement Project have functionally deteriorated and are deficient to the point that they no longer are safe as part of the medical facility. The purpose of the Replacement Project is to remove the existing

buildings on the southern portion of the hospital campus and construct new medical facilities and a new Metropolitan Transportation Authority (MTA) Transit Center.

Recognized environmental conditions were not observed at the time of the site reconnaissance. However, one underground storage tank was observed adjacent to the former Pediatrics Pavilion. The tank was used to store diesel fuel for the emergency generator in the former Pediatrics Pavilion. On October 20, 1998, the tank was removed. At the time of this report, analytical results from the tank excavation were not available in order to determine whether the tank had leaked diesel fuel into the subsurface. This information will be supplied in the final version of this report.

Historical information about the subject property indicated that the first building for the hospital was constructed in 1878. Historical information reviewed by Dames & Moore indicated that the subject property has been used primarily for medical and residential buildings. In the 1970's, a gasoline service station and an automobile repair facility (Auto Service and Jasper Wrecking & Trucking) occupied the northern portion of Marengo Street, between Cummings and Chicago Streets. The automotive activities had been removed from the property by the end of the 1970's.

Dames & Moore reviewed readily available records regarding past and current site use, contacted applicable agencies regarding environmental concerns at the site, and reviewed the agency database list search for environmental concerns at surrounding properties. None of the hospital buildings on the subject property were reported in available agency databases. However, the gasoline service station and the automobile repair facility were included in databases indicating the presence of underground storage tanks. According to the databases, five USTs ranging in size from 200-gallons to 6,000-gallons were installed on the property in 1957 for the storage of gasoline and waste oil. No violations were reported. Based on our knowledge of these historical facilities, it is the opinion of Dames & Moore that there is a potential for either of these sites to have impacted the subject property.

Several of the LAC-USC Medical Center buildings not included in the current scope of work were also included in the agency database search. The LAC-USC Medical Center has up to fourteen registered USTs onsite, ranging in size from 300-gallons to 50,000-gallons, for the storage of gasoline, diesel, and waste oil. On November 7, 1988, a release of gasoline from an UST registered to the General Hospital at 1200 North State Street was reported to have impacted local groundwater. A pollution characterization study was conducted, but no remediation actions and no current status were reported in the database. Based on the upgradient location of this site from the subject property, the release from the General Hospital has the potential to have impacted the subject property.

Several subsurface investigations have been conducted at the LAC-USC Medical Center. Activities from these investigations have included soil, soil vapor, and groundwater investigations. Previous studies have indicated the following conclusions:

- The results of previous soil investigations indicated high total recoverable petroleum hydrocarbons indicative of severely degraded naturally occurring crude oil were found in several of the borings completed in the Puente Formation bedrock soils in the southern portion of the subject property, approximately 25 to 60 feet bgs.

  No significant concentrations of volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) were found in soil samples at the site.

- Soil vapor surveys have identified relatively low concentrations of methane for the majority of the sampling locations tested within the residential area between Cummings and Chicago Streets. This area was identified the as an area where local residence had dumped used motor oil. TRPH and inorganic lead were also reported in a single sample collected at a depth of 6 inches bgs within the residential area. Dames & Moore concluded that the contamination by the hydrocarbons was most likely due to waste motor oil disposed into the ground at the rear of several of the residential homes.

- The results of the groundwater investigation provided no evidence of VOCs or SVOCs with the exception of low concentrations of chloroform and phthalate esters. Chloroform was detected in two of the seven groundwater monitoring wells adjacent to the Outpatient Clinic and the Interns Residence Hall (north of the current subject property). Although chloroform has been commonly used at medical facilities in the past, the source of the chloroform identified in the groundwater was not apparent. The phthalate esters were identified in samples from three of the wells, but were most likely indicative of laboratory contamination, and were therefore not identified as a concern.

Based on the Scope of Services performed for this Phase I ESA, real and potential recognized environmental conditions have been identified at the subject property. These and relevant recommendations are described below:

- Hazardous materials in numerous containers throughout the facilities have remained in storage in the hospital buildings proposed to be demolished for the replacement project since the buildings were closed in 1994. Prior to demolition, Dames & Moore recommends that hazardous materials onsite should be collected and properly disposed or recycled.

- Transformers, light ballasts, and other electrical equipment potentially containing PCB-laden dielectric fluids were identified at the subject property. Dames & Moore recommends a comprehensive survey to locate, establish PCB presence/absence, and quantify PCB-containing electrical equipment prior to demolition.

- There exist potential subsurface impacts from the former gasoline and automobile service facilities in the southeastern portion of the subject property (on the north side of Marengo, between Cummings and Chicago Streets). Dames & Moore recommends additional soil samples be collected in this area in order to determine the potential impacts of the former automotive activities on the subject property.

- Based on information available during the review of agency databases, a leaking underground storage tank from the LAC-USC Medical Center (north of the subject property) has been identified as having the potential to impact the subject property. Dames & Moore recommends a comprehensive file review of the upgradient leaking tank in order to assess whether the tank has the potential to impact groundwater beneath the subject property.

- In previous subsurface investigations, naturally occurring crude oil has been identified in the bedrock beneath the subject property. Dames & Moore recommends further subsurface investigations in order to identify the location and quantify the amount of naturally occurring crude oil that may be encountered during future excavations for the replacement project.

- Petroleum hydrocarbon and lead contamination was detected during previous investigations in shallow soils in the former residential area. We recommend further assessment of the extent of this contamination.

- Previous investigations also indicated the presence of low levels of volatile compounds in groundwater samples collected from onsite wells. Dames & Moore recommends further evaluation of groundwater conditions at the site.

All recommendations indicated above are currently being addressed through ongoing environmental investigations by Dames & Moore; the results of which will be presented in a separate report.

1.0 INTRODUCTION

Presented in this report are the results of the Dames & Moore Phase I Environmental Site Assessment (ESA), conducted for the Los Angeles County-University of Southern California (LAC-USC) Medical Center Replacement Project in the City of Los Angeles, California (Figure 1). The subject property for this investigation generally included all of the buildings north of Marengo Street, south and southeast of the General Hospital and Outpatient Clinic, east of the Central Plant and Laboratory, and west of Chicago Street. The onsite structures included on the subject property at the time of the site visit were the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, Parking Structures #6, #11, and #12, the former Burger King Restaurant, the former strip mall, and ten trailers used for office space (Figure 2).

The LAC-USC Medical Center experienced severe damage during the 1994 Northridge Earthquake, and many of the buildings have been "red-tagged" since the event. The majority of the buildings in the Replacement Project have functionally deteriorated and are deficient to the point that they are no longer safe. The purpose of the Replacement Project is to remove the existing buildings on the southern portion of the hospital campus and construct new medical facilities and a new Metropolitan Transportation Authority (MTA) Transit Center.

Information from previous environmental reports has been reviewed for the assessment of this property. These reports included:

- Environmental Science Associates, Inc., *Los Angeles County + USC Medical Center: Environmental Audit*, Draft Report, October 1992.
- Dames & Moore, *Environmental Subsurface Investigation: LAC+USC Medical Center Replacement Project*, Draft Report, July 22, 1993.
- Environmental Science Associates, Inc., *LAC + USC Medical Center Replacement Project: Environmental Impact Report*, Draft Report, March 1994.
- Dames & Moore, *Subsurface Contamination Investigation: Medical Center Replacement Project*, Final Report, July 28, 1995.

1.1 PURPOSE

The purpose of this Phase I ESA was to review past and present land use practices and site conditions to assess potential environmental impacts and to identify Recognized Environmental Conditions in connection with the subject property. By definition under ASTM designation E 1527, the term "Recognized Environmental Conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

1.2 SPECIAL TERMS AND CONDITIONS

The Scope of Services performed is in accordance with our proposal to the County of Los Angeles, Department of Public Works, dated May 20, 1998. The format and content of this Phase I ESA is in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process (ASTM E1527-97).

1.3 LIMITATIONS AND EXCEPTIONS OF THE ASSESSMENT

The conclusions presented in this report are professional opinions based solely upon indicated data described in this report, visual observations of the site and vicinity, and our interpretation of the available historical information and documents reviewed, as described in this report. The conclusions are intended exclusively for the purpose outlined herein and the site locations and project indicated. The Scope of Services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

Opinions and recommendations presented herein apply to the site conditions existing at the time of our investigations and cannot necessarily apply to site changes of which Dames & Moore is not aware and has not had the opportunity to evaluate. Changes in the conditions of this property may occur with time due to natural processes or the works of man on the subject site or adjacent properties. Changes in applicable standards may also occur as a result of legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

1.4 LIMITING CONDITIONS AND METHODOLOGY USED

This assessment was accomplished by, and limited to, a site reconnaissance, a drive -by survey of the site vicinity, and a review of available pertinent documentation available through Dames & Moore's standard resources regarding past and current land use for indications of the manufacture, generation, use, storage and/or disposal of hazardous substances at the site. To meet the objective of this assessment, Dames & Moore completed the following tasks:

- Performed a reconnaissance survey of the subject property to make visual observations of existing site conditions and activities, and a drive-by survey of the area within ¼-mile of the site to observe the general land use within the search area. Photographs of site are provided in Appendix A.

- Conducted interviews with site personnel to evaluate the site history, and operation and maintenance procedures.

- Reviewed the federal, state, and local database list search provided by Environmental Data Resources, Inc., (EDR) of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations. The agency lists and search radii are provided in Appendix B.

- Conducted inquiries in person, by telephone, or in writing to the appropriate regulatory agencies for information regarding environmental permits, violations or incidents, and/or the status of enforcement actions at the subject property.

- Reviewed pertinent, available documents and maps regarding local physiographic and hydrogeologic conditions in the site vicinity including the potential presence of wetlands, flood plains, coastal zones, sole source aquifers, aquifer recharge areas, and nearby environmentally sensitive sites.

- Reviewed and interpreted archival U.S. Geological Survey (USGS) topographic maps of the site and the area within ¼-mile of the subject property for information regarding historical land use potentially involving the manufacture, generation, use, storage and/or disposal of hazardous substances. The quadrangle and years reviewed are provided in the References Section of this report.

- Reviewed and interpreted available historical Sanborn Fire Insurance Maps for the site and vicinity.

- Prepared this report describing the research performed and presenting Dames & Moore's findings and professional opinions regarding the potential for adverse environmental impacts to the subject site.

Inspections were conducted for all buildings included in the subject property (Section 1.0). Dames & Moore focussed mainly on laboratories, mechanical rooms, and other areas where hazardous materials were used and stored. The scope of work for this project specifically excluded asbestos or lead-based paint surveys. Electrical rooms, unoccupied areas of Muir and Grad Halls, and former tenant spaces in the former strip mall at the northwestern corner of Marengo and Chicago Streets were not viewed in their entirety due to restricted access in these areas. These areas will be further inspected during ensuing asbestos/hazardous materials surveys.

2.0 SITE DESCRIPTION

2.1 LOCATION

The subject property for this investigation generally included all of the property north of Marengo Street, south and southeast of the General Hospital and Outpatient Clinic, east of the Central Plant and Laboratory, and west of Chicago Street (Figure 1). Parking structure #12 and the IMS Trailer, located outside of this general area, were also included in the site reconnaissance. Other properties in the vicinity included commercial and office buildings, fast food restaurants, and residences.

2.2 SPECIALIZED USER KNOWLEDGE

Interviews were conducted onsite with Mr. Terence McNeal of the LAC-USC Medical Center, Mr. George Jones of the Los Angeles County Department of Public Works, Mr. Ken Pruett of CRSS Constructors, and Mr. Osman Kuran of CRSS Constructors. Mr. Bob Higgins and Mr. Fernando Vizcarra were also contacted for information about the subject site.

2.3 SITE RECONNAISSANCE & INTERVIEWS

On September 22, 1998, Mr. Robert Forster and Ms. Jessica Davis, Dames & Moore representatives, conducted a reconnaissance of the subject property. The reconnaissance consisted of the observation and documentation of existing site conditions and nature of the neighboring property development within ¼ mile of the site.

The onsite structures included on the subject property at the time of the site visit were the Pediatric Pavilion (1129 North State Street), Muir Hall (1937B Hospital Place), Psychiatric Hospital (1934 Hospital Place), Grad Hall (1937 Hospital Place), Parking Structures #6, #11 and #12, the former Burger King Restaurant and strip mall, and ten temporary-trailers used for administrative office space (Figure 2).

Psychiatric Hospital (1934 Hospital Place)

The former Psychiatric Hospital, located at 1934 Hospital Place, is an approximately 149,500 square foot eight-story building. At the time of the site visit, the building had been closed since the 1994 Northridge Earthquake and appeared to be in a state of disarray, with furniture, equipment, and papers scattered throughout the building. The building was mostly used for patient rooms and administration offices, except for the seventh floor and the sub-level basement. The seventh floor was formerly used as a laboratory with a chemical and poisonous substances storage space. According to Mr. McNeal, the seventh floor had not been used since the early 1980's. The basement level has the former mechanical and electrical rooms for the building. Hazardous materials and empty biohazardous containers, as well as a diesel emergency generator with an internal 500-gallon tank, were observed in the mechanical room (Section 3.2.1). There are three electric elevators that service this building. No evidence of spills, leaks, or other environmental concern related to onsite equipment or materials was observed during the site reconnaissance.

There are also four administrative trailers associated with the former Psychiatric Hospital building, including a security trailer for the onsite hospital security. The trailers are used for office, meeting, and storage spaces, and appeared to be occupied and operational. No hazardous materials were observed in the onsite trailers.

Grad Hall (1937 Hospital Place)

The Grad Hall, located at 1937 Hospital Place, is an approximately 53,000 square foot three-story building. Currently the building is used for the administrative offices for the psychiatric services. The basement level of the building has a mechanical room, where hazardous materials are stored (Section 2.3.1).

To the north of the Grad Hall are two administrative trailers identified as the M.S.W. Administration Building and Home Care. According to Mr. McNeal, these trailers are only used for administrative office space.

Parking Structures #6, #11 and #12

Parking Structure #6 is an approximately 158,500 square foot six-level parking garage (including sublevel) located on the northern side of Marengo Street, adjacent to the east of the former Psychiatric Hospital. Parking Structure #11 is an approximately 215,000 square foot three-level parking garage and adjacent asphalt parking lot to the east of the Parking Structure #6. Parking Structure #12 is also several hundred thousand square feet and five levels, but is not currently being used due to Northridge Earthquake damage.

The parking structures are used only for parking staff and patient automobiles. No hazardous materials are used or stored in the parking areas. Typical automotive staining was observed in the parking areas. Such staining is considered *de minimis* and not a recognized environmental condition. The parking structures appeared to be generally clean and well maintained.

Vacant Eastern Properties

Several buildings in the northern and eastern portions of the subject property had been removed at the time of the site visit. Adjacent to the north of the Parking Structure #11 was the former AIDS Clinic, formerly 1115 Cummings Street. This former four-story, approximately 30,000-square foot building was removed from the subject property in 1994. No information was provided regarding the operations prior to the displacement of the building.

An estimated 30 residences east of Parking Structure #11, between Cummings and Chicago Streets, were also demolished prior to our site visit. The parcels are vacant with exposed dirt. No visible indications of environmental concern were noted.

South of the former residences are two vacant buildings. On the northeastern corner of Marengo and Cummings Streets is a former Burger King Restaurant. On the northwestern corner of Marengo and Chicago Streets is a single-story, former multi-tenant strip mall. Former tenants included a Chinese food restaurant, a hair salon, a Pita Express restaurant, and several office spaces. Indications of the former activities were not observed during the site reconnaissance, but based on the operations known at this portion of the property, it is unlikely that hazardous materials were used, stored, or disposed. No evidence of stains, spills, or other indication of environmental concern was observed.

The following utilities provide service to the site:

Natural Gas	:	Southern California Gas Company
Water	:	County of Los Angeles, Department of Water & Power
Electric	:	County of Los Angeles, Department of Water & Power
Sanitary Wastewater	:	County of Los Angeles, Department of Water & Power, and the City of Los Angeles

2.3.1 Hazardous Substances

Present Use

In an x-ray room on the first floor of the former Pediatric Pavilion was approximately 20 gallons of fixer and developer chemicals, as well as a silver recovery unit at half capacity (approximately 10 gallons). Several 5-gallon cans of mineral spirits, lubrication oil, paint, and gasoline were observed in the basement mechanical and storage rooms. Two diesel generators with internal diesel tanks were also observed in the basement.

In the basement of Muir Hall were three mechanical rooms. A canister of propane, a 10-gallon container of air conditioner oil, and six compressed oxygen cylinders were all observed. Also in the basement of Muir Hall, several lead-acid batteries were kept on a storage rack. Two air compressors, one active and one stand-by, were observed with compressor oil. *De minimis* compressor oil staining was observed on the floor adjacent to the air compressors.

In the former Psychiatric Hospital mechanical rooms were several 5-gallon to 10-gallon containers of motor oil, gasoline, paint, and degreasers. A 5-gallon metal can of 1,1,1-trichloroethane and a 30-pound container of Freon were also observed.

The basement of the Grad Hall is mostly for mechanical rooms and furniture storage. Several 1-gallon cans of paint, approximately 20 gallons of coolant of unspecified contents, and two air compressor units with oil were observed. *De minimis* compressor oil staining was observed on the floor adjacent to the air compressors.

In all buildings the hazardous materials appeared to be stored properly and in good condition. No evidence of spillage or leakage was observed at the time of the site visit.

Past Use

Available information indicates that the subject property has been used for residential and medical purposes since the early 1900's.

2.3.2 Storage Tanks

One underground storage tank (UST) of a currently unknown capacity was observed adjacent to the southern portion of the former Pediatric Pavilion, along Marengo Street. The tank was used to store diesel fuel for the emergency generator onsite. On October 20, 1998, the UST was removed. Soil samples were reportedly collected, but analytical data has not yet been provided for review. Reportedly, no visual or olfactory indication of impacted soil was detected during the excavation.

Three 500-gallon aboveground storage tanks (ASTs) are reported to be internal tanks in the emergency generators for the former Pediatric Pavilion and Psychiatric Hospital. No evidence of leakage or spillage in the vicinity of the generators was observed during the site visit.

2.3.3 Polychlorinated Biphenyls (PCBs)

Evidence of PCBs was not observed during the site visit. Electrical rooms, which were not accessed, will be further inspected during ensuing investigations for asbestos and other hazardous materials. Pad-mounted transformers and light ballasts were observed throughout the subject property. There is the possibility that onsite transformers, light ballasts and other electrical equipment onsite utilize PCB-containing dielectric fluids.

2.3.4 Waste Disposal

At the time of the site visit, no waste was generated on or disposed from the subject property. Empty biohazardous, sharps, and cytotoxic waste containers indicated that hazardous and biohazardous waste was generated and stored prior to the closing of the facilities on the subject property.

2.3.5 Drums/Other Chemical Containers

Numerous drums and other containers with hazardous materials were observed on the subject property (see Section 2.3.1).

A storage room in the basement level of the former Psychiatric Hospital had approximately fifty empty containers of various sizes for biohazardous waste and sharps. The room for the diesel emergency generator also stores approximately 500 gallons of diesel fuel in an internal tank, three lead-acid batteries, and three 5-gallon containers of motor oil.

2.3.6 Dumping

No evidence of illegal dumping was observed during the site visit. According to previous investigations, used motor oil and automotive liquids were dumped in an alleyway in the former residential area between Cummings and Chicago Streets (note Section 3.3). At the time of the site reconnaissance, the residences had been removed and no evidence of the automotive liquids disposal was observed.

2.3.7 Pits, Ponds, Lagoons, Septic Systems, Cisterns, Sumps, Drains

No pits, ponds, lagoons, septic systems, or cisterns were observed at the subject property during the site visit. Outdoor drains, draining to the street gutter, were observed between buildings. A sump was observed in the loading dock area for the former Psychiatric Hospital to control onsite runoff. No evidence of hazardous materials discharge to drains or the sump was observed.

2.3.8 Pesticide Use

No pesticide use was observed or reported.

2.3.9 Staining and Discolored Soils

No significant staining or discoloration of soils was observed during the site visit.

2.3.10 Stressed Vegetation

None observed.

2.3.11 Unusual Odors

None detected at the time of the site reconnaissance.

2.3.12 Onsite Wells

Several groundwater investigations have been conducted at the LAC-USC Medical Center. Three groundwater monitoring were observed on the subject property, and several others are known to be located beyond the subject property within the LAC-USC Medical Center. For a review of the previous groundwater investigations, please refer to Section 3.3.

2.3.13 Nearby Environmentally Sensitive Sites

None observed or reported.

2.3.14 Asbestos

Dames & Moore's scope of work for the Phase I project specifically excluded asbestos surveys. However, asbestos surveys will be performed under a separate work task.

2.3.15 Other Concerns

No other environmental concerns were observed or reported during the site reconnaissance.

2.4 CURRENT USES OF ADJACENT PROPERTY

The site is located within an area that primarily consists of commercial properties and undeveloped land in the City of Los Angeles, California (Figure 2). In general, prominent adjoining land uses are as follows:

North:	Adjacent to the north are the General Hospital and Outpatient Clinic buildings.
South:	Across Marengo Street are several fast-food restaurants, offices, and commercial buildings. To the southwest is a gasoline service station.
East:	Across Chicago Street is residential development.
West:	Adjacent to the west are a laboratory building and the Central Steam Plant building.

2.5 HISTORICAL USE

Dames & Moore conducted personal interviews and reviewed previous reports as well as selected historical aerial photographs, historical fire insurance maps, and archival topographic maps. These references were reviewed for evidence of activities that would suggest the potential presence of hazardous substances at the subject property and to evaluate the potential for the parcel to be impacted by offsite sources of contamination. The following paragraphs are a chronological summary of the review.

The earliest development for the County of Los Angeles Medical Center was reported to have been in the late 1870's. The Central Administrative Building was reported to have been constructed in 1878 and the General Hospital (Acute Care Unit) was reported to have been constructed in 1928 (ESA, 1992). Prior to construction of the existing structures, the subject property appears to have been occupied by dormitories and residences. In the current location of the former Pediatric Pavilion

were a nursing school and twelve nursing dormitories. The remainder of the subject property and adjacent parcels was occupied by residences or vacant land. To the northeast of the subject property was the Hazard Park Reservoir.

Historical Sanborn fire insurance maps from 1951 show that most of the subject property was occupied by residences. The "Los Angeles County Hospital Psychiatric Unit," constructed in 1934, was in its present configuration on the subject property. To the north, the "Los Angeles County General Hospital Acute Unit" had more than doubled in size since the initial construction in 1928 and six more nurses quarters were constructed in the location of the Muir Building. The remainder of the vicinity was mostly occupied by residences. Aerial photographs and a topographic map from 1953 confirm the presence of the Psychiatric Hospital, nurses quarters, and the newly constructed Grad Hall on the subject property, as well as the General Hospital offsite to the north. Also offsite and downgradient to the southwest, near the corner of Marengo and State Streets, was a gasoline service station.

According to documentation reviewed onsite, the Communicable Diseases Unit (Pediatrics Pavilion) was constructed in 1955. Files from the City of Los Angeles, Department of Building and Safety, indicate that the Standard Oil Company constructed a new gasoline service station on the southwestern corner of Marengo and State Streets, southwest of the subject property.

In 1960 and in 1964, the Richfield Oil Company received demolition and grading permits from the City of Los Angeles for the dwellings on the north side of Marengo Street, between Cummings and Chicago Streets (in the locations of the former Burger King and strip mall). A topographic map from 1966, an aerial photograph from 1968, and fire insurance map from 1970 all confirm that the Pediatric Pavilion, Psychiatric Hospital, and Grad Hall were all present onsite. The 1968 aerial photograph also indicates that the Outpatient Clinic and Interns Residence to the north, as well as the Laboratory and Central Steam Plant Buildings to the west, had been constructed. Asphalt parking was in the locations of Parking Structures #6 and #11. The remainder of the vicinity was occupied by other hospital related buildings and homes. A residential area to the north and northwest of the subject property was cleared and graded for construction.

According to the 1970 Sanborn fire insurance map, the properties on the north side of Marengo Street, between Cummings and Chicago Streets, were occupied by "oil and gas" structures. According to onsite personnel, this area was a Richfield gasoline service station and automobile repair facility. The service station reportedly went out of business in the mid-1970's (Dames & Moore, 1993).

In aerial photographs from 1976, 1989, and 1994, the subject property and vicinity appear mostly as they do today. The onsite structures included the Pediatric Pavilion, Muir Hall, Psychiatric Hospital, Grad Hall, the former AIDS Clinic, and Parking Structures #6 and #11. The former Burger King Restaurant, strip mall, and homes to the east were all visible.

Since the 1994 aerial photograph, the former AIDS Clinic and homes formerly on the eastern portion of the subject property have been demolished.

Based on this review of available historical information, potential environmental concerns include the former gasoline service station and automobile repair facilities in the southeastern portion of the subject property.

2.5.1 Oil and Gas Well Maps

A review of the 1997 Munger Map Book indicates that the nearest well to the subject property was a Santa Fe Mutual Oil Syndicate well located within 100 feet north of the intersection of Marengo and State Streets, to the northwest of the subject property. According to materials from the California Division of Oil and Gas reviewed by Dames & Moore in 1995, the Santa Fe Mutual Oil Syndicate well was completed in 1927 to a depth of 2,995 feet, and abandoned as a dry hole.

3.0 RECORDS REVIEW

Dames & Moore reviewed readily available records regarding past and current site use, contacted applicable agencies regarding environmental concerns at the site, and reviewed the agency database list search for environmental concerns at surrounding properties. The information obtained during the records review is provided in the following sections.

3.1 AGENCY RECORD REVIEW

3.1.1 Data Base List Search

Dames & Moore contracted Environmental Data Resources, Inc., (EDR) to provide a review of the publicly available federal, state, and local databases of known or potential hazardous waste sites or landfills and sites currently under investigation for environmental violations for the site address and the surrounding area. The EDR-Radius Map Report along with descriptions of each federal, state, and local agency list is included in Appendix B. Facilities located adjacent to or hydraulically up-gradient from the subject property with respect to the inferred groundwater flow direction, are discussed below.

3.1.1.1 Site

None of the hospital buildings on the subject property were reported in the EDR database search. However, several addresses affiliated with the Los Angeles County - University of Southern California Medical Center were listed. Offsite addresses are described in Section 3.1.1.2.

Towards the southeastern boundary of the subject property, two former businesses were reported in the EDR database search. Ray's Auto Service (C11 and C12) and Jasper Wrecking & Trucking (C13) were located at 2039 and 2055 Marengo Street, in the location of the former Burger King Restaurant and strip mall. This facility was included in the State UST and CA-FID databases. In 1957, five USTs ranging in size from 200 gallons to 6,000 gallons were installed at the subject property for the storage of gasoline and waste oil. No violations were reported. In the 1970's these facilities were demolished (Section 2.5). Based on our knowledge of these historical facilities, it is the opinion of Dames & Moore that there is a potential for at least the Ray's Auto/Jasper Wrecking site to has impacted the subject property.

3.1.1.2 Offsite

No current or former Federal National Priority List sites were reported within a 1 mile search radius of the subject property. One United States Hazardous Waste Site (CERCLIS), one State Hazardous Waste Site (Cal-Site), ten impacted groundwater (CORTESE) sites, and sixteen Leaking Underground Storage Tank (LUST) sites were also reported within a 1 mile search radius. Seven Underground Storage Tank (UST) sites, twenty UST Facility Inventory Database (CA-FID) sites, and ten Small and Large Quantity Generator sites were reported within a ½ mile search radius. Two Hazardous Waste Inventory System (HAZNET) sites were reported within a ⅛ mile search radius.

EDR-listed sites interpreted as hydraulically downgradient or crossgradient from the subject property relative to groundwater flow direction are in our opinion not likely to impact the site with hazardous materials and are therefore excluded from the following discussion, except the properties that are adjacent to the subject property. The subject property sits on a slight slope to the south and southwest, and therefore properties located to the north and east of the subject property would be assumed upgradient of the subject property (see Section 3.2.2).

The following is a summary of information provided regarding listed sites located adjacent to or upgradient from the subject property. The location of these sites is shown on the radius maps accompanying the EDR report in Appendix B. Numbers in parentheses in the following paragraphs refers to the map identification number in the EDR maps and report.

- IT Corp (A1) is located at 1129 North State Street, across the street from the General Hospital. This facility is included in the CA-FID database as an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's crossgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- Esther M Hildago (2) is located at 2006 Marengo Street, across Marengo Street from the subject property. This facility is included in the CA-FID database as an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's downgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- The Los Angeles County - University of Southern California (LAC-USC) Medical Center is included in a range of addresses to the north, northwest, and north east of the subject property: 1200 North State Street (B3, B4, B5, and B6), 1333 San Pablo Street (23), 1744 Zonal Avenue (22), 1910 through 2025 Zonal Avenue (16, E17, 18, E19), 1240 North Mission Road (I30), and 1540 Alcazar Street (P50). These addresses are included in the Large Quantity Generator, UST, LUST, CORTESE, and CA-FID databases. The LAC-USC Medical Center has up to fourteen registered USTs onsite, ranging in size from 300 gallons to 50,000-gallons, for the storage of gasoline, diesel, and waste oil.

  On November 7, 1988, a release of gasoline from an UST registered to the General Hospital at 1200 North State Street was reported to have impacted local groundwater. A pollution characterization study was conducted, but no remediation actions and no current status were reported in the database. Based on the upgradient location of this site from the subject property, the release from the General Hospital has the potential to have impacted the subject property.

  On May 29, 1992, a release of gasoline from a tank registered to the LAC-USC Medical Center Molecular Medicine Unit at 1540 Alcazar Street was reported to have impacted local ground water. A pollution characterization study was conducted, and the case received closure on July 29, 1996. Based on the regulatory status of this site, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

The LAC-USC Medical Center Power Plant (G24 and G25) is located at 1635 Marengo Street, to the west of the subject property. This facility is included CA-FID and State UST databases. The database states that there are four USTs, ranging in size from 1,000-gallons to 55,000-gallons, for the storage of diesel fuel. No violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's crossgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

The Newman Nutrition Center (H26 and H27) is located at 2310 Charlotte Street, northeast of the subject property. This facility is included in the CA-FID, State UST, and Small Quantity Generator databases. This facility is reported to have one 8,000-gallon waste oil tank. No violations are reported. Based on the absence of this facility from agency databases that would indicate a release or other environmental concern, it is the opinion of Dames & Moore that the potential for this facility to have impacted the subject property is low.

- Kwik Gas and Al-Sal Oil (A7, A8, and A9) is located at 1848 Marengo Street, within ⅛ mile southwest of the subject property. This facility is included in the HAZNET, State UST, State LUST, and CA-FID databases. Between 1971 and 1978, six USTs ranging in size from 10,000 gallons to 20,000 gallons were installed at the site for the storage of gasoline. On December 1, 1993, a release of mixed waste oil was reported to have impacted local soil. Based on the media affected and the downgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- East Los Angeles Occupational Center (D14 and D15) is located at 2100 Marengo Street, across Marengo Street south of the subject property. This facility is included in the CA-FID, HAZNET, and Large Quantity Generator databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. Based on the absence of this site from agency databases that would indicate a release or other environmental concern, as well as the site's downgradient location, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- The Lincoln Magnet High School (F20 and F21) is located at 1200 Cornwell Street, approximately ¼ to ½ mile east of the subject property. This facility is included in the CA-FID and the State LUST databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. On April 8, 1988, a release of an unspecified substance was reported to have impacted local groundwater. No further information is provided. Based on the distance and crossgradient location of this site from the subject property, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- The Estelle Doheny Eye Hospital (39) is located at 1537 Norfolk Street, approximately ¼ to ½ mile northeast of the subject property. This facility is included in the CA-FID and State LUST databases. The database states that the facility is an active UST site. The number, size, and contents of tanks at this site are not indicated and no violations are reported. On May 6, 1992, a release of an unspecified substance was reported to have impacted the local groundwater. No current status was reported. Based on the distance of this site from the subject property, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

- Celotex Corp (Q52 and Q54) is located at 1632 San Pablo Street, approximately ½ to 1 mile northeast of the subject property. This facility is included in the Cal-Sites and LUST databases. On April 23, 1996, a release of diesel fuel was reported to have impacted local soil. Remediation activities were conducted, and the case was closed on May 13, 1997. Based on the regulatory status for the leaking tank case and the distance of this site from the subject property, it is the opinion of Dames & Moore that the potential for this site to have impacted the subject property is low.

In addition, twenty six unmapped ("orphan") sites were also reported in the EDR database search. Based on the information provided in the database, most of the reported "orphan" sites are not within the appropriate search radii, and two of the "orphan" sites are duplicates of previously listed facilities associated with the LAC-USC Medical Center. Based on the distances of the sites from the subject property, it is the opinion of Dames & Moore that the potential for these sites to have impacted the subject property is low.

3.1.2 Agency Contacts

In addition to the database list search, Dames & Moore contacted state and local regulatory agencies to obtain information regarding the environmental condition of the subject property. The following information was received from these agencies.

- In a telephone conversation on October 1, 1998, the California Regional Water Quality Control Board indicated that there were no underground tank or site cleanup and mitigation files for the subject property.

- A letter dated October 2, 1998, from the California Environmental Protection Agency, Department of Toxic Substances Control to Dames & Moore states that they have no records on file pertaining to the subject property.

- The South Coast Air Quality Management District (SCAQMD) indicated in a letter dated September 30, 1998, that our request for information is being processed. Access to review files at the SCAQMD has not been granted at this time.

- Files reviewed at the County of Los Angeles, Department of Public Works, Environmental Programs Division, on September 25, 1998, indicated that there are no files related to the subject property.

- A letter dated October 9, 1998, from the Los Angeles County Fire Department states that the subject property is not within the jurisdiction of the Los Angeles County Fire Department.

- Files reviewed at the City of Los Angeles Fire Department, Underground Tank Unit, indicated that there are no files related to the subject property. The Hazardous Materials Unit has chemical inventories for the former Pediatric Pavilion at 1129 North State Street and the former Psychiatric Hospital at 1934 Hospital Place. No violations, reports of releases, or other indications of environmental concern were indicated.

3.2 PHYSICAL SETTING

Dames & Moore reviewed pertinent maps and readily available literature for information on the physiography and hydrogeology of the site. A summary of this information is presented in the following subsections.

3.2.1 Topography

The subject property is located in Township 1 South, Range 13 West, Section 26, at an elevation of approximately 360 feet above mean sea level (U.S.G.S., Los Angeles 7.5 minute quadrangle, 1966, photorevised 1981). The topography across the subject property generally slopes to the south and southwest, and the local topographic gradient is approximately 80 feet per mile towards the southwest. The nearest surface water is the Los Angeles River Channel, approximately 1 mile to the west, and the Hazard Park Reservoir, approximately ¼ mile to the northeast.

3.2.2 Geologic and Hydrogeologic Setting

The subject property is located in the Elysian Park-Repetto Hills are of the Los Angeles Basin. This area is comprised of a series of relatively low-relief hills which trend west-northwest across the north central margin of the basin. The property is underlain by a thick section of uplifted and folded marine sedimentary rocks of Miocene age. The major bedrock strata at the site, identified as Upper Miocene Puente Formation, strikes generally to the west-northwest and forms part of the deep south-dipping limb of the Elysian Park Anticline (Dames & Moore, 1995). Bedrock folding in the vicinity is generally considered to be result of both strike-slip and compression movements along several major faults in the area.

Unconsolidated Quaternary age alluvium overlies the Miocene sedimentary rocks at the site. Based on soils encountered in the borings drilled during a previous geotechnical investigation, the alluvium is generally composed of sand, silt, and silty clay, which were deposited as alluvial fan, alluvial plain, and stream terrace deposits (Dames & Moore, 1993).

Hydrologically, the site is located along the northern edge of the Los Angeles Forebay area of the Central Basin, sub-basin of the Los Angeles Coastal Plain. Within the Forebay area, the site is situated along the southern edge of the Elysian Park-Repetto Hills which are bisected by Los Angeles Narrows, a north-south trending valley underlain by Quaternary alluvium deposited by the Los Angeles River. Quaternary water bearing deposits of the Forebay area pinch out northward against Tertiary sedimentary rocks, such as those which are present at the subject property.

According to the California Department of Water Resources (CDWR, 1961), near-surface alluvial deposits in the southern portion of the subject property represent a portion of the Late Pleistocene Lakewood Formation, which contains the Exposition-Gage Aquifer. The regional direction of the groundwater flow in the vicinity is generally towards to the southwest (CDWR, 1961). Previous subsurface investigations indicate that groundwater was encountered in the eastern section of the subject property between 25 and 55 feet below the ground surface (Dames & Moore, 1993 and 1995).

3.3 OTHER DOCUMENTS

Environmental Science Associates, Inc., *Los Angeles County + USC Medical Center: Environmental Audit*, Draft Report, October 1992

Environmental Science Associates, Inc., (ESA) completed an Environmental Audit at the Los Angeles County - University of Southern California (LAC-USC) Medical Center Facility in October of 1992 for the County of Los Angeles, Department of Health Services, Facilities Implementation Team. ESA observed that the hazardous materials and wastes used and generated by the hospitals are tightly controlled and monitored. However, ESA concluded that spills were likely to have occurred at the Medical Center that could have lead to minor contamination of parts of the onsite soils and groundwater based on the following information. Reportedly in the past, hazardous materials and wastes had been disposed accidentally to the sewer system and storm drains. Any leaks in the sewer and/or storm drain system may have lead to soil contamination. A review of availbale federal and state databases conducted by ESA indicated upgradient leaking underground storage may have the potential to impact the subject property. ESA also concluded that an asbestos survey was recommended prior to the demolition of onsite medical building structures.

Dames & Moore, *Environmental Subsurface Investigation: LAC+USC Medical Center Replacement Project*, Draft Report, July 22, 1993

Dames & Moore completed an Environmental Subsurface Investigation for the LAC-USC Medical Center Replacement Project in July of 1993 for the County of Los Angeles, Department of Health Services. The objective of this investigation was to evaluate potential environmental liabilities associated with the subject property. Portions of the subsurface investigation were completed concurrently with Dames & Moore's geotechnical investigation at the subject property.

The area investigated during this 1993 investigation consist of approximately 15 acres of land located east of the existing main LAC-USC Medical Center, and approximately 4 acres located south of Marengo Street. The subject area defined in the project did not include the former Pediatric Building, Muir Building, or former Psychiatric Hospital that are included in this investigation. The investigation did include several of the LAC-USC Medical Center Buildings north of the current subject property.

Dames & Moore's subsurface investigation included a soil investigation, a groundwater investigation, and a soil vapor survey. The analytical results from the soil and groundwater investigation indicated no evidence of subsurface contamination for the majority of the sampling locations. Soil samples from shallow hand auger borings located next to the Outpatient Clinic underground storage tank (north of the current field of study) indicated the presence of low concentrations of ethylbenzene, toluene, and xylenes (6.9 to 13 micrograms per kilogram (ug/kg)). However, the levels detected were considered insignificant compared to regulatory action criteria. The impacted area identified in the 1993 soil investigation was restricted solely to soil, and was not likely to have migrated into the current subject property for this investigation.

Evidence of hydrocarbons were encountered in the Puente Formation bedrock located in the southern portion of the subject property, from a depth of 30 to 60 feet below ground surface (bgs). The chemical testing results on these soils indicated that hydrocarbons were detected in the range of waste oil and diesel fuel. According to laboratory personnel, the typical gas chromatogram response for crude oil would appear very similar to a mixture of diesel fuel and waste oil.

Based on the available evidence, the fact that the Puente Formation is a known oil source rock, and the analytical testing results, it was Dames & Moore's opinion that the hydrocarbons were most likely to be naturally occurring crude oil.

Oil staining was noted on the ground surface in the alley between Cummings and Chicago Streets. The oil appeared to be waste oil disposed to the ground at the rear of several residences. Each of the areas encompassed about 30 to 100 square feet, and were judged likely to be limited to shallow soil depths due to the mobility of waste oil. At the time of the current investigation, the homes between Cummings and Chicago Streets have been demolished and the parcels are vacant with exposed soil. No visible staining was observed during the site visit. Further soil and soil vapor surveys are planned for this area, and the analytical results will be discussed in a separate report.

Groundwater samples from two wells, adjacent to the Outpatient Clinic and Parking Structure #12 Buildings (north of the current subject property), were found to contain benzene at relatively low concentrations of 0.85 and 1.0 micrograms per liter (ug/l). These concentrations are at or below the maximum contaminant level (MCL) for benzene (1.0 ug/l). The source of benzene was not apparent.

Dames & Moore recommended further subsurface investigations in order to further evaluate the onsite contamination of soil and groundwater and to evaluate the impact that it could have on the proposed replacement project construction.

Dames & Moore, *Subsurface Contamination Investigation: Medical Center Replacement Project*, Final Report, July 28, 1995.

Dames & Moore completed a Subsurface Contamination Investigation July of 1995 for the same subject area as the 1993 investigation in order to further evaluate the extent of subsurface contamination.

The results of the soil vapor survey only identified relatively low concentrations of methane (3 to 9 ppmv) for the majority of the sampling locations tested within the residential area between Cummings and Chicago Streets. This area was identified in the 1992 ESA investigation as an area where local residents had dumped used motor oil. TRPH and inorganic lead were also reported at concentrations of 44,000 mg/kg and 110 mg/kg respectively, in a single sample collected at a depth of 6 inches bgs within the residential area. Dames & Moore concluded that the contamination by the hydrocarbons was most likely due to waste motor oil disposed into the ground at the rear of several of the residential homes. Since the 1995 Dames & Moore soil vapor survey, this portion of the subject property has been demolished and the property has been graded. However, there is no indication that this portion of the property was ever remediated.

The results from the soil investigation indicated no detectable concentrations of ionizing radiation above background readings. High total recoverable petroleum hydrocarbons (TRPH) indicative of severely degraded naturally occurring crude oil were found in several of the borings completed in the Puente Formation bedrock soils in the southern portion of the subject property, approximately 25 to 60 feet bgs. No significant concentrations of volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) were found in soil samples at the site. The crude oil identified in the Puente Formation confirms the findings of the previous Dames & Moore investigation. However, it should be noted that no gasoline, diesel fuel, or any other refined hydrocarbon products (such as benzene) were found in soils.

The results of the groundwater investigation provided no evidence of VOCs or SVOCs with the exception of low concentrations of chloroform and phthalate esters. Chloroform was detected at concentrations of 0.69 and 4.4 ug/l in two groundwater monitoring wells north of the current subject property (adjacent to the Outpatient Clinic and adjacent to the Interns Residence Hall). Although chloroform has been commonly used at medical facilities in the past, the source of the chloroform identified in the groundwater was not apparent. The phthalate esters were identified in samples from three of the wells, but were most likely indicative of laboratory contamination, and were therefore not identified as a concern.

Dames & Moore recommended that prior to finalizing the construction of the new replacement facilities for the LAC-USC Medical Center, at least one or two feet of the uppermost soils in the areas of contaminated with petroleum hydrocarbons in the former residential area be excavated, appropriately classified, and disposed accordingly. Dames & Moore also stated that soils samples from the base of the excavated areas be obtained to confirm the effective removal of petroleum-impacted soil. As stated above, since the 1995 Dames & Moore soil vapor survey, this portion of the subject property has been demolished and the property has been graded. However, there is no indication that this portion of the property was ever remediated.

The conclusions of Dames & Moore's report also emphasized that areas where crude oil-bearing bedrock were discovered should be carefully monitored during excavation for the presence of contaminated soils and explosive gas levels. The removal of such materials, if necessary, should be conducted in accordance with applicable regulations concerning the hauling and disposal of such materials. Likewise, groundwater removed from the excavations during temporary dewatering should also be carefully managed, classified, and disposed accordingly.

Dames & Moore emphasized that until the actual excavation for the replacement project commences, the groundwater monitoring wells should continue to be monitored in order to evaluate impacts from organic compounds.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the Scope of Services performed for this Phase I ESA, real and potential recognized environmental conditions have been identified at the subject property. These and relevant recommendations are described below:

- Hazardous materials in numerous containers throughout the facilities have remained in storage in the hospital buildings proposed to be demolished for the replacement project since the buildings were closed in 1994. Prior to demolition, Dames & Moore recommends that hazardous materials onsite should be collected and properly disposed or recycled.

- Transformers, light ballasts, and other electrical equipment potentially containing PCB-laden dielectric fluids were identified at the subject property. Dames & Moore recommends a comprehensive survey to locate, establish PCB presence/absence, and quantify PCB-containing electrical equipment prior to demolition.

- There exist potential subsurface impacts from the former gasoline and automobile service facilities in the southeastern portion of the subject property (on the north side of Marengo, between Cummings and Chicago Streets). Dames & Moore recommends additional soil samples be collected in this area in order to determine the potential impacts of the former automotive activities on the subject property.

- Based on information available during the review of agency databases, a leaking underground storage tank from the LAC-USC Medical Center (north of the subject property) has been identified as having the potential to impact the subject property. Dames & Moore recommends a comprehensive file review of the upgradient leaking tank in order to assess whether the tank has the potential to impact groundwater beneath the subject property.

- In previous subsurface investigations, naturally occurring crude oil has been identified in the bedrock beneath the subject property. Dames & Moore recommends further subsurface investigations in order to identify the location and quantify the amount of naturally occurring crude oil that may be encountered during future excavations for the replacement project.

- Petroleum hydrocarbon and lead contamination was detected during previous investigations in shallow soils in the former residential area. We recommend further assessment of the extent of this contamination.

- Previous investigations also indicated the presence of low levels of volatile compounds in groundwater samples collected from onsite wells. Dames & Moore recommends further evaluation of groundwater conditions at the site.

All recommendations indicated above are currently being addressed through ongoing environmental investigations by Dames & Moore; the results of which will be presented in a separate report.

-o0o-

REFERENCES

California Environmental Protection Agency, Department of Toxic Substances Control, written correspondence, October 2, 1998.

California Regional Water Quality Control Board, telephone conversation, October 1, 1998.

County of Los Angeles, Department of Public Works, Environmental Programs Division, agency visit, September 25, 1998.

City of Los Angeles Fire Department, Underground Tank Unit and Hazardous Materials Unit, agency visit, October 13, 1998.

Environmental Data Resources, Inc., Aerial Photograph Print Service, 1953, 1968, 1976, 1989, 1994.

Environmental Data Resources, Inc., EDR-Radius Map Report, Inquiry Number 1294944.1p, September 21, 1998.

Environmental Data Resources, Inc., Sanborn Fire Insurance Maps, 1920, 1951, 1970.

Environmental Science Associates, Inc., *Los Angeles County + USC Medical Center: Environmental Audit*, Draft Report, October 1992.

Environmental Science Associates, Inc., *LAC + USC Medical Center Replacement Project: Environmental Impact Report*, Draft Report, March 1994.

Dames & Moore, *Environmental Subsurface Investigation: LAC+USC Medical Center Replacement Project*, Draft Report, July 22, 1993.

Dames & Moore, *Subsurface Contamination Investigation: Medical Center Replacement Project*, Final Report, July 28, 1995.

Los Angeles County Fire Department, written correspondence, October 9, 1998.

Munger Map Book of California and Alaska Oil and Gas Fields, 1997 edition.

South Coast Air Quality Management District, written correspondence, September 30, 1998.

United States Geological Survey map, "Pasadena, California" Quadrangle, 15 minute, 1900 (photorevised 1942).

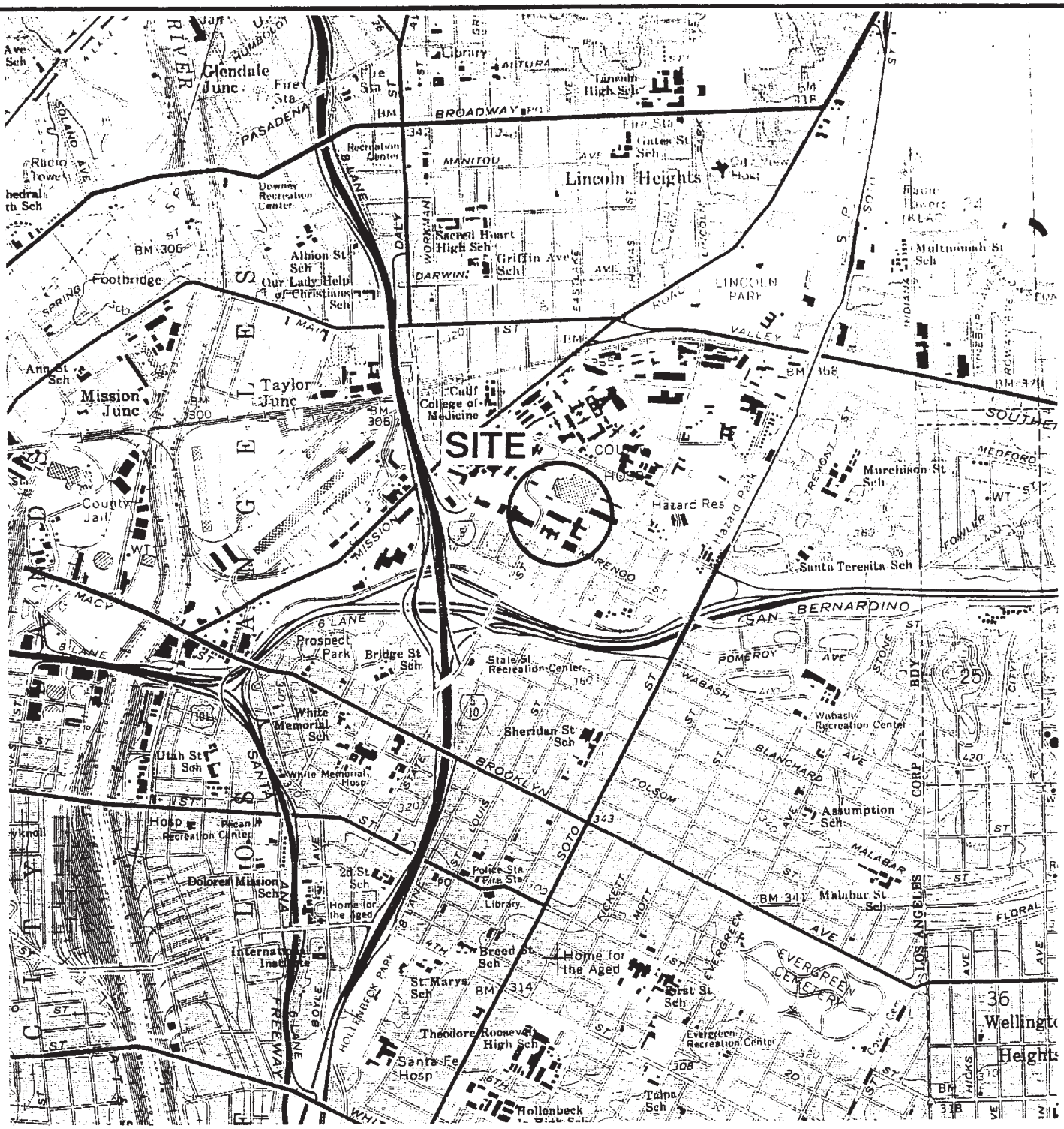
United States Geological Survey map, "Los Angeles, California" Quadrangle, 7.5 minute, 1953.

United States Geological Survey map, "Los Angeles, California" Quadrangle, 7.5 minute, 1966.

United States Geological Survey map, "Los Angeles, California" Quadrangle, 7.5 minute, 1966 (photorevised 1972).

United States Geological Survey map, "Los Angeles, California" Quadrangle, 7.5 minute, 1966 (photorevised 1981).

FIGURES



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VICINITY MAP

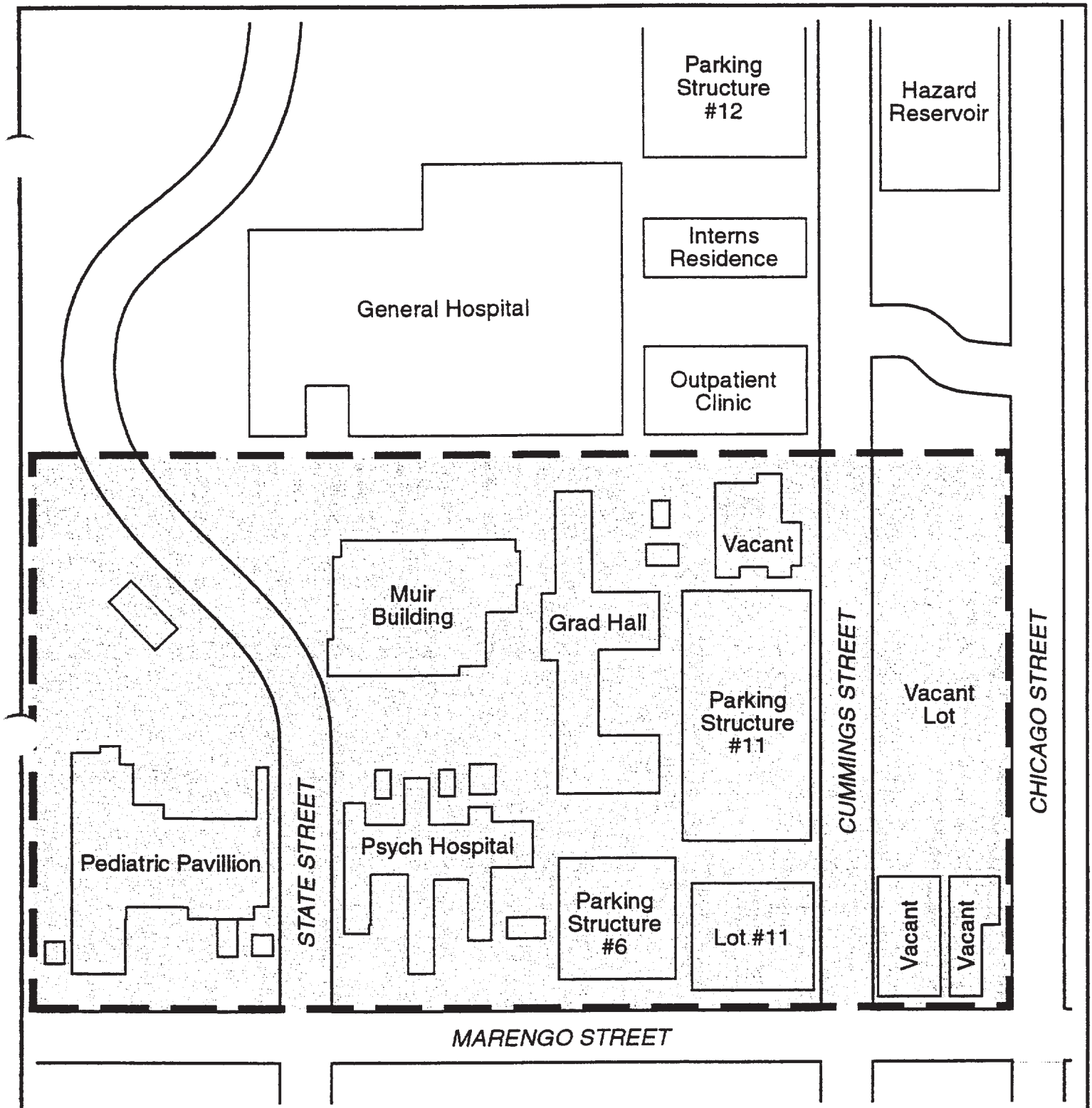
LAC - USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA

For: The County of Los Angeles, Department of Public Works

REFERENCE: USGS 7.5 Minute Series Topographic Map, "Los Angeles, California" Quadrangle, 1966; photorevised, 1972.

Dames & Moore
FIGURE 1



SITE PLAN

LAC - USC MEDICAL CENTER REPLACEMENT PROJECT

LOS ANGELES, CALIFORNIA

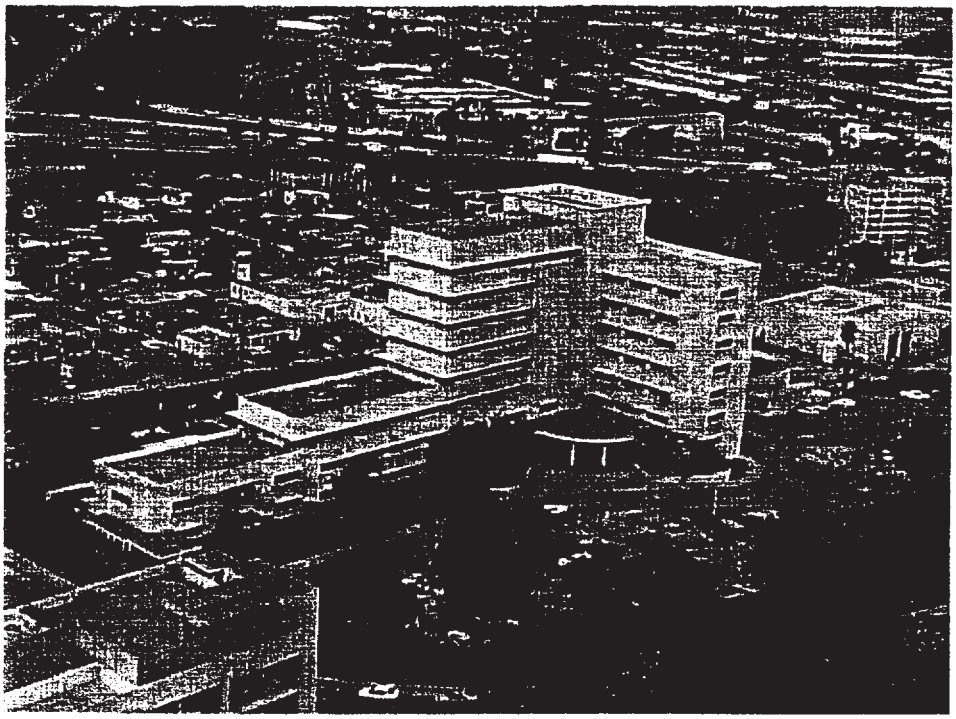
For: The County of Los Angeles, Department of Public Works

NOT TO SCALE

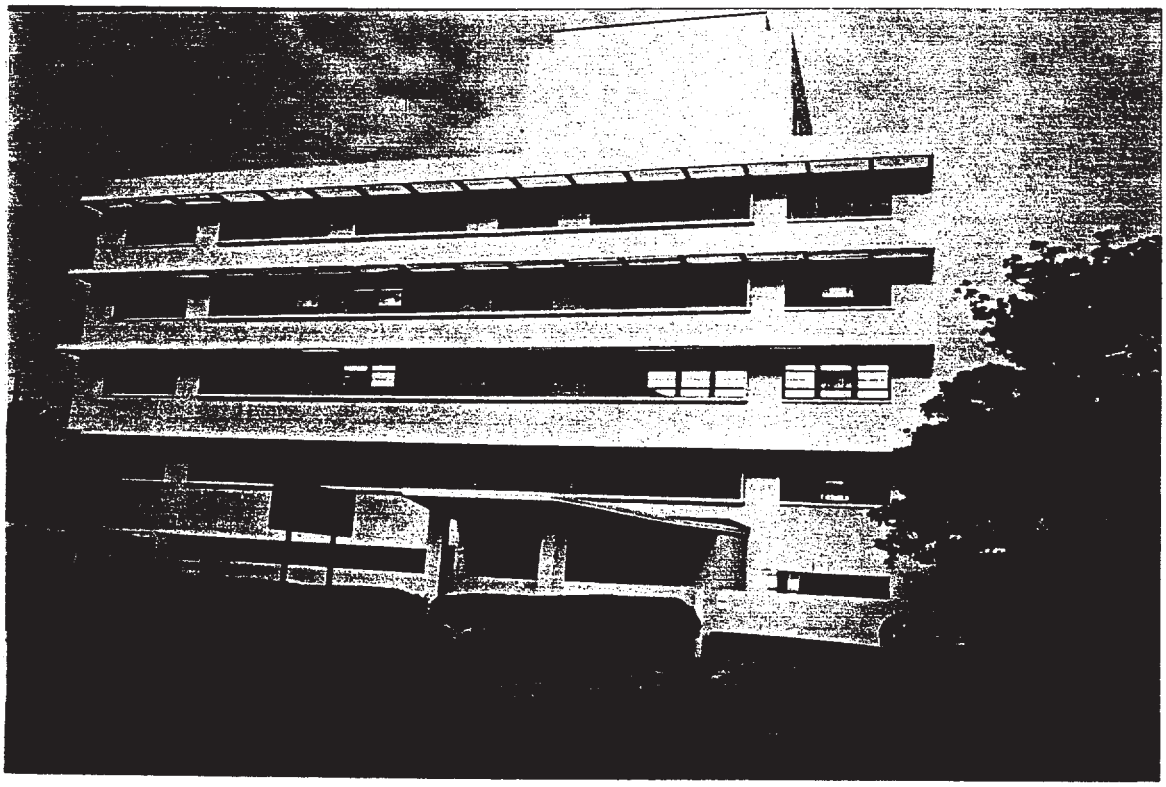
Dames & Moore

FIGURE 2

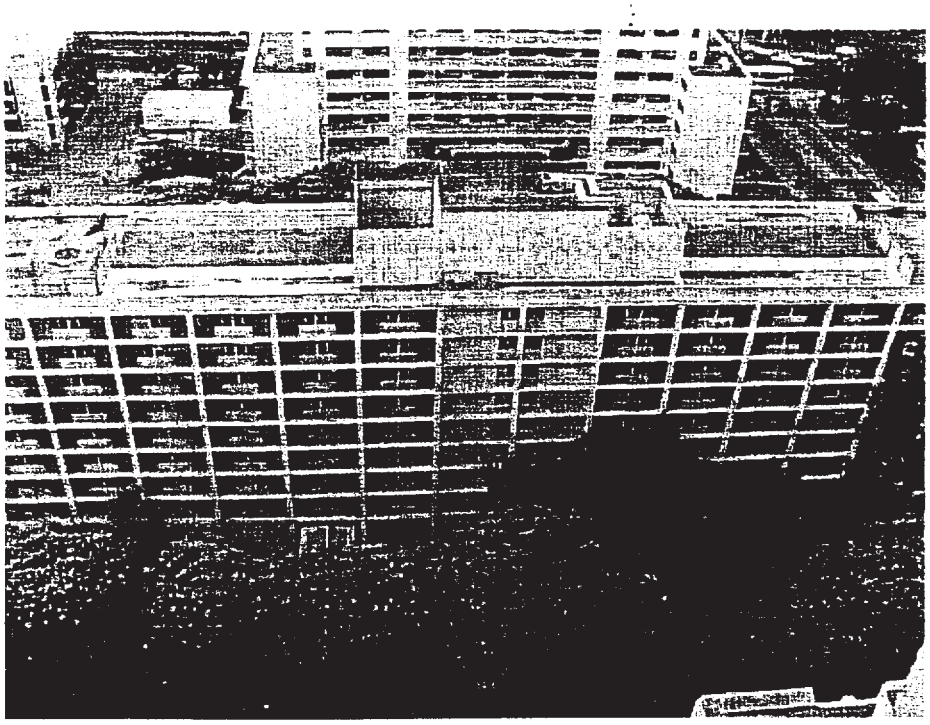
APPENDIX A
SITE PHOTOGRAPHS



Photograph 1: Former Pediatrics Pavilion at 1129 North State Street

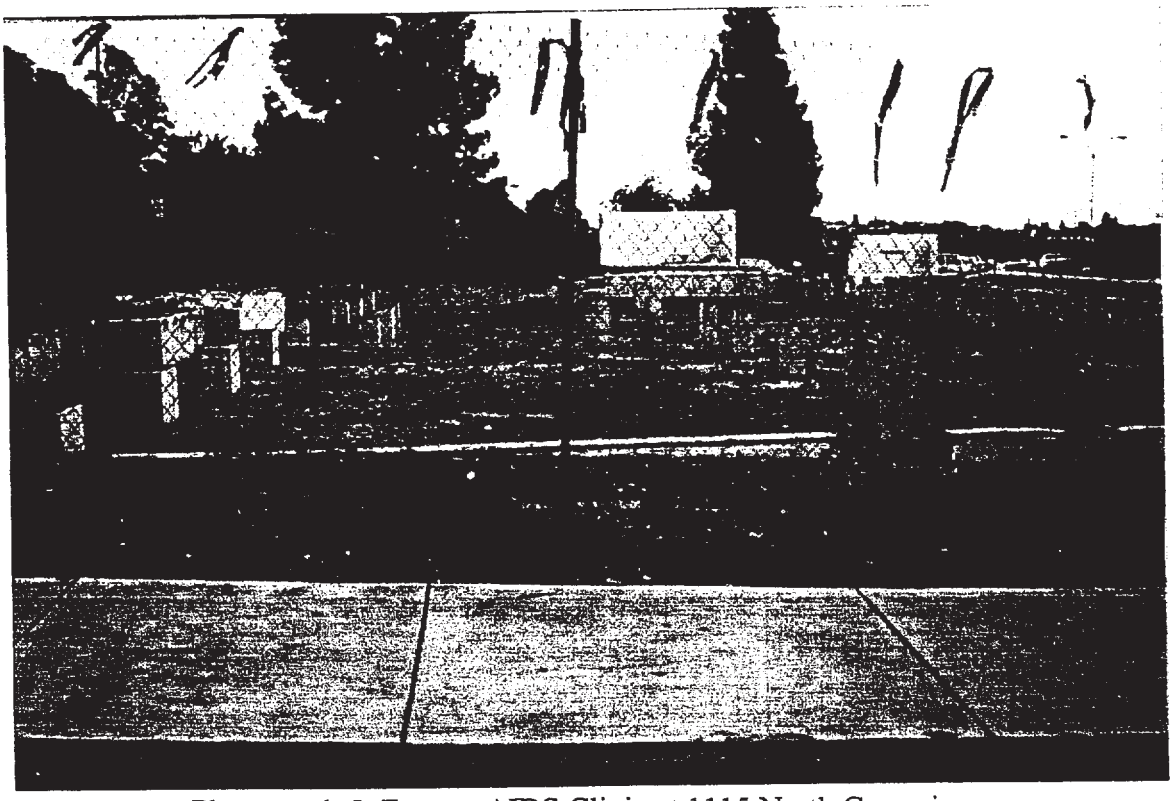


Photograph 2: Former Psychiatric Hospital at 1934 Hospital Place.

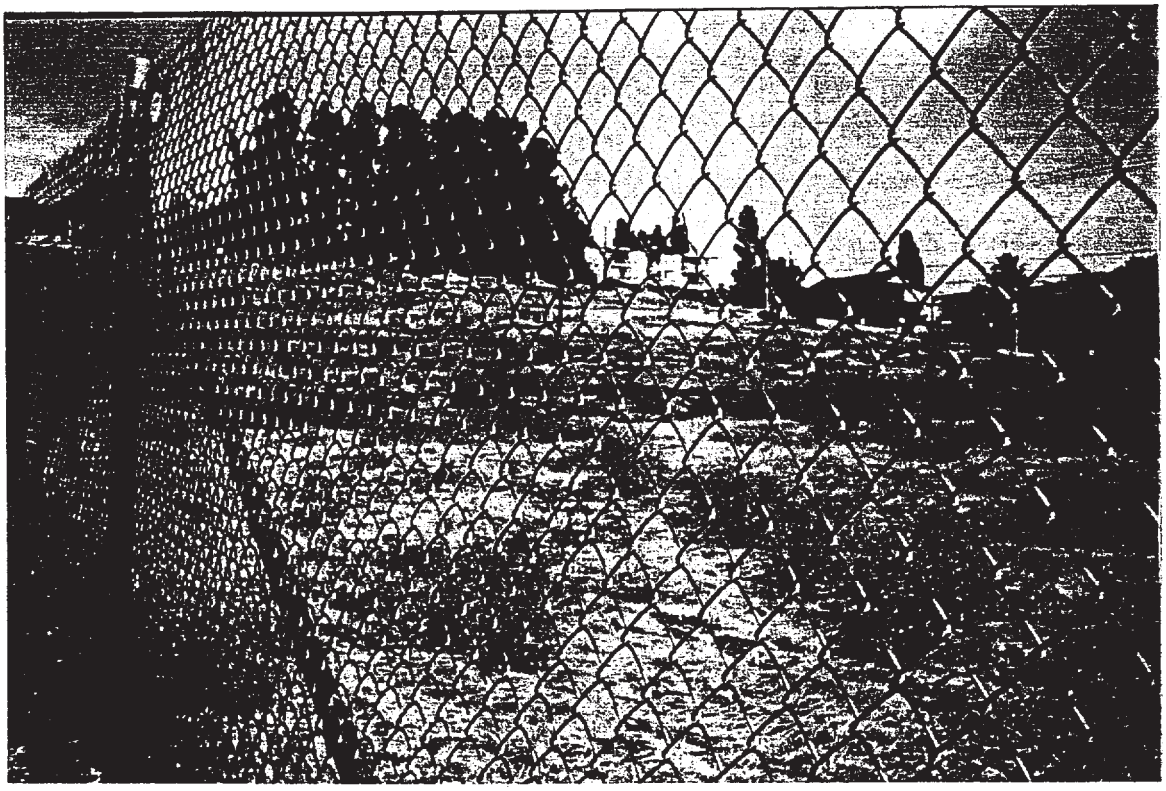


Photograph 3: Muir Building (School of Nursing) at 1937 B Hospital Place.

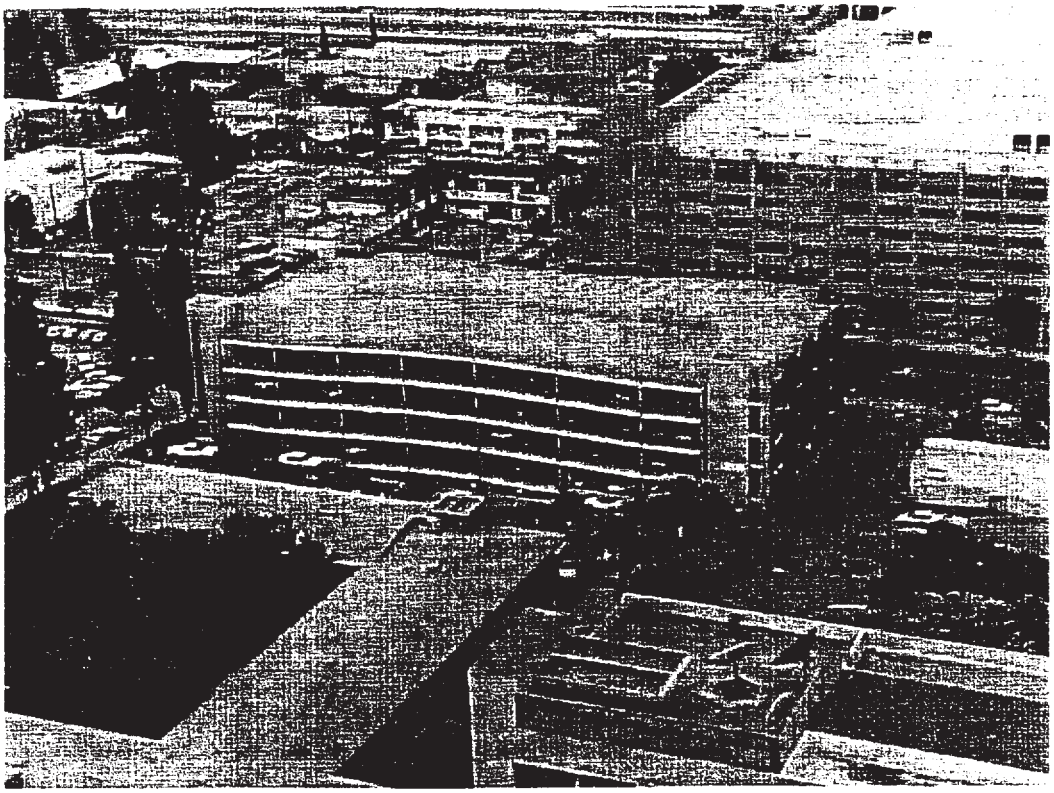
Photograph 4: Grad Hall at 1937 Hospital Place.



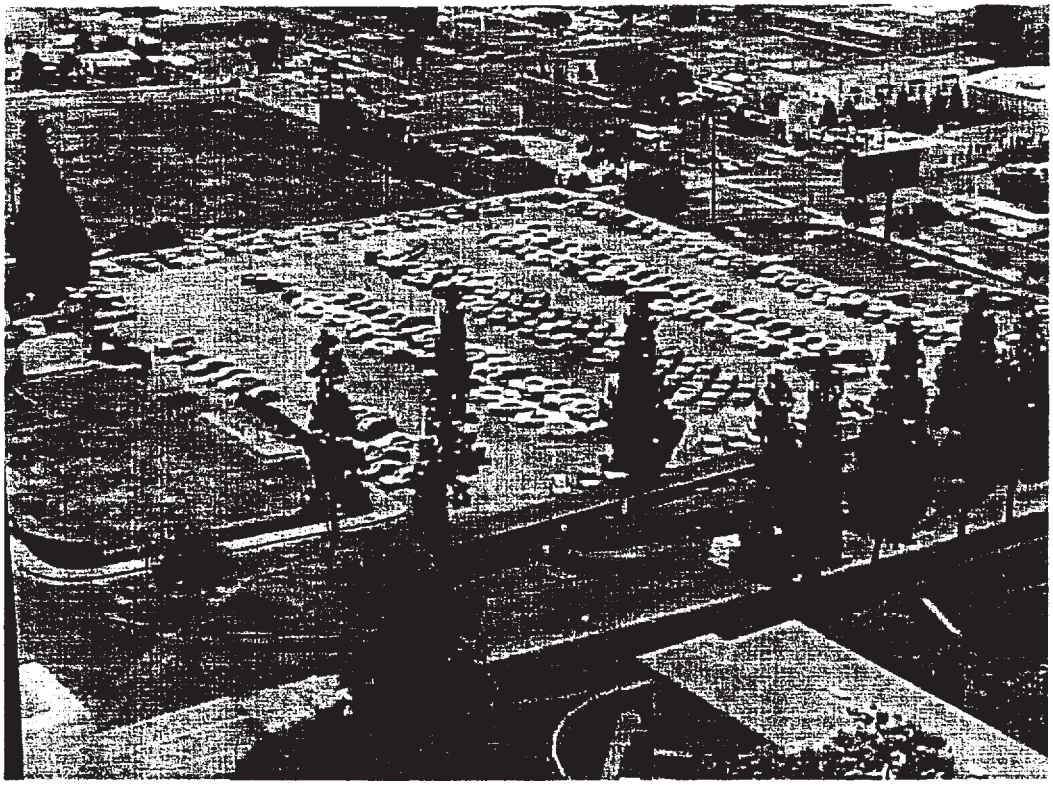
Photograph 5: Former AIDS Clinic at 1115 North Cummings.



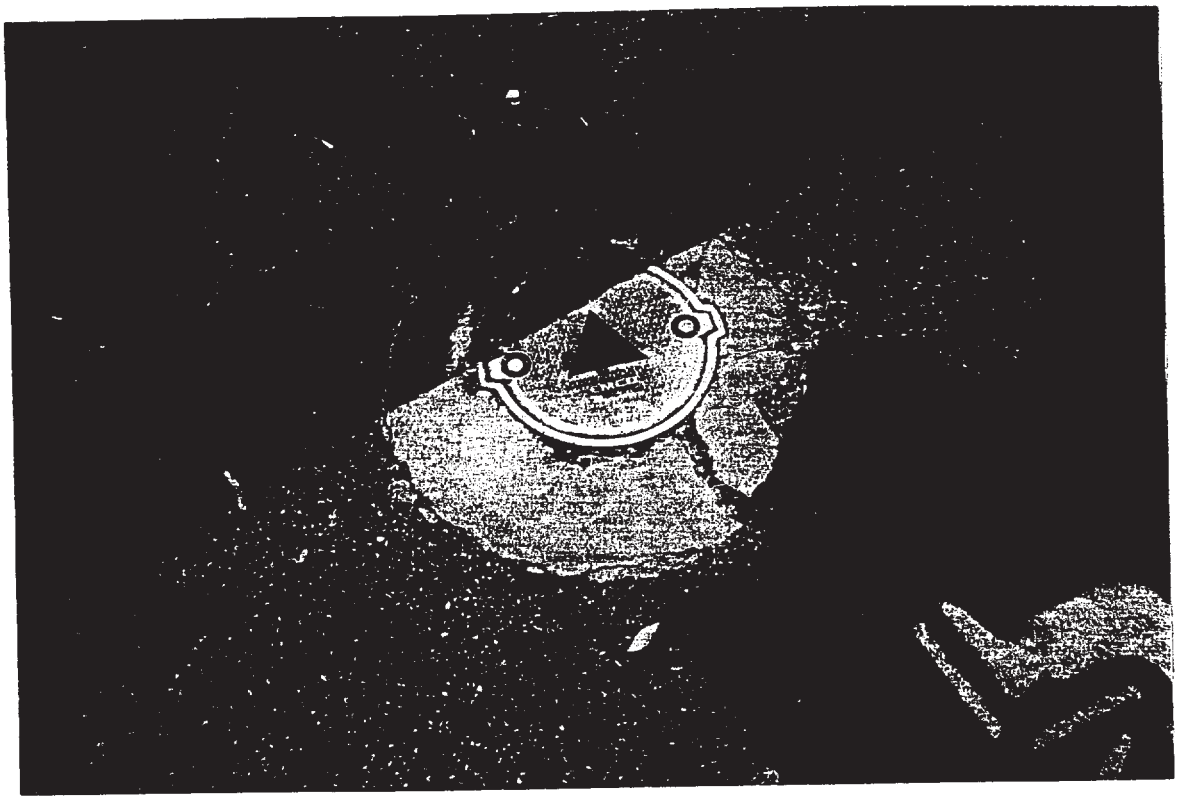
Photograph 6: Vacant former residential lot between Cummings and Chicago Streets.



Photograph 7: Parking Structure #6 along Marengo Street.



Photograph 8: Parking Structure and Lot #11 along Marengo Street.



Photograph 9: Groundwater Monitoring Well along to the north of Parking Structure #6.

Photograph 10: The underground storage tank along Marengo Street was removed on October 20, 1998.

APPENDIX B
EDR-RADIUS MAP REPORT

The EDR-Radius Map
with GeoCheck®

LAC/USC Medical Center Replacement
1937 Hospital Place
Los Angeles, CA 90033

Inquiry Number: 1294944.1p

September 21, 1998

Environmental Data Resources, Inc.
an edr company

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-97. Search distances are per ASTM standard or custom distances requested by the user.

The address of the subject property for which the search was intended is:

1937 HOSPITAL PLACE
LOS ANGELES, CA 90033

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-97 search radius around the subject property for the following Databases:

NPL:	National Priority List
Delisted NPL:	NPL Deletions
RCRIS-TSD:	Resource Conservation and Recovery Information System
AWP:	AWP
Notify 65:	Notify 65
CHMIRS:	California Hazardous Material Incident Report System
Toxic Pits:	Toxic Pits
CERC-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS:	Corrective Action Report
SWF/LF:	State Landfill
AST:	Aboveground Petroleum Storage Tank Facilities
RAATS:	RCRA Administrative Action Tracking System
WMUDS:	WMUDS/SWAT
HMIRS:	Hazardous Materials Information Reporting System
PADS:	PCB Activity Database System
ERNS:	Emergency Response Notification System
TRIS:	Toxic Chemical Release Inventory System
TSCA:	Toxic Substances Control Act
MLTS:	Material Licensing Tracking System
NPL Lien:	NPL Liens
Site Mitig:	Site Mitigation
CA SLIC:	CA SLIC regions.
Ca. BEP:	CA Bond Exp. Plan
ROD:	ROD
CONSENT:	Superfund (CERCLA) Consent Decrees
Ca. WDS:	CA WDS
HMS:	HMS: Street Number List
S Bay Reg. 2:	South Bay Region 2
Coal Gas:	Former Manufactured gas (Coal Gas) Sites.

Unmapped (orphan) sites are not considered in the foregoing analysis.

Search Results:

Search results for the subject property and the search radius, are listed below:

Subject Property:

The subject property was not listed in any of the databases searched by EDR.

Surrounding Properties:

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the subject property includes a tolerance of -10 feet. Sites with an elevation equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

CAL-SITES: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control.

A review of the Cal-Sites list, as provided by EDR, has revealed that there is 1 Cal-Sites site within approximately 0.625 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CELOTEX CORP	1633 SAN PABLO ST	1/2 - 1 NE	Q52	35

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there are 10 Cortese sites within approximately 0.625 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LA USC MEDICAL CTR	***1200 N STATE ST***	***0 - 1/8 NNW***	***B4***	***10***
AL-SAL OIL #17	1848 MARENGO ST	0 - 1/8 W	A8	15
NORRIS CANCER HOSPITAL	1441 EASTLAKE AVE	1/4 - 1/2 NE	J32	26
ALCAZAR MAINTENANCE YARD	***1525 ALCAZAR ST***	***1/4 - 1/2 NNE***	***P48***	***32***

Lower Elevation	Address	Dist / Dir	Map ID	Page
CHEVRON STA 9 3690	***1101 N MISSION***	***1/4 - 1/2 WNW***	***K38***	***28***
OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST	1/4 - 1/2 NW	M40	29
MORTON INT'L WHITTAKER CO	1021 N MISSION RD	1/4 - 1/2 WNW	N42	30
SHELL STATION #204-4539-0	918 SOTO	1/4 - 1/2 SE	O45	31
GANNETT OUTDOOR OF SO CA	***1016 N MISSION RD***	***1/4 - 1/2 WNW***	***N47***	***32***
SO. PACIFIC TRANS. CO.	***2100 ALHAMBRA AVE***	***1/2 - 1 NW***	***53***	***36***

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, persuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 06/15/1998 has revealed that there is 1 CERCLIS site within approximately 0.625 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NU WAY PLATING CO	*1805 SICHEL ST*	*1/4 - 1/2 NNW*	*51*	*34*

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 10/01/1997 has revealed that there are 16 LUST sites within approximately 0.625 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LA USC MEDICAL CTR	*1200 N STATE ST*	*0 - 1/8 NNW*	*B4*	*10*
KWIK GAS #17	*1848 MARENGO ST*	*0 - 1/8 W*	*A7*	*14*
LINCOLN MAGNET HIGH SCHOOL-LAU	1200 CORNWELL ST	1/4 - 1/2 E	F21	22
NORRIS CANCER HOSPITAL	1441 EASTLAKE AVE	1/4 - 1/2 NE	J33	26
ESTELLE DOHENY EYE HOSPITAL	*1537 NORFOLK ST*	*1/4 - 1/2 NE*	*39*	*29*
SHELL/SOTO-CHARLOTTE	1203 N SOTO ST	1/4 - 1/2 ESE	44	31
ALCAZAR MAINTENANCE YARD	*1525 ALCAZAR ST*	*1/4 - 1/2 NNE*	*P48*	*32*
USC CENTER FOR MOLECULAR MED.	*1540 ALCAZAR ST*	*1/4 - 1/2 NNE*	*P50*	*33*
CELOTEX CORP	1632 SAN PABLO ST	1/2 - 1 NE	Q54	37

Lower Elevation	Address	Dist / Dir	Map ID	Page
CHEVRON STATION 9 3690	*1101 N MISSION RD*	*1/4 - 1/2 WNW*	*K34*	*27*
OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST	1/4 - 1/2 NW	M41	30
WHITTAKER CORP BAUER COATINGS	*1021 N MISSION ROAD*	*1/4 - 1/2 WNW*	*N43*	*30*
MOBIL #11-KXI	1010 N SOTO ST	1/4 - 1/2 SE	O46	31
GANNETT OUTDOOR OF SO CA	*1016 N MISSION RD*	*1/4 - 1/2 WNW*	*N47*	*32*
SHELL STATION #204-4539-0105	918 N SOTO ST	1/4 - 1/2 SE	49	33
SO. PACIFIC TRANS. CO.	*2100 ALHAMBRA AVE*	*1/2 - 1 NW*	*53*	*36*

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 7 UST sites within approximately 0.375 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LA USC MEDICAL CTR	*1200 N STATE ST*	*0 - 1/8 NNW*	*B4*	*10*
USC MEDICAL CENTER	1200 NORTH STATE STREET	0 - 1/8 NNW	B6	13
KWIK GAS #17	*1848 MARENGO ST*	*0 - 1/8 W*	*A9*	*15*
RAY'S AUTO SERVICE	2039 MARENGO ST.	1/8 - 1/4 SE	C11	17
NEWMAN NTURITION CENTER	2310 CHARLOTTE STREET	1/4 - 1/2 E	H28	25

Lower Elevation	Address	Dist / Dir	Map ID	Page
USC MEDICAL CENTER POWER PLANT	1635 MARENGO STREET	1/4 - 1/2 WNW	G25	23
GASCO SERVICE STATION #065	808 NORTH STATE STREET	1/4 - 1/2 SW	L37	28

EXECUTIVE SUMMARY

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the Ca. FID list, as provided by EDR, has revealed that there are 19 Ca. FID sites within approximately 0.375 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
IT CORP	1129 N STATE ST	0 - 1/8 WNW	A1	9
ESTHER M HILDAGO	2006 MARENGO ST	0 - 1/8 SE	2	9
L A COUNTY USC MEDICAL CENTER	1200 N STATE ST	0 - 1/8 NNW	B5	13
KWIK GAS #17	***1848 MARENGO ST***	***0 - 1/8 W***	***A9***	***15***
RAY'S AUTO SERVICE	2039 MARENGO ST	1/8 - 1/4 SE	C12	18
E JASPER WRECKING & TRUCKING	2055 MARENGO ST	1/8 - 1/4 SE	C13	19
EAST LOS ANGELES OCCUP/CENTER	2100 MARENGO ST	1/8 - 1/4 SE	D14	19
UNIVERSITY OF SO CALIFORNIA	1969 ZONAL AVE	1/8 - 1/4 NNE	16	20
UNIVERSITY OF SO CALIFORNIA	2011 ZONAL AVE	1/8 - 1/4 NE	E17	20
U S C MEDICAL CENTER	1910 ZONAL AVE	1/8 - 1/4 N	18	20
LOS ANGELES CITY SCHOOL	1204 N CORNWELL	1/8 - 1/4 E	F20	21
UNIVERSITY OF SO CALIFORNIA	1333 SAN PABLO ST	1/4 - 1/2 ENE	23	23
NEWMAN NUTRITION CENTER	2310 CHARLOTTE ST	1/4 - 1/2 E	H26	24
STEPHEN'S AUTO SERVICE CENTER	1201 N MISSION RD	1/4 - 1/2 NW	I29	25
USC MEDICAL CENTER	***1240 N MISSION RD***	***1/4 - 1/2 NNW***	***I30***	***25***
KEN NORRIS JR CANCER HOSP/RESE	1441 EASTLAKE AVE	1/4 - 1/2 NE	J31	26

Lower Elevation	Address	Dist / Dir	Map ID	Page
USC MEDICAL CENTER POWER PLANT	1635 MARENGO ST	1/4 - 1/2 WNW	G24	23
93690	1101 N MISSION	1/4 - 1/2 WNW	K35	27
MEADOW MAID MARKET	808 N STATE ST	1/4 - 1/2 SW	L36	28

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 01/01/1998 has revealed that there are 3 RCRIS-SQG sites within approximately 0.375 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NORTHEAST HEALTH CTR	***2032 MARENGO ST***	***1/8 - 1/4 SE***	***C10***	***17***
LAC / USC IMAGING SCIENCE CTR	***1744 ZONAL AVE***	***1/4 - 1/2 NNW***	***22***	***22***
LOS ANGELES USD NEWMAN NUTRITI	***2310 CHARLOTTE ST***	***1/4 - 1/2 E***	***H27***	***24***

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 01/01/1998 has revealed that there are 4 RCRIS-LQG sites within approximately 0.375 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LA HEALTH SVC LAC USC MED CTR	1200 N STATE STREET	0 - 1/8 NNW	B3	9
LA USC MEDICAL CTR	***1200 N STATE ST***	***0 - 1/8 NNW***	***B4***	***10***
ELA OCCUPATIONAL CTR	***2100 MARENGO ST***	***1/8 - 1/4 SE***	***D15***	***19***
UNIVERSITY OF SOUTHERN CALIFOR	***HEALTH SCIENCES 2025 ZO***	***1/8 - 1/4 NE***	***E19***	***21***

EXECUTIVE SUMMARY

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

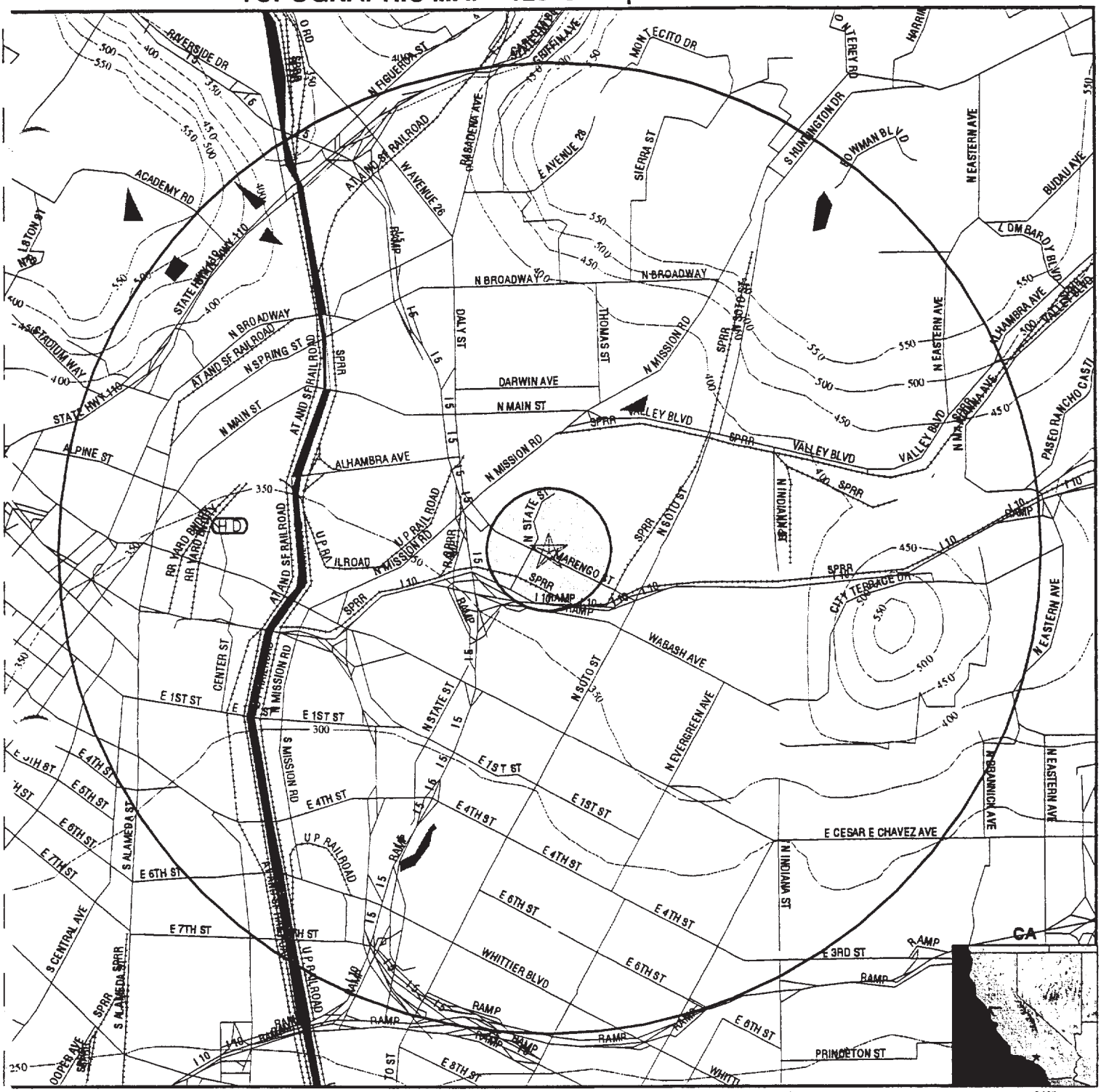
A review of the FINDS list, as provided by EDR, and dated 04/01/1997 has revealed that there are 2 FINDS sites within approximately 0.125 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LA USC MEDICAL CTR	*1200 N STATE ST*	*0 - 1/8 NNW*	*B4*	*10*
KWIK GAS #17	*1848 MARENGO ST*	*0 - 1/8 W*	*A9*	*15*

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PLATING SHOP	CERCLIS
BIO GRO SYSTEMS INC	SWF/LF
K&S RUBBISH AKA KEN MALLOY REGIONAL PARK	SWF/LF
BURRO DEBRIS DISPOSAL SITE	SWF/LF
JOINT WATER DISTRICT PLANT	SWF/LF
USED TIRE KING	SWF/LF
SAN CLEMENTE ISLAND LANDFILL	SWF/LF
CAL TRANS	HAZNET
1X L D S CHURCH LA MISSION HOME	HAZNET
FRANKLIN HS	HAZNET
CITY OF LOS ANGELES	HAZNET
1X THE LIMITED	HAZNET
UNIVERSITY OF SOUTHERN CALIFORNIA	HAZNET
THE AHMANSON THEATER	HAZNET
ASTRO AUTO CENTER	HAZNET
BROADWAY DEPARTMENT STORES	HAZNET
1X THE PARK AND RIDE LOT	HAZNET
1X NUCARTHAY PARTNERS	HAZNET
1X WEST HOLLYWOOD SHERRIFS STATION	HAZNET
1X SOUTHERN CAL GAS CO	HAZNET
USC	FINDS,RCRIS-LQG,HAZNET
SHELL STA NO 204-4539-9601	FINDS,RCRIS-LQG
501 NORTH CENTER ST	ERNS
PARAMDICAL OCCUPATIONAL CENTER/**	ERNS
USC MEDICAL CENTER MARENGO	ERNS
MEXICO AUTO WRECKING	Site Mitig

TOPOGRAPHIC MAP - 1294944.1p - Dames & Moore



- Major Roads
- Contour Lines
- Waterways
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- (F) Federal Wells
- (S) State Wells
- (P) Public Water Supply Wells

(HD) Closest Hydrogeological Data

TARGET PROPERTY:	LAC/USC Medical Center Replacement	CUSTOMER:	Dames & Moore
ADDRESS:	1937 Hospital Place	CONTACT:	Mr. Robert Forster
CITY/STATE/ZIP:	Los Angeles CA 90033	INQUIRY #:	1294944.1p
LAT/LONG:	34.0579 / 118.2079	DATE:	September 21, 1998 2:57 pm

GEOCHECK VERSION 2.1
SUMMARY

TARGET PROPERTY COORDINATES

Latitude (North):	34.057899 - 34° 3' 28.4"
Longitude (West):	118.207901 - 118° 12' 28.4"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	-11311440.0
UTM Y (Meters):	26824770.0

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property:	2434118-A2 LOS ANGELES, CA

GEOLOGIC AGE IDENTIFICATION†

Geologic Code:	Q
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary

ROCK STRATIGRAPHIC UNIT†

Category:	Stratifed Sequence

GROUNDWATER FLOW INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, including well data collected on nearby properties, regional groundwater flow information (from deep aquifers), or surface topography.‡

AQUIFLOW™** Search Radius: 2.000 Miles

MAP ID	DISTANCE FROM TP	DIRECTION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported			

General Topographic Gradient at Target Property: General SW
General Hydrogeologic Gradient at Target Property: No hydrogeologic data available.
Site-Specific Hydrogeological Data*:

Search Radius:	2.0 miles
Status:	Not found

SEARCH DISTANCE RADIUS INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal Database	0.125
State Database	0.125
PWS Database	0.125

FEDERAL DATABASE WELL INFORMATION

WELL DIRECTION	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE
NO WELLS FOUND			

† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).
‡ U.S. EPA Ground Water Handbook, Vol I: Ground Water and Contamination, Office of Research and development EPA/625/8-90/016a,Chapter 4, page 78, September 1990.
** EDR AQUIFLOW™ information System of hydrogeologically determined groundwater flow directions at specific locations. See the data pages at the end of this report for a complete description.

GEOCHECK VERSION 2.1
SUMMARY

STATE DATABASE WELL INFORMATION

WELL DIRECTION	DISTANCE FROM TP

NO WELLS FOUND

PUBLIC WATER SUPPLY SYSTEM INFORMATION

NO WELLS FOUND

AREA RADON INFORMATION

EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

OVERVIEW MAP - 1294944.1p - Dames & Moore

★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

♟ Coal Gasification Sites (if requested)

National Priority List Sites

Landfill Sites

Power transmission lines

Oil & Gas pipelines

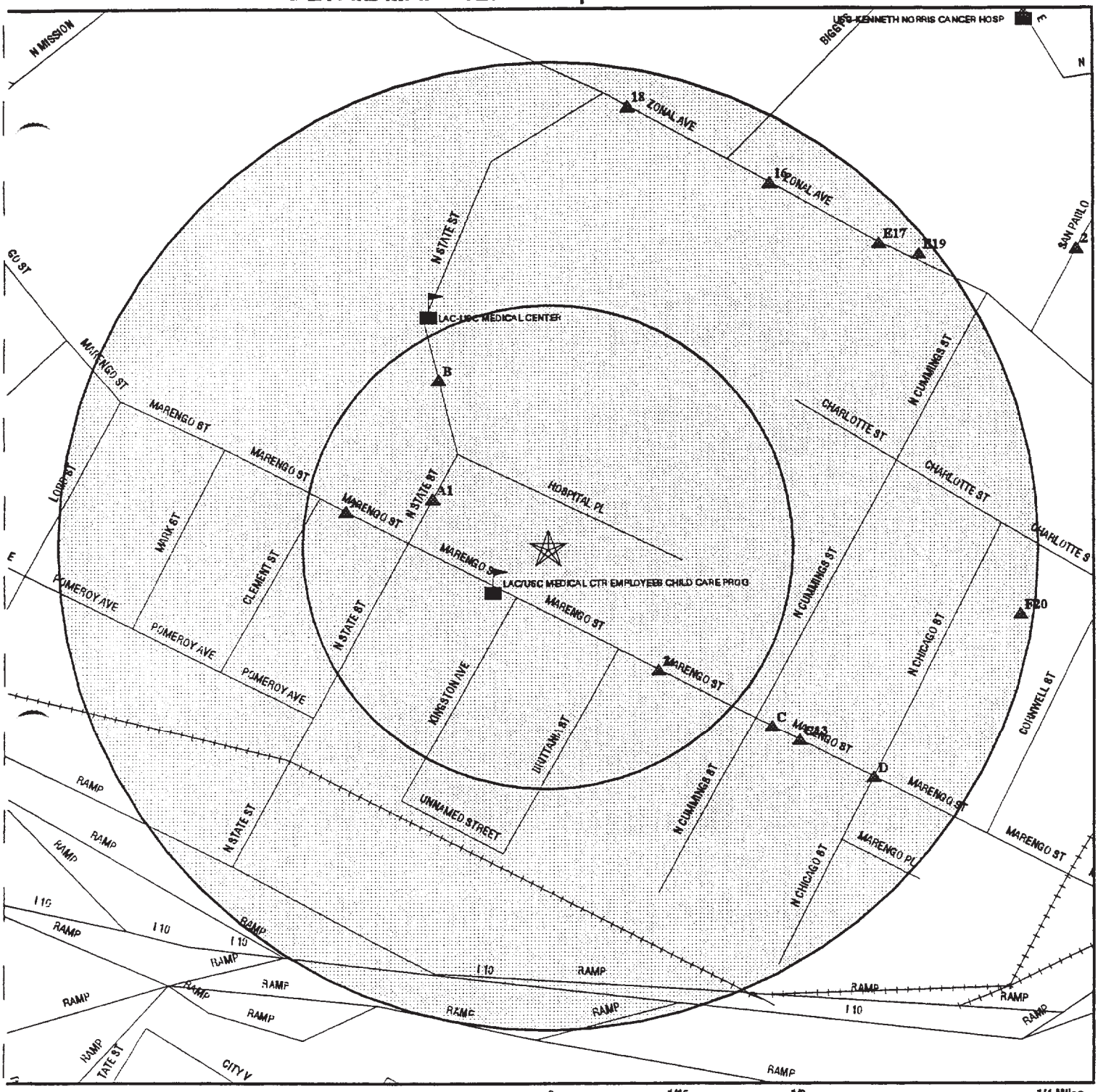
100-year flood zone

500-year flood zone

N

TARGET PROPERTY:	LAC/USC Medical Center Replacement	CUSTOMER:	Dames & Moore
ADDRESS:	1937 Hospital Place	CONTACT:	Mr. Robert Forster
CITY/STATE/ZIP:	Los Angeles CA 90033	INQUIRY #:	1294944.1p
LAT/LONG:	34.0579 / 118.2079	DATE:	September 21, 1998 2:53 pm

DETAIL MAP - 1294944.1p - Dames & Moore



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

Coal Gasification Sites (if requested)

Sensitive Receptors

National Priority List Sites

Landfill Sites

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

TARGET PROPERTY:	LAC/USC Medical Center Replacement	CUSTOMER:	Dames & Moore
ADDRESS:	1937 Hospital Place	CONTACT:	Mr. Robert Forster
CITY/STATE/ZIP:	Los Angeles CA 90033	INQUIRY #:	1294944.1p
LAT/LONG:	34.0579 / 118.2079	DATE:	September 21, 1998 2:56 pm

MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.125	0	0	0	0	0	0
Delisted NPL		0.125	0	NR	NR	NR	NR	0
RCRIS-TSD		0.625	0	0	0	0	NR	0
AWP		0.025	0	NR	NR	NR	NR	0
Cal-Sites		0.625	0	0	0	1	NR	1
Notify 65		0.025	0	NR	NR	NR	NR	0
CHMIRS		0.025	0	NR	NR	NR	NR	0
Cortese		0.625	2	0	7	1	NR	10
Toxic Pits		0.025	0	NR	NR	NR	NR	0
CERCLIS		0.625	0	0	1	0	NR	1
CERC-NFRAP		0.125	0	NR	NR	NR	NR	0
CORRACTS		1.125	0	0	0	0	0	0
State Landfill		0.625	0	0	0	0	NR	0
LUST		0.625	2	0	12	2	NR	16
UST		0.375	3	1	3	NR	NR	7
CA FID		0.375	4	7	9	NR	NR	20
AST		0.375	0	0	0	NR	NR	0
RAATS		0.125	0	NR	NR	NR	NR	0
WMUDS/SWAT		0.625	0	0	0	0	NR	0
HAZNET		0.025	2	NR	NR	NR	NR	2
RCRIS Sm. Quan. Gen.		0.375	0	1	4	NR	NR	5
RCRIS Lg. Quan. Gen.		0.375	2	2	1	NR	NR	5
HMIRS		0.125	0	NR	NR	NR	NR	0
PADS		0.125	0	NR	NR	NR	NR	0
ERNS		0.250	0	0	NR	NR	NR	0
FINDS		0.125	2	NR	NR	NR	NR	2
TRIS		0.125	0	NR	NR	NR	NR	0
TSCA		0.125	0	NR	NR	NR	NR	0
MLTS		0.125	0	NR	NR	NR	NR	0
NPL Liens		0.125	0	NR	NR	NR	NR	0
Site Mitigation		0.025	0	NR	NR	NR	NR	0
CA SLIC		0.125	0	NR	NR	NR	NR	0
CA Bond Exp. Plan		0.025	0	NR	NR	NR	NR	0
ROD		0.125	0	NR	NR	NR	NR	0
CONSENT		0.125	0	NR	NR	NR	NR	0
CA WDS		0.025	0	NR	NR	NR	NR	0
HMS		0.025	0	NR	NR	NR	NR	0
South Bay Region 2		0.025	0	NR	NR	NR	NR	0
Coal Gas		0.125	0	NR	NR	NR	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS SUMMARY SHOWING ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.125	0	0	0	0	0	0
Delisted NPL		0.125	0	NR	NR	NR	NR	0
RCRIS-TSD		0.625	0	0	0	0	NR	0
AWP		0.025	0	NR	NR	NR	NR	0
Cal-Sites		0.625	0	0	0	1	NR	1
Notify 65		0.025	0	NR	NR	NR	NR	0
CHMIRS		0.025	0	NR	NR	NR	NR	0
Cortese		0.625	2	0	2	0	NR	4
Toxic Pits		0.025	0	NR	NR	NR	NR	0
CERCLIS		0.625	0	0	1	0	NR	1
CERC-NFRAP		0.125	0	NR	NR	NR	NR	0
CORRACTS		1.125	0	0	0	0	0	0
State Landfill		0.625	0	0	0	0	NR	0
LUST		0.625	2	0	6	1	NR	9
UST		0.375	3	1	1	NR	NR	5
CA FID		0.375	4	7	6	NR	NR	17
AST		0.375	0	0	0	NR	NR	0
RAATS		0.125	0	NR	NR	NR	NR	0
WMUDS/SWAT		0.625	0	0	0	0	NR	0
HAZNET		0.025	2	NR	NR	NR	NR	2
RCRIS Sm. Quan. Gen.		0.375	0	1	2	NR	NR	3
RCRIS Lg. Quan. Gen.		0.375	2	2	0	NR	NR	4
HMIRS		0.125	0	NR	NR	NR	NR	0
PADS		0.125	0	NR	NR	NR	NR	0
ERNS		0.250	0	0	NR	NR	NR	0
FINDS		0.125	2	NR	NR	NR	NR	2
TRIS		0.125	0	NR	NR	NR	NR	0
TSCA		0.125	0	NR	NR	NR	NR	0
MLTS		0.125	0	NR	NR	NR	NR	0
NPL Liens		0.125	0	NR	NR	NR	NR	0
Site Mitigation		0.025	0	NR	NR	NR	NR	0
CA SLIC		0.125	0	NR	NR	NR	NR	0
CA Bond Exp. Plan		0.025	0	NR	NR	NR	NR	0
ROD		0.125	0	NR	NR	NR	NR	0
CONSENT		0.125	0	NR	NR	NR	NR	0
CA WDS		0.025	0	NR	NR	NR	NR	0
HMS		0.025	0	NR	NR	NR	NR	0
South Bay Region 2		0.025	0	NR	NR	NR	NR	0
Coal Gas		0.125	0	NR	NR	NR	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

A1
WNW
< 1/8
Higher

IT CORP — Ca. FID — S101583783
1129 N STATE ST — N/A
LOS ANGELES, CA 90033

FID:

Facility ID:	19006171	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported 1129 N STATE ST LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

2
SE
< 1/8
Higher

ESTHER M HILDAGO — Ca. FID — S101587591
2006 MARENGO ST — N/A
LOS ANGELES, CA 90033

FID:

Facility ID:	19055794	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported 2006 MARENGO ST LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

B3
NNW
< 1/8
Higher

LA HEALTH SVC LAC USC MED CTR — RCRIS-LQG — 1000240200
1200 N STATE STREET — CAD095615027
LOS ANGELES, CA 90033

RCRIS:

Owner:	MUNICIPAL GOVERNMENT (415) 555-1212
Contact:	ENVIRONMENTAL MANAGER (213) 974-7881
Record Date:	04/17/81
Classification:	Large Quantity Generator, Hazardous Waste Transporter

LA HEALTH SVC LAC USC MED CTR (Continued) **1000240200**

Used Oil Recyc: No

Violation Status: No violations found

B4
NNW
< 1/8
Higher

LA USC MEDICAL CTR
1200 N STATE ST
LOS ANGELES, CA 90033

FINDS **1000427580**
RCRIS-LQG **CAT080016892**
UST
LUST
Cortese

RCRIS:

Owner: LOS ANGELES COUNTY
(415) 555-1212

Contact: ENVIRONMENTAL MANAGER
(213) 226-6813

Record Date: 04/01/81

Classification: Large Quantity Generator, Small Quantity Generator

Used Oil Recyc: No

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

State LUST:

Facility Type	ACTIVE	Cross Street:	MARENGO
Reg Board:	Los Angeles Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Regional Board		
Case Type:	Other ground water affected		
Status:	Pollution characterization		
Review Date:	01/15/1998	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	02/21/1989	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	Not reported	Release Date:	11/07/1988

LUST Region 4:

Report Date:	11/07/1988
Cross Street:	MARENGO
Lead Agency:	Regional Board
Local Agency:	19050
Substance:	8006619
Case Number:	900330270
Case Type:	Other ground water affected

CORTESE:

Reg By:	LTNKA
Reg Id:	900330270
Region:	CORTESE

LA USC MEDICAL CTR (Continued) **1000427580**

State UST:

Facility ID:	33992		
Tank Num:	1	Container Num:	G.H. #1
Tank Capacity:	10000	Year Installed:	1964
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	.25 inches
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	2	Container Num:	G.H. #2
Tank Capacity:	10000	Year Installed:	1972
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	.25 inches
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	3	Container Num:	G.H. #3
Tank Capacity:	1500	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	4	Container Num:	G.H. #4
Tank Capacity:	300	Year Installed:	Not reported
Tank Used for:	WASTE		
Type of Fuel:	Not Reported	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	5	Container Num:	OP. #5
Tank Capacity:	800	Year Installed:	1961
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	.25 inches
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

LA USC MEDICAL CTR (Continued) **1000427580**

Facility ID:	33992		
Tank Num:	6	Container Num:	P-6
Tank Capacity:	500	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	7	Container Num:	PP #7
Tank Capacity:	500	Year Installed:	1952
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	3/16 inches
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	8	Container Num:	PP #8
Tank Capacity:	500	Year Installed:	1952
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	3/16 inches
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	9	Container Num:	T #9
Tank Capacity:	500	Year Installed:	1958
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	12 gauge
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	10	Container Num:	W 10
Tank Capacity:	500	Year Installed:	1958
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	12 gauge
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

LA USC MEDICAL CTR (Continued) 1000427580

Facility ID:	33992		
Tank Num:	11	Container Num:	W #11
Tank Capacity:	500	Year Installed:	1958
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	12 gauge
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

Facility ID:	33992		
Tank Num:	12	Container Num:	12
Tank Capacity:	4000	Year Installed:	1969
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(213) 226-6084
Total Tanks:	12	Region:	Not reported
Facility Type:	2	Other Type:	MEDICAL CENTER

UST Orange County:

UST Riverside County:
Region: RIVERSIDE
Total Tanks: 2

B5
NNW
< 1/8
Higher

L A COUNTY USC MEDICAL CENTER Ca. FID S101582624
1200 N STATE ST N/A
LOS ANGELES, CA 90063

FID:

Facility ID:	19000861	Regulate ID:	00020696
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 226-6084
Mail To:	Not reported 1100 N EASTERN AVE LOS ANGELES, CA 90063		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

B6
NNW
< 1/8
Higher

USC MEDICAL CENTER UST U001562387
1200 NORTH STATE STREET N/A
LOS ANGELES, CA 90063

USC MEDICAL CENTER (Continued) **U001562387**

State UST:

Facility ID:	20696		
Tank Num:	1	Container Num:	#4
Tank Capacity:	10000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L. A COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

Facility ID:	20696		
Tank Num:	2	Container Num:	#1
Tank Capacity:	4000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L. A COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

Facility ID:	20696		
Tank Num:	3	Container Num:	N/A
Tank Capacity:	10000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L. A COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

Facility ID:	20696		
Tank Num:	4	Container Num:	#3
Tank Capacity:	8000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L. A COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

A7 **KWIK GAS #17** **HAZNET** **S100865979**
West **1848 MARENGO ST** **LUST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
Higher

LUST Region 4:

Report Date:	12/01/1993
Cross Street:	Not reported
Lead Agency:	Local Agency
Local Agency:	19050
Substance:	8006619
Case Number:	053095-05
Case Type:	Soil only

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

KWIK GAS #17 (Continued) — **S100865979**

HAZNET:

Year:	1993		
Gepaid:	CAD981661929	Tepaid:	CAT080013352
Contact:	ANENBERG NORTON VP	Telephone:	(213) 666-4471
Gen County:	Los Angeles	Tons:	Not reported
Tsd Name:	Not reported		
Tsd Address	Not reported		
	Not reported		
	Not reported		
Tsd County	Los Angeles		
Mailing Address:	3410 E FOOTHILL BLVD		
	Not reported		
	PASADENA, CA 91107		
Category:	Waste oil and mixed oil		
Disposal Method:	Recycler		

Year:	Not reported		
Gepaid:	CAD981661929	Tepaid:	CAT080013352
Contact:	Not reported	Telephone:	Not reported
Gen County:	Not reported	Tons:	41
Tsd Name:	DEMENNO/KERDOON TRANSPORTATION		
Tsd Address	2000 N ALAMEDA ST		
	Not reported		
	COMPTON		
Tsd County	Los Angeles		
Mailing Address:	Not reported		
	Not reported		
	Not reported		
Category:	Waste oil and mixed oil		
Disposal Method:	Recycler		

A8
West
< 1/8
Higher

AL-SAL OIL #17 — **Cortese** — **S103065667**
1848 MARENGO ST — **N/A**
LOS ANGELES, CA 90033

CORTESE:

Reg By:	LTNKA
Reg Id:	053095-05
Region:	CORTESE

A9
West
< 1/8
Higher

KWIK GAS #17 — **FINDS** — **1000266510**
1848 MARENGO ST — **UST** — **CAD981661929**
LOS ANGELES, CA 90033 — **Ca. FID**
HAZNET

KWIK GAS #17 (Continued) **1000266510**

FID:

Facility ID:	19023610	Regulate ID:	00004071
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 221-4016
Mail To:	Not reported 5121 SUNSET BLVD LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

State UST:

Facility ID:	4071		
Tank Num:	1	Container Num:	7
Tank Capacity:	20000	Year Installed:	1978
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	MONTRI	Telephone:	(213) 666-4471
Total Tanks:	6	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	4071		
Tank Num:	2	Container Num:	2
Tank Capacity:	20000	Year Installed:	1978
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	MONTRI	Telephone:	(213) 666-4471
Total Tanks:	6	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	4071		
Tank Num:	3	Container Num:	3
Tank Capacity:	20000	Year Installed:	1978
Tank Used for:	PRODUCT		
Type of Fuel:	PREMIUM	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	MONTRI	Telephone:	(213) 666-4471
Total Tanks:	6	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	4071		
Tank Num:	4	Container Num:	1
Tank Capacity:	10000	Year Installed:	1971
Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	MONTRI	Telephone:	(213) 666-4471
Total Tanks:	6	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

KWIK GAS #17 (Continued) **1000266510**

Facility ID:	4071		
Tank Num:	5	Container Num:	2
Tank Capacity:	10000	Year Installed:	1971
Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	MONTRI	Telephone:	(213) 666-4471
Total Tanks:	6	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	4071		
Tank Num:	6	Container Num:	3
Tank Capacity:	10000	Year Installed:	1971
Tank Used for:	PRODUCT		
Type of Fuel:	PREMIUM	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	MONTRI	Telephone:	(213) 666-4471
Total Tanks:	6	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

UST Orange County:

UST Riverside County:
Region: RIVERSIDE
Total Tanks: 2

C10 **NORTHEAST HEALTH CTR** **RCRIS-SQG** **1000819389**
SE **2032 MARENGO ST** **FINDS** **CAD983653718**
1/8-1/4 **LOS ANGELES, CA 90033**
Higher

RCRIS:
Owner: LOS ANGELES COUNTY
(213) 974-7591
Contact: JOHN HAMILTON
(818) 813-3358
Record Date: 12/08/92
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

C11 **RAY'S AUTO SERVICE** **UST** **U001561367**
SE **2039 MARENGO ST.** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
Higher

RAY'S AUTO SERVICE (Continued) **U001561367**

State UST:

Facility ID:	41115		
Tank Num:	1	Container Num:	1
Tank Capacity:	6000	Year Installed:	1957
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	Not reported
Leak Detection:	None		
Contact Name:	RAY JUAREZ	Telephone:	(213) 225-8437
Total Tanks:	5	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	41115		
Tank Num:	2	Container Num:	2
Tank Capacity:	4000	Year Installed:	1957
Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Constrctn:	Not reported
Leak Detection:	None		
Contact Name:	RAY JUAREZ	Telephone:	(213) 225-8437
Total Tanks:	5	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	41115		
Tank Num:	3	Container Num:	3
Tank Capacity:	4000	Year Installed:	1957
Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Constrctn:	Not reported
Leak Detection:	None		
Contact Name:	RAY JUAREZ	Telephone:	(213) 225-8437
Total Tanks:	5	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	41115		
Tank Num:	4	Container Num:	4
Tank Capacity:	6000	Year Installed:	1957
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	Not reported
Leak Detection:	None		
Contact Name:	RAY JUAREZ	Telephone:	(213) 225-8437
Total Tanks:	5	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	41115		
Tank Num:	5	Container Num:	5
Tank Capacity:	200	Year Installed:	1957
Tank Used for:	WASTE		
Type of Fuel:	WASTE OIL	Tank Constrctn:	Not reported
Leak Detection:	None		
Contact Name:	RAY JUAREZ	Telephone:	(213) 225-8437
Total Tanks:	5	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

C12 **RAY'S AUTO SERVICE** **Ca. FID** **S101617370**
SE **2039 MARENGO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
Higher

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
C13 SE 1/8-1/4 Higher	**E JASPER WRECKING & TRUCKING** **2055 MARENGO ST** **LOS ANGELES, CA 90033**	**Ca. FID**	**S101588114** **N/A**

FID:

Facility ID:	19056349	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported 2055 MARENGO ST LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

D14 SE 1/8-1/4 Higher	**EAST LOS ANGELES OCCUP/CENTER** **2100 MARENGO ST** **LOS ANGELES, CA 90033**	**Ca. FID**	**S101585313** **N/A**

FID:

Facility ID:	19022608	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(000) 742-7590
Mail To:	Not reported 2100 MARENGO ST LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

D15 SE 1/8-1/4 Higher	**ELA OCCUPATIONAL CTR** **2100 MARENGO ST** **LOS ANGELES, CA 90033**	**FINDS** **RCRIS-LQG** **HAZNET**	**1000125374** **CAD981625684**

RCRIS:

Owner:	LAUSD (415) 555-1212
Contact:	ENVIRONMENTAL MANAGER (213) 742-7371
Record Date:	01/27/87
Classification:	Large Quantity Generator, Small Quantity Generator

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	ELA OCCUPATIONAL CTR (Continued)		**1000125374**
	Used Oil Recyc: No		
	Violation Status: No violations found		

16	**UNIVERSITY OF SO CALIFORNIA**	**Ca. FID**	**S101588299**
NNE	**1969 ZONAL AVE**		**N/A**
1/8-1/4	**LOS ANGELES, CA 90033**		
Higher			

FID:

Facility ID:	19056545	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported UNK LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

E17	**UNIVERSITY OF SO CALIFORNIA**	**Ca. FID**	**S101588300**
NE	**2011 ZONAL AVE**		**N/A**
1/8-1/4	**LOS ANGELES, CA 90031**		
Higher			

FID:

Facility ID:	19056546	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported UNK LOS ANGELES, CA 90031		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

18	**U S C MEDICAL CENTER**	**Ca. FID**	**S101588219**
North	**1910 ZONAL AVE**		**N/A**
1/8-1/4	**LOS ANGELES, CA 90033**		
Higher			

U S C MEDICAL CENTER (Continued) **S101588219**

FID:

Facility ID:	19056459	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported 1910 ZONAL AVE LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

E19 **UNIVERSITY OF SOUTHERN CALIFOR** **FINDS** **1000431649**
NE **HEALTH SCIENCES 2025 ZONAL AVE** **RCRIS-LQG** **CAT000617597**
1/8-1/4 **LOS ANGELES, CA 90033**
Higher

RCRIS:

Owner: BOARD OF TRUSTEES-UNIV OF SOUTHERN CALIF
(415) 555-1212

Contact: ENVIRONMENTAL MANAGER
(213) 743-6448

Record Date: 08/14/80

Classification: Large Quantity Generator

BIENNIAL REPORTS:

Last Biennial Reporting Year: 1995

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	30320.00	D002	2830.00
D003	3390.00	D005	2400.00
D009	400.00	D011	2200.00
F002	21120.00	F003	21120.00
F005	21120.00	P003	40.00
P005	40.00	P022	40.00
P030	20.00	P033	20.00
P054	40.00	P087	40.00
P098	20.00	P106	20.00
U044	2400.00	U151	60.00
U188	2400.00	U196	990.00
U220	3780.00	U239	3780.00

Used Oil Recyc: No

Violation Status: No violations found

F20 **LOS ANGELES CITY SCHOOL** **Ca. FID** **S101587719**
East **1204 N CORNWELL** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
Higher

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

LOS ANGELES CITY SCHOOL (Continued) **S101587719**

FID:

Facility ID:	19055926	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported 1204 N CORNWELL LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

F21 East 1/4-1/2 Higher **LINCOLN MAGNET HIGH SCHOOL-LAU** **LUST** **S102432645**
1200 CORNWELL ST **N/A**
LOS ANGELES, CA 90033

LUST Region 4:

Report Date:	04/08/1988
Cross Street:	CHARLOTTE
Lead Agency:	Regional Board
Local Agency:	19050
Substance:	8006619
Case Number:	900330061
Case Type:	Other ground water affected

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22 NNW 1/4-1/2 Higher **LAC / USC IMAGING SCIENCE CTR** **RCRIS-SQG** **1000685801**
1744 ZONAL AVE **FINDS** **CAD983624578**
LOS ANGELES, CA 90033 **HAZNET**

RCRIS:

Owner:	AMERICAN HEALTH SVC CORP (714) 476-0133
Contact:	LINDA NEEDHAM (213) 221-2744
Record Date:	03/24/92
Classification:	Small Quantity Generator
Used Oil Recyc:	No
Violation Status:	No violations found

LAC / USC IMAGING SCIENCE CTR (Continued) **1000685801**

HAZNET:

Year:	1993		
Gepaid:	CAD983624578	Tepaid:	CAD982524613
Contact:	STEPHEN M CUBRAL	Telephone:	(213) 221-2744
Gen County:	Los Angeles	Tons:	Not reported
Tsd Name:	Not reported		
Tsd Address	Not reported		
	Not reported		
	Not reported		
Tsd County	Orange		
Mailing Address:	1744 ZONAL AVE		
	Not reported		
	LOS ANGELES, CA 90033		
Category:	Photochemicals/photoprocessing waste		
Disposal Method:	Not reported		

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23 ENE 1/4-1/2 Higher **UNIVERSITY OF SO CALIFORNIA** **Ca. FID** **S101586999**
1333 SAN PABLO ST **N/A**
LOS ANGELES, CA 90033

FID:

Facility ID:	19054693	Regulate ID:	Not reported
Reg By:	Inactive Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Inactive	Facility Tel:	(213) 000-0000
Mail To:	Not reported		
	UNK		
	LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

G24 WNW 1/4-1/2 Lower **USC MEDICAL CENTER POWER PLANT** **Ca. FID** **S101617593**
1635 MARENGO ST **N/A**
LOS ANGELES, CA 90063

G25 WNW 1/4-1/2 Lower **USC MEDICAL CENTER POWER PLANT** **UST** **U001562388**
1635 MARENGO STREET **N/A**
LOS ANGELES, CA 90063

State UST:

Facility ID:	20693		
Tank Num:	1	Container Num:	1
Tank Capacity:	55000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L.A. COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

USC MEDICAL CENTER POWER PLANT (Continued) **U001562388**

Facility ID:	20693		
Tank Num:	2	Container Num:	2
Tank Capacity:	50000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L.A. COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

Facility ID:	20693		
Tank Num:	3	Container Num:	3
Tank Capacity:	11000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L.A. COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

Facility ID:	20693		
Tank Num:	4	Container Num:	4
Tank Capacity:	1000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Constrctn:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	L.A. COUNTY MECHANICAL DEPT.	Telephone:	(213) 267-2242
Total Tanks:	4	Region:	Not reported
Facility Type:	2	Other Type:	USC

H26
East
1/4-1/2
Higher

NEWMAN NUTRITION CENTER
2310 CHARLOTTE ST
LOS ANGELES, CA 90033

Ca. FID **S101617367**
N/A

H27
East
1/4-1/2
Higher

LOS ANGELES USD NEWMAN NUTRITION CTR
2310 CHARLOTTE ST
LOS ANGELES, CA 90033

RCRIS-SQG **1000102132**
FINDS **CAD982022576**

RCRIS:

Owner:	LOS ANGELES UNIFIED SCHOOL DISTRICT (415) 555-1212
Contact:	ENVIRONMENTAL MANAGER (213) 742-7371
Record Date:	08/07/87
Classification:	Small Quantity Generator

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

LOS ANGELES USD NEWMAN NUTRITION CTR (Continued) **1000102132**

Used Oil Recyc: No

Violation Status: No violations found

H28 **NEWMAN NTURITION CENTER** **UST** **U001561364**
East **2310 CHARLOTTE STREET** **N/A**
1/4-1/2 **LOS ANGELES, CA 90033**
Higher

State UST:

Facility ID:	68260		
Tank Num:	1	Container Num:	49
Tank Capacity:	8000	Year Installed:	Not reported
Tank Used for:	WASTE		
Type of Fuel:	Not Reported	Tank Constrctn:	X centimeters
Leak Detection:	None		
Contact Name:	CARLOS MORENO ASSISTANT MAINT.	Telephone:	(213) 742-7586
Total Tanks:	1	Region:	Not reported
Facility Type:	2	Other Type:	SCHOOL DISTRICT

I29 **STEPHEN'S AUTO SERVICE CENTER** **Ca. FID** **S101586263**
NW **1201 N MISSION RD** **N/A**
1/4-1/2 **LOS ANGELES, CA 90033**
Higher

FID:

Facility ID:	19042496	Regulate ID:	00017365
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 222-4909
Mail To:	Not reported 840 N BROADWAY LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

I30 **USC MEDICAL CENTER** **Ca. FID** **S101583782**
NNW **1240 N MISSION RD** **HMS** **N/A**
1/4-1/2 **LOS ANGELES, CA 90033**
Higher

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

USC MEDICAL CENTER (Continued) — **S101583782**

FID:

Facility ID:	19006170	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 000-0000
Mail To:	Not reported 1240 N MISSION RD LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

HMS:

Facility ID:	016612-022096	Facility Type:	Not reported
Permit Number:	Not reported	Permit Status:	Not reported
Facility Status:	OPEN	Area:	3F
Region:	Los Angeles County:		

J31 NE 1/4-1/2 Higher — **KEN NORRIS JR CANCER HOSP/RESE** — **Ca. FID** — **S101585584** / **N/A**
1441 EASTLAKE AVE
LOS ANGELES, CA 90033

FID:

Facility ID:	19025776	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 743-7743
Mail To:	Not reported 1441 EASTLAKE AVE LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

J32 NE 1/4-1/2 Higher — **NORRIS CANCER HOSPITAL** — **Cortese** — **S103065269** / **N/A**
1441 EASTLAKE AVE
LOS ANGELES, CA 90033

CORTESE:

Reg By:	LTNKA
Reg Id:	900330261
Region:	CORTESE

J33 NE 1/4-1/2 Higher — **NORRIS CANCER HOSPITAL** — **LUST** — **S102532189** / **N/A**
1441 EASTLAKE AVE
LOS ANGELES, CA 90033

NORRIS CANCER HOSPITAL (Continued) S102532189

LUST Region 4:
Report Date: 07/05/1994
Cross Street: PABLO ST
Lead Agency: Local Agency
Local Agency: 19050
Substance: 12034
Case Number: 900330261
Case Type: Soil only

K34 WNW 1/4-1/2 Lower **CHEVRON STATION 9 3690** HAZNET S100858382
1101 N MISSION RD LUST N/A
LOS ANGELES, CA 90033

LUST Region 4:
Report Date: 02/28/1996
Cross Street: DALY ST
Lead Agency: Regional Board
Local Agency: 19050
Substance: 8006619
Case Number: 900330089
Case Type: Other ground water affected

HAZNET:
Year: 1993
Gepaid: CAD983638925 Tepaid: CAD980883177
Contact: Not reported Telephone: (000) 000-0000
Gen County: Los Angeles Tons: Not reported
Tsd Name: Not reported
Tsd Address Not reported
Not reported
Not reported
Tsd County Kern
Mailing Address: 1101 N MISSION
Not reported
LOS ANGELES, CA 90033
Category: Unspecified oil-containing waste
Disposal Method: Recycler

Year: Not reported
Gepaid: CAD983638925 Tepaid: CAD980883177
Contact: Not reported Telephone: Not reported
Gen County: Not reported Tons: 57
Tsd Name: GIBSON ENVIRONMENTAL
Tsd Address END OF COMMERCIAL DR
Not reported
BAKERSFIELD
Tsd County Kern
Mailing Address: Not reported
Not reported
Not reported
Category: Unspecified oil-containing waste
Disposal Method: Recycler

K35 WNW 1/4-1/2 Lower **93690** Ca. FID S101617354
1101 N MISSION N/A
LOS ANGELES, CA 90033

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
L36 SW 1/4-1/2 Lower	**MEADOW MAID MARKET** **808 N STATE ST** **LOS ANGELES, CA 90033**	Ca. FID	S101584925 N/A

FID:

Facility ID:	19016967	Regulate ID:	00004870
Reg By:	Inactive Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Inactive	Facility Tel:	(213) 384-2065
Mail To:	Not reported 808 N STATE ST LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

L37 SW 1/4-1/2 Lower	**GASCO SERVICE STATION #065** **808 NORTH STATE STREET** **LOS ANGELES, CA 90033**	UST	U001561352 N/A

State UST:

Facility ID:	4870		
Tank Num:	1	Container Num:	1
Tank Capacity:	10000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	PAUL MARTINEZ	Telephone:	(213) 264-4124
Total Tanks:	3	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	4870		
Tank Num:	2	Container Num:	2
Tank Capacity:	10000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	PAUL MARTINEZ	Telephone:	(213) 264-4124
Total Tanks:	3	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

Facility ID:	4870		
Tank Num:	3	Container Num:	3
Tank Capacity:	10000	Year Installed:	Not reported
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Constrctn:	1/4 inches
Leak Detection:	Stock Inventor		
Contact Name:	PAUL MARTINEZ	Telephone:	(213) 264-4124
Total Tanks:	3	Region:	Not reported
Facility Type:	1	Other Type:	Not reported

K38 WNW 1/4-1/2 Lower	**CHEVRON STA 9 3690** **1101 N MISSION** **LOS ANGELES, CA 90033**	RCRIS-SQG FINDS Cortese	1000686568 CAD983638925

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

CHEVRON STA 9 3690 (Continued) — **1000686568**

RCRIS:
- Owner: CHEVRON U S A PRODUCTS CO (310) 694-7452
- Contact: JOSEPH HAJJ (213) 227-6500
- Record Date: 06/02/92
- Classification: Small Quantity Generator
- Used Oil Recyc: No
- Violation Status: No violations found

CORTESE:
- Reg By: LTNKA
- Reg Id: 900330089
- Region: CORTESE

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39 NE 1/4-1/2 Higher — **ESTELLE DOHENY EYE HOSPITAL** — **Ca. FID** — **S101583361**
1537 NORFOLK ST — **LUST** — **N/A**
LOS ANGELES, CA 90033

LUST Region 4:
- Report Date: 05/06/1992
- Cross Street: SAN PABLO ST
- Lead Agency: Regional Board
- Local Agency: 19050
- Substance: 76
- Case Number: 900330098
- Case Type: Other ground water affected

FID:

Facility ID:	19003530	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(213) 342-6513
Mail To:	Not reported 1537 NORFOLK ST LOS ANGELES, CA 90033		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

M40 NW 1/4-1/2 Lower — **OUTDOOR SYSTEMS, INC.** — **Cortese** — **S103066160**
1731 WORKMAN ST — **N/A**
LOS ANGELES, CA 90031

CORTESE:
- Reg By: LTNKA
- Reg Id: 900310143
- Region: CORTESE

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
M41 NW 1/4-1/2 Lower	**OUTDOOR SYSTEMS, INC.** **1731 WORKMAN ST** **MONTECITO HEIGHTS, CA 90031**	**LUST**	**S101297374** **N/A**

LUST Region 4:
- Report Date: 07/31/1992
- Cross Street: MISSION
- Lead Agency: Regional Board
- Local Agency: 19050
- Substance: 8006619
- Case Number: 900310143
- Case Type: Undefined

N42 WNW 1/4-1/2 Lower	**MORTON INT'L WHITTAKER CO** **1021 N MISSION RD** **LOS ANGELES, CA 90033**	**Cortese**	**S101297156** **N/A**

CORTESE:
- Reg By: LTNKA
- Reg Id: 900330043
- Region: CORTESE

N43 WNW 1/4-1/2 Lower	**WHITTAKER CORP BAUER COATINGS** **1021 N MISSION ROAD** **LOS ANGELES, CA 90033**	**FINDS** **RCRIS-LQG** **TRIS** **LUST**	**1000421643** **CAD083024141**

RCRIS:
- Owner: JOHN D BAUER TRUST AT SEC PAC NATL BANK (213) 507-2427
- Contact: ENVIRONMENTAL MANAGER (213) 225-4154
- Record Date: 08/15/80
- Classification: Large Quantity Generator

BIENNIAL REPORTS:
Last Biennial Reporting Year: 1995

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	26250.00	D007	19600.00
D008	19600.00	D035	6500.00
F002	2450.00	F003	6500.00
F005	26250.00		

Used Oil Recyc: No

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	WHITTAKER CORP BAUER COATINGS (Continued)		**1000421643**

LUST Region 4:
Report Date: 05/21/1986
Cross Street: MARENGO
Lead Agency: Regional Board
Local Agency: 19050
Substance: 13
Case Number: 900330043
Case Type: Other ground water affected

44	**SHELL/SOTO-CHARLOTTE**	**LUST**	**S102437455**
ESE	**1203 N SOTO ST**		**N/A**
1/4-1/2	**LOS ANGELES, CA 90033**		
Higher			

LUST Region 4:
Report Date: 11/02/1987
Cross Street: CHARLOTTE
Lead Agency: Regional Board
Local Agency: 19050
Substance: Not reported
Case Number: 900330261
Case Type: Soil only

O45	**SHELL STATION #204-4539-0**	**Cortese**	**S103065960**
SE	**918 SOTO**		**N/A**
1/4-1/2	**LOS ANGELES, CA 90033**		
Lower			

CORTESE:
Reg By: LTNKA
Reg Id: 900330152
Region: CORTESE

O46	**MOBIL #11-KXI**	**LUST**	**S101297258**
SE	**1010 N SOTO ST**		**N/A**
1/4-1/2	**LOS ANGELES, CA 90033**		
Lower			

State LUST:

Facility Type	INACTIVE	Cross Street:	WABASH AVE
Reg Board:	Los Angeles Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Regional Board		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Review Date:	12/02/1996	Confirm Leak:	04/04/1991
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	07/22/1992
Remed Action:	03/26/1996	Monitoring:	Not reported
Close Date:	10/11/1996	Release Date:	04/04/1991

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

MOBIL #11-KXI (Continued) — **S101297258**

LUST Region 4:
- Report Date: 04/04/1991
- Cross Street: WABASH AVE
- Lead Agency: Regional Board
- Local Agency: 19050
- Substance: 8006619
- Case Number: 900330234
- Case Type: Other ground water affected

N47 / WNW / 1/4-1/2 / Lower — **GANNETT OUTDOOR OF SO CA**, **1016 N MISSION RD**, **LOS ANGELES, CA 90031** — **RCRIS-SQG / FINDS / LUST / Cortese** — **1000314427 / CAD982462194**

RCRIS:
- Owner: GANNETT INC (415) 555-1212
- Contact: ENVIRONMENTAL MANAGER (213) 222-7171
- Record Date: 12/31/88
- Classification: Small Quantity Generator
- Used Oil Recyc: No
- Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

LUST Region 4:
- Report Date: 07/31/1992
- Cross Street: FWY 5
- Lead Agency: Regional Board
- Local Agency: 19050
- Substance: 8006619
- Case Number: 900330243
- Case Type: Other ground water affected

CORTESE:
- Reg By: LTNKA
- Reg Id: 900330243
- Region: CORTESE

P48 / NNE / 1/4-1/2 / Higher — **ALCAZAR MAINTENANCE YARD**, **1525 ALCAZAR ST**, **LOS ANGELES, CA 90033** — **LUST / CA SLIC / Cortese** — **S101296868 / N/A**

ALCAZAR MAINTENANCE YARD (Continued) **S101296868**

State LUST:

Facility Type	INACTIVE	Cross Street:	Not reported
Reg Board:	Los Angeles Region	Qty Leaked:	Not reported
Chemical:	Motor Oil		
Lead Agency:	Regional Board		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Abate Method:	Remove Free Product - remove floating product from water table		
Review Date:	08/14/1997	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	06/12/1989	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	04/15/1997
Close Date:	01/26/1998	Release Date:	05/04/1989

LUST Region 4:

Report Date:	05/04/1989
Cross Street:	Not reported
Lead Agency:	Regional Board
Local Agency:	19050
Substance:	08
Case Number:	900330070
Case Type:	Other ground water affected

CORTESE:

Reg By:	LTNKA
Reg Id:	900330070
Region:	CORTESE

SLIC Region 4:

Facility ID:	100.315	Region:	4
Facility Status:	Site Assessment	Substance:	VOCs
File Number:	756	Cross Street:	Not reported
Last Action:	19980223	Type of Program:	UST
Staff:	WS		
Summary:	Not reported		

49
SE
1/4-1/2
Lower

SHELL STATION #204-4539-0105 **LUST** **S102437083**
918 N SOTO ST **N/A**
LOS ANGELES, CA 90033

LUST Region 4:

Report Date:	06/12/1989
Cross Street:	WABASH AVE
Lead Agency:	Regional Board
Local Agency:	19050
Substance:	8006619
Case Number:	900330152
Case Type:	Other ground water affected

P50
NNE
1/4-1/2
Higher

USC CENTER FOR MOLECULAR MED. **LUST** **S101296869**
1540 ALCAZAR ST **HMS** **N/A**
LOS ANGELES, CA 90033

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

USC CENTER FOR MOLECULAR MED. (Continued) **S101296869**

State LUST:

Facility Type	INACTIVE	Cross Street:	SAN PABLO ST.
Reg Board:	Los Angeles Region	Qty Leaked:	Not reported
Chemical:	Hydrocarbons		
Lead Agency:	Regional Board		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Review Date:	06/01/1992	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	05/29/1992
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	07/29/1996	Release Date:	05/29/1992

LUST Region 4:

Report Date:	05/29/1992
Cross Street:	SAN PABLO ST.
Lead Agency:	Regional Board
Local Agency:	19050
Substance:	76
Case Number:	900330207
Case Type:	Other ground water affected

HMS:

Facility ID:	010750-010705	Facility Type:	Not reported
Permit Number:	Not reported	Permit Status:	Not reported
Facility Status:	OPEN	Area:	3F
Region:	Los Angeles County:		

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51 **NU WAY PLATING CO** **CERCLIS** **1000435845**
NNW **1805 SICHEL ST** **FINDS** **CAD008309890**
1/4-1/2 **LOS ANGELES, CA 90031** **RCRIS-LQG**
Same

CERCLIS Classification Data:

Site Incident Category:	Non-Oil Spill	Federal Facility:	Not a Federal Facility
Ownership Status:	Private	NPL Status:	Not on the NPL
EPA Notes:	AN ABANDONED ELECTROPLATING FACILITY SITUATED IN LOS ANGELES, CALIFORNIA.		

CERCLIS Assessment History:

Assessment:	REMOVAL NEGOTIATIONS	Completed:	30-JAN-95
Assessment:	UNILATERAL ADMIN ORDER	Completed:	30-JAN-95
Assessment:	ADMINISTRATIVE RECORDS	Completed:	03-APR-95
Assessment:	PRP REMOVAL	Completed:	Not reported
Assessment:	NON-NPL PRP SEARCH	Completed:	Not reported

CERCLIS Site Status:
Not reported

Map ID / Direction / Distance / Elevation | Site | Database(s) | EDR ID Number / EPA ID Number

NU WAY PLATING CO (Continued) **1000435845**

RCRIS:
Owner: MARTHA DE ANGELIS
(315) 555-1212
Contact: ENVIRONMENTAL MANAGER
(213) 221-9820
Record Date: 05/31/95
Classification: Large Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

Q52 **CELOTEX CORP** **Cal-Sites** **S101480685**
NE **1633 SAN PABLO ST** **N/A**
1/2-1 **LOS ANGELES, CA 90033**
Higher

CAL-SITES:
Facility ID: 19290035
Status: NFA
Status Date: 04/12/1995
Lead: Not reported
Region: 3 - BURBANK
Branch: SB - SOUTHERN CA. - B
File Name: Not reported
Status Name: NO FURTHER ACTION FOR DTSC
Lead Agancy: N/A
NPL: Not reported
SIC: 29 MANU - PETROLEUM & COAL PRODUCTS
Facility Type: Not reported
Facility Type Name: N/A
Staff Member Responsible for Site: KCHIANG
Supervisor Responsible for Site: MMONROY
Region Water Control Board: LA - LOS ANGELES
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Not reported
No. of Contamintion Sources: 0
Lat/Long: Not reported
Lat/long Method: Not reported
State Assembly District Code: Not reported
State Senate District: Not reported
Activity: SITE SCREENING
Activity Status: NO FURTHER ACTION FOR DTSC
Activity: SITE SCREENING
Activity Status: NO FURTHER ACTION FOR DTSC
Activity: PRELIMINARY ASSESSMENT
Activity Status: NO FURTHER ACTION FOR DTSC
Activity: DISCOVERY
Activity Status: NO FURTHER ACTION FOR DTSC
Background: Not reported
Alternative Name: F CONSOLIDATE TRUCKING
Alternative Addr: 1633 SAN PABLO
LOS ANGELES, CA 90033

CELOTEX CORP (Continued) **S101480685**

Alternative Name: ELOTEX CORP
Alternative Addr: 1633 SAN PABLO
LOS ANGELES, CA 90033
Comment Date: 12/23/1981
Comment: Facility identified: LA Chamber of Commerce Dir 1956.
1980 OSHA Air Sampling: Company in compliance.
Records Search: ERRIS.
Preliminary Assessment: Roofing manufacturing. Operations from 1960 to present. Waste Pile - more than 7.8 cubic feet in size. Scrap asbestos returned to NJ. RWQCB monitors cleaned-up oil spills.
Recommend inspection with sampling for asbestos, fibers. Drainage ditch on Lambie Street and storm drain on San Pablo.
September 16, 1980 Fire (Letter in RWQCB): Waste Discharge Requirement issued in 1974 & 1977.
Preliminary Assessment submitted to EPA (RCRA 3012).
Site reported for Proposition 65.
Site listed on Cortese.
The Department staff conducted a site visit. The site is a fenced vacant lot, backfilled with new soil on tops, located at the SW corner of San Pablo and Valley. Active rail tracks lie along the north end. A city park is across the Valley. Approximately 20 55 gallon drums scattered in this 1/2 acre lot.
Not reported
Celotex bought the 1633 lot in 1943, run a paper mill at 1633 lot and a roofing manufacturing operation at 1632 lot since then. The 1633 lot was shut down in 1983 and sold to an investment group. Waste Discharge Requirements were issued by the RWQCB in 1970s. EPA ID issued (still valid for 1632 lot). Buildings at 1633 lot were torn down in 1984. Asbestos were removed. Some chemicals were dumped in this vacan lot. Property sold to C.F. Consolidate Trucking in 1985. Company personnel stated that all identified problems had been fixed. No other problems observed during site visit.
NFA FOR DTSC.

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53 **SO. PACIFIC TRANS. CO.** **LUST** **S101296870**
NW **2100 ALHAMBRA AVE** **Cortese** **N/A**
1/2-1 **LOS ANGELES, CA 90031**
Lower

LUST Region 4:
Report Date: 07/11/1991
Cross Street: Not reported
Lead Agency: Regional Board
Local Agency: 19050
Substance: 76
Case Number: 900310198
Case Type: Other ground water affected

CORTESE:
Reg By: LTNKA
Reg Id: 900310198
Region: CORTESE

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
Q54 NE 1/2-1 Higher	**CELOTEX CORP** **1632 SAN PABLO ST** **LOS ANGELES, CA 90031**	LUST	**S102426473** **N/A**

State LUST:

Facility Type	INACTIVE	Cross Street:	Not reported
Reg Board:	Los Angeles Region	Qty Leaked:	Not reported
Chemical:	Diesel		
Lead Agency:	Regional Board		
Case Type:	Soil only		
Status:	Signed off, remedial action completed or deemed unnecessary		
Review Date:	03/27/1997	Confirm Leak:	Not reported
Workplan:	06/14/1996	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	05/13/1997	Release Date:	04/23/1996

LUST Region 4:

Report Date:	04/23/1996
Cross Street:	Not reported
Lead Agency:	Regional Board
Local Agency:	19050
Substance:	12034
Case Number:	900310170
Case Type:	Soil only

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
LA	S101010837	MEXICO AUTO WRECKING	00549 555 N MISSION RD	90033	Site Mitig	
LOS ANGELES	S100931465	CAL TRANS	HWY 101 BETWEEN 3RD / 6TH ST		HAZNET	
LOS ANGELES	S102360725	BIO GRO SYSTEMS INC	W. 150TH STREETS		SWF/LF	19-AA-0848
LOS ANGELES	1000288385	SHELL STA NO 204-4539-9601	2005 4TH/CUMMINGS	90033	FINDS, RCRIS-LQG	
LOS ANGELES	S100851396	1X L D S CHURCH LA MISSION HOME	L A MISSION HOME		HAZNET	
LOS ANGELES	S102361011	K&S RUBBISH AKA KEN MALLOY REGIONAL PARK	ANAHEIM ST. NEAR VERMONT AVE.		SWF/LF	19-AR-5154
LOS ANGELES	S100935606	FRANKLIN HS	820 N AVE		HAZNET	
LOS ANGELES	S100932655	CITY OF LOS ANGELES	CAL STATE LOS ANGELES		HAZNET	
LOS ANGELES	92259041	501 NORTH CENTER ST	501 NORTH CENTER ST		ERNS	
LOS ANGELES	S100928266	1X THE LIMITED	CENTURY CITY MALL SANTA MONICA		HAZNET	
LOS ANGELES	S100947353	UNIVERSITY OF SOUTHERN CALIFORNIA	1411 EASTLAKE ST (HSB)	90033	HAZNET	
LOS ANGELES	S100875719	THE AHMANSON THEATER	215/245 N GRAND AVE		HAZNET	
LOS ANGELES	1001212411	PLATING SHOP	5816 HOOPER AVENUE		CERCLIS	
LOS ANGELES	S100855626	ASTRO AUTO CENTER	1253 SOUTH LORERA STREET		HAZNET	
LOS ANGELES	S100931135	BROADWAY DEPARTMENT STORES	3880 N MISSION RDD		HAZNET	
LOS ANGELES	S100928272	1X THE PARK AND RIDE LOT	PACIFIC COAST HWY /		HAZNET	
LOS ANGELES	90170230	PARAMDICAL OCCUPATIONAL CENTER/**	PARAMDICAL OCCUPATIONAL CENTER/**		ERNS	
LOS ANGELES	S100852016	1X NUCARTHAY PARTNERS	6310 SAN VINCENTE		HAZNET	
LOS ANGELES	S100853544	1X WEST HOLLYWOOD SHERRIFS STATION	7220 N SAN VINCENTE BLVD		HAZNET	
LOS ANGELES	S100928090	1X SOUTHERN CAL GAS CO	5950 S SAN ANDREWS PLACE		HAZNET	
LOS ANGELES	S101613129	BURRO DEBRIS DISPOSAL SITE	SEC 29, T2N, R9W, SBBM		SWF/LF	19-AA-0493
LOS ANGELES	1000431648	USC	UNIVERSITY PARK		FINDS, RCRIS-LQG, HAZNET	
LOS ANGELES	91201977	USC MEDICAL CENTER MARENGO	USC MEDICAL CENTER MARENGO	90033	ERNS	
LOS ANGELES COUNTY	S102360742	JOINT WATER DISTRICT PLANT	24501 SOUTH FIGUEROA		SWF/LF	19-AA-0866
LOS ANGELES COUNTY	S102361059	USED TIRE KING	9920 PLACER STREET #B		SWF/LF	19-TI-0213
LOS ANGELES COUNTY	S102360641	SAN CLEMENTE ISLAND LANDFILL	SAN CLEMENTE ISLAND		SWF/LF	19-AA-0063

EPA Waste Codes Addendum

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D003	A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
D005	BARIUM
D007	CHROMIUM
D008	LEAD
D009	MERCURY
D011	SILVER
D035	METHYL ETHYL KETONE
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE,

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Code	Description
	CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
P003	ACROLEIN
P003	2-PROPENAL
P005	ALLYL ALCOHOL
P005	2-PROPEN-1-OL
P022	CARBON DISULFIDE
P030	CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
P033	CYANOGEN CHLORIDE
P033	CYANOGEN CHLORIDE (CN)CI
P054	AZIRIDINE
P054	ETHYLENEIMINE
P087	OSMIUM OXIDE OSO4, (T-4)-
P087	OSMIUM TETROXIDE
P098	POTASSIUM CYANIDE
P098	POTASSIUM CYANIDE K(CN)
P106	SODIUM CYANIDE
P106	SODIUM CYANIDE NA(CN)
U044	CHLOROFORM
U044	METHANE, TRICHLORO-
U151	MERCURY
U188	PHENOL
U196	PYRIDINE
U220	BENZENE, METHYL-
U220	TOLUENE
U239	BENZENE, DIMETHYL- (I,T)

EPA Waste Codes Addendum

Code	Description
U239	XYLENE (I)

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/15/98
Date Made Active at EDR: 07/20/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 07/08/98
Elapsed ASTM days: 12
Date of Last EDR Contact: 08/27/98

ERNS: Emergency Response Notification System
Source: EPA/NTIS
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/30/98
Date Made Active at EDR: 07/20/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 07/14/98
Elapsed ASTM days: 6
Date of Last EDR Contact: 07/10/98

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC).

Date of Government Version: 03/06/98
Date Made Active at EDR: 07/09/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 06/09/98
Elapsed ASTM days: 30
Date of Last EDR Contact: 07/30/98

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 01/01/98
Date Made Active at EDR: 04/13/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 02/17/98
Elapsed ASTM days: 55
Date of Last EDR Contact: 08/14/98

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/15/97
Date Made Active at EDR: 02/02/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 01/05/98
Elapsed ASTM days: 28
Date of Last EDR Contact: 08/14/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDERAL NON-ASTM RECORDS:

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/95
Database Release Frequency: Biennially
Date of Last EDR Contact: 06/22/98
Date of Next Scheduled EDR Contact: 09/21/98

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies
Database Release Frequency: Varies
Date of Last EDR Contact: Varies
Date of Next Scheduled EDR Contact: N/A

FINDS: Facility Index System
Source: EPA/NTIS
Telephone: 703-908-2493
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/01/97
Database Release Frequency: Quarterly
Date of Last EDR Contact: 08/19/98
Date of Next Scheduled EDR Contact: 09/21/98

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4526
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/97
Database Release Frequency: Annually
Date of Last EDR Contact: 07/22/98
Date of Next Scheduled EDR Contact: 10/26/98

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/30/98
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/13/98
Date of Next Scheduled EDR Contact: 10/12/98

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 205-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 08/28/98
Date of Next Scheduled EDR Contact: 11/23/98

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-260-3936
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/22/97
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 08/18/98
Date of Next Scheduled EDR Contact: 11/16/98

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/14/98

ROD: Records Of Decision
Source: NTIS
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95
Database Release Frequency: Annually
Date of Last EDR Contact: 09/03/98
Date of Next Scheduled EDR Contact: 11/30/98

TRIS: Toxic Chemical Release Inventory System
Source: EPA/NTIS
Telephone: 202-260-1531
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/95
Database Release Frequency: Annually
Date of Last EDR Contact: 06/11/98
Date of Next Scheduled EDR Contact: 09/28/98

TSCA: Toxic Substances Control Act
Source: EPA/NTIS
Telephone: 202-260-1444
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 12/31/94
Database Release Frequency: Annually
Date of Last EDR Contact: 07/22/98
Date of Next Scheduled EDR Contact: 10/26/98

STATE OF CALIFORNIA ASTM RECORDS:

BEP: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CAL-SITES (AWP): Annual Workplan
Source: California Environmental Protection Agency
Telephone: 916-323-3400
Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 11/04/97
Date Made Active at EDR: 12/20/97
Database Release Frequency: Annually
Date of Data Arrival at EDR: 11/21/97
Elapsed ASTM days: 29
Date of Last EDR Contact: 07/27/98

CAL-SITES (ASPIS): Calsites
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 01/14/98
Date Made Active at EDR: 04/13/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/13/98
Elapsed ASTM days: 31
Date of Last EDR Contact: 06/08/98

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-464-3277
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/94
Date Made Active at EDR: 04/24/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 03/13/95
Elapsed ASTM days: 42
Date of Last EDR Contact: 09/03/98

CORTESE: Cortese
Source: CAL EPA/Office of Emergency Information
Telephone: 916-327-1848
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/31/94
Date Made Active at EDR: 04/04/95
Database Release Frequency: Annually
Date of Data Arrival at EDR: 01/23/95
Elapsed ASTM days: 71
Date of Last EDR Contact: 07/27/98

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-445-6532
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 10/01/97
Date Made Active at EDR: 12/23/97
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 11/25/97
Elapsed ASTM days: 28
Date of Last EDR Contact: 08/12/98

NOTIFY 65: Proposition 65
Source: State Water Resources Control Board
Telephone: 916-657-0696
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/22/98

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-255-4035
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/01/98
Date Made Active at EDR: 04/13/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/17/98
Elapsed ASTM days: 27
Date of Last EDR Contact: 06/29/98

TOXIC PITS: Toxic Pits
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95
Date Made Active at EDR: 09/26/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 08/12/98

CA UST:

UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-227-4408
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/90
Date Made Active at EDR: 02/12/91
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 01/25/91
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/20/98

FID: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24
Date of Last EDR Contact: 06/29/98

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 03/11/98
Date Made Active at EDR: 05/21/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 04/23/98
Elapsed ASTM days: 28
Date of Last EDR Contact: 09/08/98

STATE OF CALIFORNIA NON-ASTM RECORDS:

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-227-4382
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/12/98
Date of Next Scheduled EDR Contact: 11/09/98

HAZMAT: Hazmat Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659

Date of Government Version: 11/21/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/24/98
Date of Next Scheduled EDR Contact: 11/23/98

HAZNET: Hazardous Waste Information System
Source: California Environmental Protection Agency
Telephone: 916-324-1781
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/95
Database Release Frequency: Annually

Date of Last EDR Contact: 09/08/98
Date of Next Scheduled EDR Contact: 10/19/98

SOUTH BAY: South Bay Site Management System
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Groundwater pollution cases in the Santa Clara Valley where the regulatory lead is the San Francisco Bay Regional Water Quality Control Board.

Date of Government Version: 09/01/96
Database Release Frequency: Annually

Date of Last EDR Contact: 06/24/98
Date of Next Scheduled EDR Contact: 09/14/98

WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-657-1571
Sites which have been issued waste discharge requirements.

Date of Government Version: 12/01/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/24/98
Date of Next Scheduled EDR Contact: 11/23/98

CALIFORNIA COUNTY RECORDS

ALAMEDA COUNTY:

Underground Tanks
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 04/01/98
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/27/98
Date of Next Scheduled EDR Contact: 11/02/98

Local Oversight Program Listing of UGT Cleanup Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 10/01/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/27/98
Date of Next Scheduled EDR Contact: 11/02/98

CONTRA COSTA COUNTY:

SL: Site List
Source: Contra Costa Health Services Department
Telephone: 510-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/02/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/12/98
Date of Next Scheduled EDR Contact: 08/10/98

KERN COUNTY:

UST: Sites & Tanks Listing
Source: Kern County Environment Health Services Department
Telephone: 805-862-8700
Kern County Sites and Tanks Listing.

Date of Government Version: 04/21/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/13/98
Date of Next Scheduled EDR Contact: 12/07/98

LOS ANGELES COUNTY:

HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/13/98
Date of Next Scheduled EDR Contact: 10/12/98

SWF/LF: List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 01/31/96
Database Release Frequency: Annually

Date of Last EDR Contact: 09/03/98
Date of Next Scheduled EDR Contact: 11/24/98

Site Mitigation List
Source: Community Health Services
Telephone: 213-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/20/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/24/98
Date of Next Scheduled EDR Contact: 11/23/98

MARIN COUNTY:

UST Sites
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Currently permitted USTs in Marin County.

Date of Government Version: 12/01/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/12/98
Date of Next Scheduled EDR Contact: 11/09/98

NAPA COUNTY:

LUST: Sites With Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 10/27/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/22/98
Date of Next Scheduled EDR Contact: 09/21/98

UST: Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 02/17/98
Database Release Frequency: Annually

Date of Last EDR Contact: 06/22/98
Date of Next Scheduled EDR Contact: 09/21/98

ORANGE COUNTY:

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 03/13/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/14/98

LUST: List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/02/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/14/98

UST: List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/24/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/14/98

PLACER COUNTY:

MS: Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7335
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 01/13/98
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/29/98
Date of Next Scheduled EDR Contact: 09/28/98

RIVERSIDE COUNTY:

LUST: Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/21/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/22/98
Date of Next Scheduled EDR Contact: 10/26/98

UST: Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 01/14/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/22/98
Date of Next Scheduled EDR Contact: 10/26/98

SACRAMENTO COUNTY:

Toxisite List
Source: Sacramento County Environmental Management
Telephone: 916-875-8450

Date of Government Version: 02/02/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/21/98
Date of Next Scheduled EDR Contact: 11/09/98

ML: Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8450
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 01/06/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/21/98
Date of Next Scheduled EDR Contact: 11/09/98

SAN BERNARDINO COUNTY:

DEHS Permit System Print-Out By Location
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 10/01/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/14/98

SAN DIEGO COUNTY:

SWF/LF: Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 11/08/95
Database Release Frequency: Annually

Date of Last EDR Contact: 09/03/98
Date of Next Scheduled EDR Contact: 11/30/98

HMMD: Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 01/05/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/13/98
Date of Next Scheduled EDR Contact: 10/12/98

SAN FRANCISCO COUNTY:

LUST: Local Oversite Facilities
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 03/19/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/19/98
Date of Next Scheduled EDR Contact: 11/16/98

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 03/19/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/16/98
Date of Next Scheduled EDR Contact: 11/16/98

SAN MATEO COUNTY:

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 01/01/97
Database Release Frequency: Annually

Date of Last EDR Contact: 08/17/98
Date of Next Scheduled EDR Contact: 11/16/98

LUST: Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 01/12/98
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/24/98
Date of Next Scheduled EDR Contact: 10/05/98

SANTA CLARA COUNTY:

LUST: Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-927-0710

Date of Government Version: 01/15/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/08/98
Date of Next Scheduled EDR Contact: 10/05/98

SOLANO COUNTY:

LUST: Leaking Undergroung Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 10/27/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/24/98
Date of Next Scheduled EDR Contact: 11/23/98

UST: Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 04/16/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/24/98
Date of Next Scheduled EDR Contact: 11/23/98

SONOMA COUNTY:

LUST Sites
Source: Department of Health Services
Telephone: 707-525-6565

Date of Government Version: 01/09/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/22/98
Date of Next Scheduled EDR Contact: 09/21/98

SUTTER COUNTY:

UST: Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 530-741-7504

Date of Government Version: 09/18/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/06/98
Date of Next Scheduled EDR Contact: 10/12/98

VENTURA COUNTY:

BWT: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/25/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/22/98
Date of Next Scheduled EDR Contact: 09/21/98

LUST: Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 12/31/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/22/98
Date of Next Scheduled EDR Contact: 09/21/98

UST: Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 06/29/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/22/98
Date of Next Scheduled EDR Contact: 09/21/98

SWF/LF: Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 06/01/97
Database Release Frequency: Annually

Date of Last EDR Contact: 08/21/98
Date of Next Scheduled EDR Contact: 11/30/98

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220

Date of Government Version: 02/11/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/31/98
Date of Next Scheduled EDR Contact: 11/30/98

LUST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

Date of Government Version: 01/22/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/19/98
Date of Next Scheduled EDR Contact: 10/19/98

LUST REG 3: LUSTIS Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 08/20/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/25/98
Date of Next Scheduled EDR Contact: 11/23/98

LUST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-266-7544

Date of Government Version: 01/14/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/06/98
Date of Next Scheduled EDR Contact: 10/05/98

LUST REG 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-255-3125

Date of Government Version: 01/21/98
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/13/98
Date of Next Scheduled EDR Contact: 10/12/98

LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424

Date of Government Version: 12/01/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/13/98
Date of Next Scheduled EDR Contact: 10/12/98

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491

Date of Government Version: 11/12/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/27/98
Date of Next Scheduled EDR Contact: 11/02/98

LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491

Date of Government Version: 11/12/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/31/98
Date of Next Scheduled EDR Contact: 11/30/98

LUST REG 8: (LUSTIS) Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4498

Date of Government Version: 01/02/98
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 07/27/98
Date of Next Scheduled EDR Contact: 10/12/98

LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 619-467-2952

Date of Government Version: 12/23/97
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/15/98
Date of Next Scheduled EDR Contact: 11/03/98

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 03/09/98
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 08/31/98
Date of Next Scheduled EDR Contact: 11/30/98

SLIC REG 2: North and South Bay Slic Report
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 01/22/98
Database Release Frequency: Quarterly
Date of Last EDR Contact: 08/19/98
Date of Next Scheduled EDR Contact: 10/19/98

SLIC REG 3: SLIC Data
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 12/12/97
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 08/25/98
Date of Next Scheduled EDR Contact: 11/23/98

SLIC REG 4: SLIC Sites
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-266-7544
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 01/20/98
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/07/98
Date of Next Scheduled EDR Contact: 10/05/98

SLIC REG 5: SLIC List
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075
Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 10/01/97
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 07/17/98
Date of Next Scheduled EDR Contact: 10/12/98

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583

Date of Government Version: 09/23/97
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 07/13/98
Date of Next Scheduled EDR Contact: 10/12/98

SLIC REG 8: SLIC List
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 10/31/97
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 08/25/98
Date of Next Scheduled EDR Contact: 10/12/98

SLIC REG 9: WDS NURD List
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 619-467-2980

Date of Government Version: 11/21/96
Database Release Frequency: Annually
Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/07/98

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

DELISTED NPL: NPL Deletions
Source: EPA
Telephone: 703-603-8769
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/06/98
Date Made Active at EDR: 07/09/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 06/09/98
Elapsed ASTM days: 30
Date of Last EDR Contact: 07/30/98

NFRAP: No Further Remedial Action Planned
Source: EPA/NTIS
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 06/15/98
Date Made Active at EDR: 07/20/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 07/08/98
Elapsed ASTM days: 12
Date of Last EDR Contact: 08/27/98

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SWDIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones: Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1996 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in March 1997 from the U.S. Fish and Wildlife Service.

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Water Dams: National Inventory of Dams
Source: Federal Emergency Management Agency
Telephone: 202-646-2801
National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

United States Department of the Interior
Fish and Wildlife Service
Ecological Services
Carlsbad Fish and Wildlife Office
2730 Loker Avenue West
Carlsbad, California 92008

Mr. David Fukutomi
Public Assistance Officer
Federal Emergency Management Agency
Northridge Long-term Recovery Office
P.O. Box 6020
Pasadena, California 91102-6020

SEP 0 8 1998

Attn: Ms. Rhonda Boyer

Re: Informal Consultation for 17 Hospital Seismic Retrofit Projects Associated with the Northridge Earthquake Recovery Effort

Dear Mr. Fukutomi:

This letter is in response to your request to document our informal consultation on this project, pursuant to the Endangered Species Act of 1973, as amended, (16 U.S.C. 1531-1544, 87 Stat. 884) and its implementing regulations (e.g., 50 CFR § 402.13). The Federal Emergency Management Agency (FEMA) has been asked to fund these 17 seismic retrofit projects associated with the recovery effort for the 1994 Northridge earthquake. The project sites are given in your letter, dated August 18, 1998. Two of these projects, Northridge Hospital Medical Center and Simi Valley Hospital, are in the area addressed by our Ventura Fish and Wildlife Office. We understand that you will conduct informal consultation separately with that office for those two projects. We provided informal consultation letters for the Childrens Hospital on May 21, 1998 (1-6-98-I-21), and Westwood Plaza Office Building on June 26, 1998 (1-6-98-TA-113). Our findings are based on your letter to the Service, dated August 18, 1998; a telephone conference with Rhonda Boyer of FEMA and Robert James of my staff on August 25, 1998; and other information available to us.

My staff also reviewed the latest National Wetlands Inventory map for the area and determined that the 13 remaining proposed project sites are not on nor immediately adjacent to wetlands or waters of the United States. Unless new information becomes available, we conclude that the project will not affect federally listed species nor their designated critical habitat. If you have any questions regarding this letter, please contact John Bradley, at (760) 431-9440.

Sincerely,

Jim A. Bartel
Assistant Field Supervisor

cc: Ventura Fish and Wildlife Office

1-6-98-I-30

Federal Emergency Management Agency

Northridge Long-Term Recovery Area Office
P.O. Box 6020
Pasadena, CA 91102-6020
Telephone: (818) 431-3000 FAX: (818) 431-3892

August 18, 1998

United States Department of the Interior
Fish and Wildlife Service – Ecological Services
Carlsbad Fish and Wildlife Office
2730 Loker Avenue, West
Carlsbad, CA 92008

Attention: Mr. Robert James

Subject: Consultation for FEMA-funded Projects

Dear Mr. James:

The Federal Emergency Management Agency (FEMA) has been asked to fund numerous hospital seismic retrofit projects associated with the Northridge earthquake recovery effort. Most of these hospitals are located within urbanized areas in Los Angeles and Ventura Counties. A list of the hospitals and a location map depicting the proposed projects is attached for your review.

In accordance with the National Environmental Policy Act (NEPA) and its implementing regulations, 44 CFR Part 10, FEMA is required to assess environmental impacts of proposed projects the agency is funding. As part of agency coordination, FEMA is requesting your office to provide any comments or concerns regarding this endeavor pursuant to the Federal Endangered Species Act (16 U.S. C. 1531-1544, 87 Stat. 884) and its implementing regulations (50 CFR 402.13). Additionally, FEMA would appreciate your office reviewing the latest National Wetlands Inventory maps for the project locations to determine whether any of the projects are on or adjacent to wetlands or waters of the United States.

FEMA's preliminary review of the proposed projects indicates that none of the projects are likely to adversely affect federally listed species or critical habitat. However, if new information on individual projects becomes available that would indicate the possibility of adverse impact on biological resources, FEMA would take appropriate measures to coordinate with the United States Fish and Wildlife Service.

FEMA sincerely appreciates your assistance in expediting coordination for the hospital projects. If you have any questions, please do not hesitate to call Rhonda Boyer, Technical Assistance Consultant, at (626) 431-3235.

Sincerely,

David Fukutomi
Public Assistance Officer

FEMA-1008-DR-CA
SHMPH - HOSPITALS

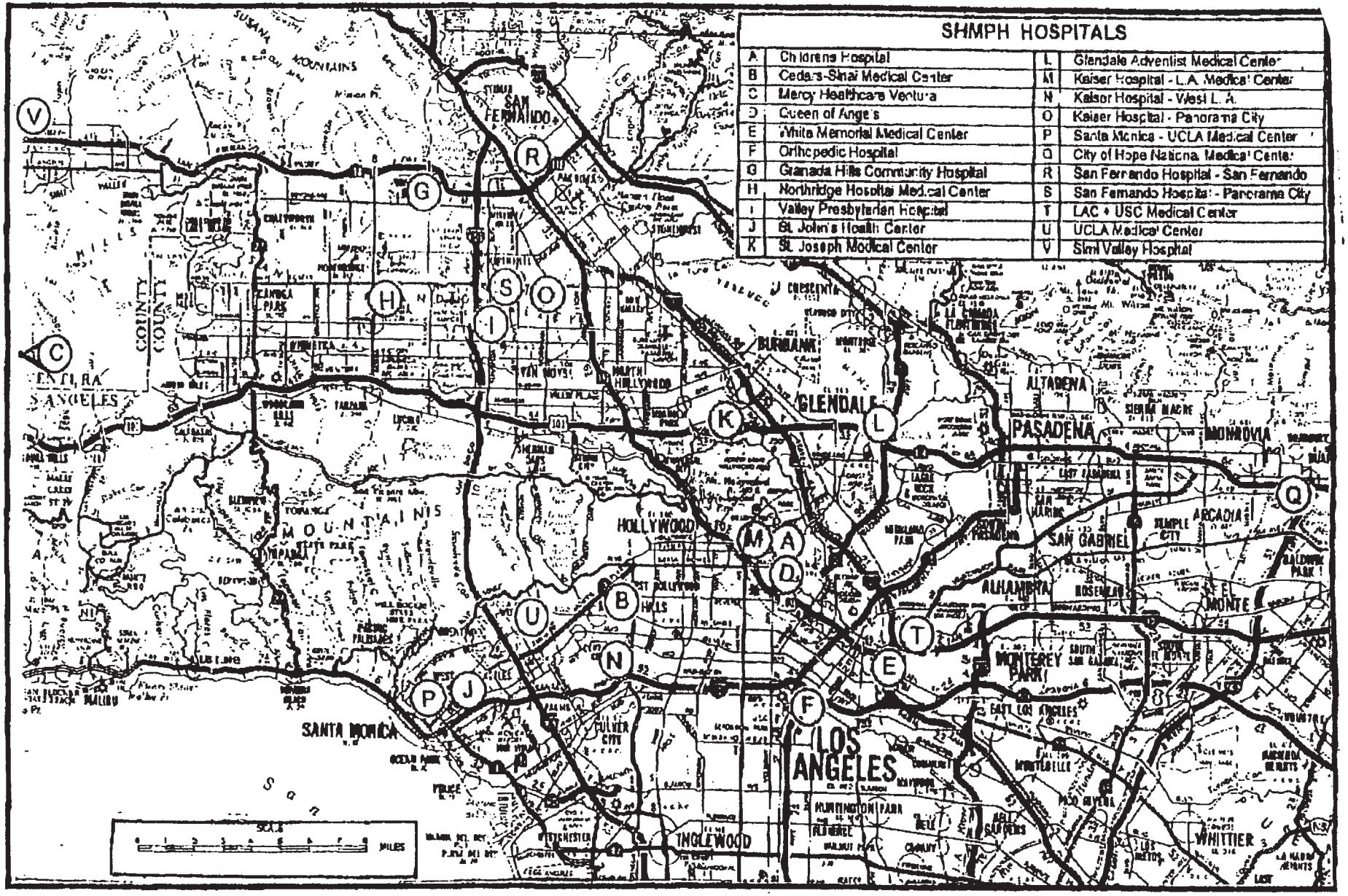
A	037-90105 Childrens Hospital Los Angeles 4650 Sunset Blvd Los Angeles 90027	Vermont Ave Rodney Dr DeLongpre Ave
B	037-90300 Cedars Sinai Medical Center 8730 Beverly Blvd Los Angeles	San Vicente Blvd 3rd St
C	N/A	
D	N/A	
E	037-90312 White Memorial Medical Center 1720 Caesar Chavez Ave Los Angeles 90033	Boyle Ave Michigan Ave
F	000-92040 UCLA – Santa Monica Tower (Orthopaedic) 1250 16th St Santa Monica 90404	16th St and Wilshire Blvd -Arizona Ave, 15th St, Santa Monica Blvd
G	N/A	
H	037-90320 Northridge Hospital Medical Center 18300 Roscoe Blvd Northridge 91328	Etiwanda Ave Cantara St
I	037-90323 Valley Presbyterian Hospital 15107 Vanowen St Van Nuys 91409	Noble Ave Sepulveda Blvd Basset St
J	N/A	
K	037-90325 Sisters of Providence in CA – St. Joseph's Hospital 501 S Buena Vista St Burbank 91505	West Alameda
L	037-90327 Glendale Adventist Medical Center (Phase II) 1520 East Chevy Chase Glendale 91206	Wilson Terrace Harvey Dr Sinclair Ave Glenoaks Blvd
M	037-90328 Kaiser Foundation Hospitals – Los Angeles Medical 1510 Edgemont Ave Los Angeles	Sunset Blvd Vermont Ave Kenmore St
N	N/A	
O	037-90328 Kaiser Foundation Hospitals – Panorama City 23625 Cantara St Panorama City 91402	Roscoe Blvd Woodman Ave Ventura Cyn Ave
P	000-92040 UCLA – Medical Center 1060 Veteran Ave Los Angeles 90095	Le Conte Ave and Westwood Plaza -Hilgard Ave, Veteran Ave, Sunset Blvd, Wilshire Blvd
Q	037-90334 City of Hope National Medical Center 1500 E. Duarte Rd Duarte, 91010	Hope Dr Village Rd

/shmph

FEMA-1008-DR-CA
SHMPH - HOSPITALS

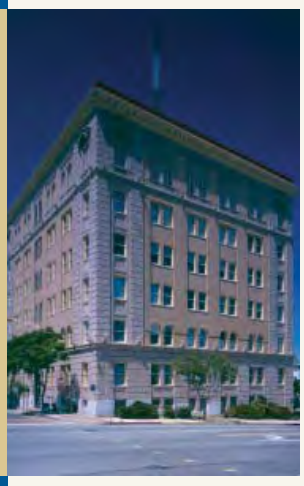
R	037-90336 San Fernando Community Hospital-San Fernando 700 Chatsworth Dr San Fernando 91340	Mott St Woodward Dr
S	037-90336 San Fernando Community Hospital-Panorama City 14850 Roscoe Blvd Panorama City 91402	Kester Dr
T	037-91033 LACO/USC Medical Center 1200 N. State St Los Angeles	JOINT CEQA/NEPA document
U	000-92040 UCLA – Westwood Plaza Office Building/Hershey	Westwood Plaza and Circle Drive
V	111-90301 Simi Valley Hospital & Healthcare Services 2975 N. Sycamore Dr Simi Valley 93065	Hwy 118 Alamo St Avenida Simi

/shmph


SHMPH HOSPITALS
A Childrens Hospital
B Cedars-Sinai Medical Center
C Mercy Healthcare Ventura
D Queen of Angels
E White Memorial Medical Center
F Orthopedic Hospital
G Granada Hills Community Hospital
H Northridge Hospital Medical Center
I Valley Presbyterian Hospital
J St. John's Health Center
K St. Joseph Medical Center
L Glendale Adventist Medical Center
M Kaiser Hospital - L.A. Medical Center
N Kaiser Hospital - West L. A.
O Kaiser Hospital - Panorama City
P Santa Monica - UCLA Medical Center
Q City of Hope National Medical Center
R San Fernando Hospital - San Fernando
S San Fernando Hospital - Panorama City
T LAC + USC Medical Center
U UCLA Medical Center
V Simi Valley Hospital
SAN FERNANDO
BURBANK
GLENDALE
PASADENA
ALTADENA
MONROVIA
ARCADIA
SAN GABRIEL
ALHAMBRA
MONTEREY PARK
EL MONTE
HOLLYWOOD
SANTA MONICA
LOS ANGELES
INGLEWOOD
WHITTIER
SCALE
MILES

Los Angeles County
Department of Public Works

LAC USC TUNNEL
Structural and Mechanical Assessment and Asbestos Survey



January 30, 2013

VANIR

VANIR
Construction Management, Inc.

3435 Wilshire Blvd. / Suite 2420
Los Angeles, CA 90010
TEL 213-487-1145
FAX 213-487-1051
www.vanir.com

January 30, 2013

LA County Department of Public Works
Attention: Parisa Dadmehr
900 S. Fremont Ave., 5th Floor
Alhambra, California 91803

RE: LAC USC Tunnel Assessment

Dear Ms. Dadmehr,

Vanir Construction Management, Inc. is pleased to provide Phase II of the LAC USC Tunnel Assessment. The LAC USC Tunnel is located at 1200 North State Street, Los Angeles, California. Phase I of our assessment was provided in the report dated July 11, 2012. Our scope for Phase II included a structural and mechanical assessment of the tunnel and associated steam pipes and asbestos survey of materials within the tunnel. This work was completed by Vanir and our subconsultants; JCE Structural Engineering Group, M-E Engineers, and Focus Environmental Consultants.

The tunnel was investigated over a three day period in December during a shut-down of the utilities to allow for access to the tunnel. The area of the tunnel observed extends from the entrance on Zonal Avenue to approximately 100' inside the Juvenile Hall. Our report includes an executive summary with recommendations and the individual consultant reports provided as backup. This report provides important information regarding the safety of the tunnel and any planned or unplanned maintenance or repairs to the mechanical systems within the tunnel.

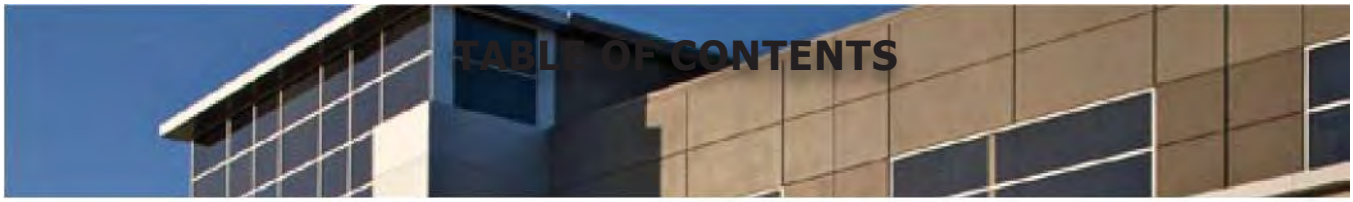
As you review our report, please feel free to contact me with any questions at 310-502-8876.

Thank you for this opportunity to be of service.

Sincerely,

Scotty Galloway, PE, CCM
Project Director

cc: Kamel Youssef
Juan Carlos Esquivel



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Executive Summary

Appendix A: Structural Report

Appendix B: Mechanical Report

Appendix C: Asbestos Survey

Appendix D: Structural Report Phase I

Background

Vanir performed a structural assessment of the (E) tunnel on the LAC USC campus between the central plant and juvenile hall. The initial investigation was conducted on June 29, 2012 in conduction with a utility shut down by the Department of Health Services. The Phase I report was provided to the Department of Public Works in a report dated July 11, 2012 (Appendix D). The results of the initial investigation resulted in a requirement for additional information including compressive strength of concrete, thickness of the concrete walls and ceiling, rebar sizing and spacing, and a corrosion study. These recommendations were all to be satisfied through an additional site visit and non-destructive testing (NDT). The intent of the future investigations was to determine the feasibility of structurally repairing the tunnel.

The Department of Public Works expanded the scope of Phase II to include a mechanical assessment of the steam pipes and asbestos survey. The team met on several occasions and participated in multiple conference calls. There were safety concerns identified during Phase I that would be required to be addressed prior to the Phase II tunnel entry. The tunnel was a permitted confined space and suspected asbestos containing material site to include friable materials. The tunnel was required to be ventilated and cooled off prior to entering, it was not safe to enter “immediately” due to the extreme heat.

The team worked with DPW and DHS to gain entry into the tunnel for a three day period from December 7-9, 2012. Over the three day site investigation, the structural, mechanical, and environmental evaluation team entered the tunnel numerous times in Level C PPE. They evaluated the tunnel from Zonal Avenue to the inside of the Juvenile Hall to the extent that they could not penetrate the tunnel any farther.

Structural Assessment

JCE Structural Engineering Group was responsible for making the tunnel safe for entry on December 7, 2012 and maintained attendants for the confined space for the duration of the operation. The complete structural assessment is included as Appendix A. JCE performed structural evaluations December 7-9 in conjunction with their subconsultant Vector Corrosion Technologies. The structural assessment team performed visual observations, core testing, ground penetrating radar, and corrosion analysis.

The tunnel has visible deterioration throughout. The concrete is delaminating on the ceilings and walls exposing corroded reinforcing bars. Approximately 25% of the tunnel ceiling has completely spalled off its concrete cover exposing the reinforcing. The reinforcing is corroded, broken, or missing. The walls of the tunnel demonstrate severe efflorescence and damage due to the sulfate attacks. Corrosion testing indicates more

than 90% of the reinforcing in the areas tested are actively corroding or are at risk of corrosion. The concrete is described as “soft” in many areas and crumbles when scraped with a steel tool.

The remaining service life of the tunnel is expected to be less than five years.

Mechanical Assessment

M-E Engineers entered the tunnel on Sunday, December 9, 2012 to evaluate the existing steam piping system “ON” and “OFF” and identify and deficiencies and maintenance issues. The complete mechanical assessment is included as Appendix B. The steam is being generated in the Central Utility Plant and distributed in the subject tunnel to the Juvenile Hall, ISD Blue Mill Building, and Raid Schneider Building. The system consists of one supply pipe, two condensate return pipes, and one electrical conduit. The steam is used to provide building heat and domestic hot water facilities it serves.

The overall system is in poor condition. The pipes are rusted and leaking, the insulation is falling apart, and the pipe hangers are not properly anchored to the concrete wall as a result of the deteriorating concrete. The supply and return lines are in poor working condition and have a high potential of failure. There is steam leaking in many areas and can be visibly identified at street level outside the tunnel. The insulation is poor and missing many locations. The report indicates no condensate was being returned to the CUP. In addition to the safety and risk of failure to the system, the system is very inefficient due to the leaking pipes and lack of insulation. The inefficiency of the existing system should be considered in any financial analysis of recommended actions.

Asbestos Survey

Focus Environmental Consulting entered the tunnel on Friday, December 7, 2012 to collect samples from the materials in the tunnel and identify the Asbestos Containing Material (ACM). The complete asbestos survey is included as Appendix C. Bulk samples of all suspect ACM materials were taken. The samples were sent to a lab and analyzed using the PLM technique. A total of fourteen (14) samples of suspect ACM were collected for analysis during the survey. Eight samples positively identified the material as ACM. The black wall joint sealant on the tunnel walls was determined to be non-friable asbestos occurring over approximately 80 joints. The TSI pipe insulation is friable asbestos (Amosite and Chrysolite) in fair condition and occurs throughout the length of the tunnel on the steam pipes. The TSI Pipe Elbows and Concrete Skim Coat resulted in “ND” (none detected).

Regulations require that any time ACM’s are impacted during repair, renovation, removal, or demolition that the work be performed by properly trained and certified

workers. This must be considered in when implementing any of the alternatives provided in this report.

Recommendation

The recommendations provided herein are based on the compilation of all three reports. While each report has its own recommendations, they are provided without consideration of the other reports.

Based on the structural evaluation and rapidly deteriorating physical properties of the concrete due to the high levels of sulfate, there should not be *any* entry into the tunnel for repairs or evaluation without the installation of a shoring system. It is recommended that the County prevent vehicles from parking in the footprint directly above the existing tunnel. This is intended to mitigate further collapse of the tunnel and minimize the possibility of damage to people and property on the ground level as a result of tunnel collapse. Upon decommissioning of the steam system, the tunnel should be filled with a slurry and abandoned.

The mechanical recommendation is to provide natural gas-fired high efficiency water boilers for space heating and water heaters for domestic hot water at the location of the buildings served. In the event that any of the facilities need steam, local electric steam generators can be provided. This should be coordinated with the campus master plan; however, due to the condition of the existing pipes and tunnel it is recommended to complete this installation within two years.

The recommendation to repair leaking pipes and insulation appears to be cost prohibitive. The recommendation would require the shoring of sections of the tunnel by personnel certified to work with asbestos, abatement of sections of the insulation, and installation of the new insulation or repair of the leak. However, this remains an option.

The County should begin immediately planning for alternative methods to provide building heat and domestic hot water to the served buildings in the event of a system failure. In the event of a failure, an immediate response to repair the issue would not be available due to the issues identified above. Additionally, the service life of the tunnel is less than five years as a result of the sulfates.

JCE STRUCTURAL ENGINEERING GROUP, INC.

Structural Assessment & Corrosion Evaluation Of LAC+USC Medical Center/Utility Tunnel (Juvenile Hall) Los Angeles, California

Prepared for:
Vanir Construction Management
&
County of Los Angeles DPW

By:
Juan Carlos Esquivel, M.S., S.E.

JCE JOB NO: 2012.037.2

January 21, 2013

STRUCTURAL & EARTHQUAKE ENGINEERING CONSULTANTS
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EXECUTIVE SUMMARY

A Structural assessment of the LAC – USC Medical Center / Utility Tunnel (Parking structure-Juvenile Hall) was carried out by **JCE Structural Engineering Group** between December 7th and 9th, 2012.

As part of the Structural Assessment and based on our first report recommendations dated July 11, 2012, a series of Non-Destructive Testing and a Corrosion Evaluation study was also performed during those three days.

As part of the Non-Destructive Test Program, concrete cores and GPR Survey (Ground Penetrating Radar) was performed to determine the compressive strength, chemical analysis and petographic examination of the concrete walls and ceilings as well as to determine the (E) rebar sizes, spacing, locations and cover. We also requested to have half cell potential survey to determine the extent of the rebars' corrosion as well as the remaining life of the tunnel.

This information was used to perform a preliminary structural evaluation of the capacity of the (E) tunnel when it was constructed to have an idea of the Demand/Capacity ratio and adequacy of the (E) tunnel at the time of construction, as well as to perform an "if scenario" of a possibly strengthening tunnel option..

From reviewing the demand required by the (E) tunnel to be able to support the loads coming from the soil above the tunnel, parking loads above and dynamic soil effects during any Earthquake event, it is clearly evident that in order to repair the tunnel a shotcrete solution needs to be implemented. (See Appendices A & B). The shotcrete solution basically consists of adding a new 8" (minimum) up to 12" layer of concrete with #5@ 12"o.c. rebars all around and with #4 dowels @ 8"o.c. as shown on our Appendix A. This solution will be applicable for almost 30% of the length of the tunnel.

In some areas (perhaps another 50% of the length of the tunnel) a layer of Fiberwrap or any similar product could be used to keep the retrofit Thinner and less invasive, but unfortunately since a large portion of the tunnel needs to be shotcreted and in order to have the steam pipes aligned the (E) tunnels will be greatly reduced in size (width and depth) making this solution logistically unfeasible. See inside for more discussion.

Based on our job site investigation, results of NDT, Corrosion Evaluation and structural preliminary calculations, the following are the options studied.

- Option #1 – Repair the tunnel and the steam pipes and insulation.
- Option #2 – Abandon the tunnel and fill it with slurry concrete (f'c=3,000 psi min).

From our analysis of the Pros and Cons of both options (See discussions on item 6 inside) above we definitely recommend **Option #2.**

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1. INTRODUCTION

JCE Structural Engineering Group, Inc. was contracted to perform a Phase 2 of the Structural Assessment of the structural conditions of an (E) Concrete Utilities Tunnel referred as Juvenile Hall Tunnel in this report. An initial first Phase Report was dated July 11, 2012.

As part of the Phase 2 Structural Assessment, JCE Structural Engineering Group hired Vector Corrosion Technologies as their Sub-consultant to provide a NDT (Non-Destructive Testing) Program as well as a corrosion evaluation to assess the concrete conditions of the (E) tunnel material and to evaluate the remaining life expectance of the tunnel as it was recommended on Phase 1 Report.

2. TUNNEL DESCRIPTION

The South Side of the Juvenile Hall Tunnel was originally constructed approximately in 1930's (more than 80 years old). The dimensions of the (E) tunnel are approximately 4'-0" wide by 6'-0" high and is made of reinforced concrete walls & ceiling. From the NDT investigation we have determined that the wall and ceiling of the tunnels are made of 6" concrete with 2 layers of #3 rebars spaced @ 8"o.c vertically and @14' o.c. horizontally.

3. WORK METHODOLOGY

JCE Structural Engineering Group, represented by Juan Carlos Esquivel, M.S., S.E., together with **Vector Corrosion Technologies** represented by Andrew Broecker and Clarence Zimmel, NACE CP2 Cathodic Protection Technicians, performed a three day site observation and investigation of the entire accessible part of the tunnel from Zonal Avenue to approximately 100 ft inside the Juvenile Hall.

During the three days site observation and inspection the following tasks were performed:

- Structural visual assessment and delimitation survey of the entire accessible portion of the tunnel by Juan Carlos Esquivel, M.S., S.E., Principal of JCE Structural Engineering Group and Andrew Broecker and Clarence Zimmel from Vector Corrosion Technologies. The tunnel was NOT accessible beyond Zonal Avenue (See Photo 1) up to about 100 feet into the Juvenile hall (See Photos 2 & 3).

- Core testing at two main locations (4 cores total) (agreed between JCE Structural Engineering Group and Vector Corrosion Technologies after our initial visual assessment and delimitation survey) as the most representative areas of damaged and undamaged portions of the (E) tunnel.

- GPR (Ground Penetration Radar) survey to determine rebars size, spacing locations and cover.

- Gathering information (Photos, measurements, etc.) of the entire tunnel length to determine the different levels of damage to propose any structural restrengthening alternatives. See Photos 4 to 25 of the several operations during the three days.

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4. OBSERVATIONS

From our three days visual inspection of the current structural conditions of the (E) Tunnel, we have observed and been able to quantify the following:

- At many locations (about 25% to 30% of the total length of the accessible tunnel) the ceiling of the tunnel has been completely delaminated and spalled. Many of the reinforcing bars are exposed, severely corroded & in many instances have lost most of their sections or are completely broken. See photos 26 to 31. This estimate is consistent with Vector Corrosion Technologies report attached as an appendix of this report.

- At many other locations (through the whole length of the tunnel) the ceiling of the tunnel shows severe signs of delamination and large cracks and the concrete is ready to be spalled. This is a clear indication that reinforcing inside the concrete ceilings have been severely corroded. See photos 32 to 35.

- At many wall locations (approx. 40% more) the concrete has also spalled and there are many corroded and exposed reinforcing bars shown. Many of them show severe reduction of their original section, some of them are bent and others are completely broken. See photos 36 to 50.

- At many wall locations (through the whole length of the tunnel) there are severe signs of efflorescense on the walls and ceiling indicating concrete being damage inside and ready to eventually spalled off due to severe sulfate attack. See photos 51 to 68.

- At many locations the steam pipe supports are completely rusted and not properly anchored to the concrete. See Photos 69 to 75.

5. NDT AND CORROSION EVALUATION RESULTS DISCUSSION

From the NDT and corrosion study performed by Vector Corrosion Technologies, the following items are the main discoveries.

- Half-cell potential indicate that more than 90% of the reinforcing in the tested areas is either actively corroding or is at risk of corrosion.

- The pH of the concrete has been reduced to pH <8.25 throughout the cross section in all areas tested, indicating exposure to external sulfate attack.

- The concrete in “Bad” areas is suffering from an advanced stage of sulfate attack.

- The concrete is soft in many areas and crumbles when scraped with a steel tool.

- The design compressive strength is approximately 3500 to 4000 psi.

- The remaining service life of the existing tunnel is most likely less than 5 years due to the progressive nature of the sulfate attack.

See appendix D for more in-depth results of the corrosion evaluation.

6. STRUCTURAL STRENGTHENING REPAIR DISCUSSIONS & RECOMMENDATIONS

In our previous first draft report we recommended to consider the following two options:

Option 1:

A) Structural Strengthening Repair of the (E) tunnel.

- In order to evaluate the strengthening repair possibilities of the (E) tunnel, we recommended an NDT program to be performed first to determine the (E) concrete strength, (E) concrete ceiling and wall thickness, (E) rebars size, spacing and location, to be able to determine the original structural capacity of the (E) tunnel. We also recommended a corrosion evaluation to determine other areas of potential corrosion besides the obvious ones as well as the life expectancy of the (E) tunnel. Based on the results of the NDT program, the results of the structural capacity of the (E) tunnel, and the corrosion evaluation, a combination of shotcrete and Fiberwrap strengthening methodologies were considered.

  Unfortunately, although perhaps 30% of the length of the tunnel could be strengthened with the use of Fiberwrap, about 25% to 30% of the length of the tunnel needs at least to be shotcreted. Moreover, although some of the compressive strength of the concrete had good results, in the majority of those areas the rebars are under current heavy corrosion attack. In order to perform strengthening with Fiberwrap or shotcrete all the (E) steam pipes should need to be removed first and then re-installed. Since the amount of shotcrete to add is a minimum of 8" to perhaps 12" thick and the pipes have to be aligned along the full length of the wall the interior available space of the (E) tunnel will be reduced by 16" to 24" in width and 8" to 12" in height making logistically very difficult to reinstall the steam pipes and more over to maintain/service them in the future. See Photos 76 to 84 for tightness of the current space available.

- Another disadvantage for restrengthening the (E) tunnel is the Steam shutdown time to repair the tunnel and remove and re-install the new steam pipes which can be months of building operation.

Option 2:

B) Relocate the low pressure steam piping and burry the tunnel

Obviously this solution seems to be the most cost effective and will resolve problems such as : Safety inside the tunnel as well as safety of the cars and passengers parking on the structure above the footprint of the (E) tunnel. See Photos 85 to 87 showing the damaged stage of the Parking structure above the (E) tunnel.

- A brief summary table of the two options explored with Pros and Cons is presented below:

Options	Pros	Cons
Option 1: Strengthening the tunnel	Keep the tunnel	- Most likely cost prohibitive (the cost of the cathodic protection "only" is between $300,000 to $400,000. This does not include the cost of the 8" to 12" shotcrete) - Months of shutdown building operations - Logistically difficult to reinstall steam pipes - Logistically difficult to provide services to the steam pipes in the future due to tight access.
Option 2: Abandon the Tunnel	- Most likely less expensive than Option 1. - Safety issues with Parking structure above resolved - Safety Hazard issues inside the tunnel resolved.	- Parking spaces above shall be limited while the tunnel is being filled with slurry concrete but this is the case for both options.

One of the Main problems discovered during our job site investigation is also that the area of the tunnel that has severely ceiling and wall damage is right underneath a good portion of the existing and currently being used parking structure above.

It is our professional opinion based on our experience and as it is clearly shown on the Pros and Cons table above, to highly recommend Option 2. We also would like to recommend informing LAUSC of the need to stop parking vehicles above the footprint of the (E) tunnel to prevent any possible further collapse of the tunnel with consequences on the cars parked above the area until the tunnel is filled with slurry concrete as recommended in Option 2 above.

7. DISCLAIMER

Our professional services have been performed with the intent to meet the degree of care and skill ordinarily exercised by reputable Structural Engineers practicing in this or similar localities and under similar conditions. No other warranty, expressed of implied, is made as to the professional advice or opinions included in this report.

8. REFERENCES

A. Evaluation Of The Utility Tunnels Report by Bock Engineering, Inc. dated July 25, 2003.
B. Section 3 - Existing Tunnel Systems from Ralph M. Parsons Company report done in 1975.
C. Sheet dwg Nos R676-1, R676-2, R676-3 & R676-4 by Ralph M. Parsons Company, dated 1975.
D. Concrete Corrosion Evaluation by Vector Corrosion Technologies, Dated Jan 8, 2013

9. APPENDICES

APPENDIX A. STRENGTHENING DETAIL
APPENDIX B. PRELIMINARY STRUCTURAL CALCULATION
APPENDIX C. FIGURE & PHOTOS
APPENDIX D. CONCRETE CORROSION EVALUATION REPORT

APPENDICES

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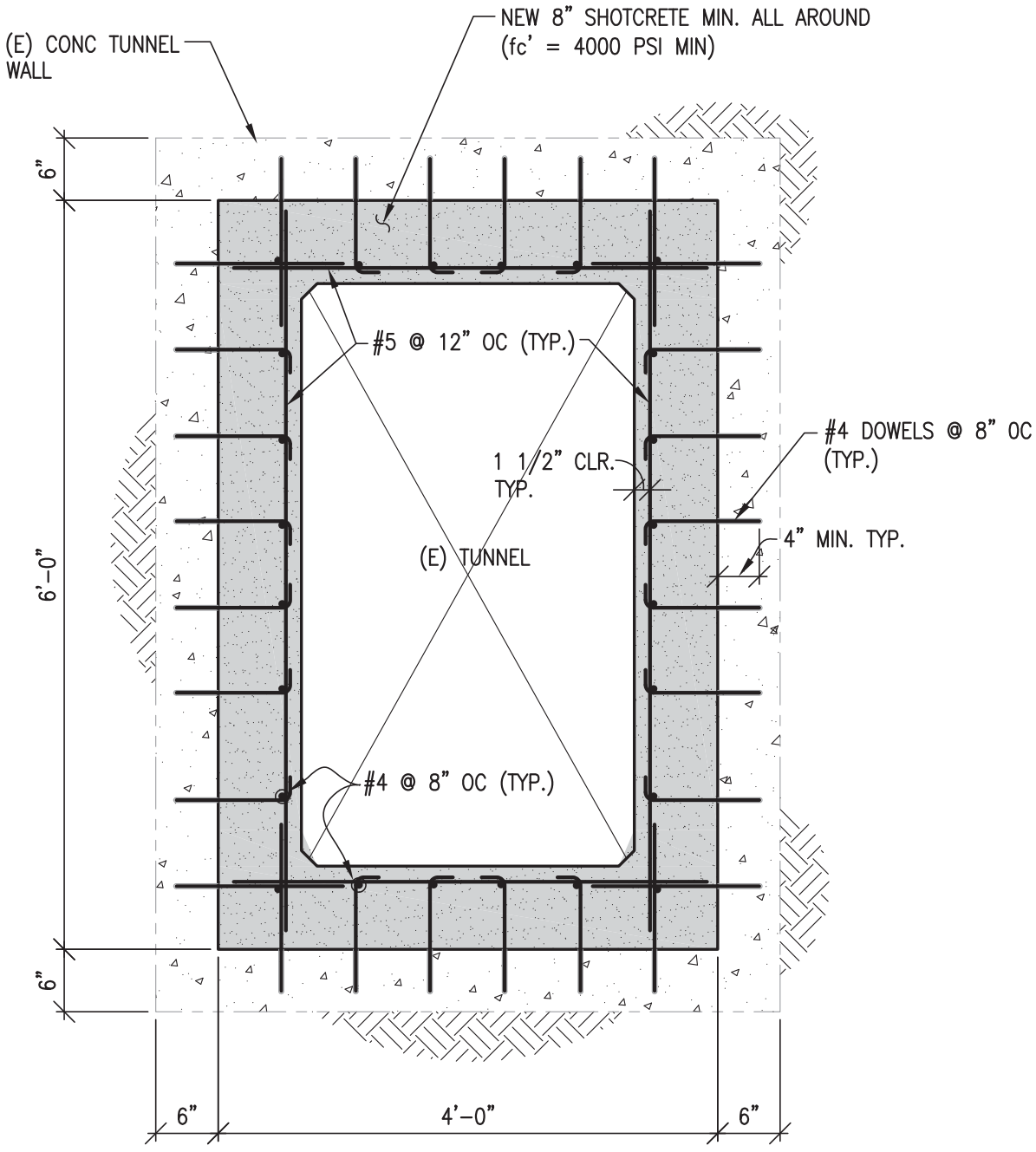
APPENDIX A

STRENGTHENING DETAIL



NEW SHOTCRETE FOR (E) TUNNEL

3/4"=1'-0"

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PROJECT:
LAC+USC MEDICAL CENTER
(E) UTILITY TUNNEL

PROJECT No. 2012.037

DATE: JANUARY 21, 2013

ENGINEER: JUAN CARLOS ESQUIVEL, M.S., S.E.

SHEET No. SSK-1

APPENDIX B

PRELIMINARY STRUCTURAL CALCULATIONS

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JCE STRUCTURAL ENGINEERING GROUP, INC.

LAC+USC MEDICAL CENTER
UTILITY TUNNEL
JUVENILE HALL

LOS ANGELES, CA 90033

STRUCTURAL CALCULATIONS

Prepared for:
VANIR CONSTRUCTION MANAGEMENT

Prepared By:
Juan Carlos Esquivel, M.S.,S.E.

JCE JOB NO: 2012.037.1

January 18, 2013

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ANALYSIS CRITERIA AND CONCLUSION

PAGE: 3

1. CODES & REFERENCES

A. Governing Codes
1 California Building Code -2010 Edition
2 American Concrete Institute – ACI 318-08

2. SCOPE OF WORK

Existing Structural Analysis for underground 4'-6" wide x 6'-4" tall (CTC) concrete tunnel.
Member thickness = 6 inch on top slab, side walls and foundation slab.

3. MATERIALS

(E) Concrete
fc'= 4000 psi
(E) Rebar
fy= 40 ksi

4. ANALYSIS CRITERIA

a. Soil Weight (Assumed):	110	pcf
b. At Rest Souil Equivalent Fluid Pressure	55.0	pcf
c. Soil above tunnel:	12.0	ft
d. Weight of Soil above Tunnel (1.15 arching):	1.52	kips/ft
e. Parking surcharge: (Not for Embed > 9 ft)	0	psf
f. Lateral Pressure from Surcharge:	0	psf
g. Sds:	1.471	
h. Seismic Lateral Soil Pressure (Uniform):	360	psf

5. ANALYSIS RESULT

a. Existing Tunnel

All Demand to Capacity Ratios are greater than 1.0. This Tunnel is Overstressed under Analysis Criteria. All Demands are from Sap2000 Analysis.

Item	Mu (k-ft/ft)	ϕMn	**DCR**
a. Top Slab	5.3	2.35	**2.26**
b. Side Walls	5.9	2.35	**2.51**
c. Bottom Slab	5.9	2.35	**2.51**

b. New Shutcrete

New 8" shutcrete added to take all positive momentswithout all existing bars. All DCR < 1.0. OK.

Item	Mu (k-ft/ft)	ϕMn	**DCR**
a. Top Slab	5.22	8.23	**0.63**
b. Side Walls	7.63	8.23	**0.93**
c. Bottom Slab	4.6	8.23	**0.56**

PAGE: 4

C:\Andrew\1 Proj\Misc\2012.037 USC Unti Tunnel\[JCE CoverSht Div Calc Pad4e.xls]NE

2010 CBC / 2009 IBC / ASCE7-05 11.4.4 Design Spectral Acceleration

USGS EARTHQUAKE HARZARD PROGRAM 'USGS Java Earthquake Ground Motion Parameters V6" Output :

Conterminous 48 States
2009 International Building Code
Latitude = 34.059776
Longitude = -118.20986200000002

Spectral Response Accelerations Ss and S1
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0 ,Fv = 1.0
Data are based on a 0.01 deg grid spacing

Period (sec)	Sa (g)
0.2	2.207 (Ss, Site Class B)
1.0	0.763 (S1, Site Class B)

Conterminous 48 States
2009 International Building Code
Latitude = 34.059776
Longitude = -118.20986200000002
Spectral Response Accelerations SMs and SM1
SMs = Fa x Ss and SM1 = Fv x S1
Site Class D - Fa = 1.0 ,Fv = 1.5

Period (sec)	Sa (g)
0.2	2.207 (SMs, Site Class D)
1.0	1.145 (SM1, Site Class D)

Conterminous 48 States
2009 International Building Code
Latitude = 34.059776
Longitude = -118.20986200000002
Design Spectral Response Accelerations SDs and SD1
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class D - Fa = 1.0 ,Fv = 1.5

Period (sec)	Sa (g)
0.2	1.471 (SDs, Site Class D)
1.0	0.763 (SD1, Site Class D)

1200 N State Street, Los Angeles, CA 90033

N	34.0598	Latitude
E	-118.21	Longitude

SS=	2.207
S1=	0.763
SDS=	1.471
SD1=	0.763

PAGE: 5

Project:_____
Job No: _____
Engineer:_____
Date:_____

Concrete Capacity

Concrete strength: $f'_c := 4000psi$

Rebar strength: $f_y := 40ksi$

(E) Wall (6" thick)

Concrete thickness: $t := 6in$ per $b := 1ft$

Concrete cover: $c := 1in$

#3 Horizontal @ 8" o.c. $d_{bar} := 0.375in$ $s := 8in$

Area of steel: $A_s := \left(\frac{d_{bar}}{2}\right)^2 \cdot \pi \cdot \left(\frac{12in}{s}\right)$ $A_s = 0.166\,in^2$

Rebar depth: $d := t - c - 0.5d_{bar}$ $d = 4.812\,in$

Moment capacity $\phi := 0.90$ $\phi M_n := \phi \cdot A_s \cdot f_y \cdot \left[d - \left(\frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}\right) \cdot \frac{1}{2}\right]$ $\phi M_n = 2.351\,kip \cdot ft$

Shear capacity $\phi := 0.75$ $\phi V_n := \phi \cdot \left(2 \cdot \sqrt{f'_c \cdot psi} \cdot d \cdot b\right)$ $\phi V_n = 5.479\,kip$

#3 horizontal@ 14" o.c. $d_{bar} := 0.375in$ $s := 14in$

Area of steel: $A_s := \left(\frac{d_{bar}}{2}\right)^2 \cdot \pi \cdot \left(\frac{12in}{s}\right)$ $A_s = 0.095\,in^2$

Rebar depth: $d := t - c - 0.5d_{bar}$ $d = 4.812\,in$

Moment capacity $\phi := 0.90$ $\phi M_n := \phi \cdot A_s \cdot f_y \cdot \left[d - \left(\frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}\right) \cdot \frac{1}{2}\right]$ $\phi M_n = 1.354\,kip \cdot ft$

Shear capacity $\phi := 0.75$ $\phi V_n := \phi \cdot \left(2 \cdot \sqrt{f'_c \cdot psi} \cdot d \cdot b\right)$ $\phi V_n = 5.479\,kip$

PAGE: 6

Project:_____
Job No: _____
Engineer:_____
Date:_____

Concrete strength: $f'_c := 4000psi$

Rebar strength: $f_y := 60ksi$

NEW Wall (8" thick)

Concrete thickness: $t := 8in$ per $b := 1ft$

Concrete cover: $c := 2in$

#5 Horizontal @ 12" o.c. $d_{bar} := 5 \div 8in$ $s := 12in$

Area of steel: $A_s := \left(\frac{d_{bar}}{2}\right)^2 \cdot \pi \cdot \left(\frac{12in}{s}\right)$ $A_s = 0.307\,in^2$

Rebar depth: $d := t - c - 0.5d_{bar}$ $d = 5.688\,in$

Moment capacity $\phi := 0.90$ $\phi M_n := \phi \cdot A_s \cdot f_y \cdot \left[d - \left(\frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}\right) \cdot \frac{1}{2}\right]$ $\phi M_n = 7.541\,kip \cdot ft$

Shear capacity $\phi := 0.75$ $\phi V_n := \phi \cdot \left(2 \cdot \sqrt{f'_c \cdot psi} \cdot d \cdot b\right)$ $\phi V_n = 6.475\,kip$

Concrete strength: $f'_c := 4000psi$

Rebar strength: $f_y := 40ksi$

#3 horizontal@ 8" o.c. $d_{bar} := 0.375in$ $s := 8in$

Area of steel: $A_s := \left(\frac{d_{bar}}{2}\right)^2 \cdot \pi \cdot \left(\frac{12in}{s}\right)$ $A_s = 0.166\,in^2$

Rebar depth: $d := t - c - 0.5d_{bar}$ $d = 5.813\,in$

Moment capacity $\phi := 0.90$ $\phi M_n := \phi \cdot A_s \cdot f_y \cdot \left[d - \left(\frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}\right) \cdot \frac{1}{2}\right]$ $\phi M_n = 2.849\,kip \cdot ft$

Shear capacity $\phi := 0.75$ $\phi V_n := \phi \cdot \left(2 \cdot \sqrt{f'_c \cdot psi} \cdot d \cdot b\right)$ $\phi V_n = 6.617\,kip$

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EXISTING TUNNEL ANALYSIS: SAP2000 RESULTS

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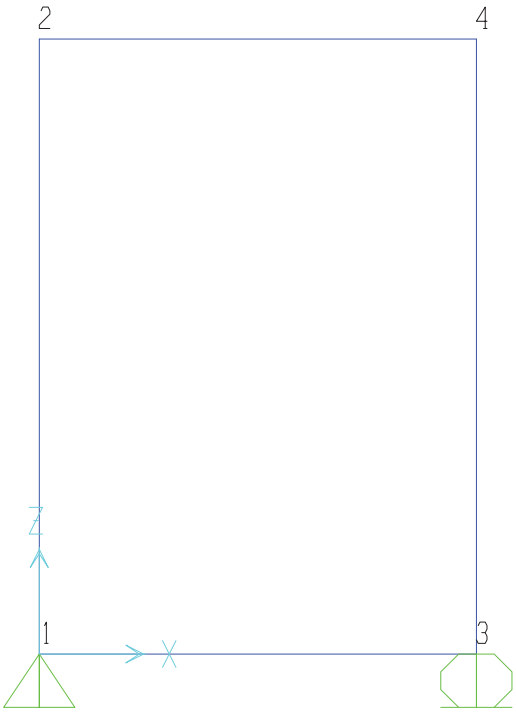
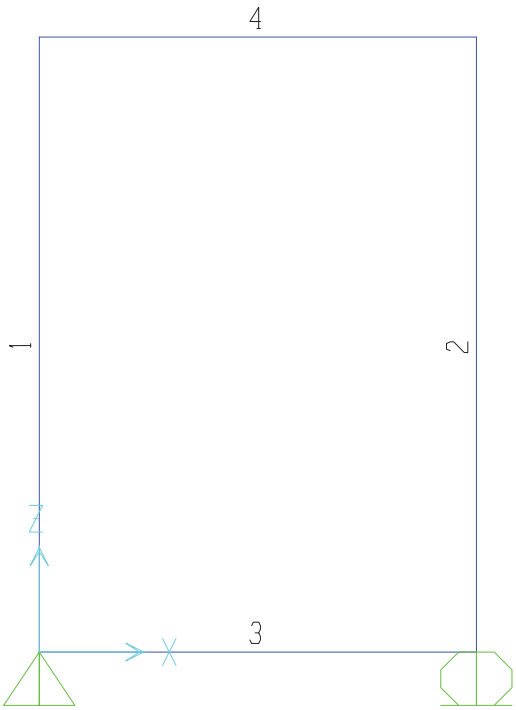


MEMBER NUMBER



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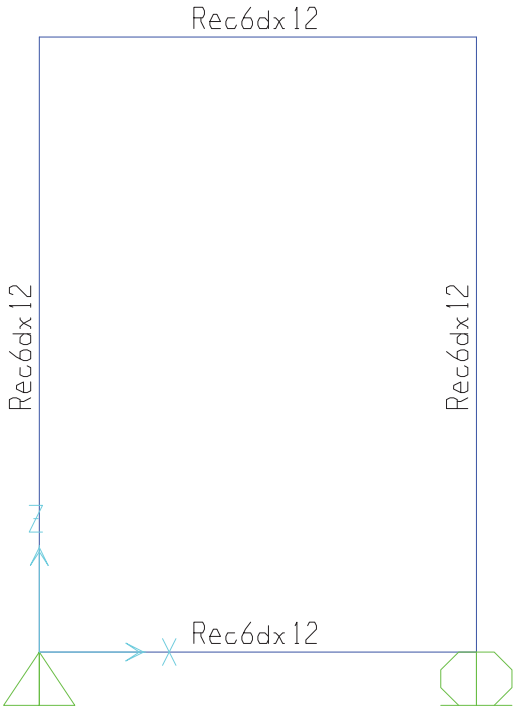

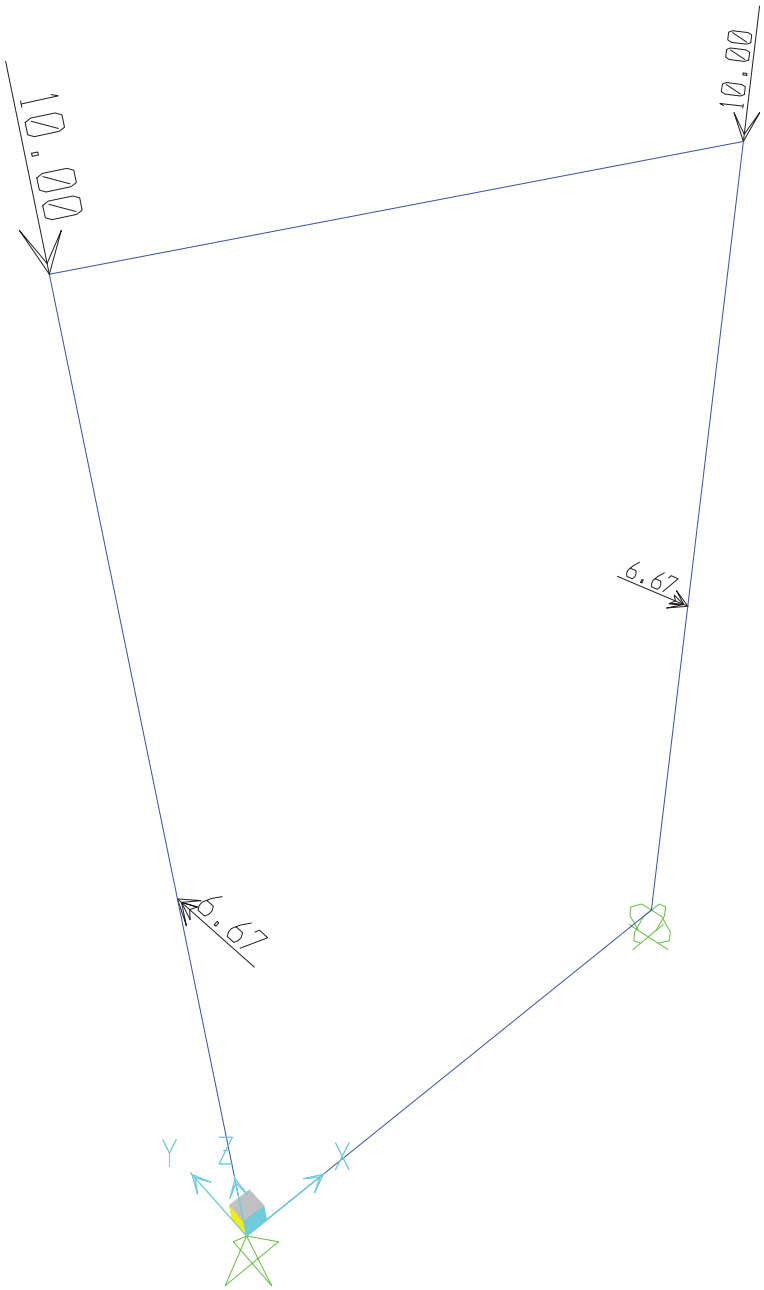
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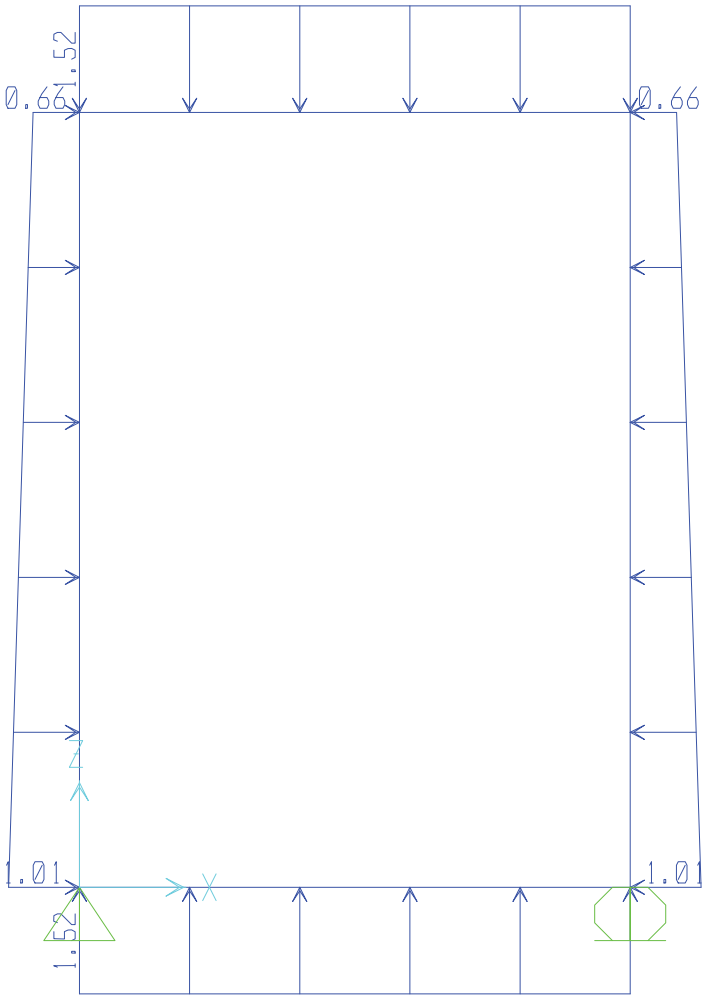
10.00
6.67
6.67
Y
Z
X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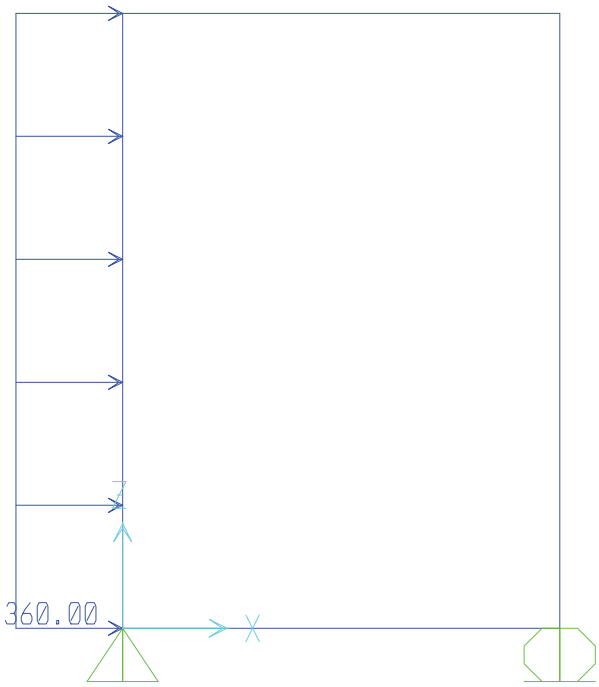
1.52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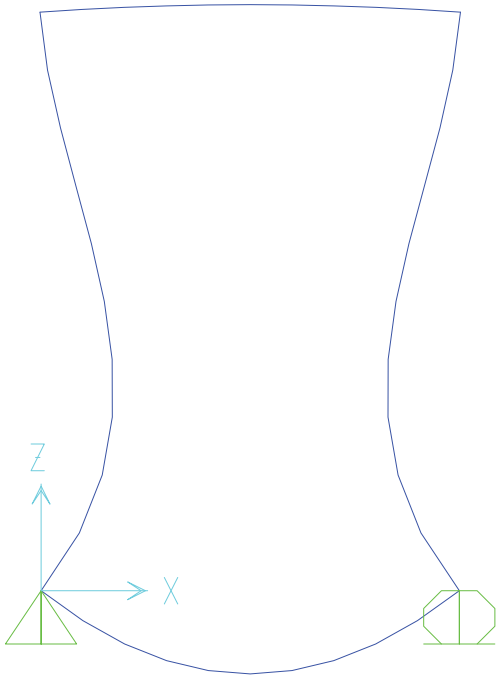
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X
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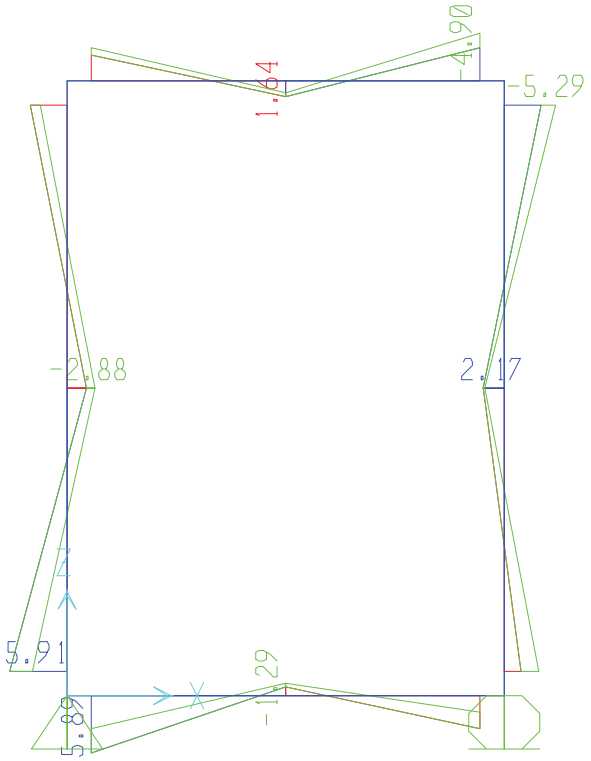

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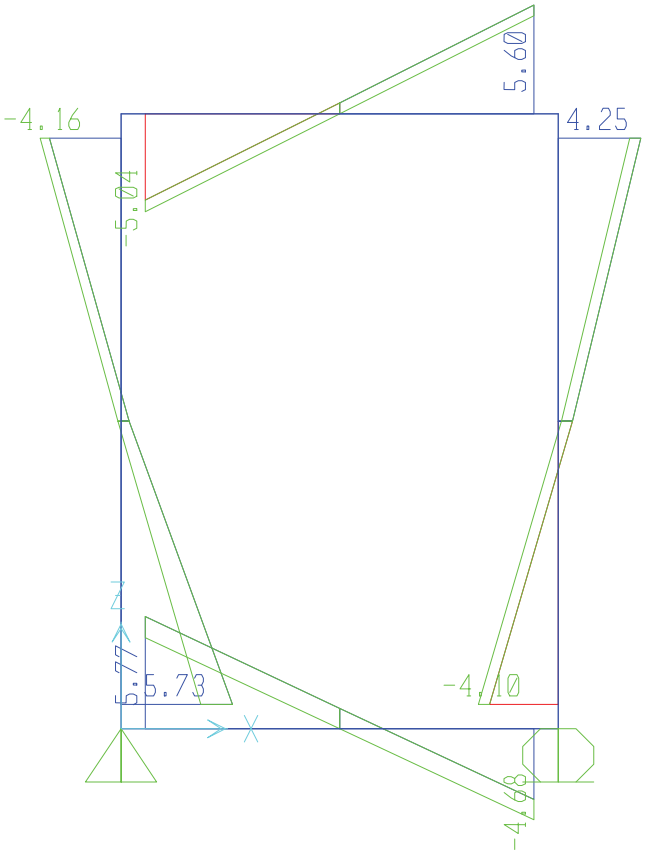
SIDE = +2.9/-5.9
BOTTOM = +1.3/-5.9

PAGE: 16



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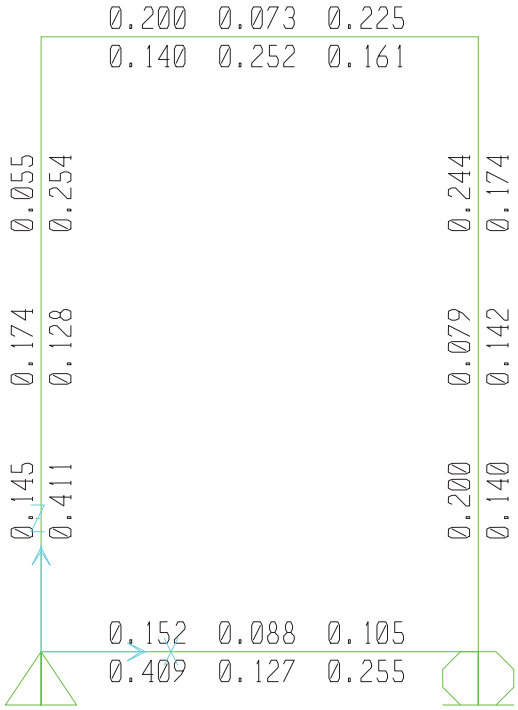
PAGE: 17



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BOTTOM = +0.13/-0.41

NEW TUNNEL ANALYSIS: SAP2000 RESULTS

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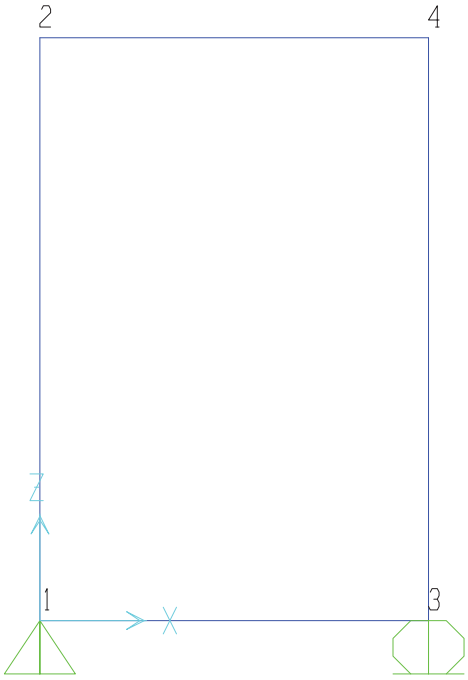
NODAL NUMBER



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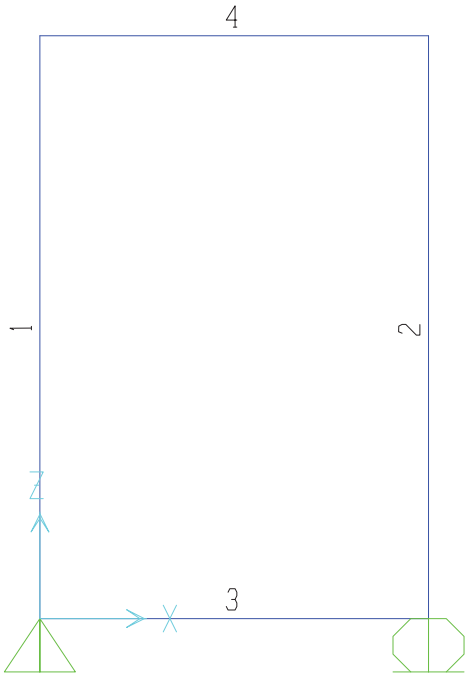
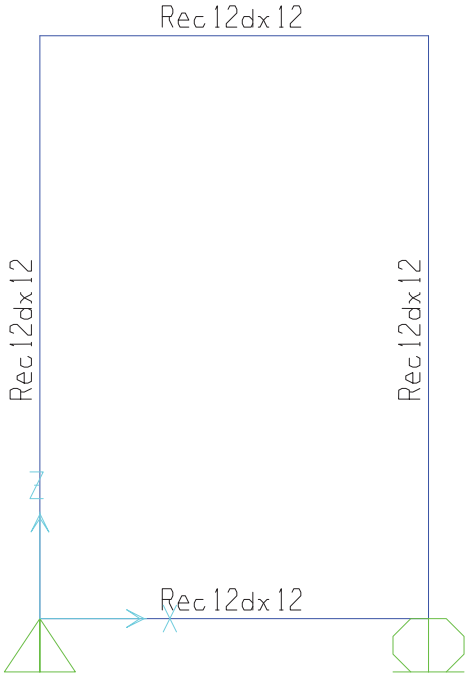
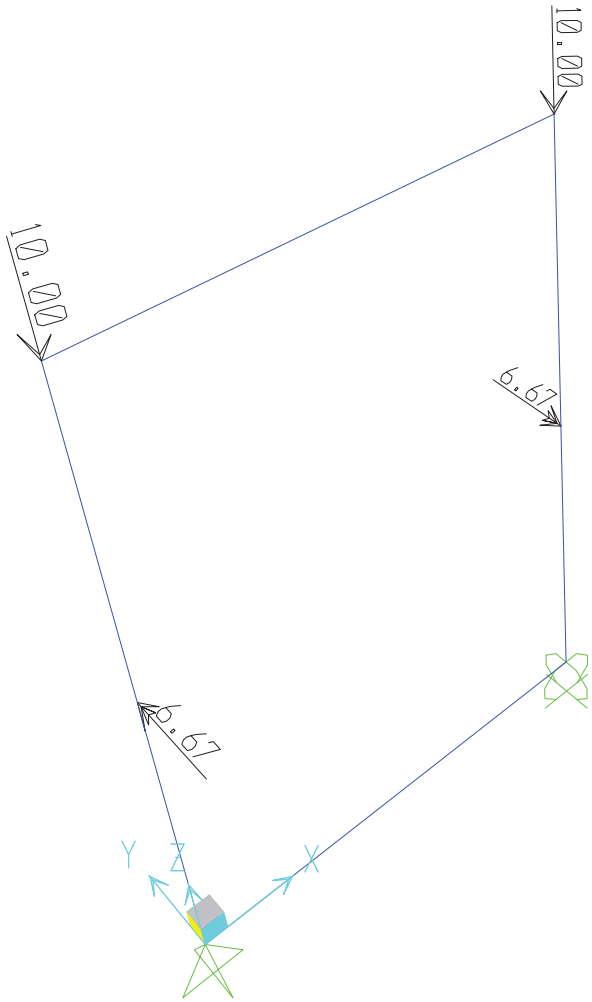


SECTION ID

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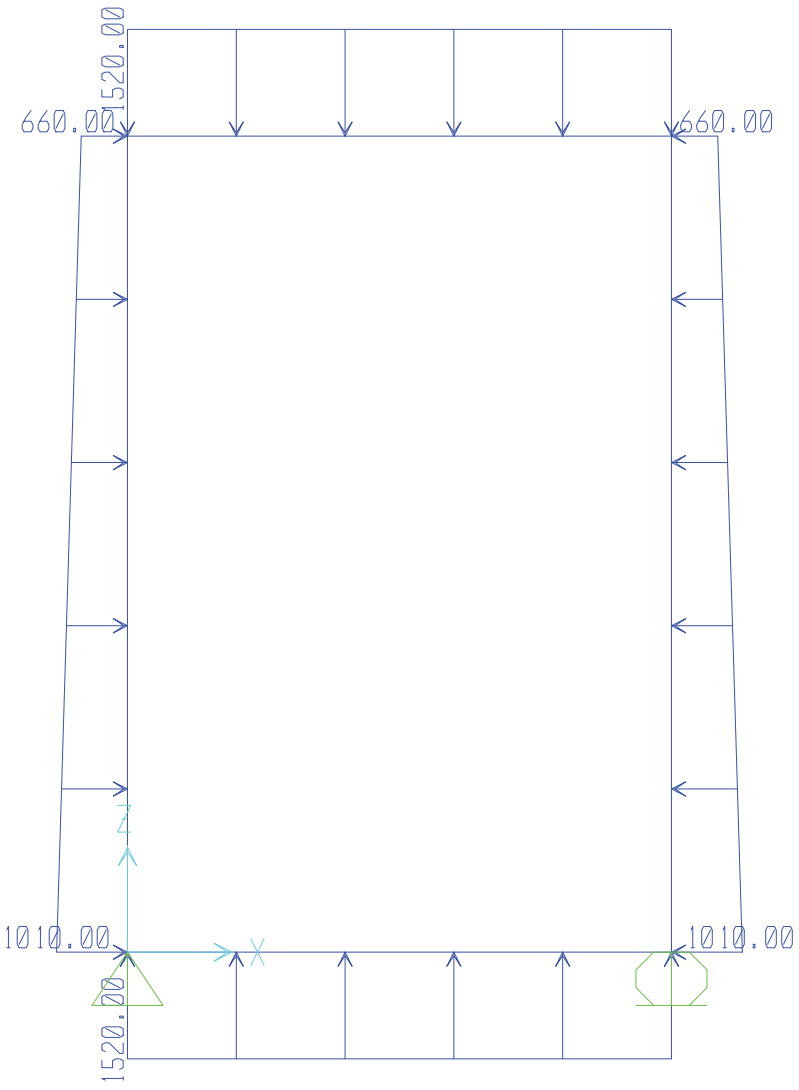
Z
X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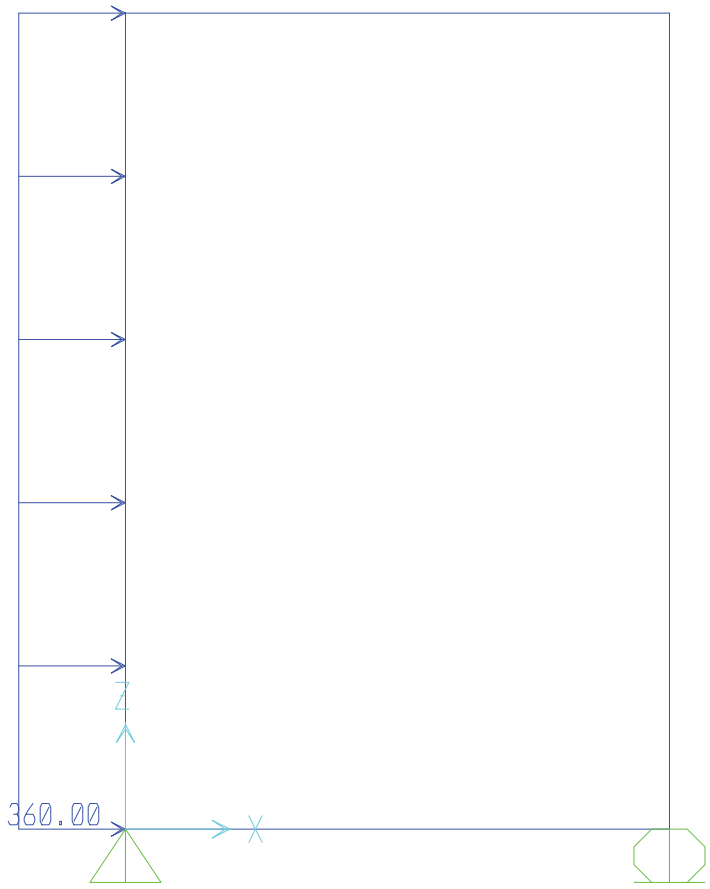
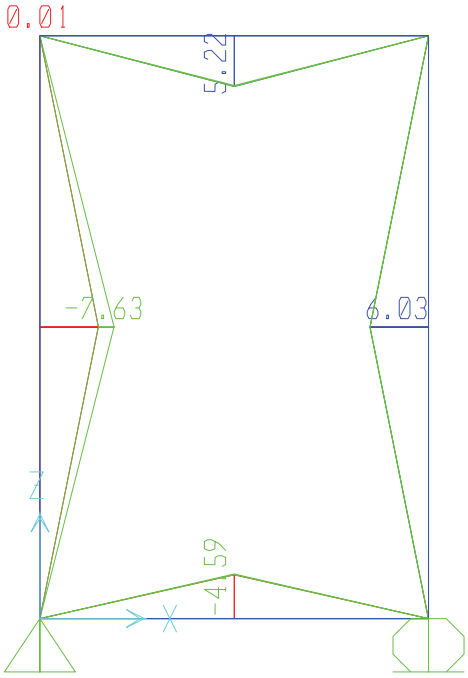
1010.00
1520.00


Z
360.00
X



MAX Mu (K-FT/FT)

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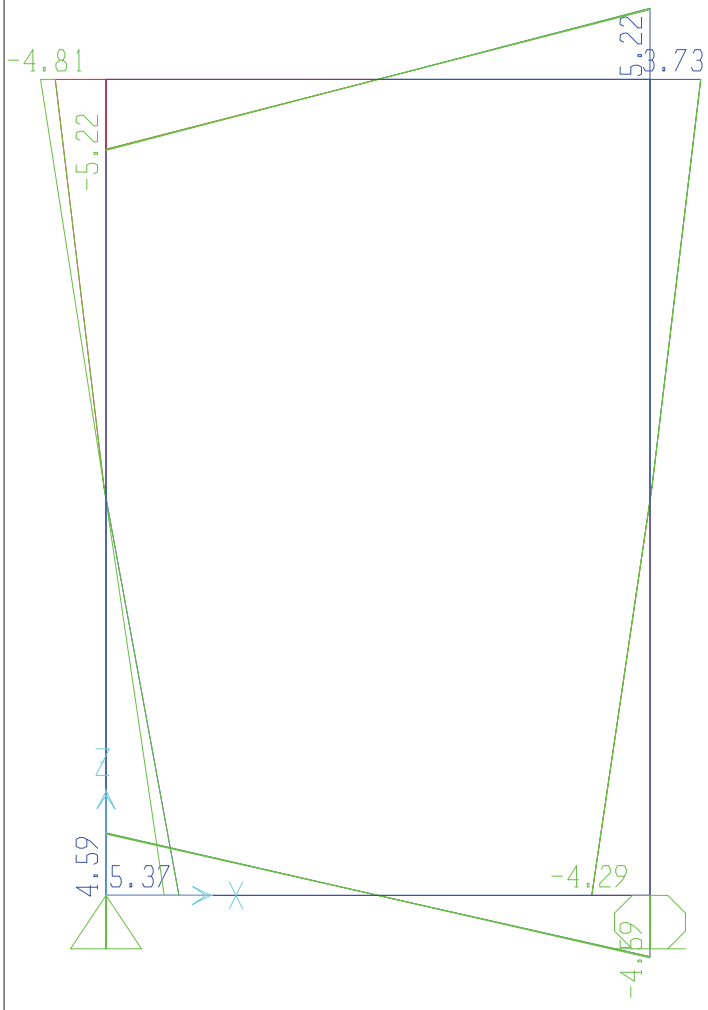
BOTTOM = +4.6

PAGE: 26



MAX Vu (K/FT)

TOP = 5.2
SIDE = 5.3
BOTTOM = 5.4

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APPENDIX
1. (E) TUNNEL SAP 2000 OUTPUT FILE
2. (N) TUNNEL SAP 2000 OUTPUT FILE

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License #27CB6

EXISTING TUNNEL ANALYSIS

SAP2000 Analysis Report

Prepared by

jcese

Model Name: box4x6_no L.sdb

18 January 2013

1. Model geometry

This section provides model geometry information, including items such as joint coordinates, joint restraints, and element connectivity.

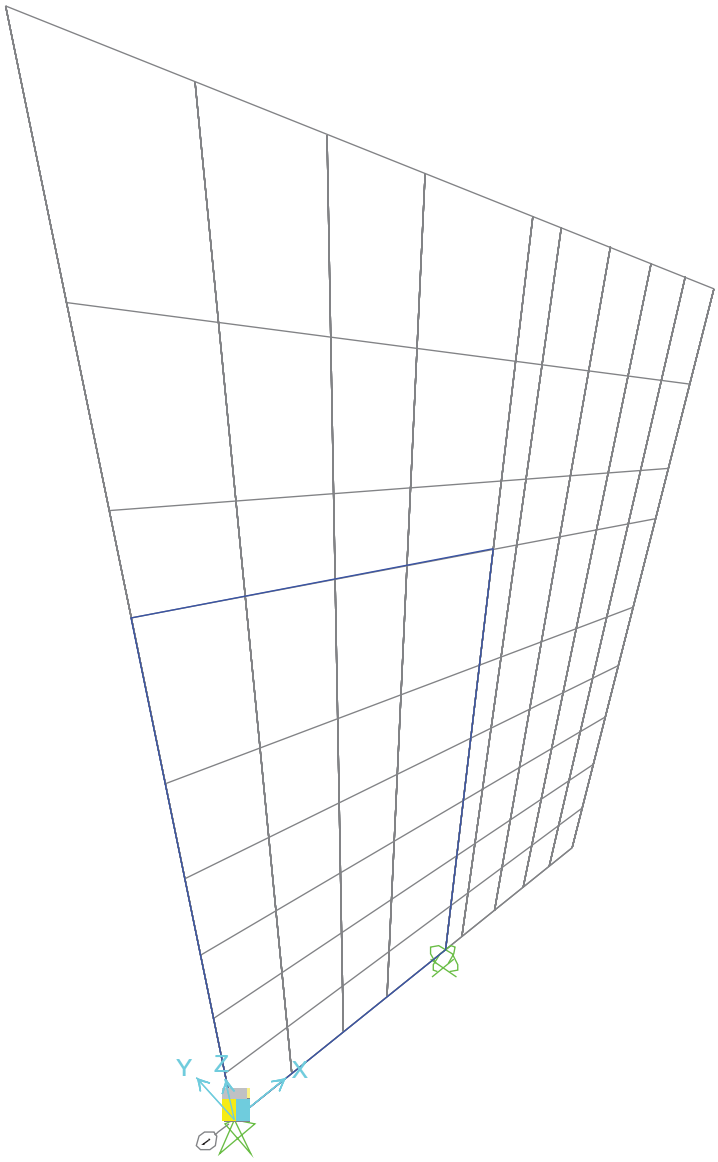

Figure 1: Finite element model

1.1. Joint coordinates

Table 1: Joint Coordinates

Table 1: Joint Coordinates

Joint	CoordSys	CoordType	GlobalX	GlobalY	GlobalZ
			in	in	in
1	GLOBAL	Cartesian	0.000	0.000	0.000
2	GLOBAL	Cartesian	0.000	0.000	75.960
3	GLOBAL	Cartesian	54.000	0.000	0.000
4	GLOBAL	Cartesian	54.000	0.000	75.960

1.2. Joint restraints

Table 2: Joint Restraint Assignments

Table 2: Joint Restraint Assignments

Joint	U1	U2	U3	R1	R2	R3
1	Yes	Yes	Yes	No	No	No
3	No	No	Yes	No	No	No

1.3. Element connectivity

Table 3: Connectivity - Frame

Table 3: Connectivity - Frame

Frame	JointI	JointJ	Length
			in
1	1	2	75.960
2	3	4	75.960
3	1	3	54.000
4	2	4	54.000

Table 4: Frame Section Assignments

Table 4: Frame Section Assignments

Frame	AnalSect	DesignSect	MatProp
1	Rec6dx12	Rec6dx12	Default
2	Rec6dx12	Rec6dx12	Default
3	Rec6dx12	Rec6dx12	Default
4	Rec6dx12	Rec6dx12	Default

2. Material properties

This section provides material property information for materials used in the model.

Table 5: Material Properties 02 - Basic Mechanical Properties

Table 5: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	Kip/in3	Kip-s2/in4	Kip/in2	Kip/in2		1/F
4000Psi	8.6806E-05	2.2483E-07	3604.997	1502.082	0.200000	5.5000E-06
A615Gr60	2.8356E-04	7.3446E-07	29000.000			6.5000E-06

Table 6: Material Properties 03a - Steel Data

Table 6: Material Properties 03a - Steel Data

Material	Fy	Fu	FinalSlope
	Kip/in2	Kip/in2	
A36	36.000	58.000	-0.100000
A992Fy50	50.000	65.000	-0.100000

Table 7: Material Properties 03b - Concrete Data

Table 7: Material Properties 03b - Concrete Data

Material	Fc	FinalSlope
	Kip/in2	
4000Psi	4.000	-0.100000
5000Psi	5.000	-0.100000

Table 8: Material Properties 03e - Rebar Data

Table 8: Material Properties 03e - Rebar Data

Material	Fy	Fu	FinalSlope
	Kip/in2	Kip/in2	
A615Gr60	60.000	90.000	-0.100000

3. Section properties

This section provides section property information for objects used in the model.

3.1. Frames

Table 9: Frame Section Properties 01 - General, Part 1 of 4

Table 9: Frame Section Properties 01 - General, Part 1 of 4

SectionName	Material	Shape	t3	t2	Area	TorsConst	I33	I22
			in	in	in2	in4	in4	in4
Rec6dx12	4000Psi	Rectangular	6.0000	12.0000	72.00	593.26	216.00	864.00

Table 9: Frame Section Properties 01 - General, Part 2 of 4

Table 9: Frame Section Properties 01 - General, Part 2 of 4

SectionName	AS2	AS3
	in2	in2
Rec6dx12	60.00	60.00

Table 9: Frame Section Properties 01 - General, Part 3 of 4

Table 9: Frame Section Properties 01 - General, Part 3 of 4

SectionName	S33	S22	Z33	Z22	R33	R22
	in3	in3	in3	in3	in	in
Rec6dx12	72.00	144.00	108.00	216.00	1.7321	3.4641

Table 9: Frame Section Properties 01 - General, Part 4 of 4

Table 9: Frame Section Properties 01 - General, Part 4 of 4

SectionName	AMod	A2Mod	A3Mod	JMod	I2Mod	I3Mod	MMod	WMod
Rec6dx12	1.000000	1.000000	1.000000	1.000000	0.350000	0.350000	1.000000	1.000000

Table 10: Frame Section Properties 03 - Concrete Beam, Part 1 of 2

Table 10: Frame Section Properties 03 - Concrete Beam, Part 1 of 2

SectionName	RebarMatL	RebarMatC	TopCover	BotCover
			in	in
Rec6dx12	A615Gr60	A615Gr60	1.0000	2.5000

Table 10: Frame Section Properties 03 - Concrete Beam, Part 2 of 2

Table 10: Frame Section Properties 03 - Concrete Beam, Part 2 of 2

SectionName	TopLeftArea	TopRghtArea	BotLeftArea	BotRghtArea
	in2	in2	in2	in2
Rec6dx12	0.0000	0.0000	0.0000	0.0000

4. Load patterns

This section provides loading information as applied to the model.

4.1. Definitions

Table 11: Load Pattern Definitions

Table 11: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad
DEAD	DEAD	1.000000	
H	LIVE	0.000000	
EQ	QUAKE	0.000000	None

5. Load cases

This section provides load case information.

5.1. Definitions

Table 12: Load Case Definitions

Table 12: Load Case Definitions

Case	Type	InitialCond	ModalCase	BaseCase	DesActOpt	DesignAct
DEAD	LinStatic	Zero			Prog Det	Non-Composite
MODAL	LinModal	Zero			Prog Det	Other
L	LinStatic	Zero			Prog Det	Other
H	LinStatic	Zero			Prog Det	Short-Term Composite
EQ	LinStatic	Zero			Prog Det	Short-Term Composite

5.2. Static case load assignments

Table 13: Case - Static 1 - Load Assignments

Table 13: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.000000
H	Load pattern	H	1.000000
EQ	Load pattern	EQ	1.000000

5.3. Response spectrum case load assignments

Table 14: Function - Response Spectrum - User

Table 14: Function - Response Spectrum - User

Name	Period	Accel	FuncDamp
	Sec		
UNIFRS	0.000000	1.000000	0.050000
UNIFRS	1.000000	1.000000	

6. Load combinations

This section provides load combination information.

Table 15: Combination Definitions

Table 15: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
1.2D1.6L	Linear Add	DEAD	1.200000
1.2D1.6L		L	1.600000
1.2D1.6L		H	1.600000
DLH	Linear Add	DEAD	1.000000
DLH		L	1.000000
DLH		H	1.000000
1.2D1L16H1E	Linear Add	DEAD	1.200000
1.2D1L16H1E		L	1.000000
1.2D1L16H1E		H	1.600000
1.2D1L16H1E		EQ	1.000000
0.9D+1.6H+E	Linear Add	DEAD	0.900000
0.9D+1.6H+E		H	1.600000
0.9D+1.6H+E		EQ	1.000000
ENV	Envelope	1.2D1.6L	1.000000
ENV		1.2D1L16H1E	1.000000
ENV		0.9D+1.6H+E	1.000000
DCON1	Linear Add	DEAD	1.400000
DCON2	Linear Add	DEAD	1.200000
DCON2		H	1.600000
DCON3	Linear Add	DEAD	1.200000
DCON3		H	1.000000
DCON3		EQ	1.000000
DCON4	Linear Add	DEAD	1.200000
DCON4		H	1.000000
DCON4		EQ	-1.000000
DCON5	Linear Add	DEAD	0.900000
DCON5		EQ	1.000000
DCON6	Linear Add	DEAD	0.900000
DCON6		EQ	-1.000000

7. Structure results

This section provides structure results, including items such as structural periods and base reactions.

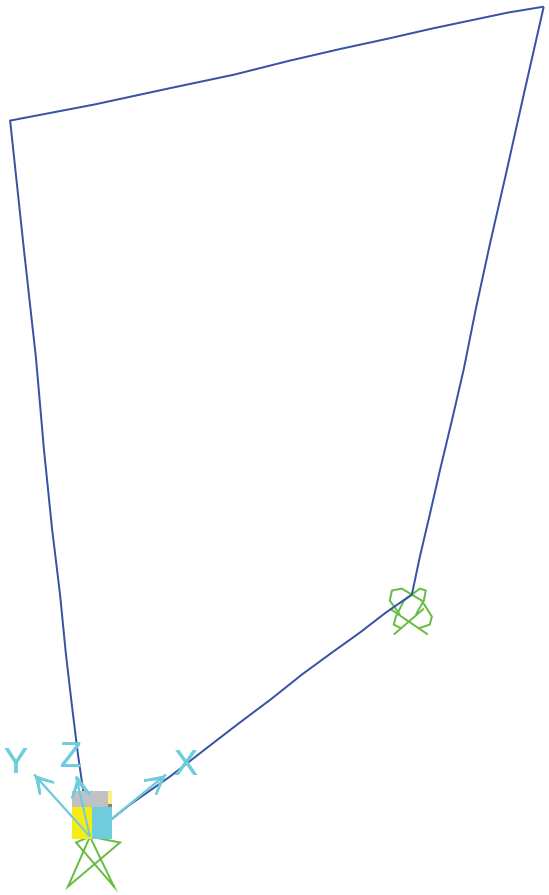

Figure 2: Deformed shape

7.1. Mass summary

Table 16: Assembled Joint Masses

Table 16: Assembled Joint Masses

Joint	U1	U2	U3	R1	R2	R3
	Kip-s2/in	Kip-s2/in	Kip-s2/in	Kip-in-s2	Kip-in-s2	Kip-in-s2
1	0.0011	0.0011	0.0011	0.000	0.000	0.000
2	0.0011	0.0011	0.0011	0.000	0.000	0.000
3	0.0011	0.0011	0.0011	0.000	0.000	0.000
4	0.0011	0.0011	0.0011	0.000	0.000	0.000

7.2. Modal results

Table 17: Modal Participating Mass Ratios

Table 17: Modal Participating Mass Ratios

OutputCase	StepNum	Period	UX	UY	UZ	SumUX	SumUY	SumUZ
		Sec						
MODAL	1.000000	-8691523.4	0.0021	0.8473	6.561E-07	0.0021	0.8473	6.561E-07

7.3. Base reactions

Table: Base Reactions, Part 1 of 3

Table: Base Reactions, Part 1 of 3

OutputCase	CaseType	StepType	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY	GlobalMZ
			Kip	Kip	Kip	Kip-in	Kip-in	Kip-in
1.2D1.6L	Combination		0.000	0.000	1.973	0.000	-53.282	0.000
DLH	Combination		0.000	0.000	1.645	0.000	-44.401	0.000
1.2D1L16H1E	Combination		-2.279	0.000	1.973	0.000	-139.831	0.000
0.9D+1.6H+E	Combination		-2.279	0.000	1.480	0.000	-126.510	0.000
ENV	Combination	Max	0.000	0.000	1.973	0.000	-53.282	0.000
ENV	Combination	Min	-2.279	0.000	1.480	0.000	-139.831	0.000

Table: Base Reactions, Part 2 of 3

Table: Base Reactions, Part 2 of 3

OutputCase	StepType	GlobalX	GlobalY	GlobalZ	XCentroidFX	YCentroidFX	ZCentroidFX	XCentroidFY
		in	in	in	in	in	in	in
1.2D1.6L		0.000	0.000	0.000	0.000	0.000	0.000	0.000
DLH		0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.2D1L16H1E		0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.9D+1.6H+E		0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENV	Max	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENV	Min	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table: Base Reactions, Part 3 of 3

Table: Base Reactions, Part 3 of 3

OutputCase	StepType	YCentroidFY	ZCentroidFY	XCentroidFZ	YCentroidFZ	ZCentroidFZ
		in	in	in	in	in
1.2D1.6L		0.000	0.000	27.000	0.000	0.000
DLH		0.000	0.000	27.000	0.000	0.000
1.2D1L16H1E		0.000	0.000	70.858	0.000	0.000

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Table: Base Reactions, Part 3 of 3

OutputCase	StepType	YCentroidFY	ZCentroidFY	XCentroidFZ	YCentroidFZ	ZCentroidFZ
		in	in	in	in	in
0.9D+1.6H+E		0.000	0.000	85.477	0.000	0.000
ENV	Max	0.000	0.000	0.000	0.000	0.000
ENV	Min	0.000	0.000	0.000	0.000	0.000

8. Joint results

This section provides joint results, including items such as displacements and reactions.

Table: Joint Reactions, Part 1 of 2

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				Kip	Kip	Kip	Kip-in	Kip-in
1	1.2D1.6L	Combination		-1.041E-18	0.000	0.987	0.000	0.000
1	DLH	Combination		-8.674E-19	0.000	0.822	0.000	0.000
1	1.2D1L16H1E	Combination		-2.279	0.000	-0.616	0.000	0.000
1	0.9D+1.6H+E	Combination		-2.279	0.000	-0.863	0.000	0.000
1	ENV	Combination	Max	-1.041E-18	0.000	0.987	0.000	0.000
1	ENV	Combination	Min	-2.279	0.000	-0.863	0.000	0.000
3	1.2D1.6L	Combination		0.000	0.000	0.987	0.000	0.000
3	DLH	Combination		0.000	0.000	0.822	0.000	0.000
3	1.2D1L16H1E	Combination		0.000	0.000	2.589	0.000	0.000
3	0.9D+1.6H+E	Combination		0.000	0.000	2.343	0.000	0.000
3	ENV	Combination	Max	0.000	0.000	2.589	0.000	0.000
3	ENV	Combination	Min	0.000	0.000	0.987	0.000	0.000

Table: Joint Reactions, Part 2 of 2

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			Kip-in
1	1.2D1.6L		0.000
1	DLH		0.000
1	1.2D1L16H1E		0.000
1	0.9D+1.6H+E		0.000
1	ENV	Max	0.000
1	ENV	Min	0.000
3	1.2D1.6L		0.000
3	DLH		0.000
3	1.2D1L16H1E		0.000
3	0.9D+1.6H+E		0.000
3	ENV	Max	0.000
3	ENV	Min	0.000

9. Frame results

This section provides frame force results.

See Graphical Outputs.

10. Material take-off

This section provides a material take-off.

Table 18: Material List 2 - By Section Property

Table 18: Material List 2 - By Section Property

Section	ObjectType	NumPieces	TotalLength	TotalWeight
			in	Kip
Rec6dx12	Frame	4	259.920	1.625

License #27CB6

NEWTUNNEL ANALYSIS

SAP2000 Analysis Report

Prepared by
jcese

Model Name: New box4x6 1_Pin.sdb

18 January 2013

1. Model geometry

This section provides model geometry information, including items such as joint coordinates, joint restraints, and element connectivity.

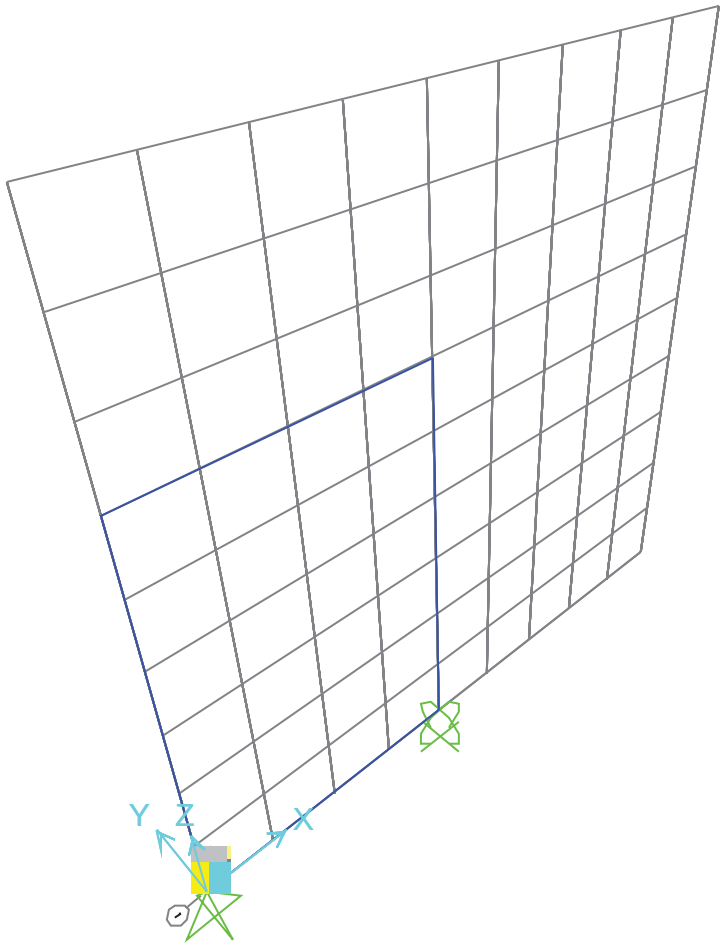

Figure 1: Finite element model

1.1. Joint coordinates

Table 1: Joint Coordinates

Table 1: Joint Coordinates

Joint	CoordSys	CoordType	GlobalX	GlobalY	GlobalZ
			ft	ft	ft
1	GLOBAL	Cartesian	0.0000	0.0000	0.0000
2	GLOBAL	Cartesian	0.0000	0.0000	6.0000
3	GLOBAL	Cartesian	4.0000	0.0000	0.0000
4	GLOBAL	Cartesian	4.0000	0.0000	6.0000

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1.2. Joint restraints

Table 2: Joint Restraint Assignments

Table 2: Joint Restraint Assignments

Joint	U1	U2	U3	R1	R2	R3
1	Yes	Yes	Yes	No	No	No
3	No	No	Yes	No	No	No

1.3. Element connectivity

Table 3: Connectivity - Frame

Table 3: Connectivity - Frame

Frame	JointI	JointJ	Length
			ft
1	1	2	6.0000
2	3	4	6.0000
3	1	3	4.0000
4	2	4	4.0000

Table 4: Frame Section Assignments

Table 4: Frame Section Assignments

Frame	AnalSect	DesignSect	MatProp
1	Rec12dx12	Rec12dx12	Default
2	Rec12dx12	Rec12dx12	Default
3	Rec12dx12	Rec12dx12	Default
4	Rec12dx12	Rec12dx12	Default

Table 5: Frame Release Assignments 1 - General, Part 1 of 2

Table 5: Frame Release Assignments 1 - General, Part 1 of 2

Frame	PI	V2I	V3I	TI	M2I	M3I
3	No	No	No	Yes	Yes	Yes
4	No	No	No	Yes	Yes	Yes

Table 5: Frame Release Assignments 1 - General, Part 2 of 2

Table 5: Frame Release Assignments 1 - General, Part 2 of 2

Frame	PJ	V2J	V3J	TJ	M2J	M3J
3	No	No	No	No	Yes	Yes
4	No	No	No	No	Yes	Yes

2. Material properties

This section provides material property information for materials used in the model.

Table 6: Material Properties 02 - Basic Mechanical Properties

Table 6: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	Kip/ft3	Kip-s2/ft4	Kip/ft2	Kip/ft2		1/F
4000Psi	1.5000E-01	4.6621E-03	519119.50	216299.79	0.200000	5.5000E-06
5000Psi	1.5000E-01	4.6621E-03	580393.25	241830.52	0.200000	5.5000E-06
A36	4.9000E-01	1.5230E-02	4176000.00	1606153.85	0.300000	6.5000E-06
A615Gr60	4.9000E-01	1.5230E-02	4176000.00			6.5000E-06
A992Fy50	4.9000E-01	1.5230E-02	4176000.00	1606153.85	0.300000	6.5000E-06

Table 7: Material Properties 03a - Steel Data

Table 7: Material Properties 03a - Steel Data

Material	Fy	Fu	FinalSlope
	Kip/ft2	Kip/ft2	
A36	5184.00	8352.00	-0.100000
A992Fy50	7200.00	9360.00	-0.100000

Table 8: Material Properties 03b - Concrete Data

Table 8: Material Properties 03b - Concrete Data

Material	Fc	FinalSlope
	Kip/ft2	
4000Psi	576.00	-0.100000
5000Psi	720.00	-0.100000

Table 9: Material Properties 03e - Rebar Data

Table 9: Material Properties 03e - Rebar Data

Material	Fy	Fu	FinalSlope
	Kip/ft2	Kip/ft2	
A615Gr60	8640.00	12960.00	-0.100000

3. Section properties

This section provides section property information for objects used in the model.

3.1. Frames

Table 10: Frame Section Properties 01 - General, Part 1 of 4

Table 10: Frame Section Properties 01 - General, Part 1 of 4

SectionName	Material	Shape	t3	t2	Area	TorsConst	I33	I22
			ft	ft	ft2	ft4	ft4	ft4
Rec12dx12	4000Psi	Rectangular	1.00000	1.00000	1.0000	0.140833	0.083333	0.083333
Rec6dx12	4000Psi	Rectangular	0.50000	1.00000	0.5000	0.028610	0.010417	0.041667

Table 10: Frame Section Properties 01 - General, Part 2 of 4

Table 10: Frame Section Properties 01 - General, Part 2 of 4

SectionName	AS2	AS3
	ft2	ft2
Rec12dx12	0.8333	0.8333
Rec6dx12	0.4167	0.4167

Table 10: Frame Section Properties 01 - General, Part 3 of 4

Table 10: Frame Section Properties 01 - General, Part 3 of 4

SectionName	S33	S22	Z33	Z22	R33	R22
	ft3	ft3	ft3	ft3	ft	ft
Rec12dx12	0.166667	0.166667	0.250000	0.250000	0.28868	0.28868
Rec6dx12	0.041667	0.083333	0.062500	0.125000	0.14434	0.28868

Table 10: Frame Section Properties 01 - General, Part 4 of 4

Table 10: Frame Section Properties 01 - General, Part 4 of 4

SectionName	AMod	A2Mod	A3Mod	JMod	I2Mod	I3Mod	MMod	WMod
Rec12dx12	1.000000	1.000000	1.000000	1.000000	0.350000	0.350000	1.000000	1.000000
Rec6dx12	1.000000	1.000000	1.000000	1.000000	0.350000	0.350000	1.000000	1.000000

Table 11: Frame Section Properties 03 - Concrete Beam, Part 1 of 2

Table 11: Frame Section Properties 03 - Concrete Beam, Part 1 of 2

SectionName	RebarMatL	RebarMatC	TopCover	BotCover
			ft	ft
Rec12dx12	A615Gr60	A615Gr60	0.20833	0.20833
Rec6dx12	A615Gr60	A615Gr60	0.08333	0.20833

Table 11: Frame Section Properties 03 - Concrete Beam, Part 2 of 2

Table 11: Frame Section Properties 03 - Concrete Beam, Part 2 of 2

SectionName	TopLeftArea	TopRghtArea	BotLeftArea	BotRghtArea
	ft2	ft2	ft2	ft2
Rec12dx12	0.000000	0.000000	0.000000	0.000000
Rec6dx12	0.000000	0.000000	0.000000	0.000000

4. Load patterns

This section provides loading information as applied to the model.

4.1. Definitions

Table 12: Load Pattern Definitions

Table 12: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad
DEAD	DEAD	1.000000	
H	LIVE	0.000000	
EQ	QUAKE	0.000000	None

5. Load cases

This section provides load case information.

5.1. Definitions

Table 13: Load Case Definitions

Table 13: Load Case Definitions

Case	Type	InitialCond	ModalCase	BaseCase	DesActOpt	DesignAct
DEAD	LinStatic	Zero			Prog Det	Non-Composite
MODAL	LinModal	Zero			Prog Det	Other
L	LinStatic	Zero			Prog Det	Other
H	LinStatic	Zero			Prog Det	Short-Term Composite
EQ	LinStatic	Zero			Prog Det	Short-Term Composite

5.2. Static case load assignments

Table 14: Case - Static 1 - Load Assignments

Table 14: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.000000
H	Load pattern	H	1.000000
EQ	Load pattern	EQ	1.000000

5.3. Response spectrum case load assignments

Table 15: Function - Response Spectrum - User

Table 15: Function - Response Spectrum - User

Name	Period	Accel	FuncDamp
	Sec		
UNIFRS	0.000000	1.000000	0.050000
UNIFRS	1.000000	1.000000	

6. Load combinations

This section provides load combination information.

Table 16: Combination Definitions

Table 16: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
1.2D1.6L	Linear Add	DEAD	1.200000
1.2D1.6L		L	1.600000
1.2D1.6L		H	1.600000
DLH	Linear Add	DEAD	1.000000
DLH		L	1.000000
DLH		H	1.000000
1.2D1L16H1E	Linear Add	DEAD	1.200000
1.2D1L16H1E		L	1.000000
1.2D1L16H1E		H	1.600000
1.2D1L16H1E		EQ	1.000000
0.9D+1.6H+E	Linear Add	DEAD	0.900000
0.9D+1.6H+E		H	1.600000
0.9D+1.6H+E		EQ	1.000000
ENV	Envelope	1.2D1.6L	1.000000
ENV		1.2D1L16H1E	1.000000
ENV		0.9D+1.6H+E	1.000000
DCON1	Linear Add	DEAD	1.400000
DCON2	Linear Add	DEAD	1.200000
DCON2		H	1.600000
DCON3	Linear Add	DEAD	1.200000
DCON3		H	1.000000
DCON3		EQ	1.000000
DCON4	Linear Add	DEAD	1.200000
DCON4		H	1.000000

Table 16: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
DCON4		EQ	-1.000000
DCON5	Linear Add	DEAD	0.900000
DCON5		EQ	1.000000
DCON6	Linear Add	DEAD	0.900000
DCON6		EQ	-1.000000

7. Structure results

This section provides structure results, including items such as structural periods and base reactions.

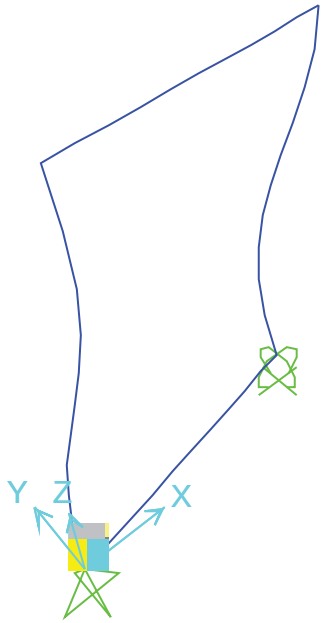

Figure 2: Deformed shape

7.1. Mass summary

Table 17: Assembled Joint Masses

Table 17: Assembled Joint Masses

Joint	U1	U2	U3	R1	R2	R3
	Kip-s2/ft	Kip-s2/ft	Kip-s2/ft	Kip-ft-s2	Kip-ft-s2	Kip-ft-s2
1	2.331E-02	2.331E-02	2.331E-02	0.0000	0.0000	0.0000
2	2.331E-02	2.331E-02	2.331E-02	0.0000	0.0000	0.0000
3	2.331E-02	2.331E-02	2.331E-02	0.0000	0.0000	0.0000
4	2.331E-02	2.331E-02	2.331E-02	0.0000	0.0000	0.0000

7.2. Modal results

Table 18: Modal Participating Mass Ratios

Table 18: Modal Participating Mass Ratios

OutputCase	StepNum	Period	UX	UY	UZ	SumUX	SumUY	SumUZ
		Sec						
MODAL	1.000000	15371521.05	0.27319	0.35337	4.701E-05	0.27319	0.35337	4.701E-05

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7.3. Base reactions

Table 19: Base Reactions

Table 19: Base Reactions

OutputCase	StepType	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY	GlobalMZ
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
DEAD		-5.568E-08	0.000	3.020	0.0000	-6.0400	0.0000
L		0.000	0.000	0.000	0.0000	0.0000	0.0000
H		4.441E-16	0.000	0.000	0.0000	0.0000	0.0000
EQ		-1.080	0.000	0.000	0.0000	0.0000	0.0000

8. Joint results

This section provides joint results, including items such as displacements and reactions.

Table 20: Joint Displacements

Table 20: Joint Displacements

Joint	OutputCase	StepType	U1	U2	U3	R1	R2	R3
			ft	ft	ft	Radians	Radians	Radians
1	DEAD		0.000000	0.000000	0.000000	0.000000	-240.567034	0.000000
1	L		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1	H		0.000000	0.000000	0.000000	0.000000	0.000507	0.000000
1	EQ		0.000000	0.000000	0.000000	0.000000	4676623136	0.000000
2	DEAD		-1443.40220	0.000000	-8.784E-06	0.000000	-240.567034	0.000000
2	L		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	H		0.000022	0.000000	-0.000035	0.000000	-0.000486	0.000000
2	EQ		2.806E+10	0.000000	0.000000	0.000000	4676623136	0.000000
3	DEAD		8.562E-09	0.000000	0.000000	0.000000	-240.567034	0.000000
3	L		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
3	H		-0.000021	0.000000	0.000000	0.000000	-0.000499	0.000000
3	EQ		1.490E-08	0.000000	0.000000	0.000000	4676623136	0.000000
4	DEAD		-1443.40220	0.000000	-8.784E-06	0.000000	-240.567034	0.000000
4	L		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
4	H		4.340E-06	0.000000	-0.000035	0.000000	0.000494	0.000000
4	EQ		2.806E+10	0.000000	0.000000	0.000000	4676623136	0.000000

Table 21: Joint Reactions

Table 21: Joint Reactions

Joint	OutputCase	StepType	F1	F2	F3	M1	M2	M3
			Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1	DEAD		-5.568E-08	0.000	1.510	0.0000	0.0000	0.0000
1	L		0.000	0.000	0.000	0.0000	0.0000	0.0000
1	H		4.441E-16	0.000	0.000	0.0000	0.0000	0.0000
1	EQ		-1.080	0.000	0.000	0.0000	0.0000	0.0000
3	DEAD		0.000	0.000	1.510	0.0000	0.0000	0.0000

Table 21: Joint Reactions

Joint	OutputCase	StepType	F1	F2	F3	M1	M2	M3
			Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
3	L		0.000	0.000	0.000	0.0000	0.0000	0.0000
3	H		0.000	0.000	0.000	0.0000	0.0000	0.0000
3	EQ		0.000	0.000	0.000	0.0000	0.0000	0.0000

9. Frame results

This section provides frame force results.

Table 22: Element Forces - Frames, Part 1 of 4

Table 22: Element Forces - Frames, Part 1 of 4

Frame	Station	OutputCase	StepType	P	V2	V3
	ft			Kip	Kip	Kip
1	0.0000	DEAD		-1.210	-1.111E-03	0.000
1	3.0000	DEAD		-0.760	-1.111E-03	0.000
1	3.0000	DEAD		-0.760	-1.111E-03	0.000
1	6.0000	DEAD		-0.310	-1.111E-03	0.000
1	0.0000	L		0.000	0.000	0.000
1	3.0000	L		0.000	0.000	0.000
1	3.0000	L		0.000	0.000	0.000
1	6.0000	L		0.000	0.000	0.000
1	0.0000	H		-3.040	2.680	0.000
1	3.0000	H		-3.040	-0.087	0.000
1	3.0000	H		-3.040	-0.087	0.000
1	6.0000	H		-3.040	-2.330	0.000
1	0.0000	EQ		0.000	1.078	0.000
1	3.0000	EQ		0.000	-1.875E-03	0.000
1	3.0000	EQ		0.000	-1.875E-03	0.000
1	6.0000	EQ		0.000	-1.082	0.000
2	0.0000	DEAD		-1.210	1.111E-03	0.000
2	3.0000	DEAD		-0.760	1.111E-03	0.000
2	3.0000	DEAD		-0.760	1.111E-03	0.000
2	6.0000	DEAD		-0.310	1.111E-03	0.000
2	0.0000	L		0.000	0.000	0.000
2	3.0000	L		0.000	0.000	0.000
2	3.0000	L		0.000	0.000	0.000
2	6.0000	L		0.000	0.000	0.000
2	0.0000	H		-3.040	-2.680	0.000
2	3.0000	H		-3.040	0.087	0.000
2	3.0000	H		-3.040	0.087	0.000
2	6.0000	H		-3.040	2.330	0.000
2	0.0000	EQ		0.000	1.953E-03	0.000
2	3.0000	EQ		0.000	1.953E-03	0.000
2	3.0000	EQ		0.000	1.953E-03	0.000
2	6.0000	EQ		0.000	1.953E-03	0.000
3	0.0000	DEAD		1.111E-03	-0.300	0.000
3	2.0000	DEAD		1.111E-03	1.110E-16	0.000
3	4.0000	DEAD		1.111E-03	0.300	0.000
3	0.0000	L		0.000	0.000	0.000
3	2.0000	L		0.000	0.000	0.000
3	4.0000	L		0.000	0.000	0.000

Table 22: Element Forces - Frames, Part 1 of 4

Frame	Station	OutputCase	StepType	P	V2	V3
	ft			Kip	Kip	Kip
3	0.0000	H		-2.680	3.040	0.000
3	2.0000	H		-2.680	0.000	0.000
3	4.0000	H		-2.680	-3.040	0.000
3	0.0000	EQ		1.934E-03	0.000	0.000
3	2.0000	EQ		1.934E-03	0.000	0.000
3	4.0000	EQ		1.934E-03	0.000	0.000
4	0.0000	DEAD		-1.111E-03	-0.300	0.000
4	2.0000	DEAD		-1.111E-03	1.110E-16	0.000
4	4.0000	DEAD		-1.111E-03	0.300	0.000
4	0.0000	L		0.000	0.000	0.000
4	2.0000	L		0.000	0.000	0.000
4	4.0000	L		0.000	0.000	0.000
4	0.0000	H		-2.330	-3.040	0.000
4	2.0000	H		-2.330	0.000	0.000
4	4.0000	H		-2.330	3.040	0.000
4	0.0000	EQ		-1.000	0.000	0.000
4	2.0000	EQ		-1.000	0.000	0.000
4	4.0000	EQ		-1.000	0.000	0.000

Table 22: Element Forces - Frames, Part 2 of 4

Table 22: Element Forces - Frames, Part 2 of 4

Frame	Station	OutputCase	StepType	T	M2	M3	S11Max	PtS11Max
	ft			Kip-ft	Kip-ft	Kip-ft	Kip/ft2	
1	0.0000	DEAD		0.0000	0.0000	-9.313E-10	-1.21	3
1	3.0000	DEAD		0.0000	0.0000	0.0033	-0.74	1
1	3.0000	DEAD		0.0000	0.0000	-0.0033	-0.74	3
1	6.0000	DEAD		0.0000	0.0000	-7.140E-11	-0.31	3
1	0.0000	L		0.0000	0.0000	0.0000	0.00	0
1	3.0000	L		0.0000	0.0000	0.0000	0.00	0
1	3.0000	L		0.0000	0.0000	0.0000	0.00	0
1	6.0000	L		0.0000	0.0000	0.0000	0.00	0
1	0.0000	H		0.0000	0.0000	0.0000	-3.04	0
1	3.0000	H		0.0000	0.0000	-3.7575	19.51	3
1	3.0000	H		0.0000	0.0000	-3.7575	19.51	3
1	6.0000	H		0.0000	0.0000	-4.441E-15	-3.04	3
1	0.0000	EQ		0.0000	0.0000	0.0000	0.00	0
1	3.0000	EQ		0.0000	0.0000	-1.6144	9.69	3
1	3.0000	EQ		0.0000	0.0000	-1.6144	9.69	3
1	6.0000	EQ		0.0000	0.0000	0.0113	6.750E-02	1
2	0.0000	DEAD		0.0000	0.0000	0.0000	-1.21	0
2	3.0000	DEAD		0.0000	0.0000	-0.0033	-0.74	3
2	3.0000	DEAD		0.0000	0.0000	0.0033	-0.74	1
2	6.0000	DEAD		0.0000	0.0000	-1.406E-09	-0.31	3
2	0.0000	L		0.0000	0.0000	0.0000	0.00	0
2	3.0000	L		0.0000	0.0000	0.0000	0.00	0
2	3.0000	L		0.0000	0.0000	0.0000	0.00	0
2	6.0000	L		0.0000	0.0000	0.0000	0.00	0
2	0.0000	H		0.0000	0.0000	-4.441E-16	-3.04	3
2	3.0000	H		0.0000	0.0000	3.7575	19.51	1
2	3.0000	H		0.0000	0.0000	3.7575	19.51	1
2	6.0000	H		0.0000	0.0000	4.441E-15	-3.04	1
2	0.0000	EQ		0.0000	0.0000	0.0156	9.375E-02	1

Table 22: Element Forces - Frames, Part 2 of 4

Frame	Station	OutputCase	StepType	T	M2	M3	S11Max	PtS11Max
	ft			Kip-ft	Kip-ft	Kip-ft	Kip/ft2	
2	3.0000	EQ		0.0000	0.0000	0.0098	5.859E-02	1
2	3.0000	EQ		0.0000	0.0000	0.0098	5.859E-02	1
2	6.0000	EQ		0.0000	0.0000	0.0039	2.344E-02	1
3	0.0000	DEAD		0.0000	0.0000	0.0000	1.111E-03	0
3	2.0000	DEAD		0.0000	0.0000	0.3000	1.80	1
3	4.0000	DEAD		0.0000	0.0000	-4.441E-16	1.111E-03	3
3	0.0000	L		0.0000	0.0000	0.0000	0.00	0
3	2.0000	L		0.0000	0.0000	0.0000	0.00	0
3	4.0000	L		0.0000	0.0000	0.0000	0.00	0
3	0.0000	H		0.0000	0.0000	0.0000	-2.68	0
3	2.0000	H		0.0000	0.0000	-3.0400	15.56	3
3	4.0000	H		0.0000	0.0000	0.0000	-2.68	0
3	0.0000	EQ		0.0000	0.0000	0.0000	1.934E-03	0
3	2.0000	EQ		0.0000	0.0000	0.0000	1.934E-03	0
3	4.0000	EQ		0.0000	0.0000	0.0000	1.934E-03	0
4	0.0000	DEAD		0.0000	0.0000	0.0000	-1.111E-03	0
4	2.0000	DEAD		0.0000	0.0000	0.3000	1.80	1
4	4.0000	DEAD		0.0000	0.0000	-4.441E-16	-1.111E-03	3
4	0.0000	L		0.0000	0.0000	0.0000	0.00	0
4	2.0000	L		0.0000	0.0000	0.0000	0.00	0
4	4.0000	L		0.0000	0.0000	0.0000	0.00	0
4	0.0000	H		0.0000	0.0000	0.0000	-2.33	0
4	2.0000	H		0.0000	0.0000	3.0400	15.91	1
4	4.0000	H		0.0000	0.0000	0.0000	-2.33	0
4	0.0000	EQ		0.0000	0.0000	0.0000	-1.00	0
4	2.0000	EQ		0.0000	0.0000	0.0000	-1.00	0
4	4.0000	EQ		0.0000	0.0000	0.0000	-1.00	0

Table 22: Element Forces - Frames, Part 3 of 4

Table 22: Element Forces - Frames, Part 3 of 4

Frame	Station	OutputCase	StepType	x2S11Max	x3S11Max	S11Min	PtS11Min	x2S11Min
	ft			ft	ft	Kip/ft2		ft
1	0.0000	DEAD		0.50000	-0.50000	-1.21	1	-0.50000
1	3.0000	DEAD		-0.50000	-0.50000	-0.78	3	0.50000
1	3.0000	DEAD		0.50000	-0.50000	-0.78	1	-0.50000
1	6.0000	DEAD		0.50000	-0.50000	-0.31	1	-0.50000
1	0.0000	L		0.00000	0.00000	0.00	0	0.00000
1	3.0000	L		0.00000	0.00000	0.00	0	0.00000
1	3.0000	L		0.00000	0.00000	0.00	0	0.00000
1	6.0000	L		0.00000	0.00000	0.00	0	0.00000
1	0.0000	H		0.00000	0.00000	-3.04	0	0.00000
1	3.0000	H		0.50000	-0.50000	-25.59	1	-0.50000
1	3.0000	H		0.50000	-0.50000	-25.59	1	-0.50000
1	6.0000	H		0.50000	-0.50000	-3.04	1	-0.50000
1	0.0000	EQ		0.00000	0.00000	0.00	0	0.00000
1	3.0000	EQ		0.50000	-0.50000	-9.69	1	-0.50000
1	3.0000	EQ		0.50000	-0.50000	-9.69	1	-0.50000
1	6.0000	EQ		-0.50000	-0.50000	-6.750E-02	3	0.50000
2	0.0000	DEAD		0.00000	0.00000	-1.21	0	0.00000
2	3.0000	DEAD		0.50000	-0.50000	-0.78	1	-0.50000
2	3.0000	DEAD		-0.50000	-0.50000	-0.78	3	0.50000
2	6.0000	DEAD		0.50000	-0.50000	-0.31	1	-0.50000

Table 22: Element Forces - Frames, Part 3 of 4

Frame	Station	OutputCase	StepType	x2S11Max	x3S11Max	S11Min	PtS11Min	x2S11Min
	ft			ft	ft	Kip/ft2		ft
2	0.0000	L		0.00000	0.00000	0.00	0	0.00000
2	3.0000	L		0.00000	0.00000	0.00	0	0.00000
2	3.0000	L		0.00000	0.00000	0.00	0	0.00000
2	6.0000	L		0.00000	0.00000	0.00	0	0.00000
2	0.0000	H		0.50000	-0.50000	-3.04	1	-0.50000
2	3.0000	H		-0.50000	-0.50000	-25.59	3	0.50000
2	3.0000	H		-0.50000	-0.50000	-25.59	3	0.50000
2	6.0000	H		-0.50000	-0.50000	-3.04	3	0.50000
2	0.0000	EQ		-0.50000	-0.50000	-9.375E-02	3	0.50000
2	3.0000	EQ		-0.50000	-0.50000	-5.859E-02	3	0.50000
2	3.0000	EQ		-0.50000	-0.50000	-5.859E-02	3	0.50000
2	6.0000	EQ		-0.50000	-0.50000	-2.344E-02	3	0.50000
3	0.0000	DEAD		0.00000	0.00000	1.111E-03	0	0.00000
3	2.0000	DEAD		-0.50000	-0.50000	-1.80	3	0.50000
3	4.0000	DEAD		0.50000	-0.50000	1.111E-03	1	-0.50000
3	0.0000	L		0.00000	0.00000	0.00	0	0.00000
3	2.0000	L		0.00000	0.00000	0.00	0	0.00000
3	4.0000	L		0.00000	0.00000	0.00	0	0.00000
3	0.0000	H		0.00000	0.00000	-2.68	0	0.00000
3	2.0000	H		0.50000	-0.50000	-20.92	1	-0.50000
3	4.0000	H		0.00000	0.00000	-2.68	0	0.00000
3	0.0000	EQ		0.00000	0.00000	1.934E-03	0	0.00000
3	2.0000	EQ		0.00000	0.00000	1.934E-03	0	0.00000
3	4.0000	EQ		0.00000	0.00000	1.934E-03	0	0.00000
4	0.0000	DEAD		0.00000	0.00000	-1.111E-03	0	0.00000
4	2.0000	DEAD		-0.50000	-0.50000	-1.80	3	0.50000
4	4.0000	DEAD		0.50000	-0.50000	-1.111E-03	1	-0.50000
4	0.0000	L		0.00000	0.00000	0.00	0	0.00000
4	2.0000	L		0.00000	0.00000	0.00	0	0.00000
4	4.0000	L		0.00000	0.00000	0.00	0	0.00000
4	0.0000	H		0.00000	0.00000	-2.33	0	0.00000
4	2.0000	H		-0.50000	-0.50000	-20.57	3	0.50000
4	4.0000	H		0.00000	0.00000	-2.33	0	0.00000
4	0.0000	EQ		0.00000	0.00000	-1.00	0	0.00000
4	2.0000	EQ		0.00000	0.00000	-1.00	0	0.00000
4	4.0000	EQ		0.00000	0.00000	-1.00	0	0.00000

Table 22: Element Forces - Frames, Part 4 of 4

Table 22: Element Forces - Frames, Part 4 of 4

Frame	Station	OutputCase	StepType	x3S11Min
	ft			ft
1	0.0000	DEAD		-0.50000
1	3.0000	DEAD		-0.50000
1	3.0000	DEAD		-0.50000
1	6.0000	DEAD		-0.50000
1	0.0000	L		0.00000
1	3.0000	L		0.00000
1	3.0000	L		0.00000
1	6.0000	L		0.00000
1	0.0000	H		0.00000
1	3.0000	H		-0.50000
1	3.0000	H		-0.50000

PAGE: 53

Table 22: Element Forces - Frames, Part 4 of 4

Frame	Station	OutputCase	StepType	x3S11Min
	ft			ft
1	6.0000	H		-0.50000
1	0.0000	EQ		0.00000
1	3.0000	EQ		-0.50000
1	3.0000	EQ		-0.50000
1	6.0000	EQ		-0.50000
2	0.0000	DEAD		0.00000
2	3.0000	DEAD		-0.50000
2	3.0000	DEAD		-0.50000
2	6.0000	DEAD		-0.50000
2	0.0000	L		0.00000
2	3.0000	L		0.00000
2	3.0000	L		0.00000
2	6.0000	L		0.00000
2	0.0000	H		-0.50000
2	3.0000	H		-0.50000
2	3.0000	H		-0.50000
2	6.0000	H		-0.50000
2	0.0000	EQ		-0.50000
2	3.0000	EQ		-0.50000
2	3.0000	EQ		-0.50000
2	6.0000	EQ		-0.50000
3	0.0000	DEAD		0.00000
3	2.0000	DEAD		-0.50000
3	4.0000	DEAD		-0.50000
3	0.0000	L		0.00000
3	2.0000	L		0.00000
3	4.0000	L		0.00000
3	0.0000	H		0.00000
3	2.0000	H		-0.50000
3	4.0000	H		0.00000
3	0.0000	EQ		0.00000
3	2.0000	EQ		0.00000
3	4.0000	EQ		0.00000
4	0.0000	DEAD		0.00000
4	2.0000	DEAD		-0.50000
4	4.0000	DEAD		-0.50000
4	0.0000	L		0.00000
4	2.0000	L		0.00000
4	4.0000	L		0.00000
4	0.0000	H		0.00000
4	2.0000	H		-0.50000
4	4.0000	H		0.00000
4	0.0000	EQ		0.00000
4	2.0000	EQ		0.00000
4	4.0000	EQ		0.00000

10. Material take-off

This section provides a material take-off.

Table 23: Material List 2 - By Section Property

Table 23: Material List 2 - By Section Property

Section	ObjectType	NumPieces	TotalLength	TotalWeight
			ft	Kip
Rec12dx12	Frame	4	20.0000	3.000

APPENDIX C

FIGURES & PHOTOS

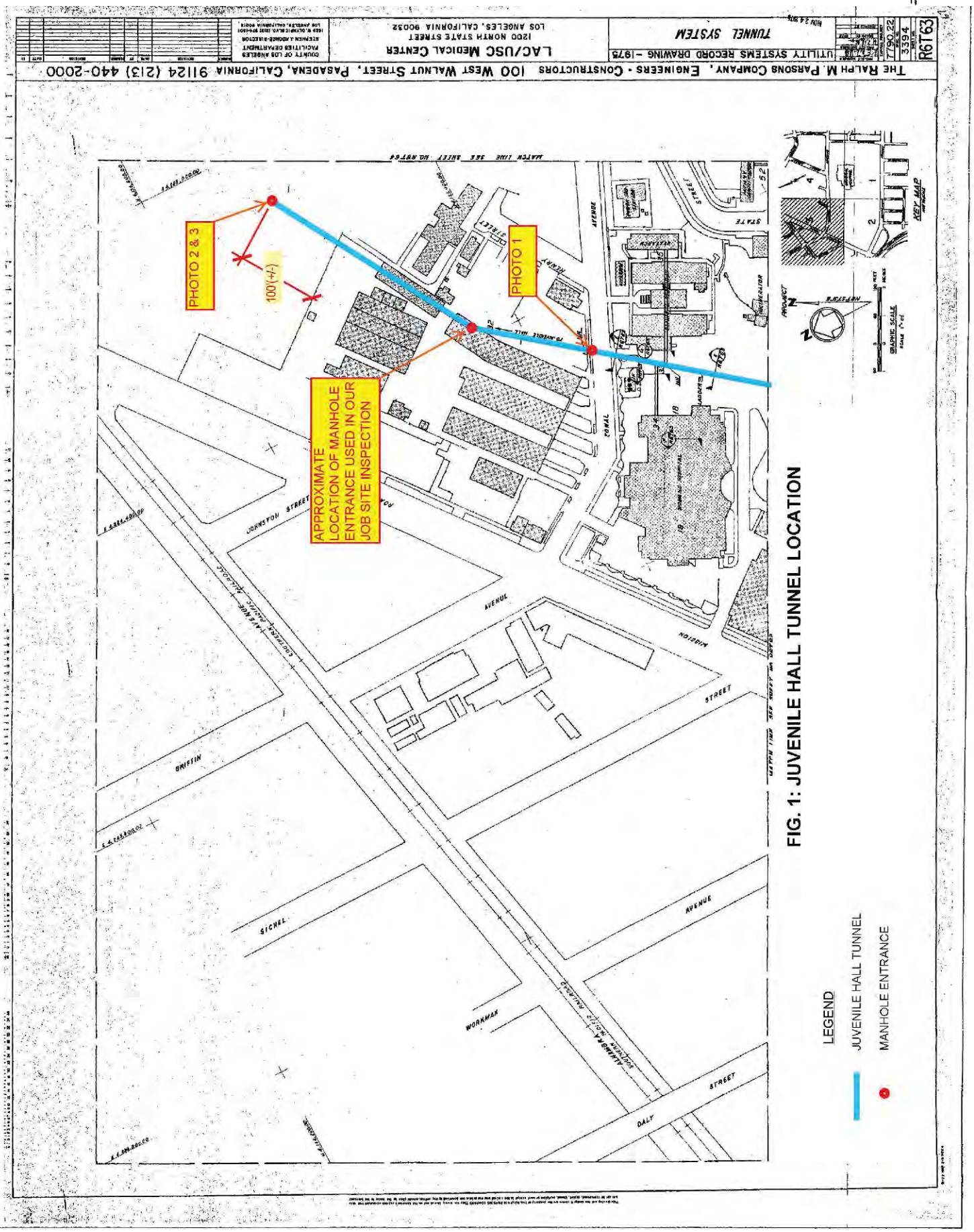
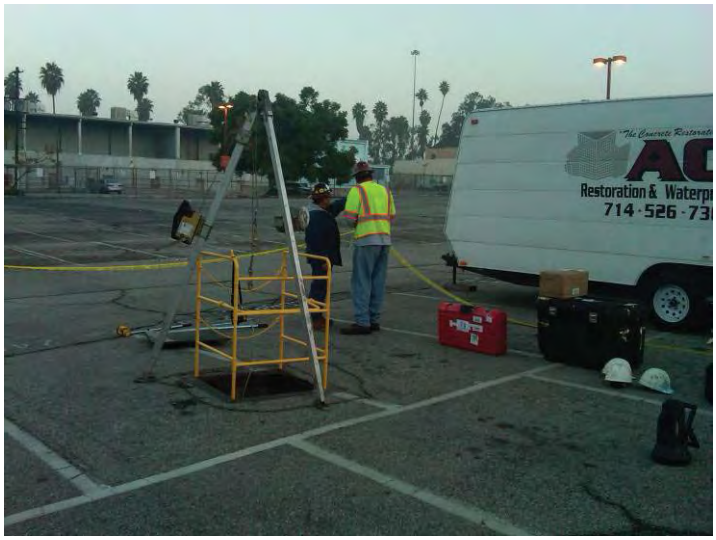


FIG. 1: JUVENILE HALL TUNNEL LOCATION

1. Tunnel Completely obstructed at Zonal Av.

2. Tunnel Completely Obstructed at 100 FT Inside Juvenile Hall

3. No Access Beyond this Point (100 FT Inside Juvenile Hall)



4. Safety Preparations at Tunnel Entry

5. Ventilation Preparations at Second Manhole

6. Tunnel View from Entry

7. Vector Corrosions Technology Entry

8. JCE Structural Engineering Group Entry

9. Marking Inside Tunnel

10. Marking Inside Tunnel

11. Measurements Inside Tunnel

12. Measurements Inside Tunnel

13. Delamination Survey by Hammering

14. Delamination Survey by Hammering

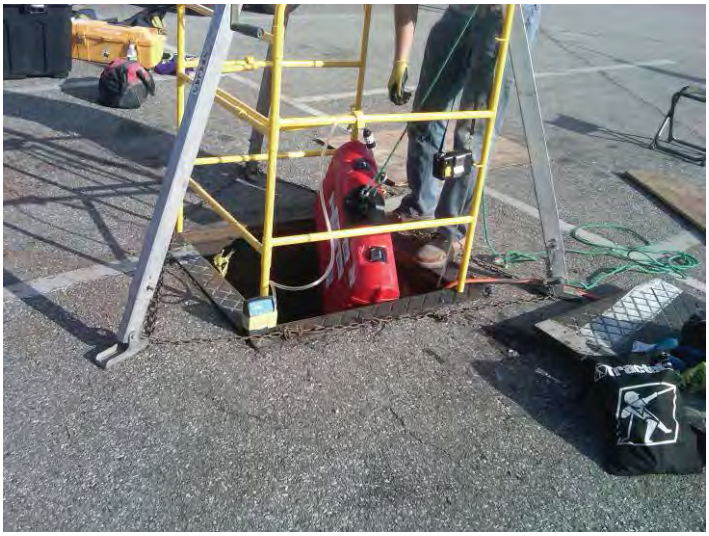
15. Half Cell Corrosion Potential Testing

16. Measurements after GPR Rebar Locations

17. Rebar Diameter Measurements

18. Rebar Cover Measurements

19. Core Drilling Equipment Entry



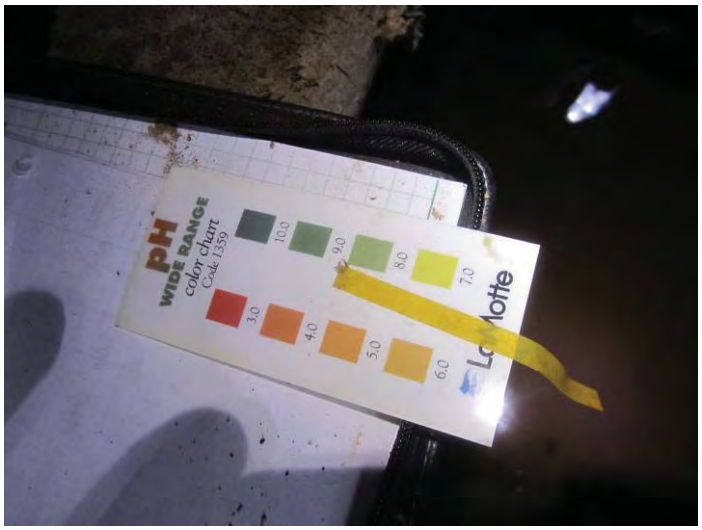
20. Core Drilling Equipment Entry

21. Core Drilling Operations

22. Concrete Core Extraction

23. Concrete Core measurements

24. Core Hole Measurements



25. PH Measurements

26. Tunnel's Damaged Ceiling
(Concrete spalled off & rebars corroded)

27. Tunnel's Damaged Ceiling
(Concrete spalled off & rebars corroded)

28. Tunnel's Damaged Ceiling & Shored

29. Tunnel's Damaged Ceiling
(Concrete spalled off & rebars corroded)

30. Tunnel's Damaged Ceiling
(Concrete spalled off & rebars corroded)

31. Tunnel's Damaged Ceiling
(Concrete spalled off & rebars corroded)

32. Tunnel's Ceiling Delamination (Concrete Ready to spall off)

33. Tunnel's Ceiling Delamination (Concrete Ready to spall off)

34. Tunnel's Ceiling Delamination (Concrete Ready to spall off)

35. Tunnel's Ceiling Delamination (Concrete Ready to spall off)

36. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

37. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

38. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

39. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

40. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

41. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

42. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

43. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

44. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

45. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

46. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

47. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

48. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

49. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

50. Tunnel's Damaged Walls (Concrete Spalled off & Rebars Corroded

51. Tunnel Walls Delamination Concrete (Ready to Spall off)

52. Tunnel Walls Delamination Concrete (Ready to Spall off)

53. Tunnel Walls Delamination Concrete (Ready to Spall off)

54. Tunnel Walls Delamination Concrete (Ready to Spall off)

55. Tunnel Walls Delamination Concrete (Ready to Spall off)

56. Tunnel Walls Delamination Concrete (Ready to Spall off)

57. Tunnel Walls Delamination Concrete (Ready to Spall off)

58. Tunnel Walls Delamination Concrete (Ready to Spall off)

59. Tunnel Walls Delamination Concrete (Ready to Spall off)

60. Tunnel Walls Delamination Concrete (Ready to Spall off)

61. Tunnel Walls Delamination Concrete (Ready to Spall off)

62. Tunnel Walls Delamination Concrete (Ready to Spall off)

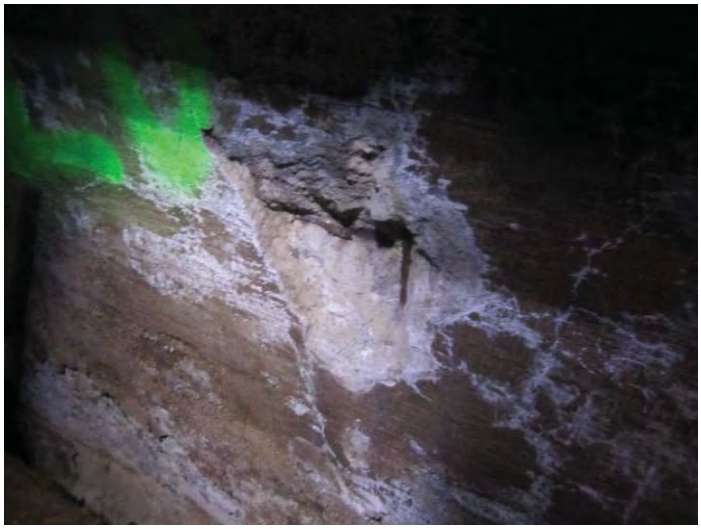
63. Tunnel Walls Delamination Concrete (Ready to Spall off)

64. Tunnel Walls Delamination Concrete (Ready to Spall off)

65. Tunnel Walls Delamination Concrete (Ready to Spall off)

66. Tunnel Walls Delamination Concrete (Ready to Spall off)

67. Tunnel Walls Delamination Concrete (Ready to Spall off)



68. Tunnel Walls Delamination Concrete (Ready to Spall off)

69. Tunnel Steam Pipe Support Completely Rusted & Not Adequately Anchored

234 E. Colorado Blvd., Suite 725, Pasadena, CA 91101 • (626) 585-1822 • Fax (626) 585-1824

70. Tunnel Steam Pipe Support Completely Rusted & Not Adequately Anchored

71. Tunnel Steam Pipe Support Completely Rusted & Not Adequately Anchored

72. Tunnel Steam Pipe Support Completely Rusted & Not Adequately Anchored 4

73. Tunnel Steam Pipe Support Completely Rusted & Not Adequately Anchored

74. Tunnel Steam Pipe Support Completely Rusted & Not Adequately Anchored

75. Tunnel Steam Pipe Support Completely Rusted & Not Adequately Anchored

76. Tightness Space Inside the (E) Tunnel

77. Tightness Space Inside the (E) Tunnel

78. Tightness Space Inside the (E) Tunnel

79. Tightness Space Inside the (E) Tunnel

80. Tightness Space Inside the (E) Tunnel

81. Tightness Space Inside the (E) Tunnel

82. Tightness Space Inside the (E) Tunnel

83. Tightness Space Inside the (E) Tunnel

84. Tightness Space Inside the (E) Tunnel

85. Damaged Surface parking Structure above the (E) Tunnel

86. Damaged Surface parking Structure above the (E) Tunnel

87. Damaged Surface parking Structure above the (E) Tunnel

APPENDIX D

CONCRETE CORROSION EVALUATION REPORT

BY

VECTOR CORROSION TECHNOLOGIES

Concrete Corrosion Evaluation
LAMC Utility Tunnel
Los Angeles, CA

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Jan 8, 2013

Executive Summary

Vector Corrosion Technologies conducted a concrete condition and corrosion assessment of the LA Medical Center Juvenile Hall Utility Tunnel during December 7 through 9.

The scope of this work included:

- Measuring and marking 10 ft. long sections of the tunnel for reference
- Visual photographic record of observations
- A delamination survey
- A detailed investigation of a “Good” and a “Bad” tunnel section involving
    - Core sampling for compressive strength, chemical analysis and petrographic examination
    - Electrical resistivity and reinforcing continuity
    - GPR survey to asses concrete cover and rebar spacing
    - Half-cell potential survey
    - pH testing
    - Repair of core holes

The findings of the investigation are:

1. The tunnel concrete has more than 20 percent of the surface area that is spalled or delaminated.
2. Reinforcing steel in many spalled areas is severely corroded and in need of replacement.
3. Half–cell potentials indicate that more than 90% of the reinforcing in the tested areas is either actively corroding or is at risk for corrosion.
4. The pH of the concrete has been reduced to pH <8.25 throughout the cross section in all areas tested, indicating exposure to external sulfate attack.
5. The reinforcing steel is mostly continuous, except for areas where reinforcing had rusted through or at construction joints.
6. The concrete in “Bad” areas is suffering from an advanced stage of sulfate attack.
7. The concrete is soft in many areas and crumbles when scraped with a steel tool.
8. The design compressive strength is approximately 3500 to 4000 psi
9. No foundation coatings were observed on the exterior surface of full depth cores.

10. Tunnel walls and ceiling are approximately 6 inches thick.
11. The wall reinforcement is two layers of 3/8-inch square reinforcing bars with vertical bars at 8-inch spacing and horizontal bars at 14 inch spacing.
12. The ceiling reinforcement is one layer of 3/8 inch square reinforcing bars on the bottom face with bars at 8 inch spacing in both directions
13. The concrete cover is approximately 1.5 to 2 inches from both faces.

The tunnel concrete is suffering from external sulfate attack. This distress mechanism causes the concrete to crack, soften, and lose strength over time. The degree of damage varies throughout the structure, with some areas in an advanced state of sulfate attack. Cores extracted from good areas indicate that some sections of the concrete still have reasonable compressive strength. However, those same cores also had very low pH values, indicating that the reinforcing steel in the "Good" concrete is in a corrosive environment. Petrographic examination and chemical analysis confirmed the presence of high concentrations of soluble sulfate in "Bad" areas, and moderate amounts in "Good" areas.

Visual observations of severely corroded reinforcing and large areas of delamination in "Bad" areas means that a significant portion of the tunnel structure needs to be repaired/strengthened if the tunnel is to remain in service. Cathodic protection of the reinforcing steel will be required as part of any repair scheme to prevent continued corrosion damage. A budgetary figure for the cathodic protection portion of any repair scheme is in the range of $300,000 to $400,000.

The remaining service life of the existing tunnel is most likely less than 5 years, due to the progressive nature of sulfate attack. In some areas of the tunnel the service life is already exhausted. If strengthening repairs are performed on the "Bad" areas and cathodic protection is provided, it is feasible that the tunnel could last another 10 to 20 years. However, additional testing is recommended prior to committing to this course of action.

It is recommended that the Medical Center consider abandoning this tunnel instead of repairing it. If the tunnel is going to be repaired, a cathodic protection system will be required to prevent continued damage to the "Good" areas.

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Core Samples 9

Laboratory Testing 10

Compressive Strengths 10

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Sulfate Content 12

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Introduction

During December, 7 to 9 2012, Andrew Broecker and Clarence Zimmel from Vector Corrosion Technologies conducted a condition assessment of the utility tunnel for the Los Angeles County Medical Center in Los Angeles, California. Both men are certified NACE CP-2 cathodic protection testers with considerable concrete repair and restoration experience. The investigation principal investigator was Mr. Matt Miltenberger, P.E.

The investigation was focused on a 400 foot length of tunnel located under the parking lot adjacent to the juvenile detention facility. The tunnel was approximately 100 years old and piping replacement is needed. The tunnel dimensions are approximately 6'-6" tall and 4' wide,. There were many areas of spalling, cracking, and delamination observed throughout the 400 ft. length of tunnel evaluated.

The purposes of this investigation were to:

1. assess the extent of reinforcing steel corrosion activity ;
2. determine the concrete strength, thickness, and reinforcing pattern
3. determine the cause of the concrete deterioration, and
4. quantify the amount of concrete repair required to rehabilitate the tunnel

This condition assessment is intended to describe the current condition of the reinforcing steel and concrete in this structure. The results of this assessment are intended to provide enough data to determine if cathodic protection is a viable option for this structure. This report will also describe which repair solutions are best suited for this particular structure,

Condition Assessment

Scope of Work

Vector worked closely with physical plant personnel and other contractor team members to ensure that this investigation was carried out safely. Prior testing of the tunnel air identified hydrogen sulfide gas, H_2S, indicating that the tunnel requires constant ventilation. In addition, the facility manager indicated that the old pipe insulation was believed to contain asbestos. The

contracting team was comprised of Vanir Construction (project management), JCE Engineers (Structural), ME Engineers, (Mechanical), ACE Restoration and Waterproofing (ventilation), and Focus Environmental (Asbestos abatement).

Vector's scope of work was focused on investigating the causes of the deteriorating concrete and rebar corrosion activity in the utility tunnel. Once the tunnel ventilation was in place and the asbestos hazard assessment determined that the tunnel environment was acceptable to work in with appropriate personal protection equipment, Vector began the investigation.

The work began by marking stations every 10 ft. along the tunnel for the entire 400ft of tunnel. For the purposes of this investigation "Station 0" was chosen to be located at the access hatch where the tunnel crosses under Zonal Avenue. "Station 40" was near the stairs where the tunnel entered the juvenile hall facility. The initial investigation was comprised of a visual, photographic, and delamination survey of the entire 400ft length of tunnel.

After the initial survey, two 10ft long sections of the tunnel were chosen for detailed sampling and testing. One location was selected with little visual deterioration (Test Area #1, section 13-14), and another location was selected with large amounts of deterioration (Test Area #2, section 19-20). Further testing carried out on these two sections included

- Ground Penetrating Radar scans;
- half-cell corrosion potential testing;
- electrical continuity testing;
- pH testing; and
- core sampling for subsequent laboratory testing.

Visual Inspection and Delamination Survey

Upon arrival to the site the first step was to identify stations along the length of the tunnel and then perform a visual assessment and delamination survey. These procedures are a fast and effective method to gauge the condition of the concrete in a large area. This information was reviewed with JCE Engineers to select the two representative areas for more detailed investigation.

The visual assessment consisted of a detailed walkthrough of the structure. While performing the visual assessment cracks, spalling, efflorescence, and general concrete deterioration was located and noted. While performing the visual assessment, the delamination

assessment was performed concurrently. The delamination testing was performed by striking a hammer against the concrete and listening to the sound in accordance with ASTM D4580-03. If the hammer impact rings the concrete is sound, if the impact results in a lower pitch, "hollow" sound a delamination is present.

Delaminations were found throughout the entire length of the tunnel. Approximately 22 percent of the total 6800 ft^2 was found to be delaminated or spalled. The delaminated area in each 10 ft. "Station" was recorded in tabular format and can be found in 'Appendix A'.

In many spalled concrete areas that exposed the inner reinforcing steel layer, so sounding was not necessary. In most spalled locations the reinforcing steel had a very reduced cross section or had completely corroded such that the steel bar severed. Total reinforcement replacement will be required in these areas.

Figure 1 - Severely corrded reinforcing in spall at Station 21-22

Figure 2 - Severely corroded tunnel ceiling slab reinforcement

Additional photographs are available in Appendix

Depth of Concrete Cover

The depth of the concrete cover over the reinforcing steel was determined in all areas where samples were extracted. The depth of concrete cover measurement determines the location of the reinforcing across the concrete thickness. Often shallow reinforcing steel is subject to a more corrosive environment, which leads to faster concrete deterioration. The reinforcing steel was located using Ground Penetrating Radar (GPR). The cover depths were also confirmed in the areas of the tunnel where the steel is exposed due to spalling. The depth of cover is necessary when analyzing chloride contamination profiles and carbonation profiles to determine the potential for corrosion of the steel.

Ground Penetrating Radar

Ground Penetrating Radar (GPR) allowed for a non-destructive view of the concrete reinforcement (rebar) depth, orientation, and spacing. In addition the GPR was used to provide a rough estimate of the tunnel wall thickness and also locate any unanticipated objects beneath the

surface of the concrete. GPR was used to pre-screen each predetermined core location prior to drilling and extraction operations.

The Ground Penetrating Radar (GPR) sends an electromagnetic pulse into the concrete and subsurface objects cause reflections that are acknowledged by the GPR receiver. The collected data can be extracted as 2-D plots as shown in Figure 3 below. The information gained from the GPR scans is listed below:

- Rebar Spacing: Vertical bars are at 8”, Horizontal bars are at 14”
- Rebar Cover Depth: Concrete cover is consistently between 1” and 2”.
- Rebar Size: 3/8” square bar was observed in all locations.
- Walls: There are 2 layers of reinforcing steel. The second layer is the same size bar (3/8”) as the first layer with approx. 1”-2” of cover from the outside face of the tunnel. Vertical bars are space 8 inches apart; horizontal bars are spaced 14 inches apart.
- Ceilings: There was one layer of reinforcing steel located near the bottom. Rebar spacing was 8 inches in both directions.
- Concrete Thickness: Approximately 6” walls and ceilings. (Confirmed by both the GPR and core samples) Note: no foundation coatings were noted on the soil side.

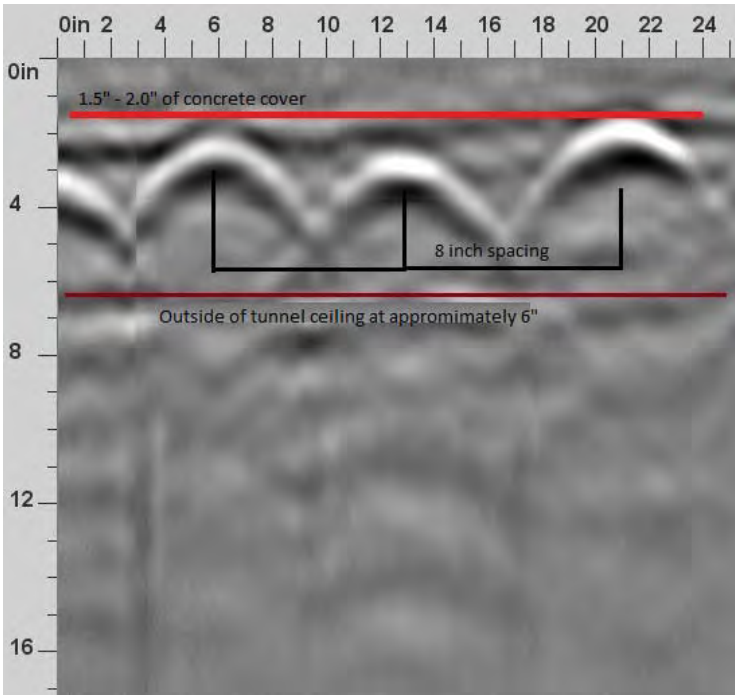


Figure 3: Typical GPR scan of the tunnel ceiling showing one reinforcing layer

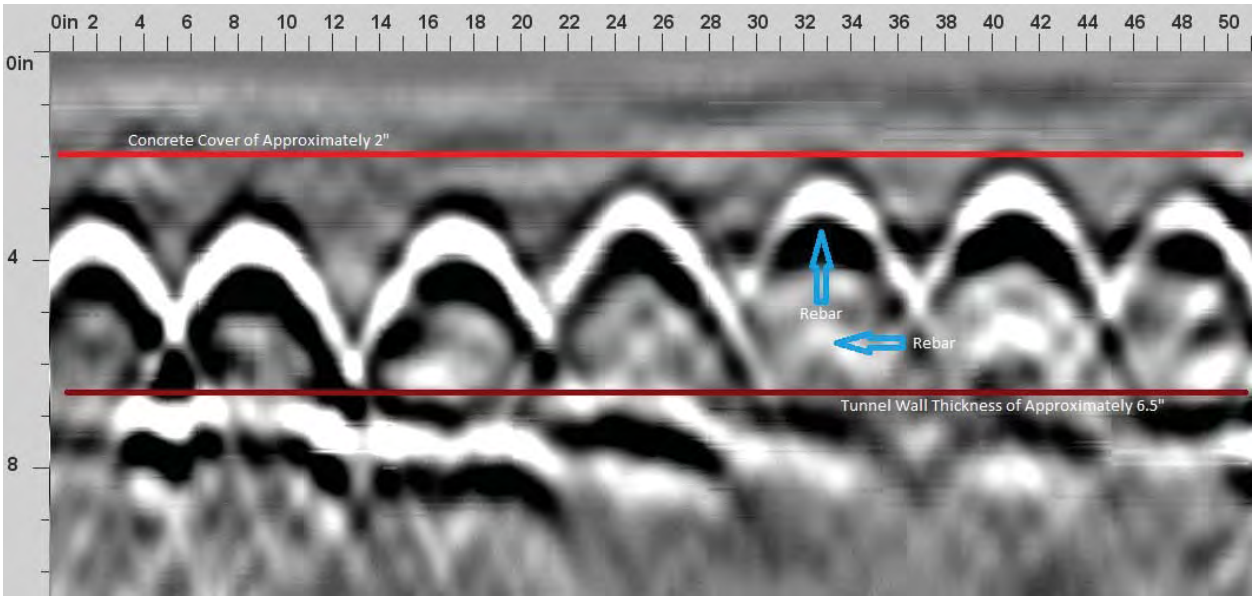


Figure 4 - Typical GPR image of tunnel wall showing two reinforcing layers

Electrical Continuity

Electrical continuity of the reinforcing is necessary for possible future corrosion mitigation by cathodic protection. Electrical continuity is verified by contacting various steel elements with lead wires attached to a high impedance multi-meter using the DC milli-volts and/or resistance settings. As per ACI 222R-01 Standard in Section 4.3.1.6a, if the potential difference between the reinforcing bars is less than one (1) mV, then the reinforcing steel is deemed electrically continuous.

Electrical continuity was tested at multiple locations at each inspection location. Findings from the electrical continuity testing are as follows:

- All of the reinforcing steel within the "Good" Test Area #1 (13-14) was found to be continuous.
- Most of the steel in "Bad" Test Area #2 (19-20) was found to be continuous except for a couple discontinuous bars near tunnel section 20-21. (Large amounts of spalling and corrosion are present in section 20-21)
- Continuity was tested across three (3) expansion joints. The steel was found to be discontinuous across each of these expansion joints.

Conclusion:

The reinforcing steel in the tunnel is likely to be electrically continuous with the exception of heavily spalled/corroded areas, or across expansion joints.

Half-Cell Corrosion Potentials

The half-cell is a reference electrode that consists of a metal rod immersed in a solution of its own ions such as a copper rod in a copper sulfate solution. The half-cell is a reversible reaction that has a stable galvanic potential or reference voltage. The reinforcing steel also has a galvanic potential that varies depending on the corrosion condition of the steel. When the reference electrode is placed in contact with the concrete surface, the voltage difference between the reference electrode and the reinforcing steel can be determined using a voltmeter. A voltage is generated because the different metals (copper and steel) are at different positions on the electrochemical series. When the cell is moved along the surface of the concrete, the voltage difference between the rebar and the reference electrode indicate the corrosion conditions of the steel within the concrete. This test yields a number known as a corrosion potential, which provides an indication of the probability for corrosion activity of the reinforcing steel within the concrete.

Potential surveys are normally carried out on a regular interval grid. For this particular situation, measurements were taken on approximately 16 inch grid spacing along the tunnel walls and ceiling over the 10 ft. long tunnel test section. The half-cell measurements were taken using a standard copper-copper sulfate ($Cu\text{-}CuSO_4$) reference electrode. A description of the testing procedure is outlined in ASTM C 876 “Corrosion Potentials of Uncoated Reinforcing Steel in Concrete”. The following table has been developed for evaluating $Cu\text{-}CuSO_4$ half-cell potentials.

Table 1 - Interpretation of Half- Cell Corrosion Potential Measurements (ASTM C876)

Reading vs. Cu-$CuSO_4$ half-cell	Probability of Corrosion Activity
More positive than -200 mV	Low (< 10% probability of corrosion activity at the time of testing)
-200 to -350 mV	Uncertain (50 % probability of corrosion activity at the time of testing)
More negative than -350 mV	High (> 90% probability of corrosion activity at the time of testing)

For the purposes of this investigation, all half-cell readings were recorded in mV vs. CSE (copper-sulfate reference electrode). When reviewing the results of the corrosion potential survey, the majority of the readings were in the high probability of corrosion activity range. This is indicating high levels of corrosion activity currently underway in reinforcing steel of the tunnel. This is true even in Test Area #1, which is not currently showing as many visual signs of corrosion as Test Area #2. See 'Appendix C' for specific half-cell readings at each location.

Figure 5 - Half-cell Corrosion Potential Testing

Table 2 - Summary of Corrosion Potential Measurments

		Half-Cell Survey Readings (mV DC vs. CSE)			
Location	Total Readings Taken	Low Corrosion Probability (Less than 10%)	Medium Corrosion Probability (50%)	High Corrosion Probability (More than 90%)	% Medium Probability or Higher
Test Area #1 (13-14)	96	0	3	93	100%
Test Area #2 (19-20)	96	9	74	13	90%

On Site pH Testing

On site pH testing was conducted in multiple locations in the tunnel. Rainbow Indicator by Germann Instruments was sprayed on the freshly broken concrete surfaces of the tunnel. The color that the sample turns to when the indicator dries indicates its pH. A color scale was used to determine the pH of each sample. All of the concrete samples sprayed were found to have a pH of approximately 6-7.

The water pooling on the tunnel floor was also tested for pH using pH strips and a color scale. The strip was dipped into the water and then its color was compared to the color scale to obtain its pH. The pH of the water was found to be approximately 7.

Figure 6 - pH testing of concrete

Core Samples

Core samples were obtained at each of the test area for chemical analysis, petrographic analysis and compressive strength testing. Three cores where taken from each of the two detailed testing areas. Each of the walls in the testing area had at least one core extracted, and cores where extracted at different heights. This pattern was selected to provide a better overall representation of the tunnel condition and to help identify if the tunnel wall was tapered.

Two cores were selected for compressive strength in each of the two detailed testing areas. These cores where full depth. Each core location was documented along with the length measurement to provide a benchmark for the wall thickness in that area. Photographs of the core locations along with their depths can be found in Appendix E.

Each detailed testing area also had a core extracted for chemical and petrographic analysis. One core was taken in an area that appeared to be representative of the general condition of the tunnel, while the other core was taken directly over a crack. By taking one core over a crack it can better be determined if the concrete deterioration is being cause be an external contaminate leaching in to the concrete. This core "P19-20S" intersected a delamination and cracked into pieces upon extraction.

During the sample collection it was noted that there is two rebar mats in this structure (Picture #68 Appendix D). Upon removing one of the cores for petrographic analysis it revealed a delaminated lay within the concrete wall (Picture #69 Appendix D). It can also be noted that none of the cores taken had a membrane between the wall and the soil and that the wall was approximately 5"-6.5" at each testing location.

Upon completion of the core extraction cores were securely packed and shipped to Tourney Consulting Group for further analysis.

Laboratory Testing

Compressive Strength

The compressive strength of the cores extracted from the good "Good" area at Station 13-14 and from the "Bad" area at Station 19-20 were similar. Compressive strengths were approximately 5000 psi as tested in the as-received moisture condition in accordance with ASTM C 42 procedures. This partially moist condition provides strength results that are higher than if the cores were saturated. The core strengths indicate that the concrete design strength, f'c, is between 3500 to 4000 psi.

Depth of Carbonation

The depth of carbonation determined using phenolphthalein indicator on the cores indicates that the pH of entire concrete section is less than pH 8.25. This finding indicates that 100% of the steel is subject to corrosion because the normally alkaline environment inside the concrete no longer exists. The probable causes for this condition are either the entire wall thickness is carbonated (unlikely), or external sulfate attack has decalcified the entire wall section.

Chloride Content

Water soluble chloride levels were consistently low ~30 ppm at Station 13-14, and were slightly elevated in Core 19-20. There is a small chloride gradient entering from the exterior at station 19-20 which is consistent with concrete in contact with soil containing chloride in the ground water. The chloride levels at the depth of the inner layer of reinforcing were insufficient to cause corrosion of reinforcing in sound concrete. However, any chloride present will accelerate corrosion in carbonated concrete.

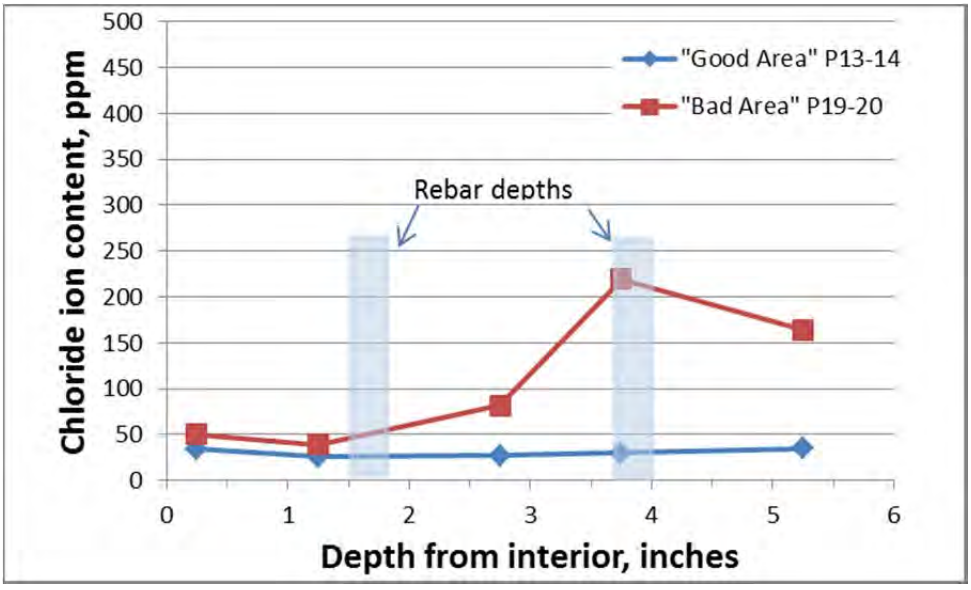


Figure 7 - Water-soluble chloride ion content

Petrographic Analysis

The petrographic examination indicates the following:

1. Salt crystal formations developed on both cores upon drying after wetting for 48 hours. More crystals appeared on core P19-20 than on core P13-14. Salt crystals appeared at micro cracks and at the perimeters of aggregates. This indicates that soluble salts are available within in the concrete. This finding combined with a fully decalcified concrete cross-section point to advanced stages of external sulfate attack.
2. The cement paste is soft and appears to have a w/c of approximately 0.60. No signs of pozzolans were reported. This is as expected for early 90+ year old concrete.

3. Reinforcing was 3/8 inch square bars. All reinforcing bars observed were corroded. Rust was observed in cracks adjacent to the reinforcing bars.
4. The aggregates are mostly sound with some particles exhibiting signs of alkali silica reaction. The amount of ASR observed is considered negligible.

Sulfate Content

Testing for water-soluble sulfate indicates that both cores contained free sulfate, which is indicative of external sulfate attack. More sulfate existed in the "Bad" area, represented by core P19-20 than in the "Good" area represented by core P13-14. In particular, the water soluble sulfate profile for Core P19-20 indicates that the sulfate content in the "Bad" location is very high on both the interior and exterior faces. This phenomenon supports the assertion that free sulfate is entering the concrete from the exterior and that sulfate crystals are precipitated upon drying as the moisture moves toward the interior face.

For concrete to be dimensionally stable, very little water-soluble sulfate (< 50 ppm) should be present after cement hydration. In this case, considerable quantities of free sulfate exist: >150 ppm for core P13-14, and >1000 ppm for core P19-20.

Figure 8 - Water-soluble sulfate profile

Table 3 - Water-soluble chloride and sulfate ion test results

	"Good Area" P13-14		"Bad Area" P19-20	
Depth	Cl^- ppm	SO_4^{2-} ppm	Cl^- ppm	SO_4^{2-} ppm
(interior) 0 to 1/2	34	291	50	8692
1 to 1.5	26	225	39	930
2.5 to 3	27	162	82	284
3.5 to 4	30	176	219	783
5 to 5.5 (exterior)	35	133	164	3399

Electrical Resistivity of Concrete

The cores used for petrographic examination were also used for electrical resistivity using an AC resistance meter. The resistivity of the concrete was approximately 33,000 ohm-cm. This relatively high resistivity indicates that a smaller than normal cathodic protection anode spacing will be required.

Summary of Findings

1. The normally alkaline environment (pH>12) inside the concrete that normally protects steel has been destroyed by the decalcification process associated with external sulfate attack. This decalcification process has reduced the alkalinity of the concrete below pH 8 across the entire concrete cross-section, indicating that all the reinforcing in this tunnel is in a very corrosive environment.
2. Half-cell corrosion potential measurements indicate that more than 90% of the reinforcing steel in both the “Good” and “Bad” test areas was at risk for corrosion activity.
3. More than 20% of the tunnel surface area had spalled concrete or delaminations caused by corrosion activity. In many areas it was observed that corrosion had consumed the entire reinforcing steel cross-section.
4. The reinforcing pattern was as follows:
    - Walls: 6 inch thick concrete wall with formed surfaces interior and exterior; two layers of 3/8-inch square bars; vertical bars are spaced 8-inches on center; horizontal bars are spaced 14-inches on center; concrete cover was approximately 1.5 to 2 inches from both faces.
    - Ceiling: 6 inch thick concrete slab with one layers of 3/8-inch square bars spaced 8-inches on center in both directions; concrete cover was approximately 1.5 to 2 inches from the bottom surface.

Conclusions

This tunnel structure requires extensive rehabilitation or replacement. The observed current condition with more than twenty percent of the concrete surface spalled or delaminated and reinforcing bars that are completely corroded through means that repair would essentially mean rebuilding or strengthening some sections of the tunnel. The service life of these areas can be considered exhausted.

The presence of advanced sulfate attack means that the concrete itself is deteriorating. Over time, the concrete in the "Good" areas will become softer, and the inherent strength of the concrete will diminish. The conditions observed in the "Bad" areas are indicative of what will spread to the "Good" areas. As the process continues, the cement paste will continue to crack, leading to progressive weakening of the tunnel structure. Fortunately, the current strength of the tunnel concrete is reasonable, which indicates that the tunnel concrete can probably last a few (~5) more years.

The finding that even the visually "Good" areas are completely decalcified due to advanced sulfate attack means that all the reinforcing steel is in a very corrosive environment, and that concrete distress will continue. This was confirmed by half-cell corrosion potential measurements.

In order to prevent further deterioration of the concrete from reinforcement corrosion, a cathodic protection system would be required. There are two generic system categories: galvanic cathodic protection systems (GCP) and impressed current cathodic protection systems (ICCP). Both system types can work in this environment. The budgetary cost for a cathodic protection system for this structure would be in the range of $300,000 to $400,000. Design option analysis is required to determine the most appropriate system based on the required design life and system maintenance options. This level of cathodic protection design is beyond the scope of this investigation.

The current condition of the tunnel structure means that a significant investment in the tunnel structure is required prior to installation of a new piping system. Unfortunately the concrete material is in an advanced state of distress, and is near the end of its useful life. At best, the current concrete structure may last another 10 to 20 years if concrete repairs and strengthening are completed, and a cathodic protection system is installed to halt further

reinforcement deterioration. However, this approach essentially only delays the inevitable because eventually the concrete will begin to crumble due to continued sulfate attack distress, and a new tunnel structure will be required.

The critical element in this decision is the very real risk that the tunnel concrete will fail before the new piping is ready for replacement. Unfortunately, it is not possible to determine a deterioration timeline from the information obtained at this snapshot in time. Additional testing and review previous petrographic examination of the concrete are needed to project the future distress timeline.

In closing, it is recommended that the Medical Center consider abandoning this tunnel instead of repairing it. If the tunnel is going to be repaired, a cathodic protection system will be required to prevent continued damage to the “Good” areas.

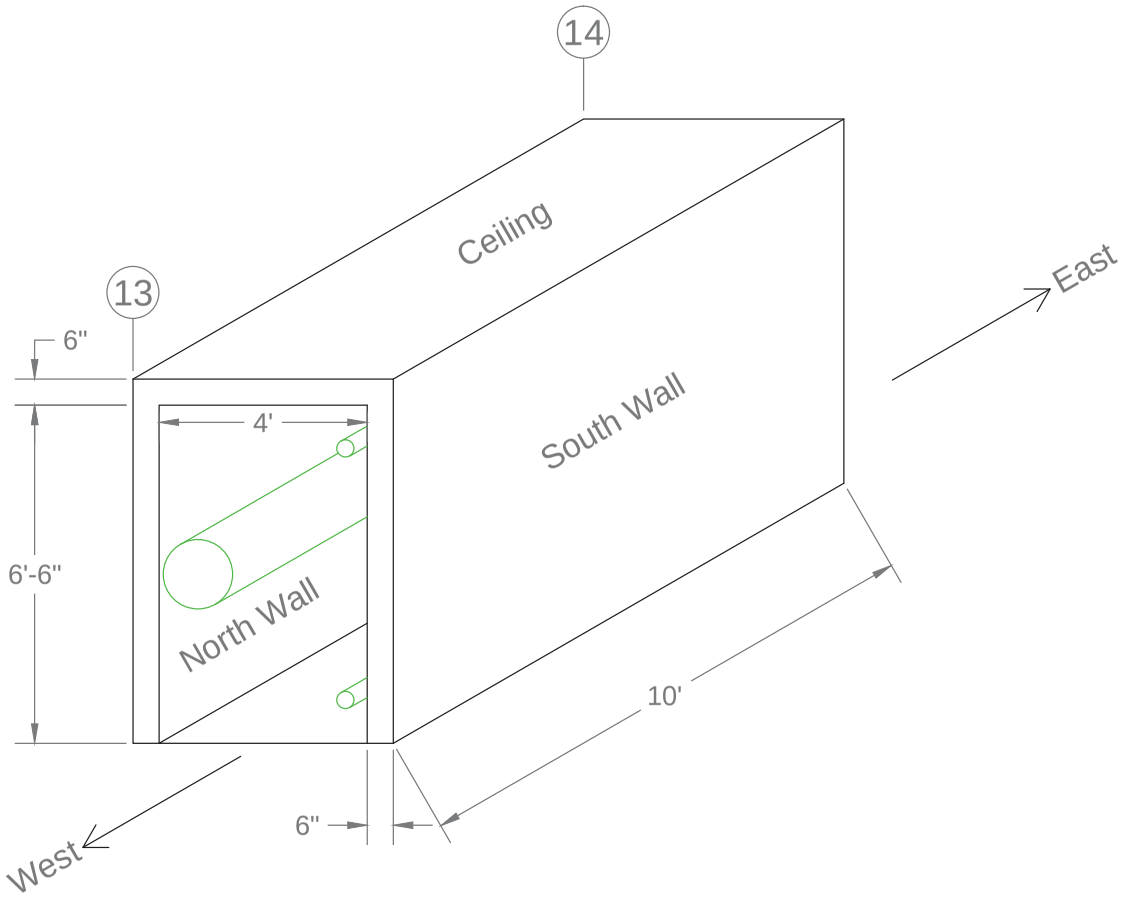
Appendix A:

Visual and Delamination Survey Log

Tunnel Section	% Delaminated or Spalled (North Wall)	% Delaminated or Spalled (South Wall)	% Delaminated or Spalled Total	Square Footage Delaminated or Spalled Total	Spalling	Delamination	Soft, Poor Quality	Exposed Reinforcing Steel	Eflorescence	Photographs	Notes
0-1	10	25	17.5	29.75			x			5,87	West end access/ventalation near road
1-2	15	10	12.5	21.25	x	x	x	x	x	11	
2-3	15	5	10	17	x	x	x				
3-4	5	15	10	17	x	x	x	x		12,13,14,15,16,17,18,19,20	
4-5	5	10	7.5	12.75	x	x	x				
5-6	10	5	7.5	12.75	x		x			21,22,23	
6-7	0	5	2.5	4.25	x		x				
7-8	5	0	2.5	4.25	x		x			24,25	
8-9	5	0	2.5	4.25	x					26,27	Rust staining from possible pipe leak
9-10	0	0	0	0							
10-11	0	0	0	0							
11-12	5	10	7.5	12.75	x	x				4	
12-13	0	0	0	0						6,7,8,9,10	
13-14	5	0	2.5	4.25	x				x	47,48,89	Test Area 1
14-15	5	5	5	8.5							
15-16	10	15	12.5	21.25	x	x		x		28,29	
16-17	15	25	20	34	x	x					Tunnel access hatch location
17-18	0	5	2.5	4.25	x		x				
18-19	5	0	2.5	4.25	x		x			51,52	
19-20	20	35	27.5	46.75	x	x	x	x	x	53,54,55,56,20	Test Area 2
20-21	45	100	72.5	123.25	x	x	x	x	x	57,58,59,60,61,91,92	
21-22	25	80	52.5	89.25	x	x	x	x	x	30,31,32,45	
22-23	15	45	30	51	x	x	x	x	x	43,44	
23-24	25	10	17.5	29.75	x	x		x			
24-25	25	40	32.5	55.25	x	x		x	x	33,35	
25-26	50	100	75	127.5	x	x		x	x	34,36,37,38	
26-27	25	30	27.5	46.75	x	x		x	x		
27-28	5	5	5	8.5		x	x				
28-29	15	10	12.5	21.25	x	x	x	x			Access/ventalation location
29-30	80	10	45	76.5		x					
30-31	20	60	40	68	x	x			x	42	
31-32	25	5	15	25.5		x			x		
32-33	25	50	37.5	63.75	x	x		x			
33-34	20	50	35	59.5		x	x				
34-35	70	45	57.5	97.75	x	x		x			
35-36	45	50	47.5	80.75	x	x		x		39,40,41	
36-37	5	5	5	8.5	x	x		x			
37-38	5	5	5	8.5		x	x				
38-39	50	80	65	110.5		x	x				Stairway near corrections facility
39-40	50	50	50	85			x				
		Total:	22	1496							

Appendix B:

Test Location Drawings and Half-Cell Readings



TUNNEL & TEST AREA DIMENSIONS

Drawing Legend	
	Pipe Location
	Core Sample Location
DL	Delamination
	Spalling
	Crack
	Exposed Reinforcing Steel

Half-Cell Reading Scale: (All readings shown as mV DC vs. CSE)	
> -200	Low (<10% probability of corrosion activity at the time of testing)
-200 to -350	Uncertain (50% probability of corrosion activity at the time of testing)
< -350	High (>90% probability of corrosion activity at the time of testing)

VECTOR CORROSION TECHNOLOGIES, INC.

3822 TURMAN LOOP
SUITE 102
WESLEY CHAPEL, FL 33544

WWW.VECTOR-CORROSION.COM

PROJECT: LOS ANGELES COUNTY MEDICAL CENTER
UTILITY TUNNEL CORROSION CONDITION ASSESSMENT

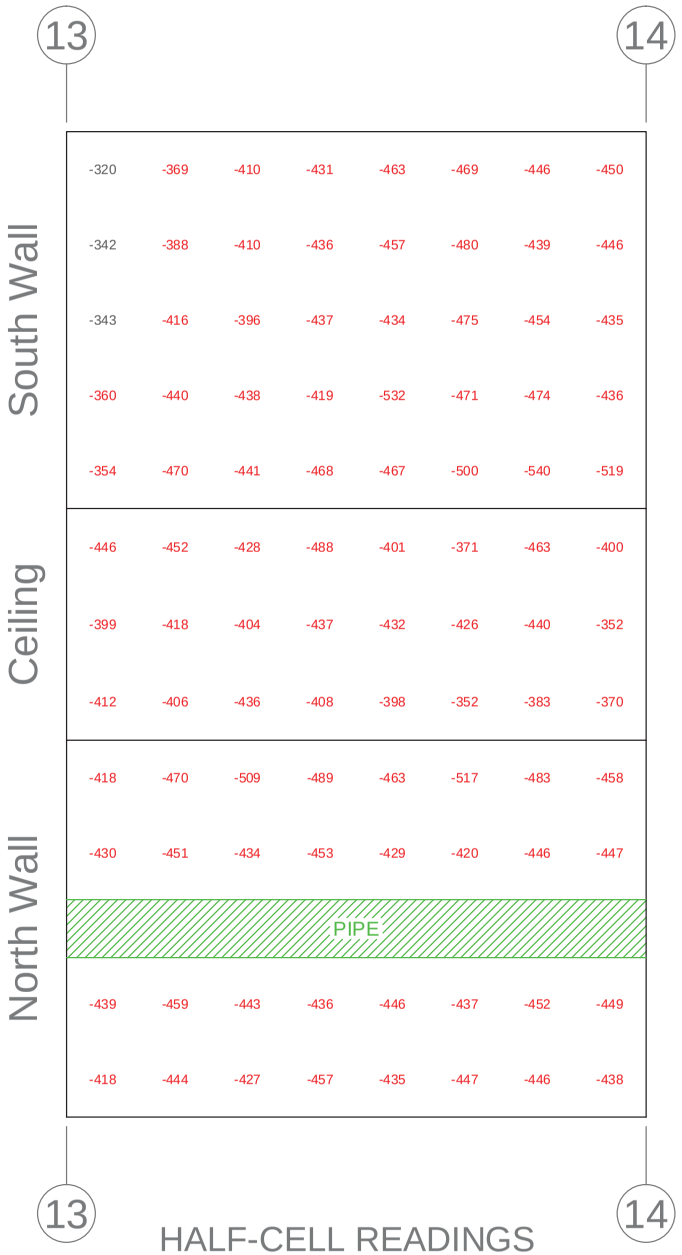
SHEET TITLE: TUNNEL LAYOUT AND DRAWING LEGEND

SCALE: NTS

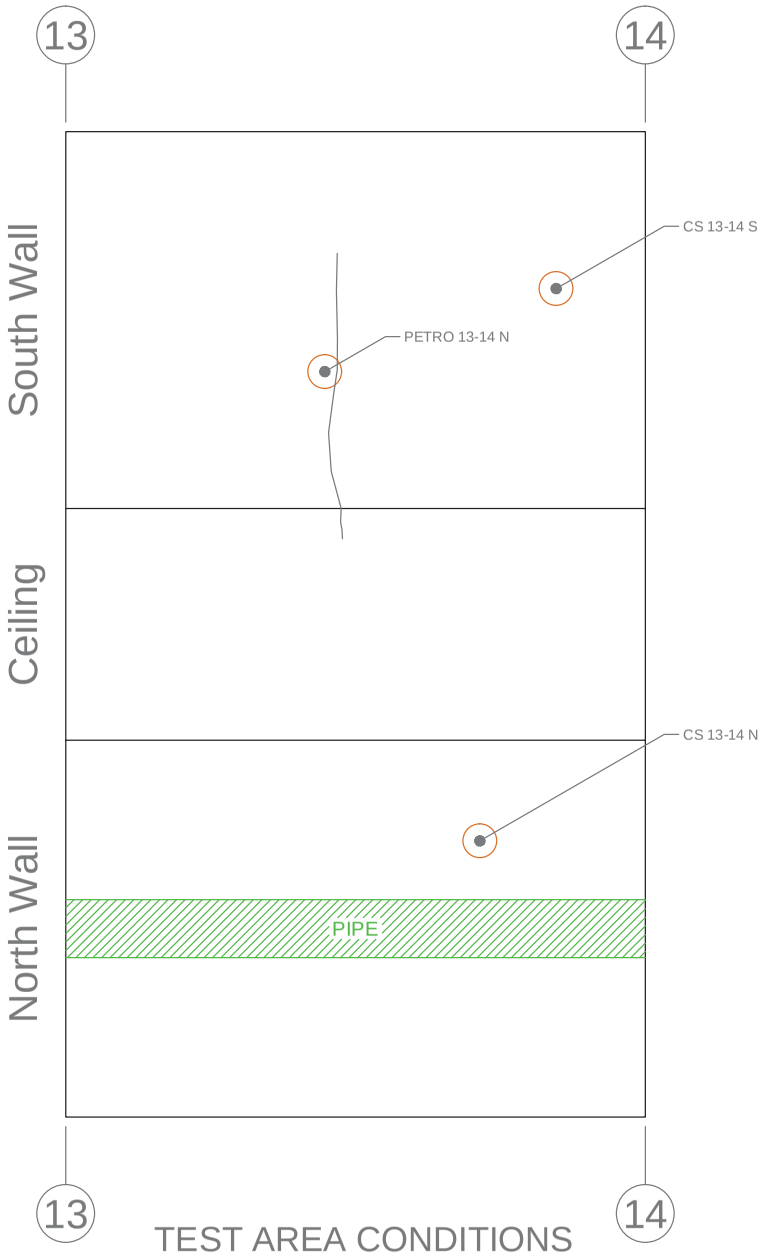
DATE: Dec 2012

DRAWN BY: A.S.B.

CS - 1
128



HALF-CELL READINGS



TEST AREA CONDITIONS

VECTOR CORROSION TECHNOLOGIES, INC.

3822 TURMAN LOOP
SUITE 102
WESLEY CHAPEL, FL 33544

WWW.VECTOR-CORROSION.COM

PROJECT:
LOS ANGELES COUNTY MEDICAL CENTER
UTILITY TUNNEL CORROSION CONDITION ASSESSMENT

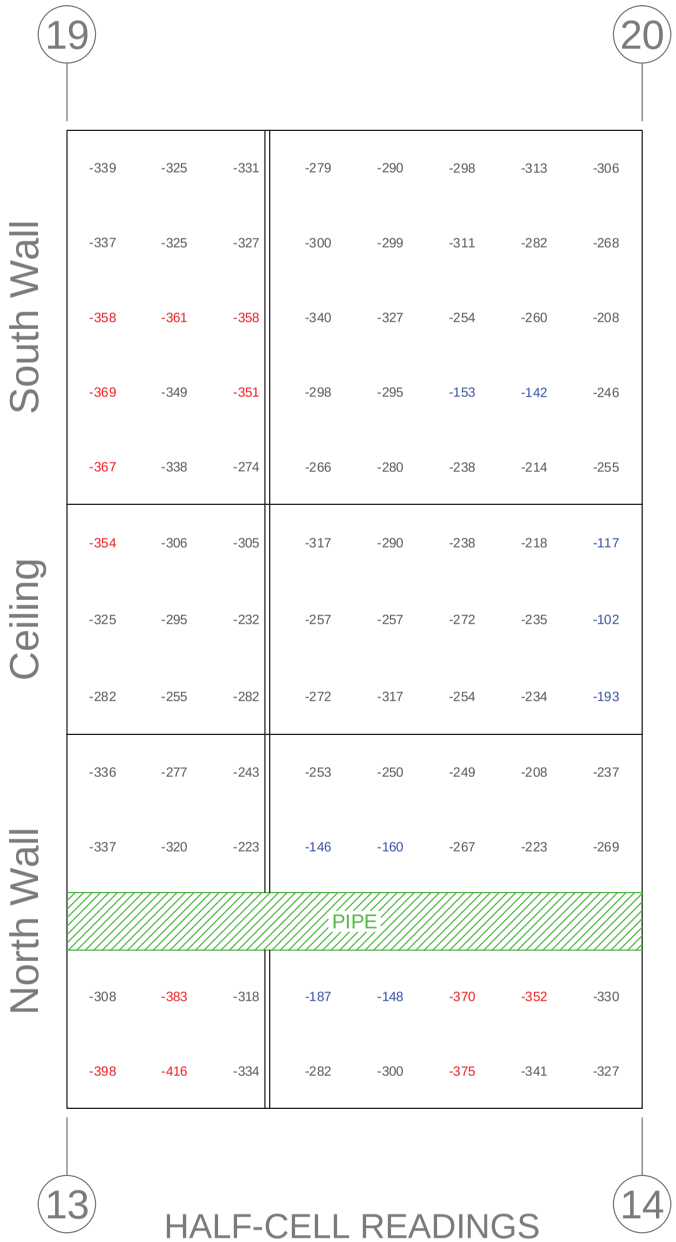
SHEET TITLE:
TEST AREA #1
STATION 13-14

SCALE:
NTS

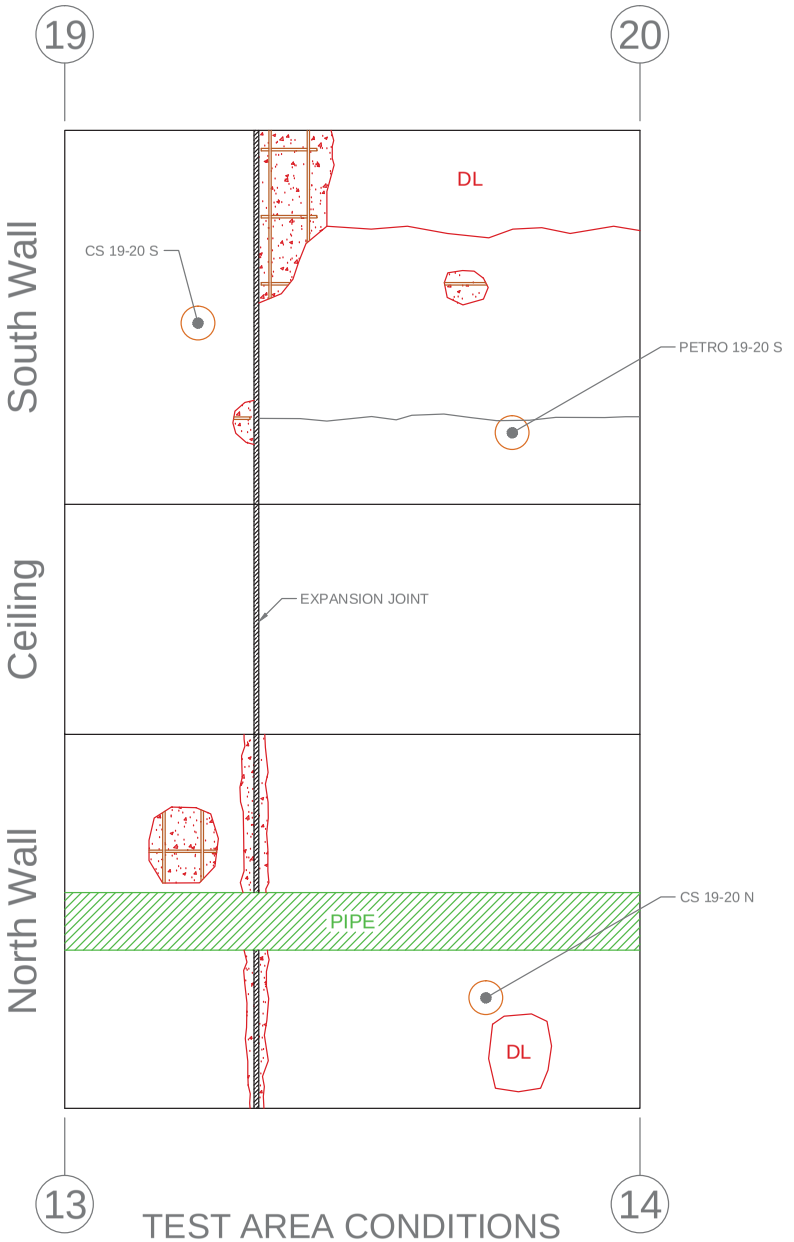
DATE:
Dec 2012

DRAWN BY:
A.S.B.

CS - 2
129



HALF-CELL READINGS



TEST AREA CONDITIONS

VECTOR CORROSION TECHNOLOGIES, INC.

3822 TURMAN LOOP
SUITE 102
WESLEY CHAPEL, FL 33544

WWW.VECTOR-CORROSION.COM

PROJECT:
LOS ANGELES COUNTY MEDICAL CENTER
UTILITY TUNNEL CORROSION CONDITION ASSESSMENT

SHEET TITLE:
TEST AREA #2
STATION 19-20

SCALE:
NTS

DATE:
Dec 2012

DRAWN BY:
A.S.B.

CS - 3
130

Appendix C:

Laboratory Testing Results

Tourney Consulting Group LLC
3401 Midlink Drive
Kalamazoo, MI 49048

Phone: 269.384.9980
Fax: 269.384.9981
www.tourneyconsulting.com

ASTM C42
Compression Testing of Drilled Concrete Cores

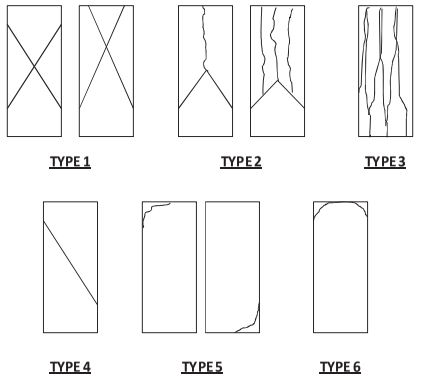
Client: Vector Corrosion Technologies
8680 W. F Avenue
Kalamazoo, MI 49009

Date Cored: 12/08/12
Date Received: 12/14/12
Date Reported: 12/27/12

Phone: 269.251.1347
Contact: Matt Miltenberger

TCG Project Number: 12141
Project Description: LA Tunnel
Sample Description: 3 3/4" Diam x 5 3/4" long cores
Sample Locations: See Core ID
TCG Technician: LW
Required Strength: 4000

Fracture Type



Core ID	Test Date	Age In Days	Avg. (2) Diam. in.	Avg.(2) Length Before Capping in.	Length After Capping in.	L/D	L/D Factor	Max Load Pounds-Force	Type Fracture	Strength psi
CS13-14N	12/27/12	N/A	3.693	4.310	4.473	1.211	0.921	64800	4	**5,570**
CS13-14S	12/27/12	N/A	3.691	5.170	5.366	1.454	0.954	57700	4	**5,150**
CS19-20N	12/27/12	N/A	3.707	5.585	5.750	1.551	0.964	55000	1	**4,910**
CS19-20S	12/27/12	N/A	3.690	6.004	6.171	1.672	0.974	56800	4	**5,170**

Note: All cores were cut square and smooth.The cores were cut to length, capped with sulfur caps and conditioned in ziploc bags for 7 days.The cores were broke with sulfur caps.

Tourney Consulting Group LLC
3401 Midlink Drive
Kalamazoo MI 49048

Phone (269)-384-9980
Fax (269)-384-9981
www.tourneyconsulting.com

Proposed ASTM Test Method
Electrical Resistivity Of Concrete

Client: Vector Corrosion Technology

Date Reported: 01/10/13
Date Tested: 01/08/13
Date Received: 12/14/12

Contact: Matt Miltenberger

TCG Project No. 12141
Job Description:
Sample Description: Partial 4" x 8" cylinders soaked 24 hours in lime water prior to testing.
TCG Technician:

Specimen ID	Age Days	**Average Thickness, inch	*Average Width, inch	*Average Length, inch	Area (Square Inches)	AC Resistance, Ohm	Saturated Resistivity, Ohm-inch	Saturated Resistivity, Ohm-cm
P13-14 S	-	1.100	3.685	5.685	4.055	19000	13552	34423
P19-20 S	-	1.008	3.705	6.137	3.733	21000	12772	32442

Resistivity = (AC Resistance x Area) / Length

Note: * Average of three measurements
Note: ** Average of two readings

Larry Wachowski

Laboratory Manager

1/10/2013

Tourney Consulting Group LLC
3401 Midlink Drive
Kalamazoo MI 49048

Phone (269)-384-9980
Fax (269)-384-9981
www.tourneyconsulting.com

ASTM C 1218 Water-Soluble Chloride Ion Contents (PPM)

Client:	Vector Corrosion Technologies Inc.	**Date Cored:**	12/08/12
	8680 W. F Avenue	**Date Received:**	12/14/12
	Kalamazoo, MI 49009	**Date Tested:**	12/21/12
	269.251.1347	**Date Reported:**	12/21/12

Contact: Matt Miltenberger

TCG Project No. 12141
Job Description: **Utility Tunnel**
Sample Description: Core samples were delivered to TCG laboratory by the client. The cores were cut lengthwise . One half was used for Petrographic examination. The remaining portion was cut lengthwise again at approximately 1/3 the Diameter This potion was cut to the depth increments listed below for testing.
All samples were dried and crushed to ensure all material passed a #20 Sieve. The Chloride data is reported in parts per million (ppm)
TCG Technician: RK

Sample ID	Carbonation Depth	Depth Increment (Inches)				
		0 to ½	1 to 1 1/2	2 1/2 to 3	3 1/2 to 4	5 to 5 1/2
Petro 12-14 S	100%	34	26	27	30	35
Petro 19-20 S	100%	50	39	82	219	164

Larry Wachowski

Laboratory Manager

Tourney Consulting Group LLC
5200 East Cork Street
Kalamazoo MI 49048

Phone (269)-394-9980
Fax (269)-384-9981
www.tourneyconsulting.com

EPA 300.0A Ion Chromatography Method
Sulfate Content of Concrete

Client: Vector Corrosion Technologies

TCG Project No. 12141
Job Description:
Sample Description: 10 liquid samples
TCG Technicians: Bob Kronner & Larry Wachowski

Report Date: 1/10/2013
Date Received: 12/21/2012

TCG Label	Powder Weight Grams	Liquid weight Grams	Total Sample Volume ml	Sulfate (SO_4) Content mg/L	Sulfate (SO_4) Content of Powder ppm	Equivilent SO_3 Content in Powder ppm
P13-14 S (0 to ½)	10.0051	96.05	97.0	30	291	242
P13-14 S (1 to 1½)	10.0155	97.23	98.0	23	225	188
P13-14 S (2½ - 3)	10.0472	94.78	96.0	17	162	135
P13-14 S (3½ - 4)	10.0165	97.04	98.0	18	176	147
P13-14 S (5 to 5½)	10.0734	94.4	96.0	14	133	111
P19-20 S (0 to ½)	10.0103	95.94	97.0	897	8692	7243
P19-20 S (1 to 1½)	10.0055	94.04	95.0	98	930	775
P19-20 S (2-½ - 3)	10.0141	97.31	98.0	29	284	236
P19-20 S (3½ - 4)	10.0098	97.17	98.0	80	783	653
P19-20 S (5 to 5½)	10.0175	96	97.0	351	3399	2832

Concrete was pulverized and sieved through a #20 screen. The powder was digested utilizing 24 hr water extraction method as described in ASTM C1218.

Concrete Petrography Report

Prepared For:

Matthew Miltenberger

Vector Corrosion Technologies, Inc

January 08, 2013

TCG #12141

Prepared By:

Adam Rudy, Ph.D., EIT

Reviewed by:

Glenn Schaefer

3401 Midlink Drive

Kalamazoo, MI49048

(269) 384-9980 Ph. www.tourneyconsulting.com (269) 384-9981 Fax

Client:	Vector Corrosion Technologies, Inc	**Date:**	January 8, 2013
Contact:	Matthew Miltenberger	**TCG Project No.:**	12141
Project:	Utility Tunnel	**Examined by:**	Adam Rudy, PhD
		Reviewed by:	Glenn Schaefer

INTRODUCTION

Two (2) concrete samples were examined via concrete petrography. The specimens consist of 3 11/16" diameter cores. The objective of the examination was to assess the general condition of the concrete and investigate the possible cause(s) of the observed damage. Each of the two core samples was cut longitudinally to investigate the possible influence of moisture conditions, paste composition and features of the bulk and near-surface concrete. The specimen dimensions and dispositions are summarized in Table1.

Table 1 - Characteristics of pre-cast concrete specimen subjected to microscopic evaluation

Core ID.	Diameter [in.]	Length [in.]	Tests	Comments
P13-14S	3 11/16	5 ⅝	Petrography	Concrete surface is cracked and the observed crack propagates through the full depth of the core
P19-20S	3 11/16	6	Petrography	Core is extensively damaged in the top 1 ½" section. Two rebars were observed in the core at depths of 1 ¾" and 4 ¼" from the surface

This study was conducted to assess the overall concrete quality. Specifically, to identify any signs of concrete distress related to common damage mechanisms such as carbonation, delayed ettringite formation (DEF)/ sulfate attack, alkali-silica reaction (ASR) or salt crystallization (physical attack). In addition, the examination looked for indications of improper consolidation, excessive porosity, irregular voids, or other issues that might have influenced concrete quality.

SAMPLE PREPARATION AND TEST METHODS

CONCRETE PETROGRAPHY (ASTM C 856):

In preparation for the microscopic analysis, the specimens were cut longitudinally using a water-cooled diamond saw. After cutting, each core sample was lapped using a set of 5 standard abrasive discs with grits consistent with those specified in ASTM C-856 "Standard Practice for Petrographic Examination of Hardened Concrete. The petrographic examination was performed on the polished samples using a digital microscope under magnifications ranging from 20X to 200X. Note: core P19-20S was severely damaged, thus the broken concrete pieces were glued together with a fiber glass resin.

SUMMARY OF FINDINGS

The highlights of the petrographic analyses are provided below and are summarized in Table 2.

Paste Fraction

The paste fraction in the investigated cores is soft and absorbs water at a rapid rate. The estimated hardness of the paste was around 2-3 on Mohs hardness scale and was comparable to a lab reference concrete made with 0.55-0.6 water-to-cement ratio. The hardened paste in both cores wore easily and was extensively cracked. The hardened paste in both cores is contaminated with salt, which readily exuded on the surface of partially submerged samples. Freshly cut surfaces of both cores were sprayed with a phenolphthalein solution and did not result in any pink staining, which indicates that the hardened paste throughout the cores has pH lower than ~8.25. Such low pH in the concrete could be attributed to a severe paste carbonation or high concentration of salts (i.e. sulfates).

Aggregates

The fine aggregate is similar in both specimens and consists of a siliceous sand. The major types of fine aggregates include: quartz, rheolite, feldspar and andesite. The fine aggregate in both cores seems to be coarse graded. The sand observed in the investigated samples has deleterious particles, which are susceptible to alkali-silica reaction (ASR). However, the intensity of observed ASR in the sand was minor. All deleterious sand particles have cracking and in the worst cases exuded small amount of gel into surrounding cracks.

The coarse aggregate in the investigated cores is siliceous crushed rocks, which consists of quartzite, granite, diorite, andesite and schist. The observed top size of coarse aggregates varies between ¾" in core P13-14S to 1" in core P19-20S. In general, the siliceous aggregates are hard to medium-hard, sub-equant to elongate and have angular to sub-angular edges. The coarse aggregate is well graded in core P13-14S and gap-graded in core P19-20S. The bond between coarse aggregates and hardened paste is fair in both cores.

Many coarse aggregates in both cores are cracked, but only a few particles showed minor signs of alkali-silica reactivity. In the worst cases (core P13-14S), the cracks observed in the coarse aggregates propagated into hardened paste and the rocks exuded alkali-silica gel into these cracks and on the lapped surface. In general, the ASR in the cores is minor-to-negligible.

Air Voids

In general, the cores have approximately 3% of total air content and the observed air voids are entrapped. The air voids in core P13-14S are free from deposits, however a small number of voids in core S19-20P are partially filled with crystalline salts.

Reinforcing Steel

Core P19-20S has two reinforcing steel bars at depth of 1 ¾" and 4 ¼" from the surface. Both rebars show signs of corrosion, however the rebar located at a depth of 1 ¾" shows more deterioration with corrosion products deposited into surrounding micro-cracks.

Cracking and Micro-cracking

The most extensive cracking was observed in core P19-20S, however due to sample damage in the top 1 ½" section of this core, it is difficult to determine the origin of the observed macro-cracks. Core P19-20S also has wide spread macro-cracks in the bulk paste, in-between the two rebars. In addition, a number of micro-crack were observed in core P19-20S around the rebar at a depth of 1 ¾" from the surface. Many of the observed micro-crack was filled with rust corrosion products. On the other hand, only a single macro-crack and infrequent micro-cracks were observed in core P13-14S. The macro-crack in core P13-14S runs longitudinally across the core and splits into two smaller cracks at a depth of 4 ½" from the surface. The macro-cracks observed in both cores are free from deposits.

Alkali-Silica Reaction (ASR)

Minor-to-negligible signs of ASR were observed in the investigated samples. Only a few coarse aggregates in core P13-14S showed evidences of alkali-silica gel and a small number of sand particles in both cores showed reaction rims and gel formation. Based on the microscopic observations it is believed that the ASR is minor in the cores and did not contribute significantly to the observed cracking and damage.

Other Secondary Deposits

Both samples exuded substantial amounts of salts on the lapped surfaces after being partially submerged in water for 2 days. The exuded deposits are mainly crystalline (also very small amounts of gel was found in core P13-14S) and easily dissolve in water. It was reported by the client that the concrete sample were obtained from the utility tunnel. It is probable that the observed deposits consist of sulfate salts.

CONCLUSIONS

Based, on the amount of crystalline deposits exuded on the surfaces and the poor quality of hardened paste in both cores it is likely that the concrete experienced external sulfate attack. The sulfate salts typically involved in concrete deterioration are thenardite and mirabilite. These salts can dissolve and crystallize in concrete pores and cracks, causing paste softening and concrete deterioration.

Table 2 – Summary of findings from petrographic investigation

TCG Core No.	P13-14S	P19-20S
Paste Quality	Fair, soft, absorption is high, carbonation was measured through the full depth of the core, small amounts of crystalline salts were exuded on the surface of partially submerged sample	Poor, soft, absorption is high, carbonation was measured through the full depth of the core, significant amounts of crystalline salts were exuded on the surface of partially submerged sample
Cracking	Extensive macro crack through the full depth of the core, the crack propagated in the hardened paste and paste-aggregate interface. Sporadic micro-cracks in the bulk paste were observed	Extensive vertical and horizontal macro cracks were observed through the full depth of the core, the cracks propagated in the hardened paste and paste-aggregate interface. Sporadic micro-cracks in the bulk paste were also observed
Air Content	Air content is low (3%), no secondary deposits in the air voids were observed	Air content is low (3%), deposits of crystalline salts in the air voids were sporadic
Consolidation	Good, even aggregate distribution, no bleed channels or air pockets	Fair, aggregate distribution is not even
Fine Aggregate	Good, siliceous sand with small amount of ASR susceptible particles, sand seems to be coarse graded	Good, siliceous sand with small amount of ASR susceptible particles, sand seems to be coarse graded
Coarse Aggregate	Generally hard, siliceous in composition, some coarse particless are cracked. A few quartzite particles showed signs of alkali-silica reactivity with gel formation	Generally hard, siliceous in composition, some coarse particles are cracked. Coarse aggregates are gap-graded
Aggregate Bond	Fair, a significant number of aggregate shows gaps in the paste-aggregate interface	Fair, a significant number of aggregate shows gaps in the paste-aggregate interface
ASR	Minor in the fine aggregates and negligible in the coarse	Minor in the fine aggregates and negligible in the coarse
Other Deposits	Moderate amount of crystalline deposits, which exuded on the surface of partially submerged	High amount of crystalline deposits, which exuded on the surface of partially submerged
Overall Condition	In general, the concrete is in fair condition	In general, the concrete is in poor condition

RESULTS OF PETROGRAPHIC EXAMINATION

Sample P13-14S

GENERAL CONDITION

The general condition of the concrete specimen is provided in Table 3, the general view is shown in Figure 1.

Table 3 - Summary of the general condition of concrete specimen P13-14S

	Observation
Surface	Smooth, wide crack observed on the surface, top surface is finished with a sort of cement-based coating
Protective Coating	Cement-based surface finish
Paste	Soft across the sample, white in color, water absorption is high across the sample, moderate amounts of crystalline salts exuded after partial soaking sample in water
Cracks	Wide macro-crack along the core was observed and relatively infrequent micro-crack in the paste were found
Voids	Air content estimated at 3%, mostly small, round and entrapped voids are present. No deposits in the air voids was observed

PASTE

The microscopic investigation revealed the following features of the hardened cement paste matrix:

- The paste is soft (2-3 on the Mohs hardness scale) throughout the section of the core, suggesting that the concrete mixture has a high water-to-cement ratio. Overall hardness of the sample was similar to a lab reference concrete mixture made with 0.5-0.6 water-to-cement ratio.
- The hardened paste is uniform white in color in the bulk section of the core. However, in the top and bottom of the core veneer of paste is dark brown. In addition, it seems that the top surface of the core was coated with a sort of cement-based layer. Figure 2 shows examples of a brown cement-based primer on the surface of core P13-14S.
- The capillary porosity and rate of water sorption of the hardened paste were high. The amount of paste appears to be high for the investigated concrete and was estimated at approximately 30-33%.
- Moderate amount of crystalline deposits exuded on the surface of partially submerged sample. The crystals where white to transparent is color and appeared in the paste and paste-aggregate interface. Figure 3 shows examples of crystalline deposits exuded on the surface of core P13-14S.
- The specimen shows wide crack on the surface which extended longitudinally through the full length of the core. The macro-crack observe in the sample was free from deposits and ran

through paste and paste-aggregate interface. At a depth of 4 ¼" from the surface the macro-crack splits into two smaller cracks. Figure 4 shows longitudinal macro-cracks in sample 13-14S.

- The micro-cracks in the sample were relatively infrequent and were observed in the bulk section of the core. Most of the micro-cracks run in the paste and around aggregates, and are free from deposits. Figure 5 shows examples of micro-cracks in sample P13-14S.
- The air content in the hardened paste is low. The observed air voids are round and small in size. Based on the visual appearance of the air voids, it is concluded that the concrete was not intentionally air-entrained and the estimated air content is approximately 3%. The air voids are generally free from deposits as indicated in Figure 6.
- The carbonation was uniform and was measured through the entire cross-section of the core. Figure 7 shows lack of pink staining in the core sample.

COARSE AGGREGATE

- The coarse aggregate is a crushed stone with 19 mm (¾in.) nominal top size. The rocks are hard and many particles are cracked. The particles are sub-equant to elongate in shape with angular to sub-angular edges. The grading is uniform and the aggregate distribution is even.
- The aggregate is siliceous in composition and consists of a mixture of granite, diorite, quartzite, andesite and schist.
- The bond between the coarse aggregate and hardened paste is weak and frequently compromised by the presence of gaps.
- A few aggregate particles were cracked and exuded traces of alkali-silica gel on the surface and into micro-cracks. The signs of aggregate deterioration in the coarse aggregates are minor, but clearly indicate the potential for ASR in the investigated concrete. Figure 8 shows coarse particles which show signs of alkali-silica reactivity.

FINE AGGREGATE

- The fine aggregate is a siliceous sand. The major components present in the sand include: quartz, feldspar, andesite and rhyolite.
- A few ASR susceptible sand particles were found in core P13-14S. The majorities of the ASR susceptible particles have micro-cracks cutting through them, have reaction rims and amorphous gel deposited in the micro-cracks (see Figure 9).

Figure for sample P13-14S

Figure 1– Core P13-14S before cutting and lapping

Figure 2 – Brown cement-based coating on the surface of the core

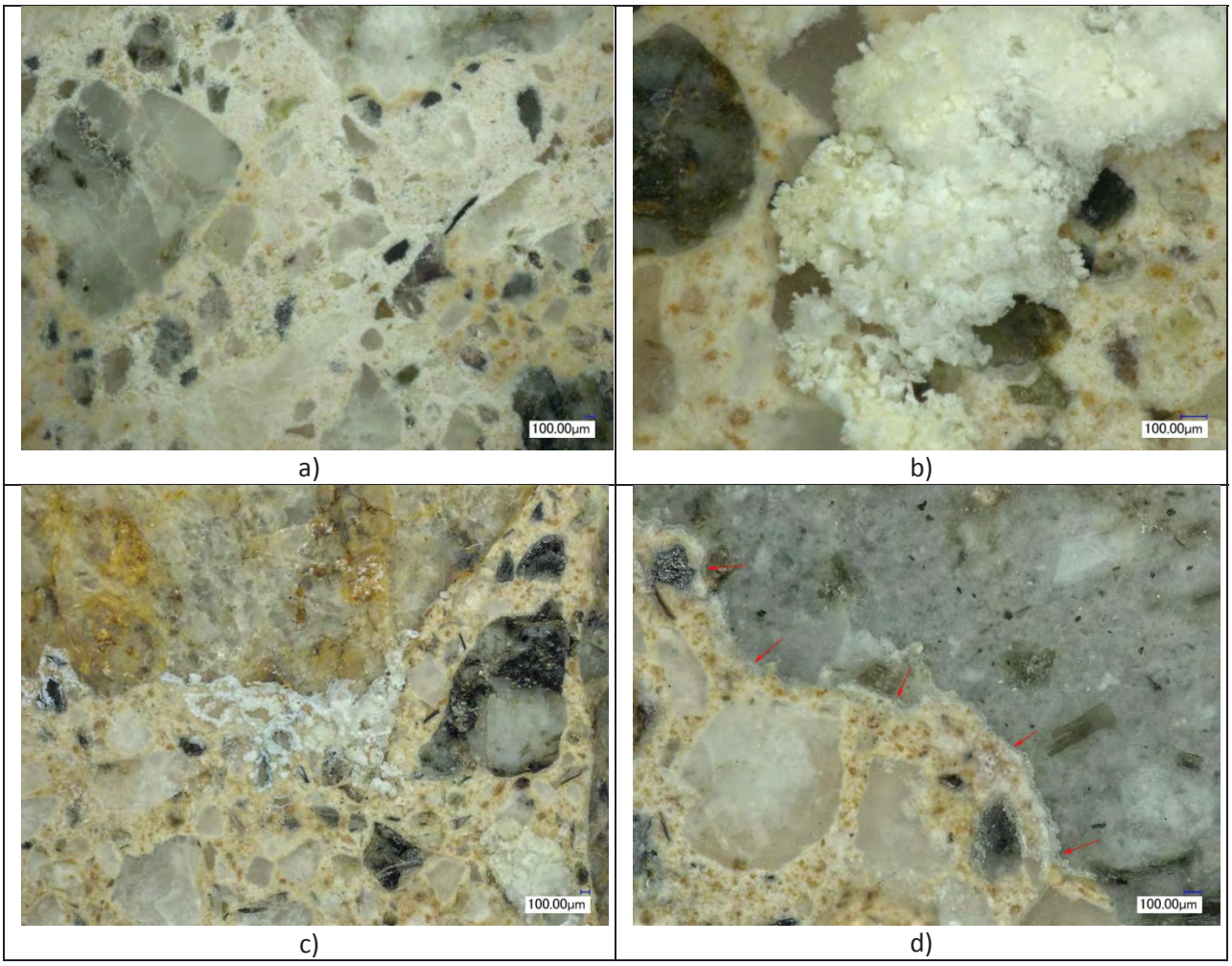


Figure 3 – Examples of crystalline salts exuded on the surface of lapped section of P13-14S: a,b) white crystals in paste and (c,d) crystals around coarse aggregate rocks

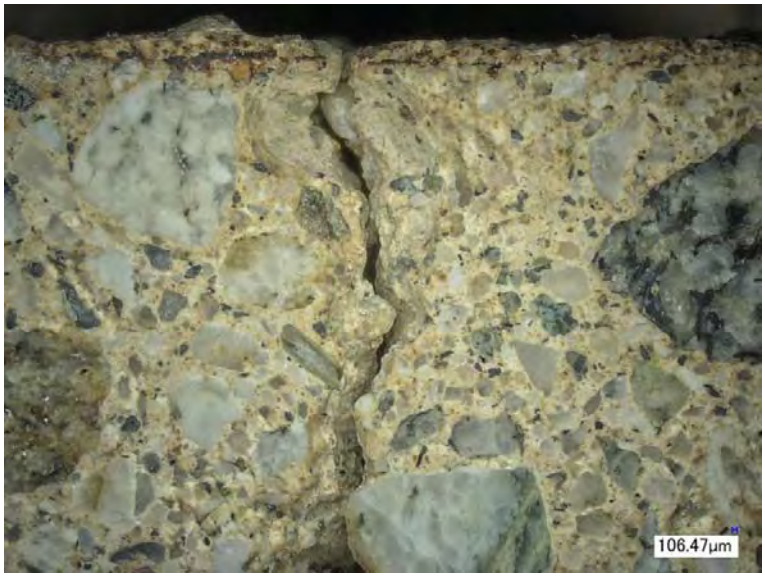


Figure 4 – Longitudinal macro-crack in the top portion of the core

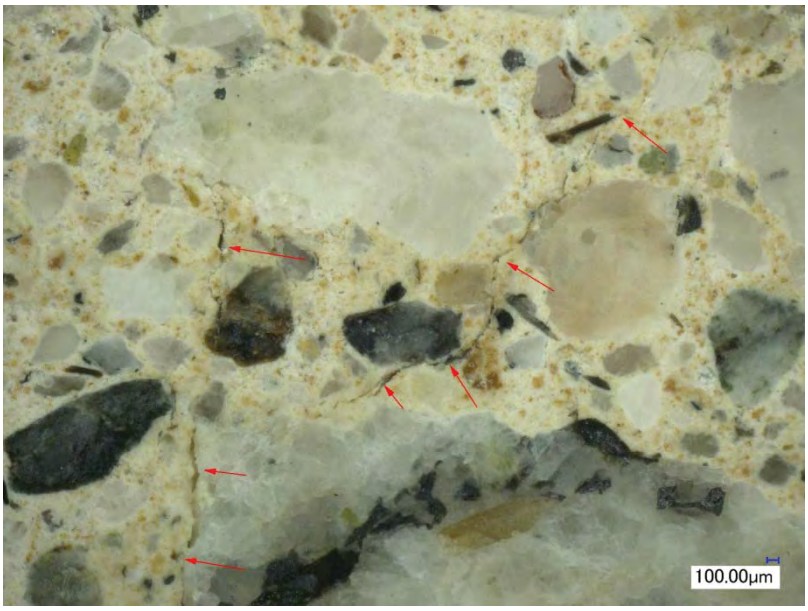


Figure 5 – Examples of micro-cracks in sample P13-14S

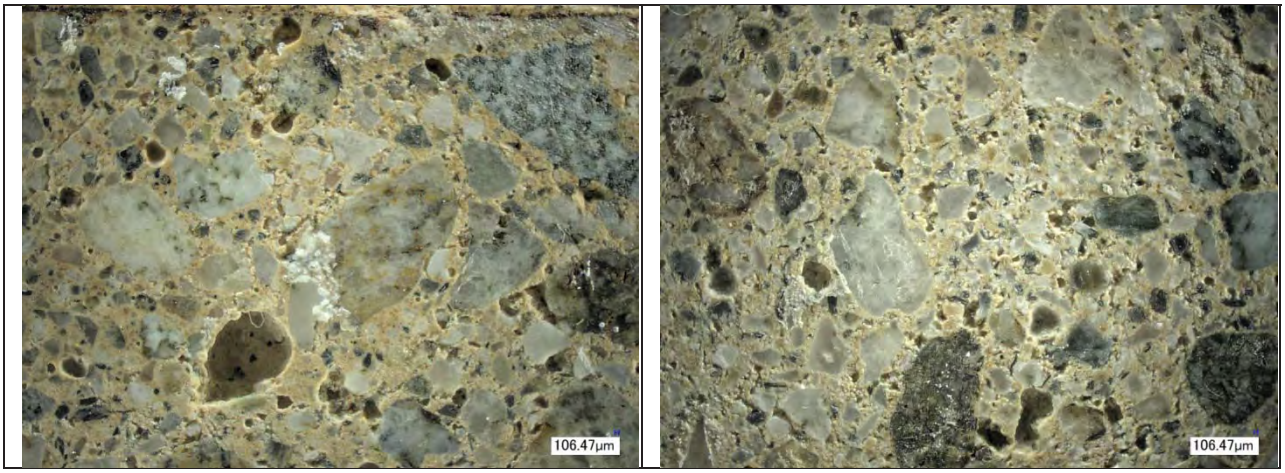
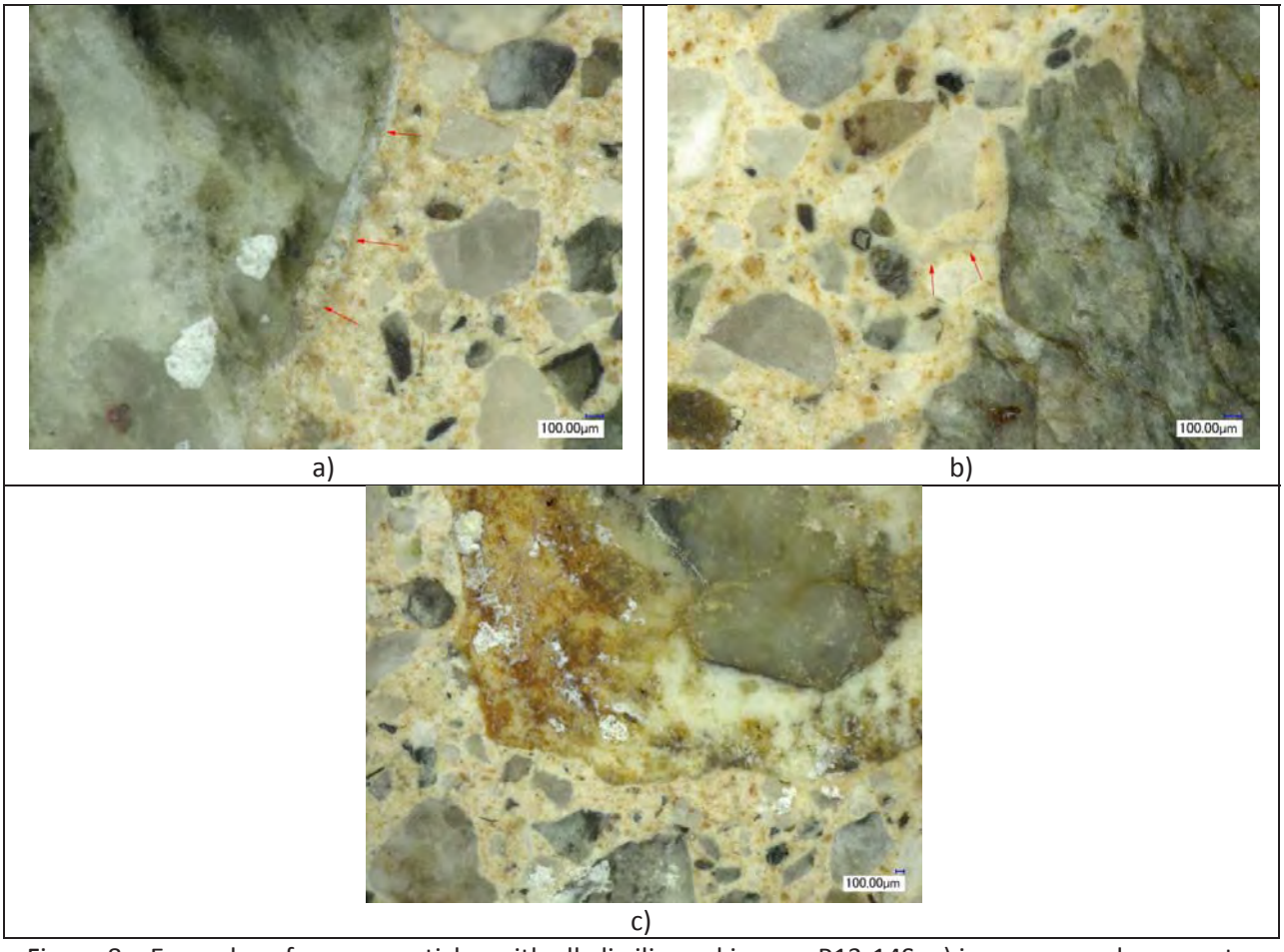


Figure 6 – Examples of air voids in core P13-14S

Figure 7 – Core P13-14S after staining with phenolphthalein showing lack of pink staining through the entire section of the core



a) b) c)

Figure 8 – Examples of coarse particles with alkali-silica gel in core P13-14S: a) in gap around aggregate, b) in micro-crack near aggregate and c) exuded on the surface of coarse aggregate

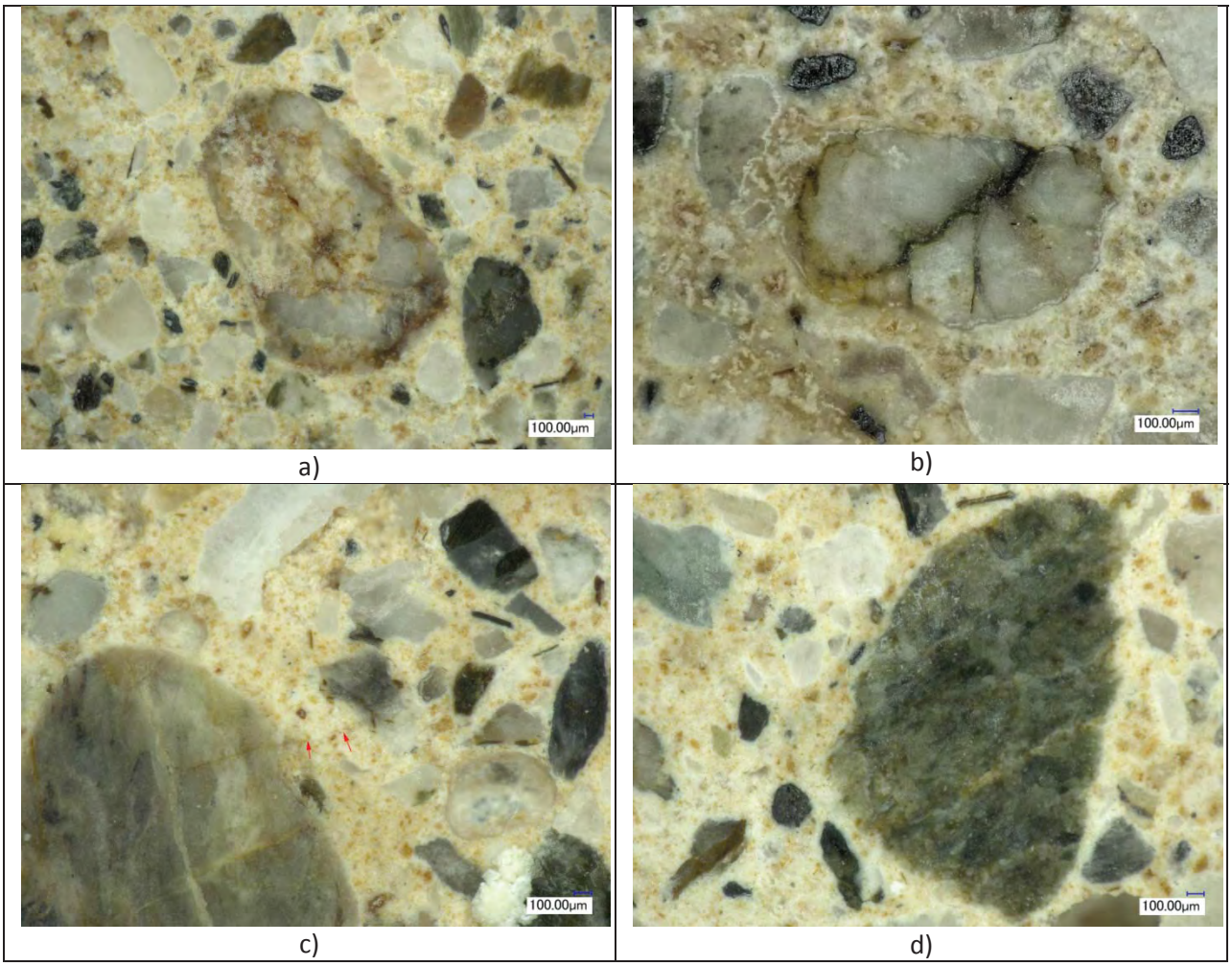


Figure 9 – ASR susceptible sand particles: a,b) with rims and (c,d) with micro-crack and traces of gel in core P13-14S

RESULTS OF PETROGRAPHIC EXAMINATION

Sample P19-20S

GENERAL CONDITION

The general condition of the concrete specimen is provided in Table 4, the general view is shown in Figure 10.

Table 4 - Summary of the general condition of concrete specimen P19-20S

	Observation
Surface	Smooth, the top 1 ¾" section of the core was fragmented, thus the real degree of cracking cannot be determined, top surface is finished with a sort of cement-based coating
Protective Coating	Cement-based surface finish
Paste	Soft across the sample, white in color, water absorption is high across the sample, high amounts of crystalline salts exuded after partial soaking sample in water
Cracks	Many macro-cracks were randomly spread in the bulk paste, the micro-cracking was infrequent and was found near reinforcing steel bar at a depth of 1 ¾" from the surface. Some of the micro-cracks near the rebar contain rust corrosion products
Voids	Air content estimated at 3%, mostly small, round and entrapped voids are present. The air voids contain small amounts of crystalline deposits

PASTE

The microscopic investigation revealed the following features of the hardened cement paste matrix:

- The paste is soft (2-3 on the Mohs hardness scale) throughout the section of the core, suggesting that the concrete mixture has a high water-to-cement ratio. Overall hardness of the sample was similar to a lab reference concrete mixture made with 0.5-0.6 water-to-cement ratio.
- The hardened paste is uniform white in color in the bulk section of the core. However, in the top and bottom of the core veneer of paste is dark brown. In addition, it seems that the top surface of the core was coated with a sort of cement-based layer. Figure 11 shows examples of a brown cement-based primer on the surface of core P19-20S.
- The capillary porosity and rate of water sorption of the hardened paste were high. The amount of paste appears to be high for the investigated concrete and was estimated at approximately 30-33%.
- High amount of crystalline deposits exuded on the surface of partially submerged sample. The crystals where white to transparent is color and appeared in the paste and paste-aggregate interface. Figure 12 shows general view of crystalline deposits exuded on the surface of core P13-14S, whereas Figure 13 shows detailed morphology of these crystals.

- The specimen shows wide-spread cracking in the bulk portion of the core. Due to extensive damage in the sample to origin of these cracks is not easy to determine. However, it can be observed that the macro-cracks run around the rebars and in the bulk paste between the rebars. The macro-cracks in the sample are free from deposits and ran through paste and paste-aggregate interface. Figure 14 shows macro-cracks in sample P19-20S.
- The micro-cracks in the observed sample were relatively infrequent and were mostly observed in the bulk section of the core near the reinforcing steel bars. Some of the micro-cracks run in the paste and are filled with rust crystalline deposits. Figure 15 shows examples of micro-cracks with rust corrosion products in sample P19-20S.
- The air content in the hardened paste is low. The observed air voids are round and small in size as indicated in Figure 16. Based on the visual appearance of the air voids, it is concluded that the concrete was not intentionally air-entrained and the estimated air content is approximately 3%. The air voids are generally free from deposits, however occasionally small amounts of crystalline salts were observed in voids (as shown in Figure 17).
- The carbonation was uniform and was measured through the entire cross-section of the core. Figure 18 shows lack of pink staining in the core sample.

COARSE AGGREGATE

- The coarse aggregate is a crushed stone with 25 mm (1 in.) nominal top size. The rocks are hard and many particles are cracked. The particles are sub-equant to elongate in shape with angular to sub-angular edges. The grading is uniform and the aggregate distribution is even.
- The aggregate is siliceous in composition and consists of a mixture of granite, diorite, quartzite, andesite and schist.
- The bond between the coarse aggregate and hardened paste is weak and frequently compromised by the presence of gaps.
- A few aggregate particles were cracked, but no signs of alkali-silica gel exuded on the surface these particles or in the surrounding cracks were found. The signs of aggregate deterioration in the coarse aggregates are minor, thus the potential for ASR in core P19-20S is negligible.

FINE AGGREGATE

- The fine aggregate is a siliceous sand. The major components present in the sand include: quartz, feldspar, andesite and rhyolite.
- A few ASR susceptible sand particles were found in core P19-20S. The majorities of the ASR susceptible particles have micro-cracks cutting through them, have reaction rims and amorphous gel deposited in the micro-cracks (see Figure 19).

Figure for sample P19-20S

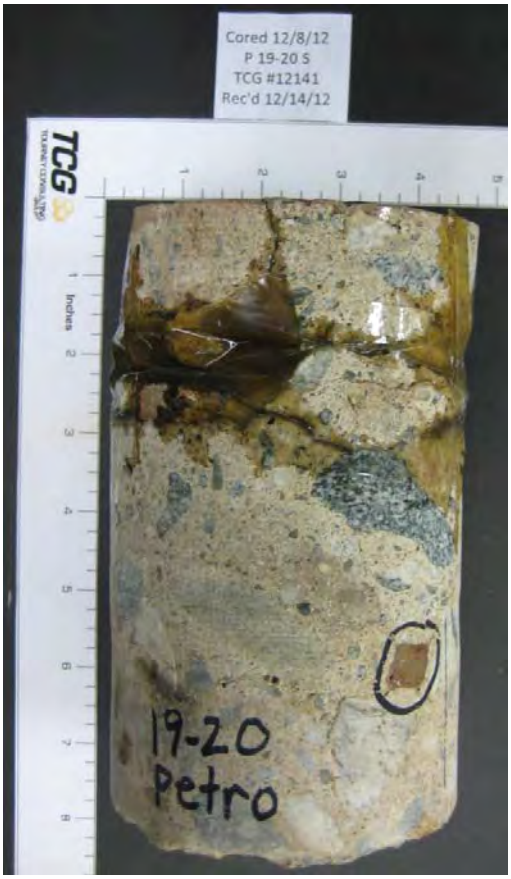


Figure 10– Core P19-20S before cutting and lapping

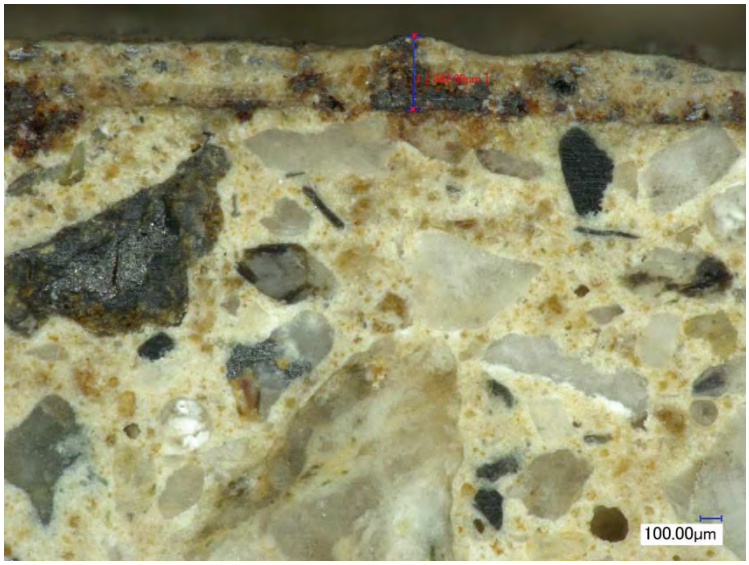


Figure 11 – Brown cement-based coating on the surface of the core

Figure 12 – Example of white crystalline deposits exuded on the surface of core P19-20S

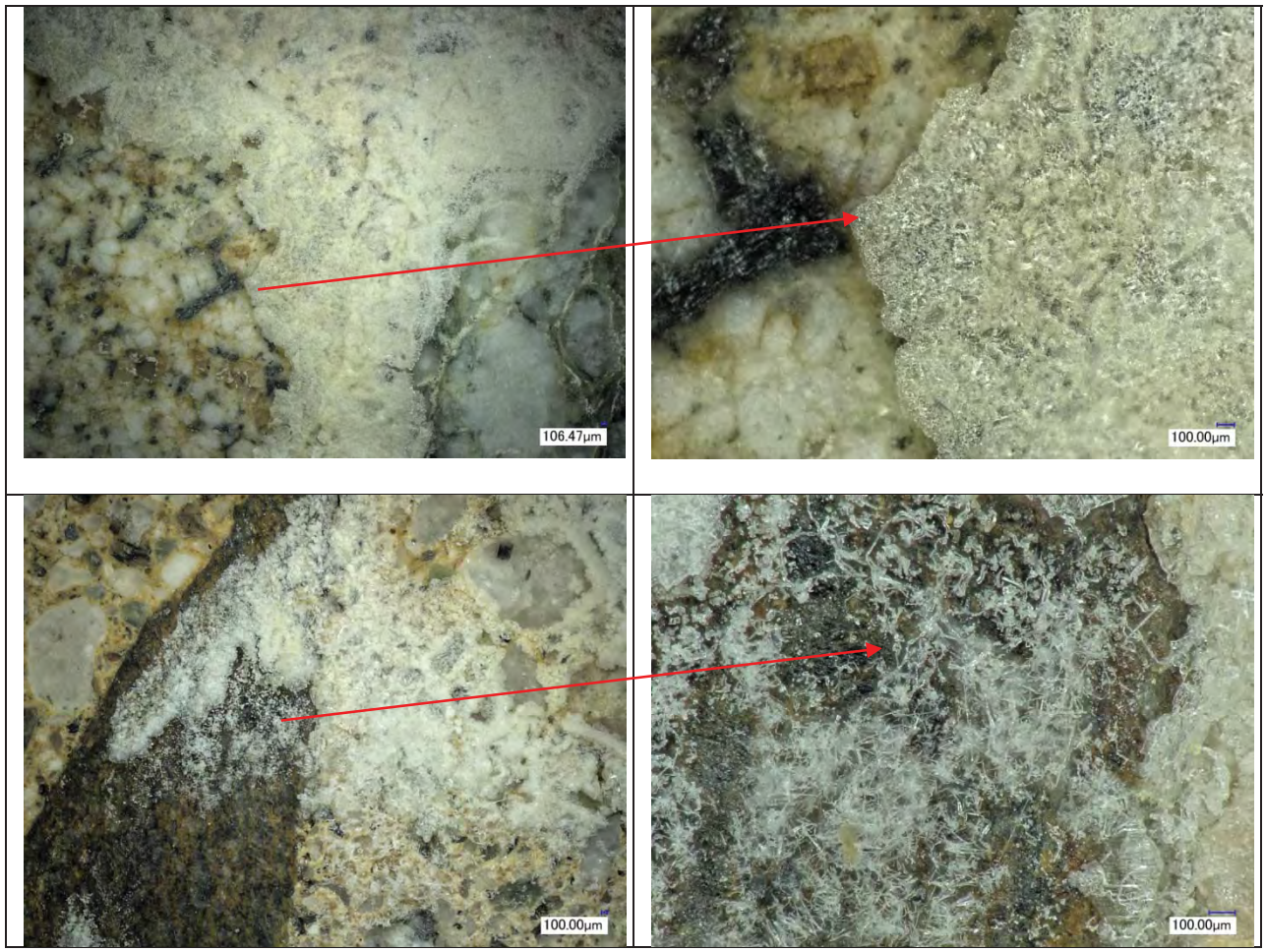


Figure 13 – Examples of microphotographs of crystalline salts exuded on the surface of lapped section of P19-20S sample

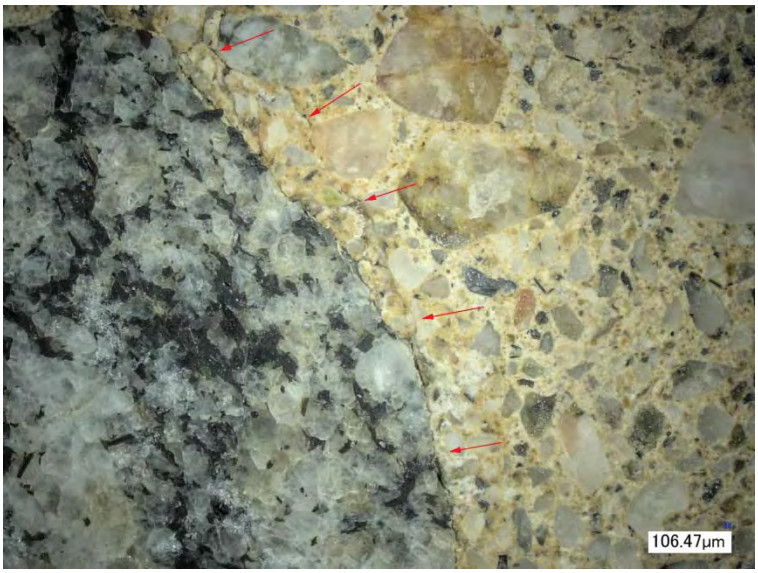


Figure 14 – Longitudinal macro-crack in the top portion of the core

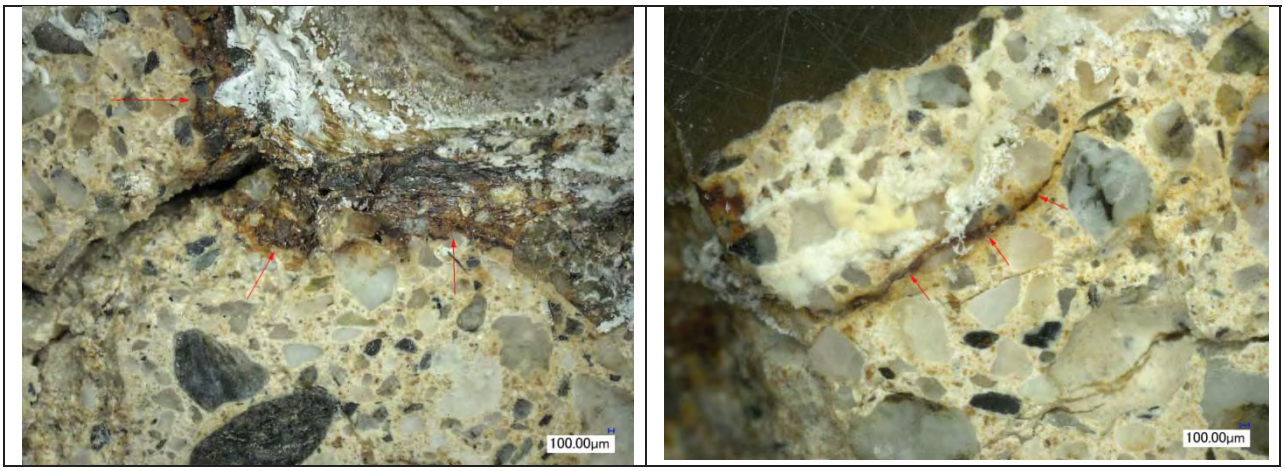


Figure 15 – Examples of micro-cracks with rust deposits in sample P19-20S

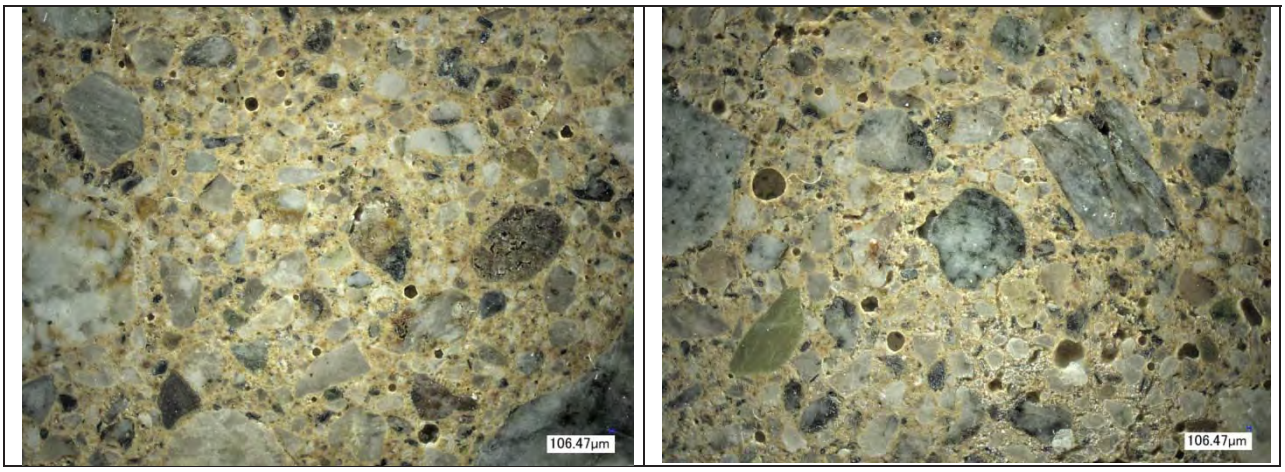


Figure 16 – Examples of air voids in core P19-20S

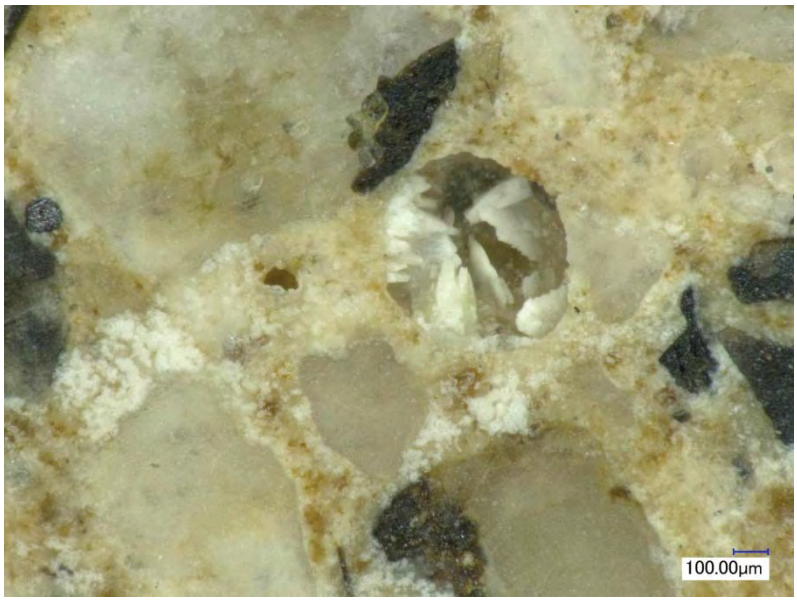


Figure 17 – Examples of crystalline deposits in void in sample P19-20S

Figure 18 – Core P19-20S after staining with phenolphthalein showing lack of pink staining through the entire section of the core

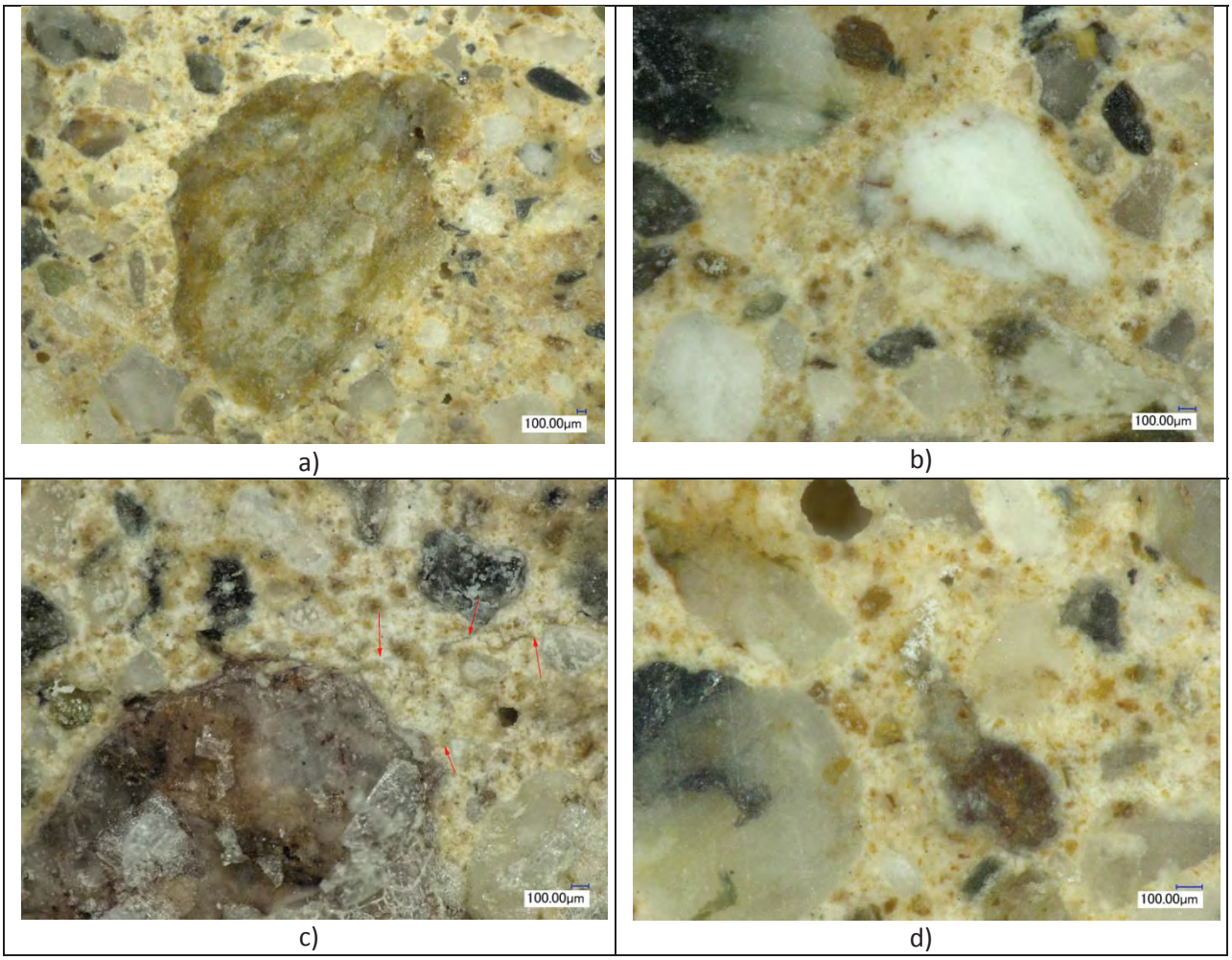


Figure 19 – ASR susceptible sand particles: a,b) with rims and (c,d) with micro-crack and traces of gel in core P19-20S

Appendix D:

Photographs

Picture #1-Approximate 2.5” thick spall

Picture #2- Ceiling spall

Picture #3- Spall sprayed with rainbow indicator around a 6 pH

Picture #4- Soft concrete with small cracks in Section 11-12

Picture #5- Soft concrete and shallow spalls in Section 0-1

Picture #6- Water covering the tunnel floor in Section 12-13

Picture #7- Water covered floor and soft concrete with shallow spalls Section 12-13

Picture #8- Soft concrete Section 12-13

Picture #9- Soft Concrete Section 12-13

Picture #10- Soft concrete Section 12-13

Picture #11- Section 1-2 sounding survey

Picture #12- Soft concrete Section 3-4

Picture #13- Soft concrete Section 3-4

Picture #14- Efflourescent Section 3-4

Picture #15- Soft Concrete Section 3-4

Picture #16- Soft concrete Section 3-4

Picture #17- Soft concrete Section 3-4

Picture #18- Soft Concrete Section 3-4

Picture #19- Sounding survey Section 3-4

Picture #20- Soft Concrete Section 3-4

Picture #21- Soft concrete Section 5-6

Picture #22- Deteriorated joint near Station 6

Picture #23- Deteriorated joint near Station 6

Picture #24- Section 7-8

Picture #25- Ceiling spall Section 7-8

Picture #26- Damage from steam leak Section 8-9

Picture #27- Damage from steam leak Section 8-9

Picture #28- Soft concrete Section 15-16

Picture #29- Exposed reinforcing steel Section 15-16

Picture #30- Spall with exposed corroded reinforcing steel Section 21-22

Picture #31- Spall with exposed corroded reinforcing steel Section 21-22

Picture #32- Spall with exposed corroded reinforcing steel Section 21-22

Picture #33- Spall with corroded reinforcing steel at Station 25

Picture #34- Damage tunnel section with spalling and heavy corrosion near Station 26

Picture #35- Spall in Section 25-26 with broken reinforcing steel and extensive section loss

Picture #36- Ceiling delamination with corroded pipe, conduit, and reinforcing steel near Station 26

Picture #37- Delamination and severe reinforcing steel corrosion near Station 26

Picture #38- Deep spalling and extensive corrosion near Station 26

Picture #39- Delamination and spalling Section 35-36

Picture #40- Spalling and soft concrete Section 35-36

Picture #41- Spalling and soft concrete Section 35-36

Picture #42- Shallow delaminations Section 30-31

Picture #43- Spalling and corroded rebar Section 22-23

Picture #44- Spalling at Station 22

Picture #45- Spall with severe corrosion near station 22

Picture #46- pH test strip used to test standing water approximately a 7

Picture #47- Spacing of vertical reinforcement in Test Area 1

Picture #48- Spacing of horizontal reinforcement in Test Area 1

Picture #49- Exposed square Reinforcing bar 3/8”

Picture #50- Measurement of exposed reinforcing bar 3/8”

Picture #51- Spall near Station 19

Picture #52- Spall depth approximately 1-3/4" near Station 19

Picture #53- Spall next to leaking joint Section 19-20

Picture #54- Spalling near joint Section 19-20

Picture #55- Spalling Section 19-20

Picture #56- Ceiling spall Section 19-20

Picture #57- Severe spalling Section 20-21

Picture #58- Ceiling spall with broken corroded reinforcement steel Section 20-21

Picture #59- Spall with reinforcing steel with advanced corrosion occurring Section 20-21

Picture #60- Spalling Section 20-21

Picture #61- Spalling Section 20-21

Picture #62- Compressive Strength core S19-20 on north wall

Picture #63- Core Hole from compressive strength core S19-20 on north wall approximately 5-3/8" thick

Picture #64- Compressive strength core S19-20 on north wall taken to full depth

Picture #65- Area of petrographic analysis core Petro19-20-S

Picture #66- Core hole for Petro19-20-S

Picture #67- Core Petro19-20-S

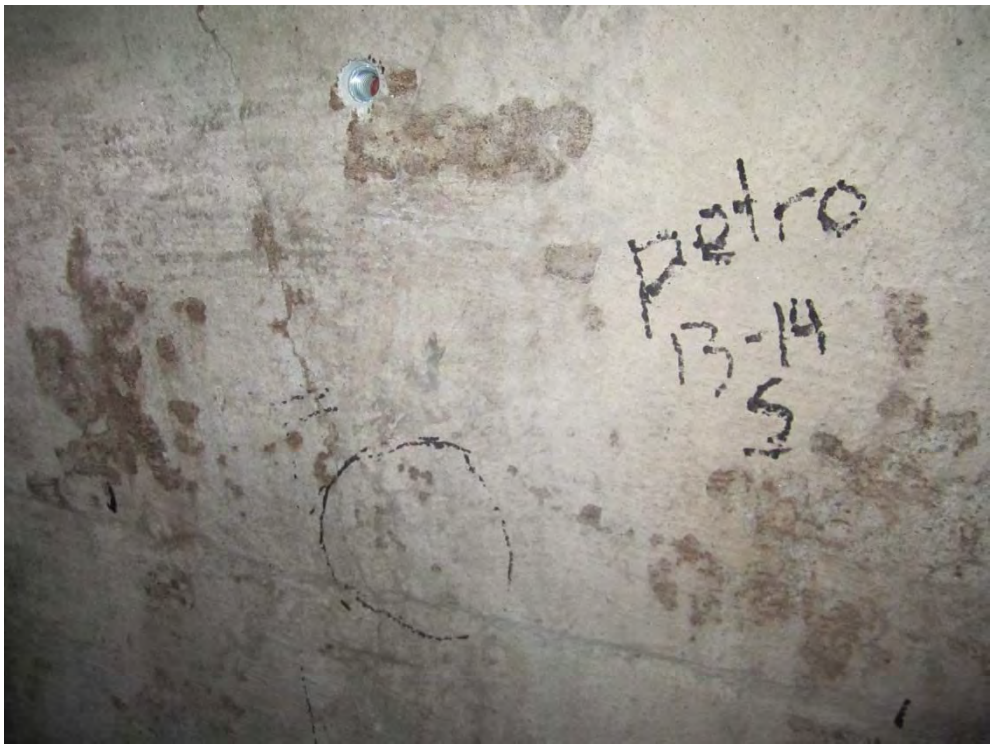
Picture #68- Core Petro19-20-S taken to full depth

Picture #69- Visible delaminated layer in core hole Petro19-20-S

Picture #70- Area of Core CS19-20-S

Picture #71- Core CS19-20-S

Picture #72- Core CS19-20-S taken to full depth approximately 6-1/4”



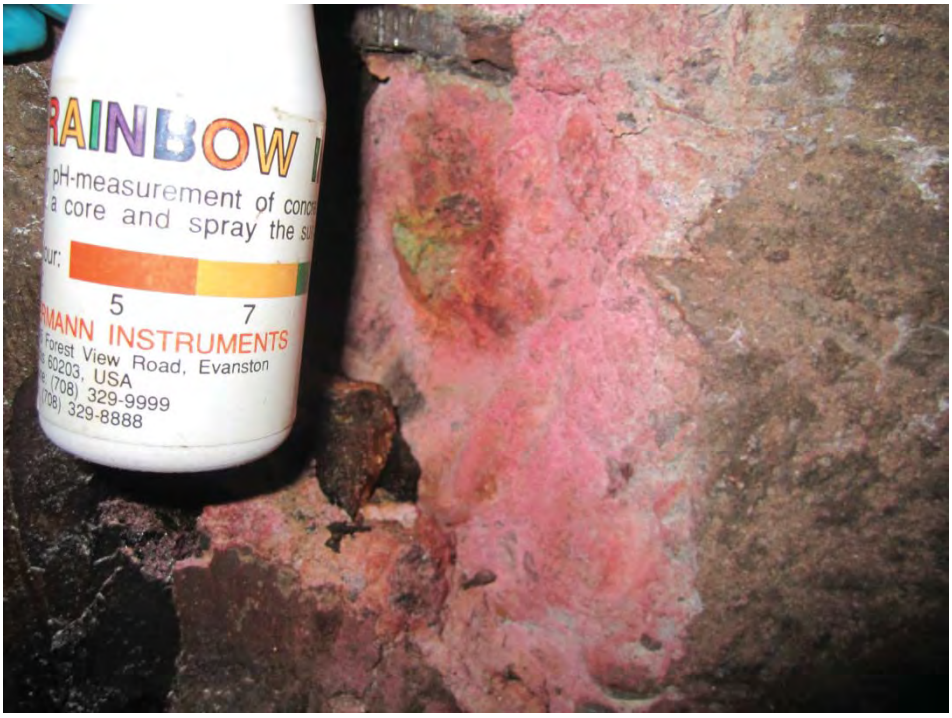
Picture #73- Area of core Petro13-14-S taken on a crack

Picture #74- Compressive Strength Core CS13-14S

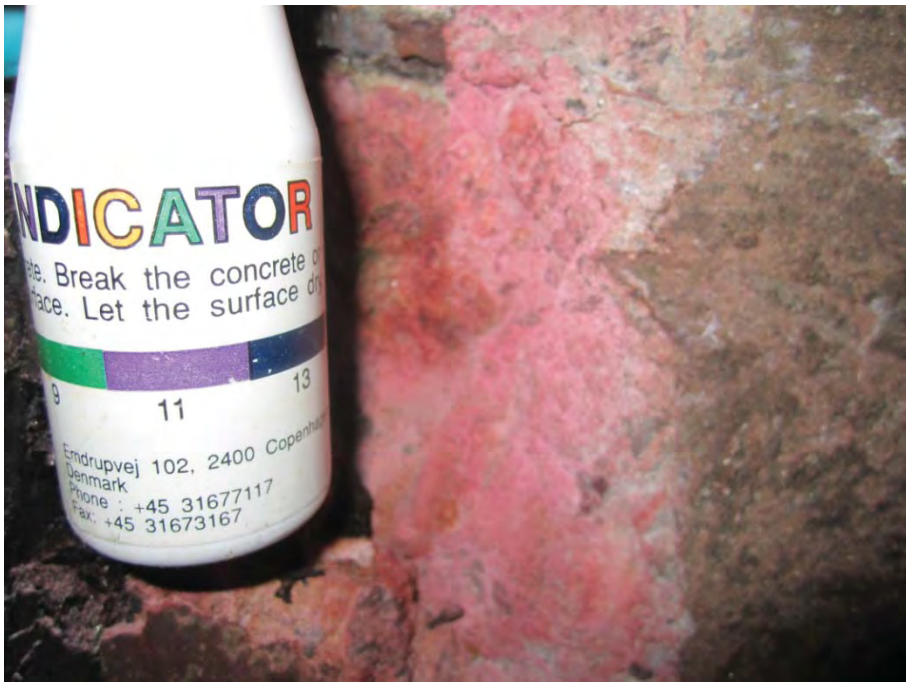
Picture #75- Core CS13-14S taken to full depth approximately 5-3/4" thick

Picture #76- Full depth core CS13-14N approximately 6" thick

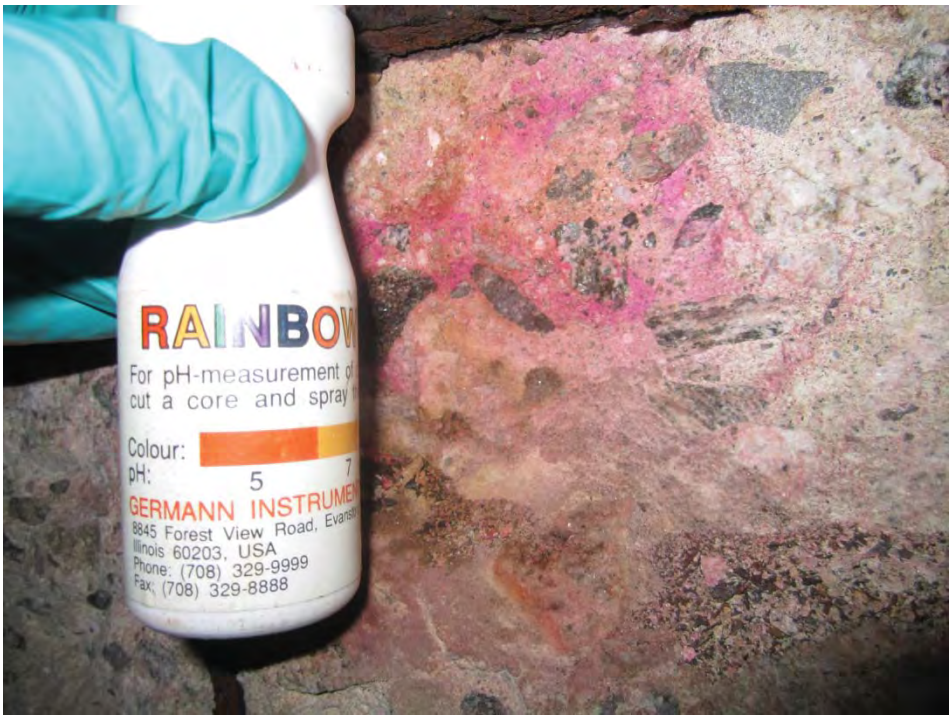
Picture #77- Petro13-14S visible crack



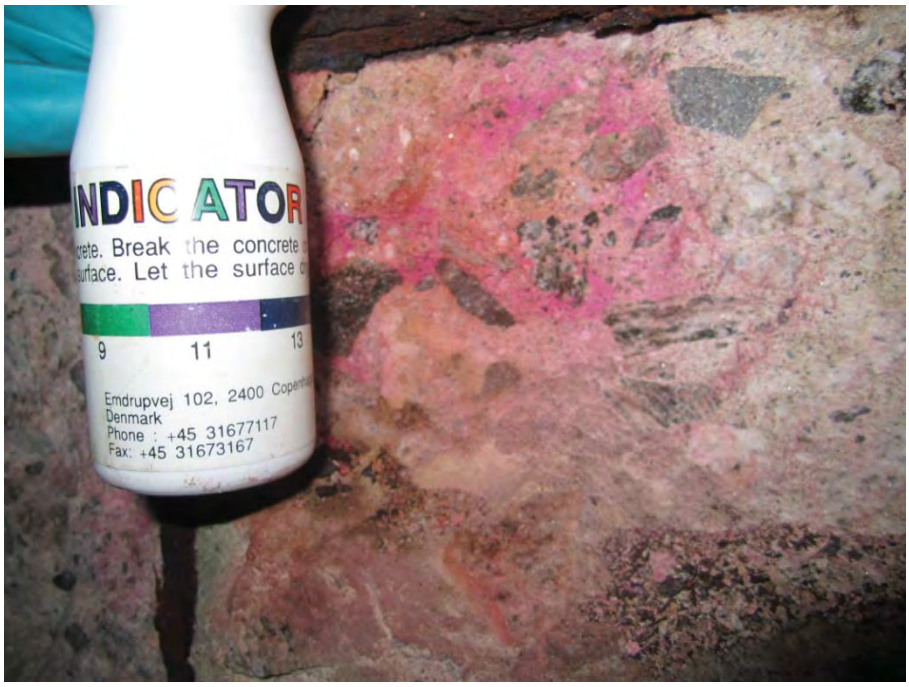
Picture #78- Spalled area indicating a PH of approximately 5



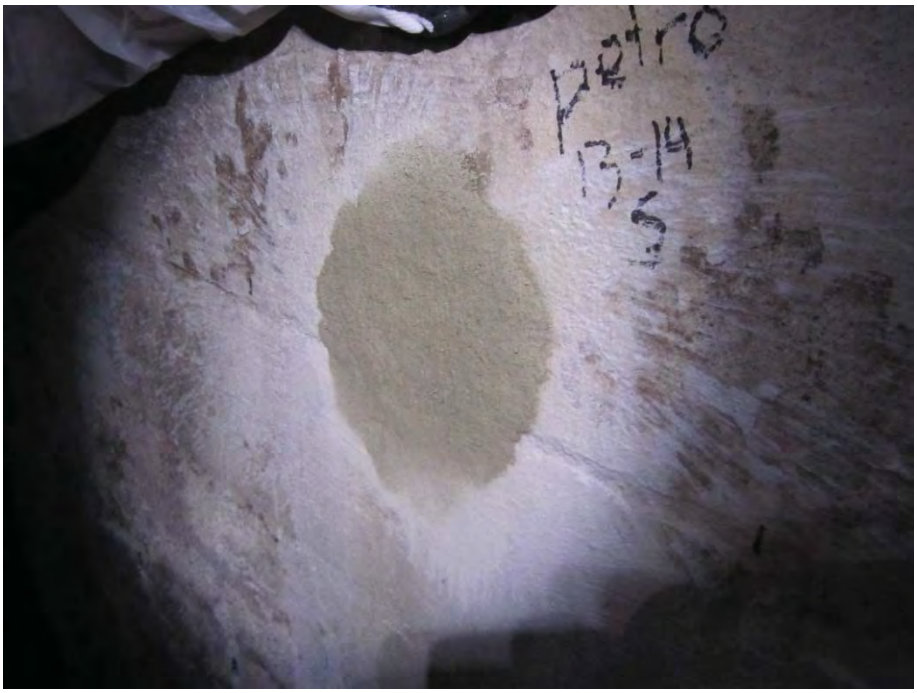
Picture #79- Spalled area indicating a pH of approximately 11



Picture #80- Spalled area indicating a pH of approximately 5



Picture #81- Spalled area indicating a pH of approximately 11

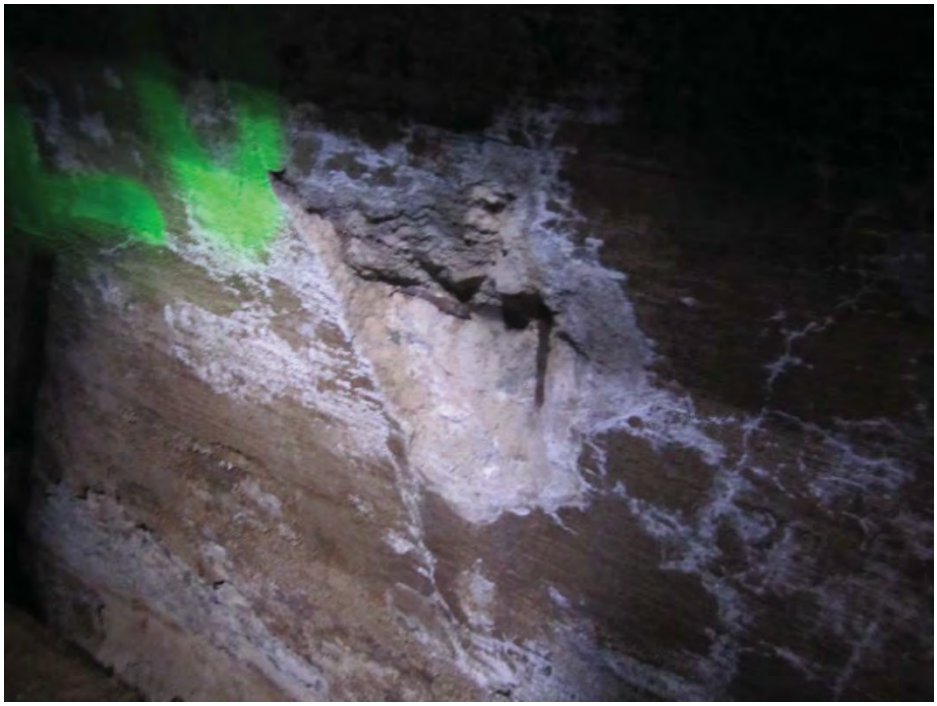


Picture #82- Patched core location

Picture #83- Spalling around a joint

Picture #84- Many small cracks

Picture #85- Soft flakey concrete



Picture #86- Spall around Station 20

Picture #87- Station 0

Picture #88- Steel does not cross joint

Picture #89- Steel lay-out Test Area 1

Picture #90- Corrosion potential testing in progress

Picture #91- Ceiling spall near Station 20

Picture #92- Ceiling Spall near Station 20

LAC + USC
Medical Center

Tunnel Evaluation Report

Los Angeles, California

January, 10, 2013

Submitted by

me engineers

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EXECUTIVE SUMMARY

This report was commissioned by the Los Angeles County Medical Center (LAC+USC) to assess the conditions of the existing steam piping in the utilities tunnel between Zonal Ave and Juvenile Hall (Parking Lot #71), and to provide recommendations.

The steam is being distributed from the existing Central Utility Plant (CUP) to provide steam throughout the campus. The steam piping in the studied utilities tunnel is supplying steam to the Juvenile Hall, ISD Blue Mill Building, and Raid Schneider Building.

The utilities tunnel consists of one steam supply pipe, two steam condensate return pipes and one electrical conduit, and they all appear to be in poor working condition. The steam supply and condensate return pipes are rusted and leaking; the insulations are torn and falling apart; and the steam supports are rusted. There are locations where the steam supports are not properly anchored to the concrete wall due to the concrete wall being delaminated. The electrical conduit is corroded.

Based on the Campus Master Plan, which is currently being developed, It is our understanding that the existing CUP will be replaced and the campus steam distribution will no longer be available. Since Juvenile Hall, ISD Blue Mill Building, Raid Schneider Building and other buildings (mainly office and laboratory buildings) do not require steam service in general, a central steam plant is not recommended. These buildings are mainly receiving steam from the existing central steam plant for space heating and domestic hot water. For better life cycle cost (energy, maintenance, and capital costs), our recommendation will be to use natural gas-fired high energy efficiency water boilers for space heating and water heaters for domestic hot water at each of these buildings. If there is any requirement for small steam usage for laboratory equipment such as sterilizers or kitchen cooking equipment, our recommendation will be localized electric steam generators be used for cost and energy effectiveness.
The following are the options to correct the piping deficiencies.

- Immediate Plan – Immediately repair the leaking piping and/or replace the insulation.
- Option #1 – Repair the tunnel, replace the steam pipes and insulation.
- Option #2 – Provide new pre-insulated underground steam pipes and bury the tunnel.
- Option #3 – Provide natural gas-fired high efficiency water boilers for space heating and water heaters for domestic hot water at each of these buildings; and local electric steam generators if required.

Depending on the project budget and timing, we recommend option #3.

I. INTRODUCTION

A. **Description**: According to the structural report, dated July 11, 2012, the South Side of the utility tunnel was originally constructed approximately in the 1930's and the North Side seems to be newer but could not be determined with the available documentation. The tunnel is in poor condition.

The utility tunnel consists of one steam supply pipe, two steam condensate return pipes and one electrical conduit. The steam is being distributed from the existing Central Utility Plant (CUP) to provide steam throughout the campus. The steam piping in the studied utilities tunnel is supplying steam to the Juvenile Hall, ISD Blue Mill Building and Raid Schneider Building.

B. **Objective**: The purpose of this report is to generally observe and evaluate the existing steam piping conditions with steam system "ON" AND "OFF"; to identify any apparent deficiencies and maintenance issues, and provide an assessment of the steam piping working condition and corrections, including our recommendations. M-E Engineers, Inc. (M-E) did not perform any testing to verify the existing steam pipe conditions.

M-E does not represent this document to be a finite accounting of all possible steam piping deficiencies or Code related issues facing the Hospital. The information contained in this report represents our best effort to identify and document such issues.

This report includes recommendations to correct the deficiencies in the system that have been identified as a result of this evaluation.

C. **Acknowledgement:** The interview conducted by M-E on December 9, 2012 was with Mr. Nester Miguel, Facility Engineer, and Mr. John Hill, Facility Engineer, and we wish to thank both of them for their assistance.

D. **Methodology**: M-E Engineers, Inc., as represented by Chris Dang performed a general observation of the steam piping system on December 9, 2012. A visual review of the steam piping system was performed, and an interview with Mr. Nester Miguel, Facilities Engineer and Mr. John Hill, Facilities Engineer, to gather information was conducted at that time.

The following is a listing of reference documents used in this review:

1. California Building Code (CBC), 2010 Edition
2. California Mechanical Code (CMC), 2010 Edition
3. California Plumbing Code (CPC), 2010 Edition
4. California Energy Code (Title 24), 2010 Edition

E. **Report Clarification**: The equipment condition terminology used throughout this report is explained as follows:

1. Good: The equipment is in top working condition. Usually, this category applies to new equipment that has recently been installed.

2. Fair: Equipment is in moderate working condition. This category applies to

equipment that has been in service for some time, having an acceptable performance level, but approaching the end of its useful service life expectancy. Equipment under this category is recommended to be replaced the next time it fails or requires major repair work.

3. Poor: Equipment is in undesirable working condition. This category applies to equipment with a high potential of failure, past its useful service life, and is in need of replacement. Equipment under this category is recommended to be replaced/repaired as soon as possible, depending on program planning and available funding.

II. OBSERVATIONS

The following are the results of our field observations for the steam piping and information provided by Mr. Miguel and Mr. Hill in our interview, and are intended to provide a summary of existing conditions and deficiencies.

A. Steam Piping:

1. Description: The steam is being distributed from the existing Central Utility Plant (CUP) to provide steam throughout the campus. The steam piping in the studied utilities tunnel is supplying steam to the Juvenile Hall's kitchen and provides building heat and domestic hot water for ISD Blue Building and Raid Schneider Building via a heat exchanger with the exception that steam is used to serve the existing space heaters (radiators) for space heating in the ISD Blue Building.

2. Safety Issues: There are a few safety issues at the locations, which we observed.

   a) Due to steam leaking and lack of insulation, it is extremely hot inside the tunnel which makes it unsafe to enter.

   b) Steam supports are rusted and not properly anchored or secured to the concrete which makes it unsafe to enter the tunnel with the steam system "ON".

3. Working Conditions: The steam supply and steam condensate return piping are black steel and in poor working condition; leaking steam and water in many locations (See Photos #1 thru 7). Steam piping are insulated with fiberglass on the South Side and insulated with asbestos (See Photo #8) on the North Side of the utility tunnel. The fiberglass insulation is in poor working condition and there is no insulation in many locations (See Photos #9 thru 11). Steam supports are rusted and not properly anchored or secured to the concrete wall due to the wall being spalled (See Photos #12 thru 14). The electrical conduit is completely corroded (See Photos #15 and 16).

   It was reported that there was no condensate return to the CUP.

III. DISCUSSIONS AND RECOMMENDATIONS

The following are discussions and recommendations of the steam piping system deficiencies to improve the system energy efficiency. An immediate plan and three option recommendations are presented in this section.

A. **System Deficiencies:** There are existing steam system deficiencies, which are as follows:

1. Steam piping: Steam piping has numerous leaks; maintenance and operating costs will be increasing.

2. Energy: The lack of insulation in the steam piping results in higher energy/operational cost.

3. Service and maintenance accessibility: It appears that the tunnel is extremely hot due to steam leaking. This presents a safety issue for the maintenance personnel.

4. In general, the steam piping is failing due to its age and lack of proper maintenance throughout the years.

B. **Recommendations:** We understand that there is a Campus Master Plan being developed. The decision for any major replacement and/or repair work of the existing system should be made with the understanding and consideration of the Campus Master Plan. It is improper to proceed with any replacement/repair plans independent of the Campus Master Plan.

Since our understanding of the Campus Master Plan is limited due to its early phase, the following are our recommendations to assist the Owner in making proper decisions for future planning.

The recommendations are based on an Immediate Plan and three options.

- Immediate Plan – Immediately repair the leaking piping and/or replace the piping.
- Option #1 – Repair the tunnel, replacet the steam pipes and insulation.
- Option #2 –Provide new pre-insulated underground steam pipes and bury the tunnel.
- Option #3 – Provide natural gas-fired high efficiency water boilers for space heating and water heaters for domestic hot water at each of these buildings; and local electric steam generators if required.

1. **Immediate Plan:**

- Steam piping: The existing steam piping serving Juvenile Hall, ISD Blue Mill Building and Raid Schneider Building are recommended to remain in the Immediate Plan. Under the Option #3, these three buildings are recommended to be decoupled from the existing Central Utility Plant. At that time, the existing piping can be abandoned in place.

- Piping insulation: New piping insulation is recommended to be installed to the existing piping and valves which have missing insulation.

2. **Options #1 to #3:**

The following table presents the Pros and Cons of these three options.

System	Pros	Cons
Option 1: Repair tunnel, replace steam pipes and replace insulation	Keep the tunnel	Highest capital cost Longer shutdown time for tunnel repair and replace steam piping.
Option 2: New pre-insulated underground steam pipes and bury tunnel	Keep the steam system	Disruption in the parking lot while installing underground steam piping
Option 3: New water boilers for space heating, new water heaters for domestic hot water	Better energy efficiency In line with the Master Plan	More equipment Replace existing space heaters (radiators) with heating hot water coils Natural gas pipe may be required at each building.

- From our professional experience and some obvious items listed in the Pros and Cons table above, Option 3 with new water boilers and water heaters is recommended because it provides better energy efficiency and is in line with the proposed master planning concept. We do not recommend Option 1 because it has the highest cost and will require major steam shut down time to repair the tunnel and re-install new steam pipes and cause disruption to the building operation.

C. **Benefits of Recommendations:** The recommendations presented above will resolve the existing issues for such as the steam leakages; as well as provide the following benefits:

1. Provide safe steam system.
2. Improve steam system energy cost.
3. Improve steam system maintenance cost.

ACKNOWLEDGMENTS

M-E Engineers, Inc. would like to thank the Los Angeles County Medical Center for giving us this opportunity to work with their organization to assess the steam distribution systems at the LAC+USC, and to give them our recommendations. It was a pleasure to work with an organization that is proactive about the quality and maintenance of their buildings' infrastructural equipment, as well as the care and well-being of their patient and workers.

APPENDICES

APPENDIX A

PHOTOS

PHOTO 1: STEAM CONDENSATE PIPE LEAKAGE

PHOTO 2: STEAM CONDENSATE PIPE LEAKAGE

PHOTO 3: STEAM CONDENSATE PIPE LEAKAGE AS IT HEADS TO JUVENILE HALL

PHOTO 4: STEAM PIPE LEAKAGE NEAR MANHOLE AT ZONAL AVENUE

PHOTO 5: TEAM PIPE LEAKAGE NEAR MANHOLE AT ZONAL AVENUE

PHOTO 6: STEAM ESCAPING (EASILY OBSERVABLE) THRU EXHAUST FAN ON TOP OF MANHOLE AT ZONAL AVENUE

PHOTO 7: STEAM ESCAPING (EASILY OBSERVABLE) THRU EXHAUST FAN ON TOP OF MANHOLE AT ZONAL AVENUE

PHOTO 8: STEAM PIPE INSULATED WITH ASBESTOS

PHOTO 9: INSULATION IS FALLING APART

PHOTO 10: INSULATION IS FALLING APART

PHOTO 11: INSULATION MISSING FOR STEAM SUPPLY PIPE

PHOTO 12: STEAM SUPPORT NOT PROPERLY ANCHORED OR SECURED TO CONCRETE WALL

PHOTO 13: CONCRETE WALL SPALLED

PHOTO 14: CONCRETE WALL FELL ON TOP OF STEAM CONDENSATE PIPE

PHTO 15: ELECTRICAL CONDUIT CORRODED

PHOTO 16: ELECTRICAL CONDUIT CORRODED

Limited Asbestos Survey Inspection Report

Project Site:
LAC+USC Tunnel
Zonal Ave./Mission Rd.
Los Angeles, CA

Prepared for:
Vanir Construction Management, Inc.
4540 Duckhorn Drive, Suite 300
Sacramento, CA 95834

Record of Certification:

This is to certify that this report was prepared by Focus Environmental Consulting, LLC (Focus) under contract with Vanir Construction Management, Inc. for the limited asbestos survey inspection conducted at the LAC+USC tunnel project located in Los Angeles, California. The inspection was completed utilizing applicable Federal and California State regulations. The findings in this report are consistent with accepted principles and practice established and prescribed by the EPA.

This report, the supporting data, findings, conclusions, opinions, and the recommendations it contains, represents the result of Focus' efforts on behalf of your firm. This report is not an abatement specification and should not be used for specifying removal methods or techniques.

The results, assessments and conclusions stated in this report are factually representative of the conditions and circumstances observed at this location on the dates of the inspection. We cannot assume responsibility for any change in conditions or circumstances that occurred after the inspection was completed.

Introduction:

Report Date:	December 17, 2012
Client:	Vanir Const. Mgmt., Inc. 4540 Duckhorn Dr., Suite 300 Sacramento, CA 95834
Project Site:	LAC+USC Tunnel Zonal Ave./Mission Rd. Los Angeles, CA
Scope of Work:	Limited Asbestos Survey
Project Date(s):	December 7, 2012

Summary:

The following is a report for the limited asbestos survey inspection conducted by Mr. Raed Sahawneh (CSST #09-2692) of Focus Environmental Consulting, LLC (Focus). The survey was performed on December 7, 2012 at the above mentioned project site.

Site Description:

The underground steam tunnel is located in the parking lot of the USC Medical School parking lot. The tunnel included in our scope of work runs north to south and is approximately 600 linear feet long.

The tunnel is consists of a concrete floors, walls and ceilings. No other building materials were found in the steam tunnel.

No other areas, materials or structures were included in the inspection during the site visit. This report is limited to only the areas and materials called out in this report. Other hazards may exist that were not included in the scope of this survey. If exposed, these hazards may require further sampling and proper removal and disposal by a certified contractor.

Scope of Work:

The survey was conducted to identify asbestos containing material (ACM) prior to a planned renovation project. Sampling was limited to accessible materials reasonably assumed would be impacted by potential renovation activities.

The Focus representative was informed of the future renovation plans. The Focus representative then collected necessary samples to satisfy requirements prior to starting any renovation or demolition of the materials in the project area(s).

The scope of the assessment was as follows:

- Assess the project area and generate a sampling scheme.
- Collect PACM bulk samples.
- Quantify sampled material.

- Photograph sampled materials.
- Sketch drawing of the structure and sampled locations.
- Generate a final written report of our findings which include analytical results.

Methods and Sampling Strategy:

Asbestos Bulk Sample Analysis and Results
Bulk samples of all homogeneous materials from identified areas containing suspect ACM were collected. A homogeneous material is defined as a surfacing material, thermal system insulation (TSI), asbestos-containing construction material or miscellaneous material that is uniform in use, color, texture and age of construction. Presumed ACM was also physically assessed for friability, condition and disturbance factors. Inaccessible suspect materials could be located between walls, in voids, or in other inaccessible areas.

Note: under EPA assessment criteria, if a single sample of a homogeneous material tests positive for asbestos, all homogeneous materials in that functional space are considered to be asbestos containing.

As materials were identified, bulk samples were placed into individual sampling bags. Each sample was given a discreet identification number and recorded on chain-of-custody forms.

All bulk samples were submitted and analyzed by LA Testing Laboratory (LA Testing). LA Testing is accredited by the National Institute of Standards and Technology's National Voluntary Laboratory Accreditation Program (NVLAP #200232-0). The lab reports #321220844 and 321220880 are attached.

Samples were analyzed using the PLM techniques in accordance with methodology approved by the U.S. Environmental Protection Agency (EPA). As set forth in the Code of Federal Regulations, 40 CFR Part 763, Appendix A to Subpart F, Section 1.2 an 1.7.2.4, the lower limit of reliability detection for asbestos using the PLM method is approximately one percent (1%) by volume. Cal-OSHA defines asbestos containing construction materials (ACCM) as those materials having an asbestos content of greater than one tenth of one percent (>0.1%).

When None Detected (ND) appears in this report, it should be interpreted as meaning no asbestos was observed in the sample material above the reliable limit of detection for the PLM method.

A total of fourteen (14) suspect asbestos containing material bulk samples were identified and collected for analysis during the survey. Regulations require that any time ACM's are impacted during repair, renovation, removal or demolition that the work be performed by properly trained and certified workers. The analytical findings are listed below:

Asbestos Containing Material(s)

Sample No.	Material Color & Description	Sample Location	Asbestos Result	Friable/Non-Friable	Quantity Condition
02, 03, 04	Black Wall Joint Sealant	Tunnel @ Northwest, North and Southwest Walls	5% Chrysotile	Non-Friable	7 L.F. (80 joints) Damaged
10, 11	TSI Pipe Insulation	Tunnel @ Large 12" Pipe at North End	15% Amosite 3% Chrysotile	Friable	Fair
12, 13, 14	TSI Pipe Insulation	Tunnel @ Large 4" Pipe at North End	15% Amosite 3% Chrysotile	Friable	Fair

Non-Asbestos Containing Material(s)

Sample No.	Material Color & Description	Sample Location	Asbestos Result	Friable/Non-Friable	Quantity Condition
01	TSI Pipe Elbows	Tunnel @ Center Manhole	ND	Friable	1 Elbow Damaged
05, 06, 07, 08, 09	Concrete Skim Coat	Tunnel @ Northeast, Center West, Southeast, Southwest Walls and Center Ceiling	ND	Friable	Damaged

ND = None Detected

Conclusions:

The interpretation of the preliminary findings identified in the submitted report is based upon the analytical findings, our professional experience and qualifications. The field investigation and laboratory results are limited to only those areas, which were exposed and/or physically accessible to the inspector as outlined by the scope of work. The report findings are also limited to the information obtained by the client at the time of inspection.

Focus does not take responsibility for exact footage of existing material at the project site. Quantities listed within this report are estimations only and should be confirmed by an abatement contractor prior to any renovation and/or demolition work being performed.

Limitations:

The data and observations collected during the course of the inspection have been gathered to provide the client with information pertaining to the areas of the subject property identified in this report. Although Focus believes that the findings and conclusions provided in this report are reasonable, the inspection is limited to the conditions observed and to the information available at the time of the inspection. Due to the nature of the work, there is a possibility that conditions may exist which could not be identified within the scope of the inspection or which were not apparent at the time of our site work. The inspection is also limited to information available from the client at the time it was conducted. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. Focus Environmental does not accept responsibility for changes in the state of the art.

We appreciate the opportunity in doing business with your firm. Should you have any further questions or concerns regarding this inspection and/or report, feel free to contact our office at (951) 545-2495.

Sincerely,
Focus Environmental Consulting, LLC

David Camarillo, Vice President
Certified Site Surveillance Tech. #98-2424

Rodica Dullabaun, Quality Control
Certified Asbestos Consultant #11-4716

Attachments:
Project Photographs
Laboratory Analytical Results/Sample Chains of Custody
Sample Location Sketches
Inspectors' Asbestos Certifications

Project Photographs

Laboratory Analytical Results/Sample Chains of Custody

LA Testing
520 Mission Street, South Pasadena, CA 91030
Phone/Fax: (323) 254-9960 / (323) 254-9962
http://www.latesting.com pasadenalab@latesting.com

LA Testing Order: 321220844
CustomerID: 32FOCU65
CustomerPO:
ProjectID:

Attn: Focus Environmental Consulting
750 South Lincoln Avenue
Suite 104-166
Corona, CA 92882

Phone: (951) 545-2496
Fax:
Received: 12/07/12 11:15 AM
Analysis Date: 12/11/2012
Collected:

Project: LAC/USC Tunnel, 1635 Marengo St. / Parking Lot @ Zonal Ave & Mission Rd

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
01 321220644-0001	Tunnel Center Man-Hole	Beige Fibrous Heterogeneous	10% Glass	90% Non-fibrous (other)	None Detected
02 321220644-0002	Tunnel - NW Wall	Black Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
03 321220644-0003	Tunnel - N Center Wall				Stop Positive (Not Analyzed)
04 321220644-0004	Tunnel - SW Wall				Stop Positive (Not Analyzed)
05 321220644-0005	Tunnel - NE Wall	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
06 321220644-0006	Tunnel - Center West Wall	Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
07 321220644-0007	Tunnel - SE Wall	Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
08 321220644-0008	Tunnel - SW Wall	Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
Kieu-anh Pham Duong (2)
Rosa Mendoza (5)

Jerry Drapala Ph.D, Laboratory Manager
or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0, CA ELAP 2283

Initial report from 12/11/2012 09:10:06

Test Report PLM-7.16.0 Printed: 12/11/2012 9:10:06 AM 1

Laboratory Analytical Results/Sample Chains of Custody

LA Testing
520 Mission Street, South Pasadena, CA 91030
Phone/Fax: (323) 254-9960 / (323) 254-9982
http://www.latesting.com pasadenalab@latesting.com

LA Testing Order: 321220844
CustomerID: 32FOCU65
CustomerPO:
ProjectID:

Attn: Focus Environmental Consulting
750 South Lincoln Avenue
Suite 104-166
Corona, CA 92882

Phone: (951) 545-2496
Fax:
Received: 12/07/12 11:15 AM
Analysis Date: 12/11/2012
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Project: LAC/USC Tunnel, 1635 Marengo St. / Parking Lot @ Zonal Ave & Mission Rd

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
09 321220844-0009	Tunnel - Center Ceiling	Tan Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
Kieu-anh Pham Duong (2)
Rosa Mendoza (5)

Jerry Drapala Ph.D, Laboratory Manager
or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0, CA ELAP 2283

Initial report from 12/11/2012 09:10:06

Test Report: PLM-7.16.0 Printed: 12/11/2012 9:10:06 AM

THIS IS THE LAST PAGE OF THE REPORT. 2

Laboratory Analytical Results/Sample Chains of Custody

321220844

FOCUS ENVIRONMENTAL CONSULTING, LLC

321220844-

BULK SAMPLE SHEET

Turnaround Time

☐ Rush/Same Day ☐ 24 hr ☐ 48 hr ☒ 72 hr ☐ Other_____

Analysis Request

☒ PLM ☐ PCM ☐ TEM ☐ Point Count(1000 POINTS) ☐ Other_____

PROJECT NAME/NO. LAC/USC Tunnel — SURVEY DATE 12/7/12

ADDRESS 1635 Marengo St. / Parking Lot @ Zonal Ave & Mission Rd. — SAMPLES COLLECTED BY: DAVID CAMARILLO/ Rael Salcedo

SAMP. NO	MATERIAL DESCRIPTION	LOCATION OF SAMPLE	CONDITION	FRIABILITY	QTY
01	TSI Pipe Elbows	Tunnel Center Man-hole	Damage	F	1 elbow
02	Block Wall Joint Sealant	Tunnel - NW Wall		NF	7 L/F
03	↓	Tunnel - N. Center Wall		↓	=80 Joints
04	↓	Tunnel - SW Wall		↓	↓
05	Concrete Skim Coat	Tunnel - NE Wall		F	4,800 SF
06	↓	Tunnel - Center West Wall		↓	↓
07	↓	Tunnel - SE Wall		↓	↓
08	↓	Tunnel - SW Wall		↓	↓
09	↓	Tunnel - Center Ceiling	↓	↓	↓

CONDITION: G-GOOD, F-FAIR, P-POOR FRIABILITY: F-FRIABLE, NF-NON-FRIABLE

* STOP @ 1ST POSITIVE

12/7/12 11:15

750 S. Lincoln Ave., #104-166, Corona, CA 92882
Office 951.545.2495 * Fax 951.346.3093

Laboratory Analytical Results/Sample Chains of Custody

LA Testing
520 Mission Street, South Pasadena, CA 91030
Phone/Fax: (323) 254-9960 / (323) 254-9982
http://www.latesting.com pasadenalab@latesting.com

LA Testing Order: 321220880
CustomerID: 32FOCU65
CustomerPO:
ProjectID:

Attn: Focus Environmental Consulting
750 South Lincoln Avenue
Suite 104-166
Corona, CA 92882

Phone: (951) 545-2495
Fax:
Received: 12/07/12 4:25 PM
Analysis Date: 12/11/2012
Collected:

Project: LAC/USC Tunnel, 1635 Marengo St., LA/Parking Lot Zonal & Mission

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
10 321220880-0001	Tunnel/Large 12" Pipe/North	Beige Fibrous Heterogeneous		82% Non-fibrous (other)	15% Amosite 3% Chrysotile
11 321220880-0002	Tunnel/Large 12" Pipe/North				Stop Positive (Not Analyzed)
12 321220880-0003	Tunnel/Small 4" Pipe/North (Top)	White Fibrous Heterogeneous		82% Non-fibrous (other)	15% Amosite 3% Chrysotile
13 321220880-0004	Tunnel/Small 4" Pipe/North (Bottom)				Stop Positive (Not Analyzed)
14 321220880-0006	Tunnel/Small 4" Pipe/North				Stop Positive (Not Analyzed)

Analyst(s)
Rosa Mendoza (2)

Jerry Drapala Ph.D, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%
Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0, CA ELAP 2283

Initial report from 12/11/2012 11:59:24

Test Report PLM-7.16.0 Printed: 12/11/2012 11:59:24 AM THIS IS THE LAST PAGE OF THE REPORT. 1

Laboratory Analytical Results/Sample Chains of Custody

321220880

321220880 -

FOCUS ENVIRONMENTAL CONSULTING, LLC

BULK SAMPLE SHEET

Turnaround Time

☐ Rush/Same Day ☐ 24 hr ☐ 48 hr ☒ 72 hr ☐ Other_____

Analysis Request

☒ PLM ☐ PCM ☐ TEM ☐ Point Count(1000 POINTS) ☐ Other_____

PROJECT NAME/NO. LAC / USC Tunnel

SURVEY DATE 12/7/12

ADDRESS 1635 Marengo St. LA / Parking Lot Zonal & Mission

SAMPLES COLLECTED BY: DAVID CAMARILLO / Raed Sahawneh

SAMP. NO	MATERIAL DESCRIPTION	LOCATION OF SAMPLE	CONDITION	FRIABILITY	QTY
10	TSI PIPE insulation	Tunnel/Large 12" pipe/North	F	F	
11	↓	Tunnel/Large 12" pipe/North	↓	↓	
12	TSI pipe insulation	Tunnel/Small 4" pipe/North (Top)	F	F	
13	↓	Tunnel/Small 4" pipe/North (Bottom)	↓	↓	
14	↓	Tunnel/Small 4" pipe/North	↓	↓	

CONDITION: G-GOOD, F-FAIR, P-POOR FRIABILITY: F-FRIABLE, NF-NON-FRIABLE

Raed Sahawneh 12/7/12

* STOP @ 1ST POSITIVE

12/7/12 4:25

750 S. Lincoln Ave., #104-166, Corona, CA 92882
Office 951.545.2495 * Fax 951.346.3093

Sample Location Drawings

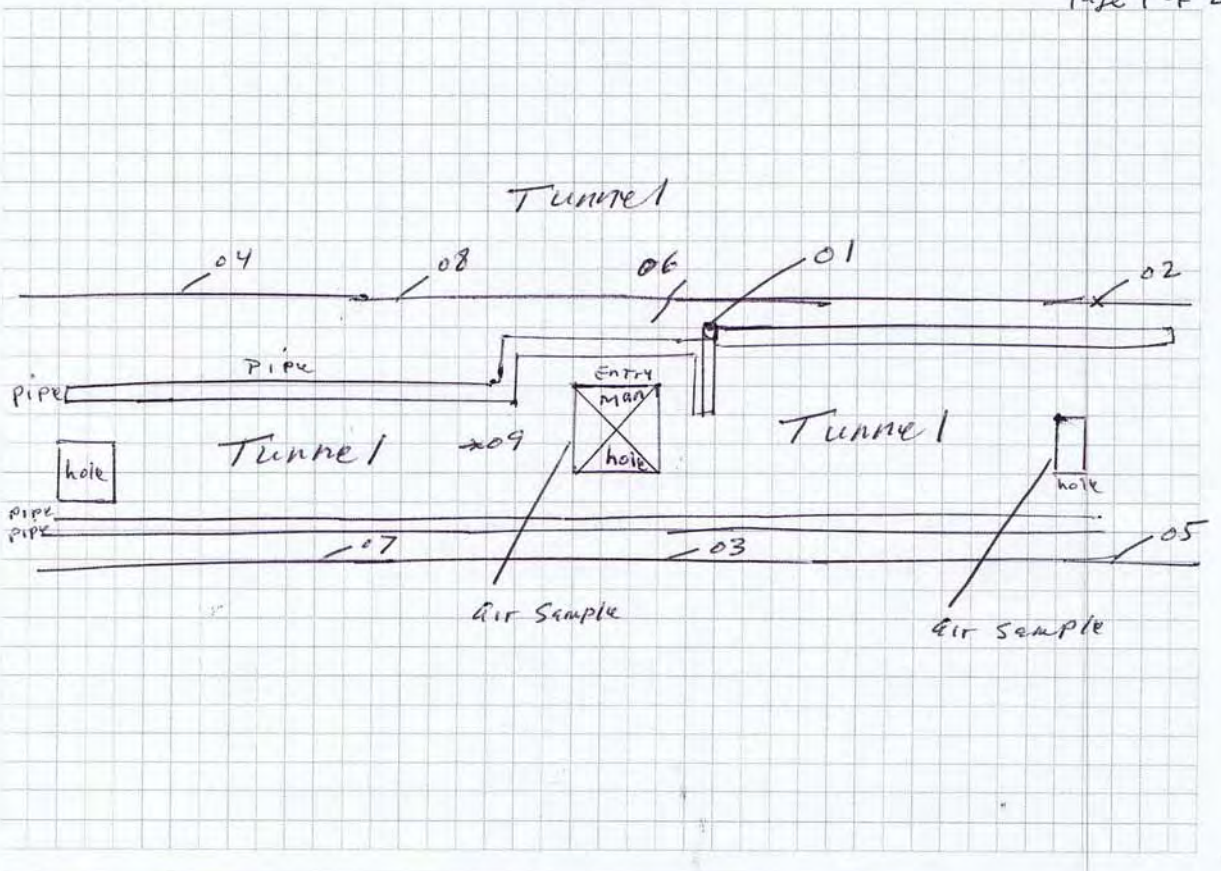
FOCUS ENVIRONMENTAL CONSULTING, LLC.

PROJECT DRAWING

PROJECT #:	**DATE:** 12/7/12
PROJECT NAME: LAC/USC Tunnel	**PROJECT ADDRESS:** Parking Lot / Zonal & Mission

N

Page 1 OF 2



NOTES:

01 – 09 Bulk Samples locations for Asbestos.

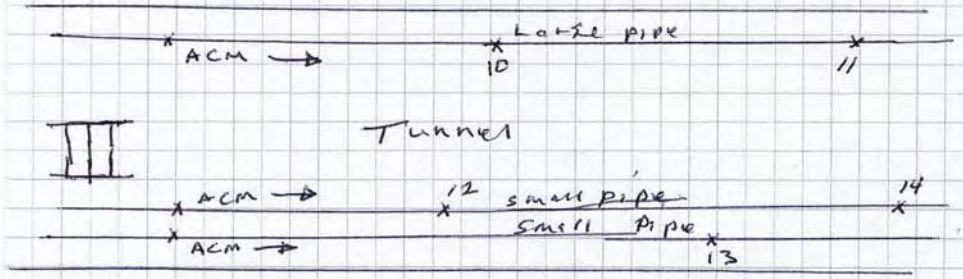
750 S. Lincoln Ave., #104-166, Corona, CA 92882
Office 951.545.2495 * Fax 951.346.3093

PROJECT DRAWING

PROJECT #:	DATE: 12/7/12
PROJECT NAME: LAC/USC Tunnel	PROJECT ADDRESS: Parking Lot/Zonal & Mission

N

Page 2 of 2



NOTES:
x 10-14 Bulk Samples location for Asbestos

750 S. Lincoln Ave., #104-166, Corona, CA 92882
Office 951.545.2495 * Fax 951.346.3093

Inspectors' Asbestos Certifications

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician
David John Camarillo
Name
Certification No. 98-2424
Expires on 11/16/13
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician
Raed Farhan Sahawneh
Name
Certification No. 09-2692
Expires on 02/04/13
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant
Rodica Dullabaun
Name
Certification No. 11-4716
Expires on 04/20/13
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

JCE STRUCTURAL ENGINEERING GROUP, INC.

Structural Assessment Of

LAC+USC Medical Center/Utility Tunnel (Juvenile Hall)

Los Angeles, California

Prepared for:
Vanir Construction Management
&
LA County

By:
Juan Carlos Esquivel, M.S., S.E.

JCE JOB NO: 2012.037.1

July 11, 2012

STRUCTURAL & EARTHQUAKE ENGINEERING CONSULTANTS
234 E. Colorado Blvd., Suite 725, Pasadena, CA 91101 • (626) 585-1822 • Fax (626) 585-1824

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1. INTRODUCTION

1.1. SCOPE OF WORK

JCE Structural Engineering Group, Inc. was contacted to perform a preliminary structural assessment of the structural conditions of and (E) Concrete Utilities Tunnel referred as Juvenile Hall Tunnel in this report.

2. TUNNEL DESCRIPTION

The South Side of the Juvenile Hall Tunnel was originally constructed approximately in 1930's & the North Side seems to be newer than that but could not be verified with the available documentation. The dimensions of the (E) tunnel are approximately 4'-0" wide by 6'-0" high and is made of reinforced concrete walls & ceiling. The thickness of the (E) walls or ceiling were not available in any drawings. Since the scope of work did not include to perform any NDT testing, we do not have any information of the (E) concrete strength or the exact size of the (E) rebars at this time.

3. WORK METHODOLOGY

JCE Structural Engineering Group, **Inc.** work methodology is as follows:

A) Job site visit

JCE visited the area of the existing building on two occasions.

- The first job site visit was on April 3rd and we visited many other (E) tunnels in the campus, but unfortunately we could not access to The Juvenile Hall because the steam pipes were in use and it was extremely hot inside and not safe to enter.
- The second job site visit was performed on June 29th after coordination with LAC+USC M.C. personnel to have the steamer being shut down the night before to be able to enter the tunnel safely. Juan Carlos Esquivel, Principal in charge of JCE Structural Engineering Group & Scott Landsburg from Ace Restoration (Contractor) performed the following:

  - Walked inside the tunnel from location 32 (Manhole located at about middle of the parking lot: see Fig. 1 & Photo 1.) to the North end of the parking lot to perform visual inspection of the tunnel. Once we reached the North end of the tunnel, the alarm of the sniffer went on detecting large amount of toxic gases (H2S which is lethal), and we needed to evacuate the tunnel and could not get back to inspect the South Side of the tunnel.
  - Took pictures of various damaged areas of the North Side of the tunnel to gather information for our structural visual assessment of the conditions of the (E) tunnel and its repair feasibility.

B) Review of available documentation

- Review of "Evaluation Of The Utility Tunnels" report prepared by Bock Engineering, Inc dated July 25, 2003.
- Review of Section 3 "Existing Tunnel Systems" & drawing sheets: R676-1, R676-2, R676-3 & R676-4, prepared by The Ralph M. Parsons Company in 1975.

C) Repair Alternatives Discussions

- Discussed with our Contractor the pros and cons of different Repair alternatives.

4. FINDINGS & OBSERVATIONS

From our visual inspection of the current structural conditions of the North Side of The Juvenile Hall Tunnel, as well as based on our review of the available reports (see References), we have observed the following:

- At many locations the ceiling of the tunnel has been completely delaminated and spalled. Many of the reinforcing bars are exposed, severely corroded & in some instances have lost most of their section or are completely broken. See photos 2, 3 & 4.

- At many other locations the ceiling of the tunnel shows severe signs of delamination and large cracks and the concrete is ready to be spalled. This is a clear indication that reinforcing inside the concrete ceilings have been severely corroded. See photo 5.

- At many wall locations the concrete has also spalled and there are many corroded and exposed reinforcing bars shown. Many of them show severe reduction of their original section, some of them are bent and others are completely broken. See photos 2 & 6 to 14.

- Large vertical, horizontal & diagonal cracks in the ceiling & walls have been observed. See photos 2, 5 & 14.

- Although we were not able to enter to the South Side of the tunnel, from review of previous report by Bock Engineering, it appears that similar distressed conditions and damage exist at many locations.

5. STRUCTURAL STRENGTHENING REPAIR DISCUSSION

Based on the findings & observations above, we will suggest to consider the following (2) major alternatives:

A) Structural Strengthening Repair of the (E) tunnel.

In order to strengthen the (E) tunnel, a NDT program shall be performed first to determine the (E) concrete strength, (E) concrete ceiling and wall thickness, (E) rebars size, spacing and location, to be able to determine the original structural capacity of the (E) tunnel. We also recommend a corrosion study to determine other areas of potential corrosion besides the obvious ones. Based on the results of the NDT program, the results of the structural capacity of the (E) tunnel, and the corrosion study a variety of structural strengthening repair techniques shall be study to determine the most suitable for this project. Among them are:

- Shotcrete
- Fiberwrap
- Local Patch & Repair (involving doweling new bars, corrosion protection, patch repair & additional concrete cover)

In any of the above repair solutions the first item of action is to find the origin of the problem which most likely is water intrusion and resolve it. The second item of action is to control the corrosion issues of the (E) rebars & quantify the extent of it (corrosivity studies). There are many ways to control the corrosion and are based on their severity. Some of the corrosion repair techniques are: Metalized Coatings, Electrochemical Treatment, Galvanic Cathodic Protection System or Current Cathodic Protection System. Any Structural Strengthening Repair to restore the original (E) capacity of the tunnel structure or to improve it shall also address the water intrusion and corrosion issues.

B) Relocate the low pressure steam piping and buried the tunnel.

6. EXECUTIVE SUMMARY

From our job site investigation, review of (E) documents and findings & observations, the tunnel **SHALL NOT BE ACCESSED** for the time being due to the safety hazards involved (structural & toxic gases.) It is our professional opinion that in order to choose the best course of action for LA County in regards to the Juvenile Hall Tunnel, a Structural Strengthening Repair Scheme based on the above parameters shall be performed with their respective construction cost estimate and compare it with the cost of relocating the Low pressure steam piping and buried the tunnel. In addition the construction time of both alternatives shall be put in balance for the final selection of the course to take by LA County.
At this time, it is our initial opinion that it is feasible to repair the tunnel but due to the extent of the repair it may be cost prohibitive and needs to be determined in a subsequent phase & from the comparison of the two major alternatives mentioned in item 5 above.

7. DISCLAIMER

Our professional services have been performed with the intent to meet the degree of care and skill ordinarily exercised by reputable Structural Engineers practicing in this or similar localities and under similar conditions. No other warranty, expressed of implied, is made as to the professional advice or opinions included in this report.

8. APPENDIX

8.1 Figures & Photos

9. REFERENCES

A. Evaluation Of The Utility Tunnels Report by Bock Engineering, Inc. dated July 25, 2003.
B. Section 3 - Existing Tunnel Systems from Ralph M. Parsons Company report done in 1975.
C. Sheet dwg Nos R676-1, R676-2, R676-3 & R676-4 by Ralph M. Parsons Company dated 1975.

APPENDIX 8.1

FIGURES & PHOTOS

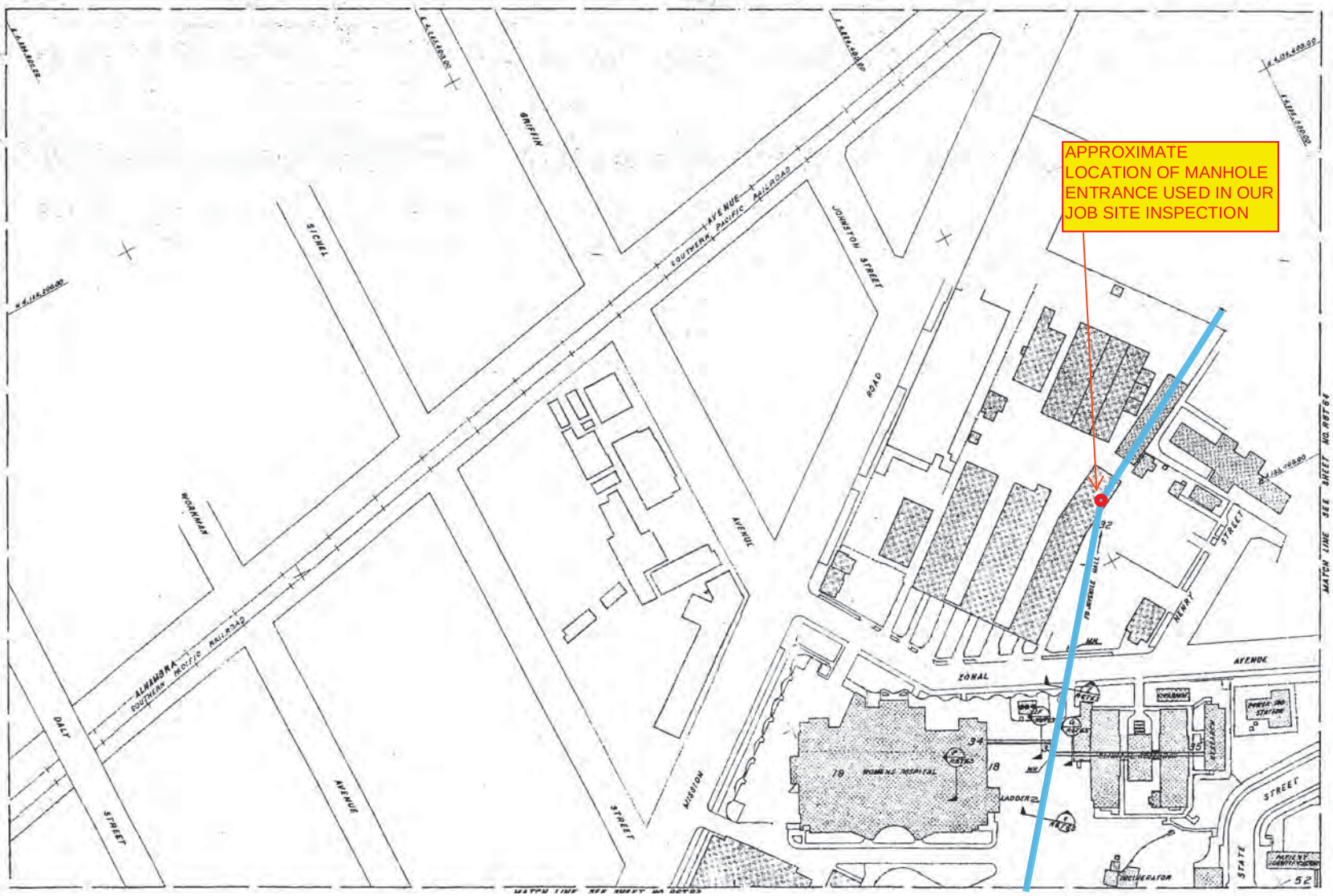
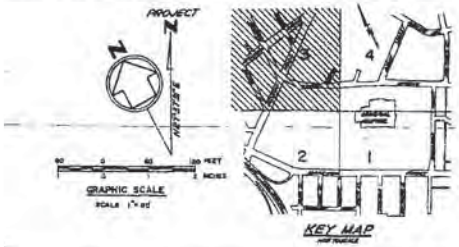


FIG. 1: JUVENILE HALL TUNNEL LOCATION

LEGEND

JUVENILE HALL TUNNEL

MANHOLE ENTRANCE



THE RALPH M. PARSONS COMPANY, ENGINEERS • CONSTRUCTORS 100 WEST WALNUT STREET, PASADENA, CALIFORNIA 91124 (213) 440-2000

UTILITY SYSTEMS RECORD DRAWING – 1975

LAC/USC MEDICAL CENTER
1200 NORTH STATE STREET
LOS ANGELES, CALIFORNIA 90032

TUNNEL SYSTEM

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
FACILITIES DEPARTMENT
STEPHEN J. KOONCE-DIRECTOR
1100 S. OLYMPIC BLVD. (213) 974-1001
LOS ANGELES, CALIFORNIA 90015

NOV 24 1975

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R6T63

PHOTO 1: MANHOLE ENTRANCE TO JUVENILE HALL TUNNEL.

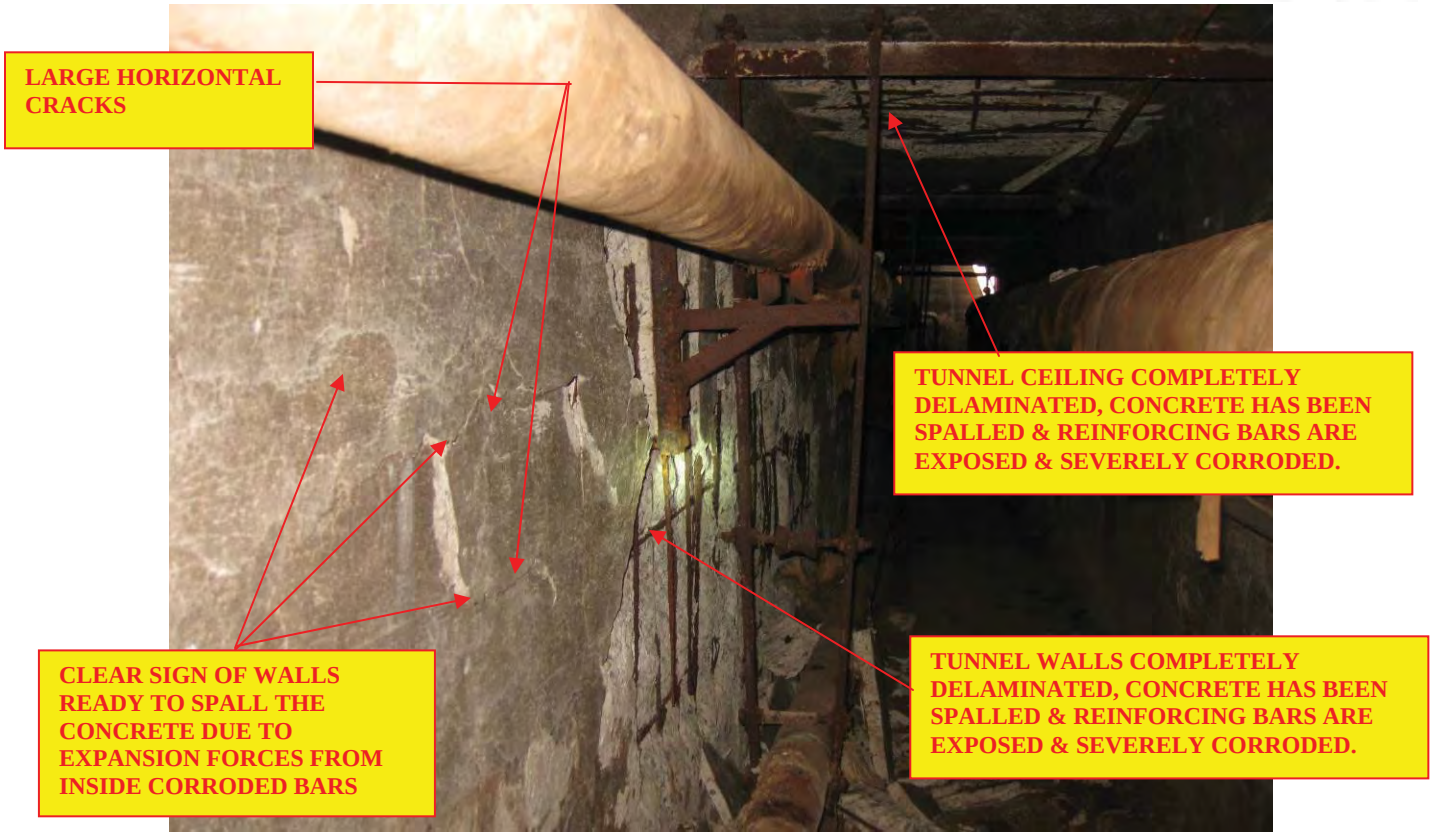

PHOTO 2: TUNNEL CEILING & WALLS

PHOTO 3: TUNNEL CEILING

PHOTO 4: TUNNEL CEILING

PHOTO 5: TUNNEL CEILING

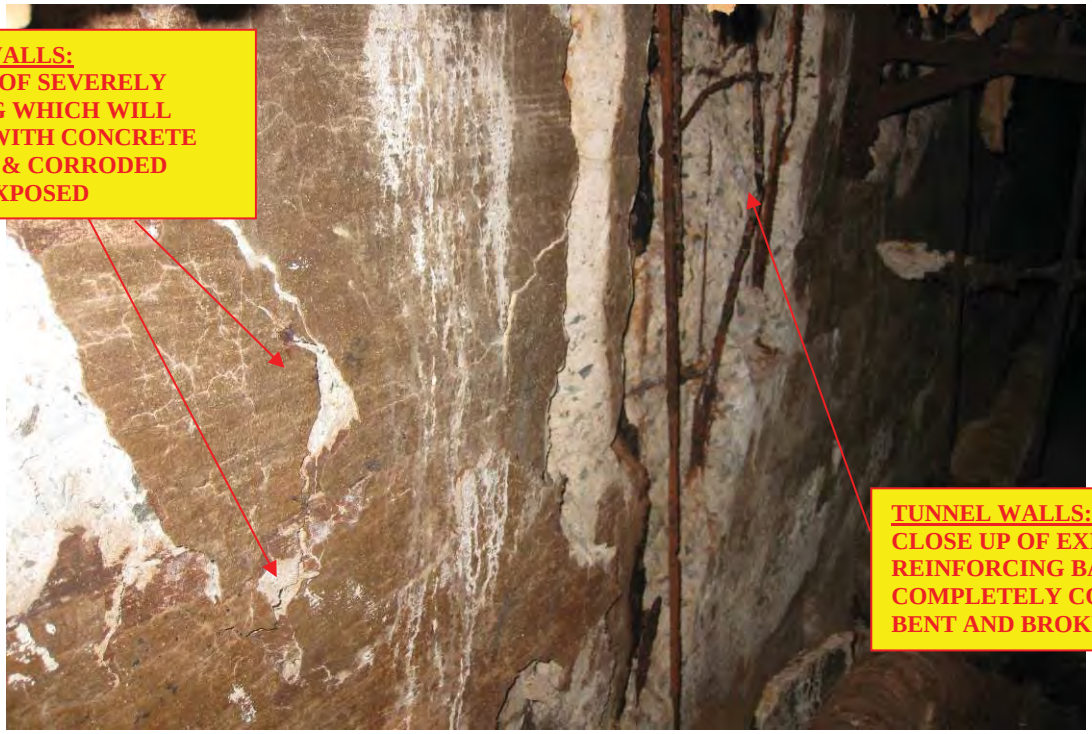

PHOTO 6: TUNNEL WALLS

PHOTO 7: TUNNEL WALLS

PHOTO 8: TUNNEL WALLS

PHOTO 9: TUNNEL WALLS

PHOTO 10: TUNNEL WALLS

PHOTO 11: TUNNEL WALLS

PHOTO 12: TUNNEL WALLS

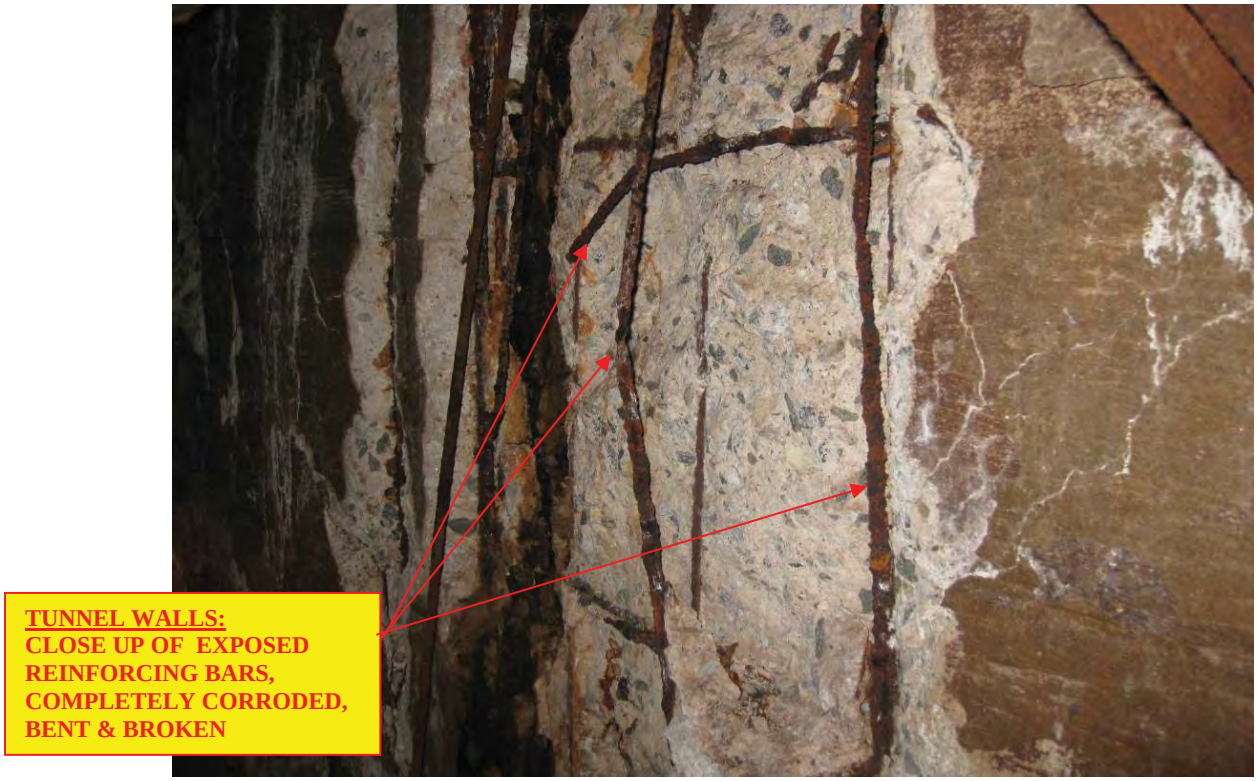

PHOTO 13: TUNNEL WALLS

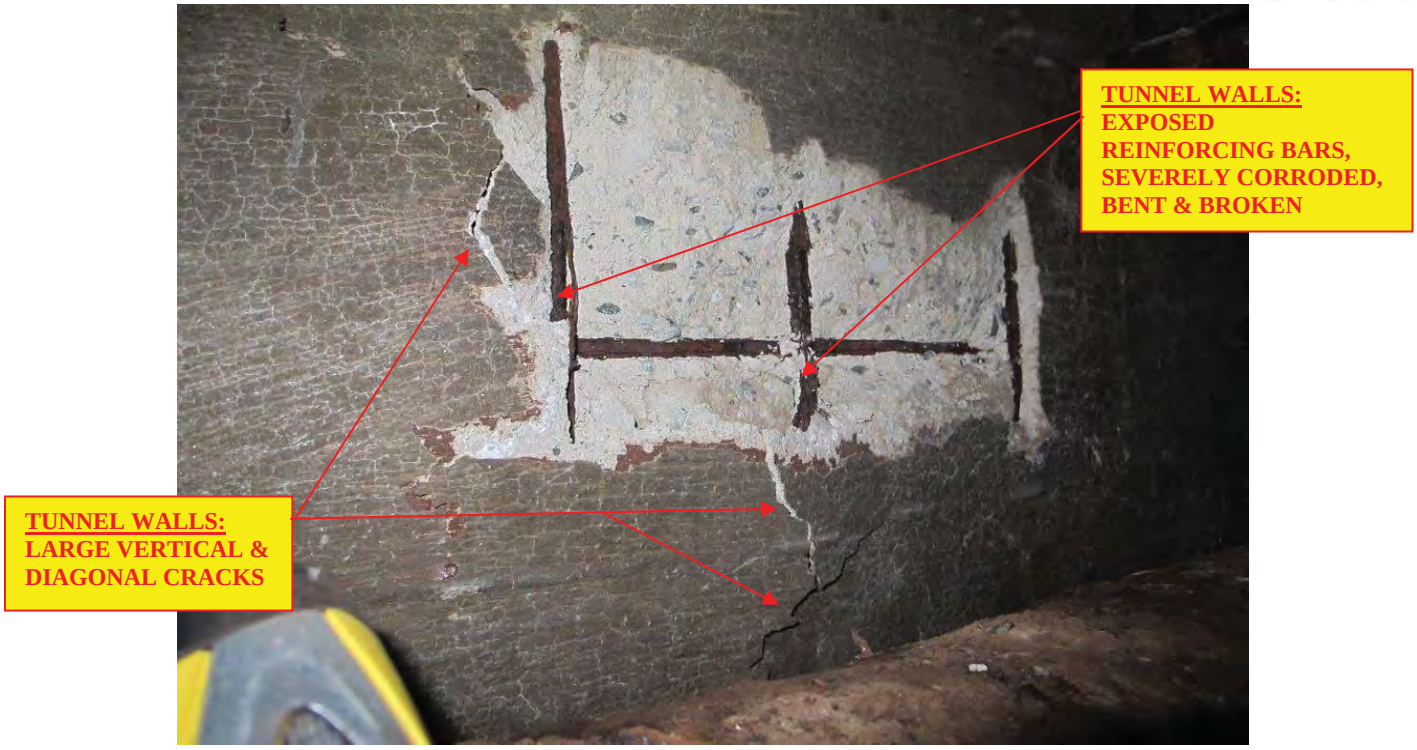

PHOTO 14: TUNNEL WALLS

Solutions for Success

Vanir Construction Management, Inc.
1.888.912.1201 / www.vanir.com

Phase I Environmental Site Assessment
Report Issuance Date: October 21, 2013

LAC+USC Medical Center
1744 Zonal Avenue
Los Angeles, Los Angeles County, California

Brownfield Assessment Grant BF-00T53201-0

Prepared for:

Lee, Burkhart, Liu, Inc.
13335 Maxella Avenue
Marina del Rey, CA 90292

And

Los Angeles County
Chief Executive Office
754 Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Prepared by:

Kimley-Horn and Associates, Inc.
765 The City Drive
Suite 200
Orange, CA 92686

Kimley-Horn
and Associates, Inc.

Project No. 094633002
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Orange, CA 92686

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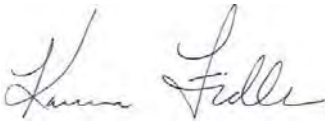
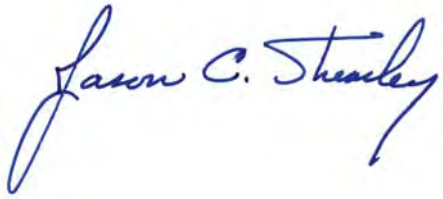
ENVIRONMENTAL PROFESSIONAL DECLARATION

We declare that, to the best of our knowledge and belief, we meet the definition of Environmental Professional as defined in 312.19 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to access a property of the nature, history, and setting of the Site. We have developed and performed all the appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Re-use of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



Karina Fidler, AICP
October 21, 2013



Jason Sheasley, P.G. (PA, FL, NC, TN)
October 21, 2013

PHASE I ENVIRONMENTAL SITE ASSESSMENT

LAC+USC MEDICAL CENTER
1744 ZONAL AVENUE
LOS ANGELES, LOS ANGELES COUNTY, CALIFORNIA

1.0 SUMMARY

Kimley-Horn and Associates, Inc. (KHA) was retained by Lee, Burkhart, Liu, Inc. (LBL) on behalf of its Client, Los Angeles County (LA County), to conduct a Phase I Environmental Site Assessment (ESA) on a portion of the Los Angeles County University of Southern California (LAC+USC) Medical Center (the "Site" or "Property"). The physical address for the Site is 1744 Zonal Avenue, Los Angeles, Los Angeles County, California. This Phase I ESA was completed under a US Environmental Protection Agency (USEPA) Brownfields Hazardous Assessment Grant (BF-00753201-0) awarded to Los Angeles County.

The subject of the assessment is an approximate 20-acre area within the Medical Center campus, situated between North Mission Road and North State Street and southwest of Zonal Avenue (**Figure 1**). The subject Site is exclusive of the area occupied by the former Women and Children's Hospital. Currently, the Site is relatively undeveloped and is surrounded by various buildings, medical offices, and facilities that constitute the Medical Center campus.

This Phase I ESA was conducted in accordance with the principles, methods, and procedures outlined in the American Society for Testing and Materials (ASTM) Standard Method E 1527-05, *Standard Practice for Environmental Site Assessments* and *All Appropriate Inquiry* (AAI) 40 CFR Part 312. The purpose of this investigation was to identify the presence or likely presence of regulated substances under conditions indicative of an existing release, past release, or a material threat of a release that could impact the Property. These potential environmental liabilities are defined as Recognized Environmental Conditions (RECs) in ASTM E 1527-05.

The findings contained in this document were based upon observations made by KHA's professional staff and information obtained from readily available federal, state, county, and city regulatory agencies at the time of the assessment.

1.1 FINDINGS

The completion of this Phase I ESA resulted in the following findings:

The Site and the LAC+USC Medical Center are located in East Los Angeles in an area characterized by commercial and industrial properties. A multi-family residential neighborhood is located south of the Medical Center along the southern side of Marengo Street. County judicial and administrative offices are located north of the Medical Center as is the campus of the University of Southern California School of Medicine. The Medical Center has continuously operated as a hospital and medical facility on and adjacent to the Site since or before 1890.

The Site is located within the LAC+USC Medical Center campus within an area characterized by medical offices and various other facilities that provide support services

to the Medical Center. The support services include various building trades (carpentry, masonry, plumbing, electricians) that store supplies and waste or recyclables. To the north, the Site is bound by Zonal Avenue. The Site is bound to the east by North State Street and by the present day LA County USC Hospital. The Site is bordered to the south by a pedestrian bridge that connects North State Street to a former pharmacy building and the Coroner's office. The Site is bordered to the west by North Mission Avenue.

Various buildings are located on the Site that are used for non-medical purposes. A four-story parking structure, which serves as employee parking is located along the southern side of North Mission Road. There are various trailer/portable buildings on Site that are used for non-medical purposes. Uses for these trailers include offices and a child care facility. The Violence I Prevention Office also used to be located here. There are areas on-site that are used and occupied by various building trades that support the Medical Center (e.g. plumbers, masons, electricians, and carpenters). Three incinerators, a trash compactor area, and a biohazard waste storage area were all observed in the northeast quadrant of the property.

Historically, the Site was previously occupied by dormitories for male and female nurses, a psychopathic ward, contagious disease ward, tuberculosis ward, laundry, utility building, powerhouse, incinerator, hospital, and leper ward. Several RECs were identified in association with the past uses of the subject Site. These RECs are summarized below.

1.2 RECOGNIZED ENVIRONMENTAL CONDITIONS

This Phase I ESA discovered evidence of the following RECs relative to the subject Site:

- Trash compactor area on the eastern side of the Site.
- Existing waste incinerators on the eastern side of the Site, immediately north of the trash compactor structure.
- Petroleum contaminated ground water contamination on-site associated with the facility known as "Site 5".
- Petroleum contamination in the ground water adjacent to the Site associated with the facility known as "Site 4".
- Designated hazardous materials storage area located east of the former Women and Children's Hospital.
- Former powerhouse and boilers previously located on the eastern side of the Site, west of North State Street
- Former incinerator previously located on the south central portion of the Site.
- Former laundry facility previously located in the south central portion of the Site.

- Former maintenance shop previously located north and adjacent to the laundry.
- Former utility building previously located in the central portion of the Site north of the laundry.
- Former paint shop previously located northwest of the laundry.
- Designated biohazard storage area located on the eastern side of the Site north of the existing incinerators.

2.0 INTRODUCTION

The following section describes the purpose and methodology of this investigation. Significant assumptions, limitations, and exceptions associated with the preparation of this report are also addressed.

2.1 PURPOSE

To the extent feasible, pursuant to the processes described herein, the purpose of this Phase I ESA is to evaluate potential environmental conditions that could materially impact the proposed development of the Site. The ASTM Standard Method E 1527-05 describes these conditions as either Recognized Environmental Conditions (REC) or Business Environmental Risks (BER). Neither term includes *de minimis* conditions that generally do not present a material risk to human health or the environment and that would generally not be the subject of regulatory enforcement action if brought to the attention of the appropriate governmental (state, federal, or local) agency.

2.2 DETAILED SCOPE-OF-SERVICE

This assessment represents a reasonable attempt to identify RECs for the subject property. The methodology for completing the Phase I ESA consisted of the following activities:

- A site reconnaissance by a qualified Environmental Professional to visually examine, photograph, and document the existing conditions of the Site and the immediate vicinity (0.25-mile radius);
- A review of readily available historic aerial photographs of the Site and immediate vicinity;
- A review of information generated by Environmental Data Resources, Inc. (EDR), which included a search of county, state and federal environmental databases;
- A review of available City Directories for the Site address and the immediate vicinity performed by EDR;
- A review of the available historic topographic maps through EDR;
- A search for Sanborn maps performed by EDR; and
- Interviews with individuals knowledgeable of the Site.

This assessment did not include soil, ground water, surface water, or air sampling.

2.3 SIGNIFICANT ASSUMPTIONS

KHA assumes that all the information provided by EDR regarding the regulatory status of facilities located within the minimum search radius is complete, accurate, and current. KHA also assumes that all information obtained through interviews is complete, accurate, and unbiased.

2.4 LIMITATIONS AND EXCEPTIONS

This assessment represents a reasonable attempt to identify RECs for the subject property through the implementation of the methodology and the use of resources described herein. There is always the possibility that recognized environmental conditions have escaped detection due to the limitations of this study, the incompleteness or inaccuracy of governmental records, or the presence of undetected and unreported environmental accidents.

Limitations in data and resources were encountered during the preparation of this report. These include the following:

- The earliest aerial photograph available is dated 1928. Gaps between aerial photographs averaged seven and a half years; however, there was a gap of 11 years between available photographs dated 1965 and 1976 and 1994 and 2005; and a gap of 13 years between available photographs dated 1976 and 1989.
- KHA was not granted access to the interior of the buildings on the Site.

The aforementioned limitations were encountered during the completion of this Phase I ESA. These limitations are not considered significant since conclusions were made based on practically reviewable information available within reasonable time and cost constraints.

2.5 SPECIAL TERMS AND CONDITIONS

The terms and conditions of the completion of the Phase I ESA are those defined in the contract between the Lee, Burkhart, Liu, Inc. and Kimley-Horn and Associates, Inc. for preparation of this report.

2.6 USER RELIANCE

This report is certified to, can be relied upon by, and has been prepared for the exclusive use of the following entities: Kimley-Horn and Associates, Inc., Lee, Burkhart, Liu, Inc., Los Angeles County and their respective successors, assigns, affiliates, and subsidiaries.

3.0 SITE DESCRIPTION

The following section provides descriptions of the physical and environmental setting of the subject Site.

3.1 LOCATION AND LEGAL DESCRIPTION

The Site is part of the LAC+USC Medical Center campus and is located at the southern corner of the intersection of North Mission Road and Zonal Avenue in Los Angeles, Los Angeles County, California (**Figure 1**). It is an underdeveloped area between North State Street on the east, North Mission Road on the west, and Zonal Avenue to the north. The southern limit of the Site is coincident with an elevated bridge that spans between North State Street and the Pharmacy Administration Building (**Figure 2**). The subject Site is exclusive of the former Woman's and Children's Hospital.

The subject Site is part of a parcel owned by Los Angeles County and referenced as Lot 1 APN 5201-001-901. A copy of the corresponding title report is included in **Appendix A**. Readily available information indicates that the LAC+USC Medical Center was founded at its current location in 1878 and has been the primary facility of the University of the Southern California School of Medicine since 1885. This constitutes the first documented use of the subject Site.

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The Site is located within the western portion of the Medical Center campus and is comprised of various buildings and medical offices as well as areas and buildings used for non-medical purposes (**Figure 2**). A four-story parking structure, which serves as employee parking is located along the southern side of North Mission Road. There are various trailer/portable buildings on Site that are used for non-medical purposes. Uses for these trailers include offices and a child care facility. The Violence I Prevention Office also used to be located here.

The Site is located within the LAC+USC Medical Center campus within an area characterized by medical offices and various other facilities that provide support services to the Medical Center. The support services include various building trades (carpentry, masonry, plumbing, electricians) that store supplies and waste or recyclables. North of the Site is bound by Zonal Avenue. The Site is bound to the east by North State Street and by the present day LA County USC Hospital. The Site is bordered to the south by a pedestrian bridge that connects North State Street to a former pharmacy building and the Coroner's office. The Site is bordered to the west by North Mission Avenue.

A multi-family residential neighborhood is located south of the Medical Center along the southern side of Marengo Street. County judicial and administrative offices are located north of the Medical Center as is the campus of the University of Southern California School of Medicine.

3.2.1 SITE ELEVATION AND TOPOGRAPHY

The subject Site is depicted on the *Los Angeles, CA*, 7.5-minute USGS topographic quadrangle. According to the topographic map, the elevation of the

Site is approximately 330 feet above mean sea level. The land surface in the general area of the Site slopes in a west to northwesterly direction (**Figure 3**). However, the central portion of the Site represents a topographic low. The central portion of the Site is approximately 15 feet lower in elevation than the surrounding portions of the Site to the north and west. A steep 30 to 40-foot high embankment, coincident with North State Street, is present along the eastern side of the Site.

3.2.2 SURFACE SEDIMENTS

According to the Geocheck® information contained in the Radius Report prepared by Environmental Data Resources, Inc. (EDR), the predominant soil type at the Site is Hambright gravelly loam. This soil type is characterized by very slow infiltration rates. Additionally, the soil is reported to be clayey, resulting in a high water table. The soil is reportedly well drained and has intermediate water holding capacity. Water table depths greater than 6 feet are common.

3.2.3 REGIONAL HYDROGEOLOGY

The geologic and hydrogeologic setting of Los Angeles County is the product of the tectonic boundary between the North American and Pacific plates that converge along the northern limits of the County and is represented by the San Andreas Fault. The City of Los Angeles is located at the convergence of two physiographic provinces, the Transverse Ranges and the Peninsular Ranges. The subject Site is situated within the Los Angeles Basin of the Transverse Ranges physiographic province. The US Geological Survey divides the Los Angeles Basin into four blocks: the southwestern block, the central block, the northeastern block, and the northwestern block. The Site is situated at the junction of the central and northeastern blocks. The Whittier Fault marks the boundary between the two blocks. A complex assemblage of sedimentary, igneous, and metamorphic rocks is present within the central block.

The area in and around the Los Angeles Basin is very tectonically active. The Site is situated at the northern terminus of the Whittier Fault, which is an active fault-complex. Pre-Quaternary faults are mapped north and south of the area of the Site. Prior to the 1994 Northridge earthquake, the majority of the earthquakes in the Los Angeles area were concentrated near major known Quaternary faults. Subsequent investigation suggests that unknown seismogenic faults likely underlie the basin. Six major faults have been mapped in the Los Angeles area with the potential to generate M7.2 to M7.6 Richter earthquakes.

The 1994 Northridge earthquake resulted in significant damage to several of the buildings within the LAC+USC Medical Center campus. Liquefaction played a significant role in the damage sustained by the Medical Center during the Northridge earthquake. Wherever water table levels are less than 10 feet, the potential for liquefaction is high. Conversely, where the water table is greater than 30 feet below land surface, the risk for liquefaction is low.

The City of Los Angeles is underlain by several regionally extensive alluvial aquifers. These aquifers are associated with the Lakewood and San Pedro Formations. The four principal aquifers within these formations include the Gaspur, Lunwood, Silverado and Sunnyside Aquifers, with the Silverado Aquifer being the most productive. There are five major ground water basins within the Los Angeles area they include: Central, West Coast, Santa Monica/Hollywood, San Fernando and Slymar basins. The basins are separated from one another by physical or hydraulic barriers such as topography, faults, or low-permeability geologic units. Ground water constitutes approximately 15 percent of the City of Los Angeles's water supply with over 80 percent of the water coming from the San Fernando basin.

3.2.4 SURFACE WATER FEATURES

There were no surface water features, either natural or man-made, on or immediately adjacent to the subject Site. The Los Angeles River and Rio Hondo Rivers are the nearest surface water bodies to the Site. The confluence of the two rivers is located approximately 1 mile to the west of the Site. The remains of the Hazard Reservoir are located approximately 0.3 miles east-southeast of the Site. Hazard Park, which is named after the twentieth mayor of Los Angeles, Henry Hazard, is located on the site of a former reservoir that was used for local farming irrigation ditches. In the early 1900s, the City decided to abandon the reservoir and construct a park at its location.

3.3 CURRENT USE OF PROPERTY

The Site is part of the LAC+USC Medical Center campus (**Figure 2**). Most of the buildings and structures that currently reside on the Site are used for support services as opposed to patient care. The Site includes a four-level parking garage structure that is used by employees of the Medical Center. Modular buildings and trailers are located throughout the Site. These buildings are used by various hospital support services including financial services and various building trades (plumbing, electrical, carpentry, and masonry crafts). The craft services buildings are located in a designated area along the southeastern corner of the Site. Some of the buildings and structures on the Site are used for storage or warehousing. There are various uncovered, open-air areas designated as storage of building/construction materials and obsolete or used equipment and furniture.

The Site was formerly occupied by various medical buildings including psychiatric services, a pediatric hospital and a communicable disease ward. These buildings were damaged during the 1994 Northridge earthquake and have subsequently been demolished.

The study area for this Phase I ESA is exclusive of the former Woman and Children's Hospital, which is vacant.

3.4 DESCRIPTIONS OF STRUCTURES, ROADS, AND OTHER IMPROVEMENTS OF THE SITE

Three driveways provide access to the Site, including two driveways from North Mission Road, and one from Zonal Avenue. The area around the parking garage structure, along the western side of the Site is covered with asphalt.

The structures and designated areas present on the Site include the following:

- A modular building, labeled Trailer 8
- A modular building, labeled Trailer 15
- A modular building, labeled Trailer 7A – Pediatric Clinic
- A modular building, labeled Trailer 12 –CARES Child Care Center
- A modular building, labeled Trailer 11 – Violence Intervention Program (Building 432)
- A modular trailer, labeled Trailer 7B and Trailer 7C – Medical Records
- A four-level concrete and steel parking structure
- A modular structure, labeled "Parking Services"
- There is a series of five adjacent outdoor storage areas used by the various building trades
- A steel frame building with between four to six rooms used for storage by the pharmacy
- A masons shop and associated storage and parking area
- Three building trades trailers with associated storage and parking
- A trash collection area and compactor at the midpoint of the eastern boundary
- Three incinerators adjacent (north) to the trash compactor
- An area marked for biohazard waste storage
- A modular building Trailer 30 – "Women and Children's Hospital Pediatric Clinic"
- Three designated areas used for construction staging, with a construction trailer
- A cinderblock structure labeled "Material Management Warehouse" adjacent to the former Women and Children's Hospital
- A cooling tower and air compression unit located adjacent to the former Women and Children's Hospital
- Capital Improvement Project Office and Medical Photography and Video Production Services Office at 1744 Zonal Avenue.
- A modular building, labeled Trailer 26 – "Patient Financial Services"

The aforementioned buildings and structures are shown on **Figure 4**.

The areas formerly occupied by the laundry and contagious disease buildings are earthen covered and were not paved following building demolition (**Figure 5**). Three transformers were observed on-site. No evidence of staining or stressed vegetation was observed in association with the location of the electrical transformers. Two ground water monitoring wells were observed in the northeastern portion of the Site (**Appendix B**). These monitoring wells are associated with the previous assessment of the ground water impacts associated with "Site 4" and "Site 5."

3.5 CURRENT USE OF ADJOINING PROPERTIES

The Site is situated within an area characterized by medical, commercial, and industrial land uses (**Figure 2**). The following is a concise summary of the buildings.

North: Zonal Road and North Mission Road bound the Site to the northeast and northwest, respectively. County offices and facilities that include the Rand Schrader HIV/AIDS Outpatient Clinic and LA County Central Juvenile Hall, which houses a district attorney's office, a courthouse, and detention facility are located northeast of the Site along the northern side of Zonal Avenue. The Livingston Research building and the USC cancer research laboratories are located at the northern corner of the intersection of North Mission road and Zonal/Griffin Avenues.

East: North State Street, which traverses north to south connecting Zonal Avenue with Marengo Street, bounds the Site to the east. The roadway is at an elevation of approximately 30 feet above that of the Site. LA County USC Hospital building complex is located east of North State Street extends eastward beyond State Street. The complex includes the former hospital tower, a new hospital and patient tower, and parking structure.

South: The pedestrian bridge connecting North State Street with a former multi-story pharmacy building marks the southern boundary of the Site. The pharmacy building is outside the extent of this study. On the south side of the pedestrian bridge is the LA County Coroner offices, receiving areas, shipping and receiving offices for the campus, a helipad, parking lots, and maintenance areas for the medical center complex.

West: North Mission Road bounds the site to the northwest. The north, northwestern side of North Mission Road is characterized by various commercial businesses including a Chevron gas station, Jack in the Box fast food restaurant, a USC oncology laboratory classroom, associated with a nursing school. The Chevron station is located at the northern corner of the intersection of North Mission Road and Marengo/Daly Streets. The Jack in the Box is located northeast of the Chevron at the northern corner of the intersection of North Mission Road and Workman Street. An automobile wrecking business is located north of the Jack in the Box.

4.0 USER PROVIDED INFORMATION

The following is a summary of the information regarding the subject Site that was provided to KHA by the user.

4.1 USER QUESTIONNAIRE

A User Questionnaires was completed for the Site by Al Tizani, with the Los Angeles County Chief Executive Office. A telephone conversation was held between Jason Sheasley (KHA) and Mr. Tizani on September 24, 2013 in which Mr. Tizani provided responses to the following questions:

USER QUESTIONNAIRE
AS DEFINED IN ASTM E 1527-05 APPENDIX X3

COMPLETED BY AL TIZANI
LOS ANGELES COUNTY CHIEF EXECUTIVE OFFICE
TELEPHONE (213) 974-2629

Question	Response
Name of Preparer and User Entity	LAC+USC Medical Center Parcel 1
Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?	No
Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?	No
As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	No
Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	Not Applicable. Los Angeles County owns the subject property.
Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:	Yes.

Question	Response
Do you know the past uses of the property?	The subject property has been used continuously by Los Angeles County as a hospital facility since the late 1800s.
Do you know of specific chemicals that are present or once were present at the property?	No
Do you know of spills or other chemical releases that have taken place at the property?	No
Do you know of any environmental cleanups that have taken place at the property?	No
As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?	No

4.2 TITLE RECORDS

A 50-year chain of title for the subject Site was not provided to KHA. However, KHA was able to acquire a Preliminary Title Report prepared by Chicago Title Company and dated September 24, 2012, which was prepared for the LAC+USC Medical Center, Property 1 that includes the subject Site (**Appendix A**). According to the Preliminary Report, the subject Site is contained within property owned by Los Angeles County.

Review of the title report did not identify environmental liens or other potential environmental concerns for the Site.

4.3 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

KHA ordered a search of possible environmental liens or activity and use limitations associated with the Site through EDR. According to the EDR Environmental Lien Search™ Report (July 15, 2013), there are no environmental liens or activity and use limitations associated with the subject Site (**Appendix C**). In addition to the EDR Report, the Preliminary Title Report prepared for the property by Chicago Title Company revealed no evidence of environmental liens or activity and use limitations for the property on which the Site is located. Several easements have been recorded for the property; however, they do not limit the use of the property based on environmental issues or concerns.

4.4 SPECIALIZED KNOWLEDGE

LBL was contracted by Los Angeles County to prepare a Master Plan for the LAC+USC Medical Center campus. KHA was retained by LBL to assist with the engineering components of the Master Plan. As such, both LBL and KHA have specialized knowledge regarding the current and future planning for the medical center and the subject Site. However, neither party is specifically knowledgeable of any environmental concerns associated with the Site.

4.5 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

The subject Site is part of the Los Angeles County LAC+USC Medical Center, which was founded in 1878. It has continuously operated as a medical facility since that time. The LAC+USC Medical center provides the County with more than 28 percent of its trauma care and operates one of three burn units in the County. The facility is one of a few Level II Neonatal Intensive Care Units in Southern California. According to the web site for the Los Angeles County Health Services, LAC+USC provides care for half of the AIDS patients and sickle cell anemia patients in Southern California[1].

Beginning in the early 1900s, there were four patient wards, an osteopathic ward, a psychopathic ward, a leper ward, a chapel, dormitories, an incinerator, a powerhouse with three chimneys, and storage areas on the Site. The Women and Children's Hospital tower, which is not part of the subject Site, was constructed between the early 1950s and early 1960s. Several of the buildings that formerly occupied the Site were damaged in the 1994 Northridge earthquake. Due to the severity of the damage, the majority of the affected buildings were demolished.

4.6 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

No evidence was identified to suggest that the value of the property was decreased due to existing environmental conditions.

4.7 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

The subject Site is owned Los Angeles County and is operated and maintained by the Los Angeles County University of Southern California (LAC+USC) Healthcare Network. Gustavo Pizarro is the Administrator of Facility Operations for the LAC+USC Campus and oversees the operations on the Site.

4.8 REASON FOR PERFORMING PHASE I ESA

Los Angeles County was awarded a Brownfields Hazardous Assessment Grant from the US Environmental Protection Agency. A Master Plan was prepared for the proposed future development and renovation of the LAC+USC Medical Center Campus. KHA was contracted to perform this Phase I ESA to meet the requirements for All Appropriate Inquiry (AAI). Furthermore, this Phase I ESA was also performed based on the County's need to identify RECs.

4.9 OTHER

No additional documents or information were provided to KHA by the User for the completion of this Phase I ESA.

[1] http://www.ladhs.org/wps/portal/LACUSCHomepage
[2] http://geotracker.waterboards.ca.gov/

5.0 RECORDS REVIEW

The following is a summary of KHA's review of the reasonably ascertainable records pertaining to the subject Site and the surrounding properties.

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

As a part of this assessment, KHA reviewed information from various sources to obtain an understanding of any releases of regulated substances or petroleum products that occurred at or near the subject Site. Environmental Data Resources, Inc. (EDR) performed an environmental database search within a 1.0-mile radius of the Site and produced a summary report of these findings (EDR Radius Report). The EDR Radius Report included a search of state and federal databases, including the National Priority List (NPL), Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Resource Conservation and Recovery Act (RCRA) Treatment Storage and Disposal facility (RCRA TSD), RCRA Corrective Action List (RCRA CORRACTS), RCRA generator list (RCRA GEN), US Engineering Controls Site List and Sites with Institutional controls Emergency Response Notification System (ERNS), Delisted NPL Sites, Facility Index System/Facility Identification Initiative Program Summary Report (FINDS), Solid Waste Facilities (SWF), Registered Underground and/or Aboveground Storage Tanks (UST/AST), and Leaking Underground Storage Tank Incident Reports (LUST).

The EDR Radius Report is provided in **Appendix D**. Ninety-nine regulated sites were identified within the prescribed radius. KHA reviewed the citations for each facility (some are listed under multiple databases) and determined that ninety-two of the ninety-nine listings warranted no further investigation for one or more of the following reasons:

- No regulatory violations;
- Regulatory closure of the site;
- Issuance of No Further Action letters by the corresponding regulatory agency;
- The facility's proximity to the subject Site or the facility is located hydraulically or topographically down-gradient.

Seven of the identified facilities warranted further consideration. These facilities are as follows:

- **1200 North State Street, Los Angeles (Target Property)**
  This address encompasses several buildings associated with the LAC+USC Medical Center, including portions of the study area and facilities located outside of the study area. This address is associated with several database records, including those found in Los Angeles Co HMS, RCRA-SQG, Cortese, LUST Reg 4, HIST UST, LUST, HAZNET, CHMIRS, CA FID UST, SWEEPS UST, RCRA-LQG, and CA WDS. According to Geotracker (http://geotracker.waterboards.ca.gov/ accessed July 29, 2013), a leaking underground storage tank (LUST) case associated with this address is open and as of February 5, 2013 is eligible for closure. KHA obtained copies of two

reports regarding the LUST site: *Quarterly Ground Water Monitoring Report June 12, 2003 through September 12, 2013* (October 6, 2013) prepared by ENCON Technologies, Inc. (ENCON) and *First Event 2012 Semi-Annual Groundwater Monitoring Report* (July 13, 2012) prepared by Astech Environmental Services, Inc. Copies of the reports are included in **Appendix E**.

Two gasoline underground storage tanks (USTs) were formerly located north of the General Hospital Building in an area referred to as "Site 4," which is off-site and east of the subject Site. Additionally, two 10,000-gallon diesel fuel USTs were located along the western side of Site 4. Assessment associated with both tank basin areas confirmed the presence of soil and ground water contamination.

In addition to the four USTs at "Site 4", one 4,000-gallon gasoline UST was reportedly located at "Site 5", which is coincident with the subject Site. Sampling conducted following the removal of the UST confirmed the presence of soil and ground water contamination in the vicinity of the tank basin. According to ENCON, a soil and ground water assessment conducted at Site 4 in February 1999 provided evidence that the ground water beneath the basin may be perched and that the contaminant plume may be stable and well defined (**Appendix E**). However, pursuant to Los Angeles Regional Water Quality Control Board (LARWQCB) directives, ENCON advanced two borings in June 2003 at Site 5. Groundwater was encountered only in the boring drilled near the former tank pit, which was converted to monitoring Well ITMW-11. The other boring was abandoned since ground water was not encountered. ENCON concluded that ground water was most likely limited to the backfill materials emplaced during the UST removal activities. The monitoring wells discussed in these reports were not observed during the site reconnaissance conducted for this Phase I ESA. However, KHA staff did identify two monitoring wells during the site reconnaissance. Their locations do not match that of the monitoring wells cited in the report. Given the on-going monitoring to characterize contamination at the Site, this facility represents a REC for the subject Site.

- **1201 North Mission Road – Moza Automotive Repair**
  This site operates as an automobile repair facility and retail tire outlet located approximately 150 feet north of the boundary of the Site, along the northern side of Mission Road. According to Geotracker[2], one 10,000-gallon UST, one 7,500-gallon UST, one 6,000-gallon UST, and one 250-gallon UST were removed from the site in March 2002. No fuel storage or dispensing has reportedly been conducted on site since 2002. Remedial activities are reportedly on-going at this facility to mitigate contamination from one of the former underground storage tanks. The source area encompasses an area of approximately 3,200 square feet and coincides with the former UST basin and pump dispensers. The contamination consists primarily of gasoline-range petroleum hydrocarbons. Approximately, 3,952 pounds of contaminant mass are estimated to be in the

[2] http://geotracker.waterboards.ca.gov/

source area. It is estimated that the contamination extends to a depth of 33 feet below ground surface.

The remedial activities include a combination of soil vapor extraction (SVE) and free product recovery. According to the February 18, 2013 *Off-Site Dissolved-Phase Hydrocarbon Plum Mitigation Program, First Quarter 2013 Groundwater "Skimming" Progress Report* prepared by ENCON Technologies, Inc., the localized direction of ground water flow is to the west. Dissolved-phase petroleum hydrocarbons have migrated from the Moza facility and impacted the adjacent property to the west. A ground water extraction program has been undertaken at the facility as an interim remedial measure to mitigate hydrocarbon contamination in the ground water and proactively control off-site migration of contamination. According to the February 2013 report, the dissolved-phase contaminant concentrations in the ground water have decreased in response to the extraction program. It was recommended that the extraction program continue through 2013.

The most recent readily available report for the facility is the *Soil Vapor Extraction Remedial Treatment Event #2* report dated July 5, 2013, which was prepared by ENCON. SVE has reportedly been undertaken at the facility since March 2013 to remove residual hydrocarbon contamination in the soil near the source area. ENCON estimates that approximately 59% of the contaminant mass has been removed in the source area. They recommend continuing SVE treatment until contaminant concentrations reach asymptotic levels.

Based on the available information, contamination from the Monza facility has not migrated on to the subject Site.

- **1101 North Mission Road – Chevron**
  Chevron Service Station No. 9-3690 is located west of the Site at the northern corner of the intersection of Daly Street and North Mission Road. Contamination from leaking USTs was reportedly identified at the facility in 1986. Evidence of free-phase petroleum hydrocarbons was reported in association with the site. Assessment of the contamination continued through 2005 with remedial activities being undertaken as early as 1993. Attempts to remediate the identified impacts have included free-product recovery and soil vapor extraction. Currently semi-annual ground water monitoring is being undertaken at the facility. According to the June 21, 2013 *2nd Quarter 2013 Semi-annual Groundwater Monitoring and Progress Report* prepared by SAIC Energy, Environment & Infrastructure, LLC, the localized direction of ground water flow is to the west, in the opposite direction of the subject Site. During the corresponding sampling event, the maximum benzene concentration in the ground water was reportedly 13,000 µg/L. The historical maximum benzene concentration in the ground water is reportedly 84,600 µg/L. Contamination has reportedly migrated off-site in a westerly direction away from the subject Site.

- **1848 Marengo Street – Al-Sal Oil #17**

Al-Sal Oil currently operates as a retail gasoline service station located south of the subject Site. According to information readily available through Geotracker (http://geotracker.waterboards.ca.gov/), there are three 20,000-gallon gasoline USTs and one 20,000-gallon diesel UST in service at this location. Contamination was reportedly identified on the site during the 1997 removal of three 20,000-gallon USTs. Assessment, remediation, and monitoring of the contamination are on-going. According to the July 15, 2013, *First-Half 2013 Ground Water Monitoring Report* prepared by The Source Group, Inc., the localized direction of ground water flow is to the south, away from the subject Site. Free-phase petroleum hydrocarbons were identified in two monitoring wells. Free-product recovery is being undertaken in conjunction with the Site. During the corresponding reporting period, approximately 0.13 gallons of free-phase hydrocarbons were recovered from the site. In a letter dated February 4, 2013, the Los Angeles Regional Water Quality Control Board approved of a duel-phase extraction system for the site. Furthermore, semi-annual ground water monitoring is to be conducted at the facility.

The readily available information does not suggest that contamination from the Al-Sal site has migrated onto the subject Site.

The EDR Radius Report identified 20 orphan sites. Orphan sites are facilities that have inadequate location information to map; however, EDR provides reports generated for the orphan facilities. A KHA environmental professional reviewed the orphan sites and the EDR reports generated for each facility and determined that these sites are not located within the ASTM search radii for their respective category; therefore, no further research was conducted for these facilities.

5.2 PHYSICAL SETTING SOURCES

KHA reviewed the *Los Angeles, California*, 7.5-minute USGS topographic quadrangle to ascertain the physical setting and topography of the subject Site (**Figure 3**). Furthermore, KHA reviewed the historical topographic maps for the Site, which were provided by EDR (**Appendix L**). A discussion of the site topography is provided in Section 3.2.1

Information regarding the surficial sediments at the Site was developed from the custom soil resource report prepared for the Site using the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey and cross-referenced with the GEOCHECK® *Physical Setting Source Summary* of the EDR Radius Map Report. A discussion of the surficial sediments at the Site is provided in Section 3.2.2.

5.3 HISTORICAL USE INFORMATION ON THE PROPERTY

The following summarizes the sources of historical information reviewed by KHA to ascertain the past use and condition of the subject Site.

5.3.1 AERIAL PHOTOGRAPH REVIEW

Historical aerial photographs of the subject Site were reviewed to develop an understanding of the past use and environmental condition of the subject Site.

Aerial photographs were obtained through EDR for the years 1927, 1938, 1947, 1956, 1965, 1976, 1989, 1994, 2005, 2009, 2010, and 2012. A copy of EDR's Aerial Photo Decade Package is included in **Appendix G**. The approximate location of historical buildings on the Site gleaned from the historical aerial photographs and other sources of information are depicted on **Figure 5**.

1928 Aerial Scale: 1" = 500'

In the 1928 aerial photograph, 14 structures are visible, though specific uses cannot be determined due to the quality of the photograph. To the south of the Site, 20 dormitory buildings are visible. To the east, the earth work and construction of the main general hospital building appears to be underway. The outline of North State Street is visible east of the Site. The area currently occupied by the parking garage appears to contain dormitory-like structures and offices, which is consistent with the areas past use as the nurses headquarters (**Figure 5**).

1938 Aerial Scale: 1" = 500'

There are a number of new buildings visible in the 1938 photograph. These include a large laundry area (as identified on the Sanborn maps, discussed further in Section 5.3.4), and other support buildings. A raised corridor is present in the 1938 photograph, which was not present in the previous photo. This covered walkway between North State Street and the Pharmacy building is coincident with the southern boundary of the Site. Three smoke stacks, likely associated with the powerhouse, are visible on the Site northwest of North State Street, near the present day Masons Shop (**Figure 5**). A water tower is visible next to the smoke stacks. North State Street appears in the 1938 photograph, in the same general alignment as present day condition. To the north of the Site, three large rectangular buildings have been constructed along the northern side of Zonal Avenue.

1947 Aerial Scale: 1" = 500'

The 1947 aerial photograph appears relatively unchanged from the 1938 photograph.

1956 Aerial Scale: 1" = 500'

Construction of the Women and Children's hospital has begun on the northern portion of the Site. Various buildings and structures in this area were demolished to accommodate the hospital. In the middle of the site, there is a parking lot that was not observed in earlier photographs. There appears to be additional support buildings constructed along the eastern boundary of the Site. To the south, at the intersection of North State Street and Marengo Street, nine of the dormitory buildings have been demolished, and another structure, likely a multi-story patient tower, has been constructed in their place. The remaining buildings and structures observed in the previous aerial photographs are present on the Site.

1965 Aerial Scale: 1" = 500'

Construction of the Women and Children's Hospital has been completed. Additionally, four buildings between the Women and Children's Hospital have

been demolished and replaced with surface parking lots. The powerhouse and three chimneys are still present along the eastern side of the Site. The remaining dormitories south of the Site have been demolished and replaced with what appears to be a parking lot. To the southwest (and south of the present day Coroner's office), three buildings have been demolished since the 1956 photograph.

1976 Aerial Scale: 1" = 500'

Five buildings, all former dormitories, have been demolished since the 1965 aerial photograph. A parking structure has been constructed in the place of those dormitories along the frontage of North Mission Road. Two other buildings, likely offices, were constructed east of the parking structure. A multi-room storage building has also been constructed. This building matches the present day locations of Trailer 8, Trailer 15, and a storage area. A water tank visible in the 1965 aerial photograph is not visible in the 1976 aerial photograph. Trees along North State Street have been removed and a structure that is consistent with present day Trailer 26 has been constructed on the north side of North State Street. To the north of the Site, the three large rectangular buildings identified in the 1938 photograph have been demolished. The new County Corner (Medical Examiner) facility has been constructed southwest of the Pharmacy building.

1989 Aerial Scale: 1" = 500'

A structure has been built in the far northeastern corner of the Site, which is coincident with Building 432. There appears to be a building present in the general vicinity of "Site 5" on the eastern side of the Site, which may correspond with the ambulance garage and fueling area. With the exception of that structure, there appears to be no significant changes to the Site since the 1976 aerial photograph.

1994 Aerial Scale: 1" = 500'

There appears to be no significant changes to the site since the 1989 aerial photograph. The month the photograph was taken is unknown. Given the vegetation present on the trees, it is likely that the photograph was taken after the Northridge Earthquake, which occurred on January 17, 1994. Any damage the Site sustained by the earthquake is not discernible in the aerial photograph.

2005 Aerial Scale: 1" = 500'

A patient tower, located east of the Women and Children's Hospital, has been demolished and a modular structure has been placed on southwest corner of the now vacant lot. The current incinerator and trash compactor buildings are visible in their present locations. The large laundry building in the middle of the site has been demolished. The corresponding area appears earthen covered, and modular buildings and structures are located within the former footprint of the laundry building. This area appears to be separated from the surrounding areas by a fence. Additionally, four structures that were adjacent to the pharmacy building and extended northward have also been demolished. To the north, an HIV/AIDS Clinic structure has been constructed. Properties to the west, east, and south are relatively unchanged.

2009 Aerial Scale: 1" = 500'
Trailers associated with demolition of structures in the middle of the Site have been removed since the 2005 aerial photograph. The remainder of the site appears to be relatively unchanged from the 2005 aerial photograph. The surrounding properties appear to be relatively unchanged.

2010 Aerial Scale: 1" = 500'
No changes were observed from the 2009 aerial photograph.

2012 Aerial Scale: 1" = 500'
No changes were observed from the 2010 aerial photograph.

The historical aerial photographs suggest that a powerhouse with boilers and three chimneys was situated along the eastern side of the Site from as early as 1938 and was present until 1995. The powerhouse and chimneys were likely damaged during the 1994 Northridge Earthquake and correspondingly decommissioned and demolished between 1995 and 2005. The powerhouse and boilers presumably generated steam and possibility electricity for the facility. Limited information was discovered regarding the nature and operation of the former powerhouse, particularly, the type of fuels used for the boilers. Given the age of the powerhouse, the fuel source is likely oil, coal, trash from the medical center, or a combination of the three. However, no coal storage areas or oil storage tanks are documented to be present with association of the powerhouse. The fly ash generated through the burning of fossil fuels and trash or refuse is known to contain heavy metals, dioxins, and furans. Due to the potential for localized contamination, particularly dioxins and furans associated with the burning of trash and waste material, the former incinerators are considered a REC.

According to the historical aerial photographs, a large laundry building occupied the central portion of the site between 1928 and 1994. Similar to the former incinerators, the laundry was likely damaged during the 1994 earthquake and subsequently demolished at some point between 1995 and 2005. Limited information was identified regarding the operation of the laundry, other than it operated on-site for over 60 years. It is possible that the laundry utilized chlorinated solvents for the cleaning and washing of linens and clothing. As such, the laundry is considered a REC.

5.3.2 CITY DIRECTORY REVIEW

A city directory abstract for the subject Site was requested through EDR (**Appendix H**). According to EDR, there are a number of listings identified at the subject Site. Many of the listings were associated with doctors practicing at the hospital or nurses residing within the hospital dormitories. The City Directories reviewed for the site revealed no evidence of RECs.

5.3.3 RECORDED LAND TITLE RECORDS

KHA reviewed the title information provided by the client and found no evidence of environmental liens or activity and use limitations associated with the subject Site (**Appendix A**).

5.3.4 SANBORN FIRE INSURANCE MAPS

KHA obtained copies of the Sanborn Fire Insurance maps for the subject Site through EDR. Sanborn Map coverage for the Site is available for the following years: 1890, 1894, 1906, 1920, 1951, and 1970. Copies of the maps are included in **Appendix I**. The following is a summary of the information gleaned from each of the maps available for the Site.

1890 Sanborn Map

The 1890 Sanborn Map covers the extreme western portion of the Site, west of the parking garage structure. The map depicts two structures in the vicinity of the garage; however, due to the quality of the map, it is difficult to discern the designation or use of the buildings. This map also depicts the location of the original County General Hospital Building, which is located off-site, southwest of the parking garage. This building is currently operational and is used as administrative offices for the County Corner.

1894 Sanborn Map

The 1894 Sanborn Map covers the same area as the 1890 map and is similar in its depiction of the historical structures on the Site.

1906 Sanborn Map

There are 12 structures identified on the 1906 Sanborn Map.

In the area of the present day parking structure, the following were noted on the 1906 Sanborn Map:

- A rectangular shaped buildings labeled “Medical Pavilion”
- A rectangular building labeled “Nurses Headquarters”
- A rectangular shaped building, about the same size as the Nurses Headquarters that is not labeled
- A windmill with a water tank
- A cottage
- Two square structures that are labeled but labels are not legible

A plaster and metal corridor[3] trending northeast to southwest is shown to be present south of the Medical Pavilion, along the southeastern side of the parking garage structure. South of the corridor, in the central portion of the Site, the following buildings and structures are noted on the Sanborn Map:

[3] This corridor should not be confused with the elevated corridor that constitutes a portion of the southern boundary of the Site.

- A rectangular shaped building labeled "Medical Pavilion B." There appears to be a structure connecting Medical Pavilions A and B along the eastern side of the pavilions.
- Wood storage
- A paint room
- A laundry room situated proximal to the large laundry depicted on the subsequent Sanborn Maps as well as the aerial photographs.
- A portion of a building used for coffin making (the Site boundary bisects this buildings)
- A Buggy Washing area
- Men's Headquarters
- Three additional structures that are not labeled

To the east of Medical Pavilion B, there is a rectangular shaped building labeled "Contagious Pavilion." This building extends from approximately the northeast corner of the parking garage to the Women and Children's Hospital.

1920 Sanborn Map

In the area of the present day parking structure, the following were noted on the 1920 Sanborn Map:

- Four dormitory buildings labeled "Nurses Quarters"
- Medical Pavilion A (matches the 1906 map)
- A library to the west of Medical Pavilion A
- An unmarked building

A portion of the Administration building is west of the library. The Site boundary bisects the administration building.

The corridor south of Medical Pavilion A is present, consistent with the 1906 Sanborn Map.

South of the corridor, the following were noted on the Sanborn Map:

- A kitchen and dining room
- Medical Pavilion B consistent with the 1906 map
- A portion of "Medical Ward D"
- A laundry room consistent with the 1906 map
- A repair shop
- A lumber shed
- A storage area
- An auto house
- A Leper Ward
- A power house with boilers and an engine room, which coincides with the incinerators and chimneys observed in the historical aerial photographs. The power house and incinerators are considered a REC.

West of the Medical Pavilions, the following were noted on the Sanborn Map:

- Contagious Pavilion consistent with the 1906 map
- A chapel
- Psychopathic Wards with a 12' high concrete retaining wall on the north side of the building
- An Observation Ward

The 1920 Sanborn Map depicts the elevated and covered walkway that constitutes a portion of the southern boundary of the Site. It connects the former nurse's quarters to what is labeled as the Service Building, which is the present-day pharmacy building.

1951 Sanborn Map

In the area of the present day parking structure, the following were noted on the 1951 Sanborn Map:

- Four dormitory buildings labeled, "Interns and Male Nurses Quarters", north of the parking garage structure
- Medical Pavilion A matches the 1906 map
- A library to the west of Medical Pavilion A
- An unmarked building
- An office building in the northwest corner of the Site

A portion of the Administration building is west of the library. The Site boundary bisects the administration building.

The corridor south of Medical Pavilion A is present, consistent with the 1906 Sanborn Map.

South of the corridor, in the central portion of the Site, the following were noted on the Sanborn Map:

- General Laboratory and Dental Clinic in the location of the kitchen and dining room identified in the 1921 map
- Medical Pavilion B identified in the 1906 and 1921 maps has been relabeled "Mens Wards"
- A portion of "Medical Ward D"
- A storage room in the location of the laundry room identified in the 1921 map
- A paint shop
- A shop building in the south-central portion of the Site.
- A machine shop
- An incinerator building that is located adjacent to the existing covered walkway

- A laundry room and attached sewing room
- A dormitory with attached boiler room
- An incinerator that appears to serve the dormitory
- The Leper Ward is not shown on the 1951 map
- A power house with boilers, an engine room, and three chimneys.
- A water tower
- Two additional structures whose use could not be discerned by the notes included on the map

The 1951 Sanborn Map indicates that the area in and around the laundry also contained a machine shop, paint shop, and utility building. Little to no information was identified regarding the operation of these buildings and facilities. Given the nature of each building, there is the potential for localized contamination to be present in conjunction with the historical use. As such, the potential for contamination associated with each of these buildings and facilities is considered a REC.

West of the Medical Pavilions, the following were noted on the Sanborn Map:

- Osteopathic Ward in the location of the Contagious Pavilion identified in the 1906 and 1920 maps
- A chapel
- Psychopathic Wards with a 12' high concrete retaining wall on the north side of the building
- Interns Dormitory in the location of the Observation Ward noted in the 1920 map
- Contagious Building located southeast of the Psychopathic Ward
- Nurses quarters to the southeast of the Contagious Building

1970 Sanborn Map

In the area of the present day parking structure, the following were noted on the 1970 Sanborn Map:

- Four dormitory buildings labeled, "Interns Quarters"
- A research building
- Medical Pavilion A matches the 1906 map
- A work clinic in the location identified as the library in the 1951 map, to the west of Medical Pavilion A
- An unmarked building
- An office building in the northwest corner of the Site

A portion of the Administration building is west of the library. The Site boundary bisects the administration building.

The corridor south of the work clinic is present, consistent with the 1906, 1920, and 1951 Sanborn Maps; however, it no longer extends further east than the work clinic.

South of the corridor, in the central portion of the Site, the following buildings and structures were noted on the Sanborn Map:

- A laundry sorting building in the location identified as the General Laboratory and Dental Clinic in the 1951 map
- Medical Pavilion B identified in the earlier maps is not shown on the 1970 map
- A portion of central service building, formally labeled "Medical Ward D"
- A storage room
- A paint shop
- A shop building
- A machine shop
- Two incinerator buildings (1) original incinerator identified in the 1951 Sanborn Map is present on the map; however, it is labeled as being associated with the laundry, and (2) a second incinerator is depicted northeast of the powerhouse at the location of the present-day incinerator
- A laundry room and attached sewing room
- A power house with boilers and an engine room
- A water tower
- Two additional structures whose use could not be discerned by the notes included on the map

West of the Interns Dormitory, the following were noted on the Sanborn Map:

- New Osteopathic Unit, in the general vicinity of the present day Women and Children's Hospital
- Psychopathic Wards
- Nurses quarters
- Research Building in the location of the former Contagious Building,
- Transit Yard

The Sanborn Fire Insurance Maps confirm the historical locations of the laundry, powerhouse, and two incinerators on the subject Site. As previously noted, limited information is available regarding the operation of each of these facilities. However, they each appear to have been in operation on the Site for 40 years or longer. The historical, long-term operation of the powerhouse, laundry and incinerators represent a potential contaminant concern. As such, they are each considered a REC.

5.3.5 USGS TOPOGRAPHIC MAP

KHA obtained historical USGS topographic maps for the Site through EDR for the following years: 1896 (15-minute), 1900 (15-minute), 1901 (60-minute), 1928 (6-minute), 1953 (7.5-minute), 1966 (7.5-minute), 1972 (7.5-minute), 1981 (7.5-minute), and 1994 (7.5-minute) (**Appendix J**). The scale of the 1896, 1900, and 1901 does not provide specific detail for the Site. The Site is labeled as LA County Hospital on the 1928 topographic map and subsequent topographic maps. A slope along the western portion of North State Street is delineated on the 1928 topographic map. It appears this slope has been graded, and the span of the elevation contours shift closer to North State Street. North Mission Road, Marengo Street, North State Street, and Griffin Avenue (later renamed to Zonal Avenue) are visible in the 1928 topographic map and appear to match the present day configuration. There appear to be no changes to the site conditions in the 1994 topographic map.

Site is approximately 330 feet above mean sea level. The land surface in the general area of the Site slopes in a west to northwesterly direction (**Figure 3**). However, the central portion of the Site represents a topographic low. The central portion of the Site is approximately 15 feet lower in elevation than the surrounding portions of the Site to the north and west. A steep 30 to 40-foot high embankment, along the northwestern side of North State Street, is present along the eastern side of the Site.

The historical topographic quadrangles revealed no evidence of environmental conditions that may be construed as RECs in association with either the subject Site or the surrounding properties.

5.3.6 OTHER HISTORICAL INFORMATION SOURCES

No other historical sources were used for this assessment.

5.3.7 PAST USE OF SUBJECT PROPERTY

The historical documentation suggests that the site was used by LA County General Hospital since the 1880s. The extreme western portion of the Site was part of the original medical center facility in the 1880s. Beginning in the early 1900s, as the medical center expanded, the Site was occupied by various medical buildings and facilities including four patient wards, an osteopathic ward, a psychopathic ward, a leper ward, a chapel, dormitories, laundry, powerhouse, incinerators, administrative offices, and storage areas on the Site.

A powerhouse that contained three boilers and up to three chimneys occupied an area along the eastern side of the Site, west of North State Street from 1920 or earlier until 1995. The powerhouse was likely used to generate steam and electricity for the medical center complex. The historical records do not indicate the fuel source for the boilers. It is likely that the boilers were either coal-fired or oil-fired. However, the Sanborn maps do not indicate the location of either petroleum storage tanks or a coal hopper. Given the long-term use of the boilers, there is the potential for localized contamination to be present on the Site. The

potential contaminants of concern include petroleum hydrocarbons, dioxins, and furans. The potential for localized contamination associated with the long-term operation of the powerhouse is considered a REC.

A laundry occupied the central portion of the Site between the early 1920s until at least 1995. The laundry appeared to increase in size to accommodate the expansion of the medical center. Limited information is present regarding the operation of the laundry. It was reportedly damaged during the 1994 Northridge Earthquake and, subsequently, demolished sometime after 1995. It is likely that chlorinated solvents along with various arsenic and phosphate-based surfactants were used at the laundry. As such, the potential for localized contamination to be present on-site is considered a REC.

Evidence of an incinerator on-site was observed on the 1951 Sanborn Map. The incinerator was located west of the powerhouse and east of the elevated and covered walkway in the vicinity of the laundry. The incinerator was likely in operation until at least 1970, when the corresponding Sanborn Map depicted a second incinerator on-site. The second incinerator is depicted northeast of the powerhouse in the location of the present-day incinerators. Little information is available regarding the use and operation of the two incinerators. The historical use of both incinerators may have contributed to localized contamination. The potential for contamination associated with both incinerators is considered a REC.

The Northridge Earthquake in 1994 resulted in damage to several of the buildings and structures on the LAC+USC Medical Center campus, including those on the subject Site. Several buildings on the Site, presumably those that sustained heavy earthquake damage, were demolished after 1995. This includes the laundry, powerhouse, western-most incinerator, and various medical buildings. The building demolition resulted in two open, undeveloped areas on the Site, one in the south-central portion of the property corresponding to the former laundry in the northeastern portion that was occupied by the Contagious Building (1951) and subsequently the Research Building (1971). These areas remained primarily undeveloped following the demolition activities. Modular buildings, trailers, and storage buildings were erected in the former location of the laundry to house the various building crafts (carpentry, masonry, plumbing, electricians) that service the medical center campus. The medical arts facilities were moved elsewhere on the campus following the 1994 earthquake. In addition to the building crafts, the Site is used to house buildings and offices that accommodate patient billing, records, and various administrative staff.

The following is a generalized timeline of the use of the subject Site based on KHA's review of readily available historical information.

LAC+USC HISTORICAL TIMELINE
BASED ON READILY AVAIABLE HISTORICAL INFORMATION

Year	Historical Site Use
1880s	The western portion of the Site is initially developed as the LA County General Hospital.
1890	Two structures noted as part of the LA County Hospital are present on-site in the vicinity of the current parking garage structures. The use of these structures could not be gleaned from the 1890 Sanborn Fire Insurance Map
1906	The LA County Hospital expands onto the subject Site. Buildings and designated areas present on-site include: Medical Pavilion A Medical Pavilion B Nurse's Headquarters Contagious Pavilion Coffin Making Demolished A Windmill with a Water Tank A Cottage Wood Storage Building Paint Room Laundry Room Buggy Washing Area Men's Headquarters Administrative Building
1920	Expansion of the LA County Hospital on the subject Site continues and includes the addition of the following buildings and structures: Four Nurse's Quarters Library adjacent to Medical Pavilion A Expansion of the Laundry Building Kitchen and Dining Room Building Repair Shop Lumber Shed Storage Area (unspecified) Auto House Leper Ward Power House Containing Boilers, an Electrical Room, and Chimney A Chapel Psychopathic Ward Observation Ward Elevated Concrete Walkway (this coincides with the concrete walkway along the western side of the Site.)

Year	Historical Site Use
1951	Expansion of the LA County General Hospital continues and includes the following additional buildings and structures on the Site: Four Nurse's Quarters Psychopathic Ward Contagious Ward Office Building (unspecified) Medical Ward D Machine Shop Incinerator Adjacent to the Elevated Concrete Walkway Water Tower Two Unspecified Buildings Laundry and Sewing Room Masonry Building Engine Room/Boiler Room Chapel Nurse's Headquarters In addition to the new buildings and structures, the following changes occurred on the Site: General Laboratory and a Dental Clinic occupy the former Kitchen and Dining Room Medical Pavilion B converted to a Men's Ward Dormitory attached to the west side of the Power House Two Additional Chimneys adjacent to Power House Leper Ward Demolished Osteopathic Ward Occupies Former Contagious Pavilion Miscellaneous Storage Building Demolished
1956	Construction of the Women and Children's Hospital begins and is completed by 1965.

Year	Historical Site Use
1970	Additional buildings on the Site include: Research Building Office Building in the Northwest Corner of Site Osteopathic Unit Building Library Work Clinic Changes to the Site include the following: Four Dormitory Buildings for Interns and Male Nurses Laundry Sorting Occupies the Former General Laboratory and Dental Clinic Medical Pavilion B demolished Incinerator Nurse's Headquarters Demolished
1976	Five dormitories are demolished and replaced by the current parking structure along North Mission Road. County Corner (Medical Examiner) building is constructed west of the Site.
1989	Ambulance Garage and Fueling area ("Site 5) are constructed on the eastern side of the Site.
1994	The Northridge Earthquake occurs on January 17, 1994. Several of the buildings and structures on the Site sustain damage.
2005	Several buildings and structures in the central portion of the Site that sustained earthquake damage have been demolished. This includes the Power House and associated boilers and chimneys. Modular buildings and trailers are placed on the Site, which are used to house various medical and non-medical services.
2013	The medical services that occupied the modular buildings and structures have been relocated. The corresponding buildings/trailers are vacant

5.3.8 PAST GENERAL SURROUNDING LAND USES

The land adjacent to the Site to the north, south, and east is part of the LAC+USC Medical Center campus and has been used for various medical arts and supporting trades since the 1930s. The property to the west of the Site is predominantly used for commercial and multi-family residential purposes. There are two gasoline stations located northwest of the Site along the western side of North Mission Road.

The Women and Children's Hospital, which is not part of the Site, was built between the early 1950s and early 1960s. Buildings associated with patient care on the subject Site were demolished about the time of the hospital's construction. The Women and Children's Hospital tower is not included in this assessment.

The portion of the medical center campus located southwest of the Site is occupied by the office of the LA County Department of Medical Examiner-Corner.

The historical topographic maps indicated that the property north of Zonal Avenue has been occupied by the LA County Juvenile Court system since before 1953.

5.4 HISTORICAL USE INFORMATION ON ADJOINING PROPERTIES

Information used to ascertain the historical use of the adjoining properties is summarized in Section 5.3.

6.0 SITE RECONNAISSANCE

The following is a summary of the methodology and findings of the site reconnaissance conducted in conjunction with this Phase I ESA.

6.1 METHODOLOGY AND LIMITING CONDITIONS

On July 19, 2013, Jason Sheasley, Karina Fidler, and Jennifer Steen, each qualified Environmental Professionals with KHA, visited the Site to conduct the necessary site observations for compliance with ASTM E 1527-05. The area surrounding the subject Site was observed via pedestrian and vehicular transects. Photographs taken during the site reconnaissance are provided in **Appendix B**. Included with this Appendix is a map depicting the approximate location each photograph was taken.

6.2 GENERAL SITE SETTING

The Site is situated on the western side of the LAC+USC Medical Center Campus. The portion of the Medical Center Campus that constitutes the subject Site is no longer used for medical services or patient care. The buildings on-site are used for patient billing services, accounting, medical records keeping, and building trades. To the northeast and east, the Site is bound by Zonal Avenue and North State Street, respectively. The LA County General Hospital building is located east of North State Street. A pedestrian bridge that connects North State Street to a former pharmacy building and the Coroner's office constitutes the southern boundary of the Site. The Site is bound to the west North Mission Avenue.

A four-story parking structure, which serves as ancillary parking for medical center employees and the LA County Medical Examiner-Coroner's office, is located along the northwestern side of the Site. There are seven trailer/portable buildings on Site. Uses for these trailers include administrative offices, a child care facility, and the former location of the Violence I Prevention Office. Three trailers labeled as annex trailers appear to be used by building trades are located along the eastern side of the Site. North of the area occupied by the building trades, there resides a trash compactor and three incinerator units. These three incinerators were noted on the 1970 Sanborn Map. The incinerators were heavily rusted and corroded and did not appear to be in working condition. Immediately adjacent (south) to the incinerators is a two-story trash compactor unit. The trash compactor appears to be operational. Trash and debris were observed inside and adjacent to the compactor unit. Additionally, staining from possible trash and debris was observed on the concrete and soil around the trash compactor and incinerator units. The trash compactor and incinerators constitute potential sources of localized contamination. As such, the trash compactor unit and incinerator are each considered a REC.

6.3 EXTERIOR OBSERVATIONS

KHA observed the following buildings, structures and areas on the Site during the site reconnaissance. Observations and potential environmental concerns are noted accordingly. The locations of these areas are depicted on **Figure 4**.

- A modular building, labeled Trailer 8

- A modular building labeled Trailer 15
- A modular building labeled Trailer 7A – Pediatric Clinic
- A modular building labeled Trailer 12 –CARES Child Care Center
- A modular building labeled Trailer 11 – Violence Intervention Program (Building 432)
- A modular trailer labeled Trailer 7A and Trailer 7C – Medical Records
- A four-story concrete and steel parking structure fronting North Mission Avenue in the south east portion of the site. The parking structure is used by employees of the Coroner's office and the hospital.
- A modular building labeled Parking Services
- A storage area, adjacent to and south of the parking structure, is surrounded by chain link fencing. Within the area, KHA observed steel and aluminum piping, bars and plates, and two four-tank air purifiers.
- A steel storage building sectioned into six storage areas appears to store supplies used by either the pharmacy or medical examiner.
- There is a series of five make-shift, outdoor storage areas located in the south central portion of the Site. The areas are within the footprints of buildings that formerly occupied the Site and make use of the remaining concrete building foundations. The area is enclosed by chain link fence on three sides, with the remains of the concrete building walls constituting the fourth side. The storage areas appear to be used by the building trades. The area closest to the pharmacy building housed chain link fencing materials; the storage area immediately to the north contained concrete products (unmixed). A third storage area contained empty linen carts from the hospital. A staircase divided the third and fourth storage area. Several non-operational appliances including refrigerators and air conditioners were observed in the fourth storage area. The fifth storage area contains a storage pod. KHA staff did not have access to the storage pod.
- The south-central portion of the Site that was formerly occupied by the laundry, shop, utility building, and paint shop is both asphalt and gravel covered. The western half of this area specifically associated with the former utility building, shop and paint shop is covered with gravel and surrounded by a chain link fence. There is a job trailer and conex storage box located in the fenced area. The southwest corner of the fenced area contains an electrical service stop. Conduits presumably containing electrical lines are affixed to the chain link fence along the eastern side of the area. No evidence of soil staining or stressed vegetation was observed within this area.
- There are several buildings located along the eastern side of the Site that are used and occupied by the building trades that include carpentry, masonry, and electricians. The areas outside and around the buildings are used for storage for the associated trades. No evidence of regulated substance was observed in association with the outside storage areas.
- A large storage area is located east of the building trades area in the southeast corner of the Site. This fenced area is used to store various materials including several refrigerators, miscellaneous hospital equipment, and plumbing supplies.
- Three modular buildings identified as Annex 1, Annex 2, and Annex 3 lie just north of the Mason's Shop. KHA staff did not have access to the inside of these

buildings. Behind these trailers were storage areas, consisting of old furniture, fencing, and piping materials.

- A trash collection area and compactor at the midpoint of the eastern boundary. As noted elsewhere in the report (Section 6.2), the trash compactor area is considered a REC due to the potential for localized contamination.
- Three incinerators with associated smoke stacks. A permit from the Air Quality Management District dated 1984 was posted near the incinerators. A Geiger meter, used for measuring levels of radioactive materials, was located in between two of the three incinerators. Staining was observed under all three incinerators. As noted previously (Section 5.3.7), the incinerators are considered a REC due to the potential for localized contamination.
- An open-air area fenced and marked for bio-hazardous waste was located north of the incinerators. The waste area was paved and secured with a locked chain-link fence with a privacy screen. Red bins were stored in the area; however, KHA staff was unable to discern if these bins were empty or were in use. There are no covered enclosures within this area. The area is covered with asphalt and concrete, which is in poor condition. Litter and debris were also noted within the area. KHA could not confirm the types of bio-hazard material stored in this area. Presumably the area is used to store bio-medical waste until it can be picked up and transported off-site for disposal. The bio-hazard waste storage area is considered a REC do to the potential for undocumented or unreported releases of regulated substances.
- A modular building labeled Trailer 30 – Women and Children's Hospital Pediatric Clinic. A monitoring well was observed in this location. According to subsequent interviews, this area was formerly contained underground storage tanks (UST) used to fuel ambulances. Ground water sampling reportedly confirmed the presence of contamination in this area previously referred to in the report as "Site 5". The documented presence of ground water contamination associated with the former UST is considered a REC.
- East of the Woman and Children's Hospital is an area designated as a Material Management Warehouse. North of this area is an enclosure that contains a chiller unit and compressor for the former hospital building. KHA observed various regulated materials in storage within both areas. The materials include various cleaning supplies, solvents, lubricants, and coolants. Additionally, an unlabeled 55-gallon drum in fair condition was observed within the chiller enclosure.
- A building addressed 1744 Zonal Avenue, a portion of which formerly housed Capital Improvement Project Office, and a portion of which currently houses the Medical Photography and Video Production Services office. A monitoring well was observed adjacent to the building. The monitoring well is associated with the on-going assessment of petroleum ground water contamination associated with either Site 4 or Site 5.
- A modular building labeled Trailer 26 – Patient Financial Services.

6.4 INTERIOR OBSERVATIONS

KHA staff did not have access to the interior of any structure described above; therefore, interior observations are a data gap within this assessment.

7.0 INTERVIEWS

The following interviews were conducted by KHA in support of this environmental site assessment.

7.1 INTERVIEW WITH OWNER

The Site is owned by Los Angeles County. Jason Sheasley conducted a telephone interview with Al Tizani of the Los Angeles County Chief Executive Office [(213) 974-2629] regarding the historical use of the Site. According to Mr. Tizani, the Site has been associated with the LAC+USC Medical Center since the late 1800s. Several of the buildings located on the Site were damaged during the 1994 Northridge Earthquake. Mr. Tizani has no specific knowledge of the damage incurred by any of the former or existing buildings on the Site. Additionally, Mr. Tizani is unaware of any environmental issues of historical releases of regulated substances in association with the Site. According to Mr. Tizani, a Master Plan has been prepared for the medical center campus. The Master Plan accounts for the proposed expansion of the medical center facility. Additionally, various historical buildings and structures will be preserved.

7.2 INTERVIEW WITH PAST OWNER

Los Angeles County has owned the Site since the late 1800s.

7.3 INTERVIEWS WITH ADJACENT PROPERTY OWNERS

The Site is part of the LAC+USC Medical Center and is surrounded by other portions of the medical center campus. KHA was unable to interview any of the commercial property owners adjacent to the property.

7.4 INTERVIEW WITH SITE MANAGER

Jason Sheasley conducted a telephone interview with Gus Pizarro, Administrator of Facility Operations at the LAC+USC Medical Center [(323) 226-4358]. Mr. Pizarro is responsible for administering and overseeing the facilities and operations that constitute the medical center campus. According to Mr. Pizarro, the Site has been used as part of the medical center campus since the late 1800s. The Site historically contained a communicable diseases building, laundry, maintenance shops, and has been used for various building trades and craft services. Mr. Pizarro is unaware of any specific environmental concerns associated with the Site, including the release of regulated substances.

7.5 INTERVIEW WITH PAST SITE MANAGER

KHA was not provided with the name or contact information for the previous site manager.

7.6 INTERVIEWS WITH OCCUPANTS

No occupants, employees, or workers were interviewed are part of this Phase I ESA.

7.7 INTERVIEWS WITH PAST OCCUPANTS

No past occupants, employees, or workers were interviewed as part of this Phase I ESA.

7.8 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

Jason Sheasley spoke with Eloy Luna [(213) 482-6520] with the City of Los Angeles Fire Department regarding the on-going assessment and remediation of contamination associated with Site 4 and Site 5 on the LAC+USC Medical Center Campus. According to Mr. Luna, the County is no longer the lead agency in this case. He recommended that Mr. Sheasley contact the Los Angeles Regional Water Quality Control Board for additional information.

Jason Sheasley made several attempts via telephone to contact Magdy Baiady with the Los Angeles Regional Water Quality Control Board. Mr. Baiady is reportedly the agency's case manager for the Site 4 and Site 5 projects. To date, Mr. Baiady has not returned any of Mr. Sheasley's telephone calls.

7.9 INTERVIEW WITH OTHER

Jason Sheasley conducted a telephone interview with Andrew Schmitt of Astech Environmental Services, Inc. [(949) 338-4557] regarding the LAC+USC site. Astech is undertaking routine ground water monitoring at Site 4 on behalf of the County. Site 4 is located off-site and north of the General Hospital Building. According to Mr. Schmitt, this area formerly contained one 2,000-gallon UST and on 8,000-gallon UST. Ground water contamination including free product was identified in association with the two USTs. Mr. Schmitt indicated that despite the fact that free product and elevated concentrations of benzene are present in the ground water at "Site 4"; the Los Angeles Regional Water Quality Board (RWQB) is considering the site for closure under their "Low Threat Closure Policy."

Mr. Schmitt is familiar with "Site 5", which is located on the subject Site. Apparently this site is situated in the eastern corner of the Site and was the former location of a 4,000-gallon gasoline UST and pump dispenser that was used to fuel ambulances. Mr. Schmitt's recollection was that assessment conducted at "Site 5" in 1998 was limited, but indicated the presence of significant contamination. He could not quantify the nature or extent of contamination associated with "Site 5" at the time of the interview because the corresponding reports were not readily available. Additionally, Mr. Schmitt indicated that work was suspended on "Site 5", but he does not know the reason.

In addition to Mr. Schmitt, Jason Sheasley contacted Joe Scatoloni with ENCON Technologies, Inc. [(562) 777-2200] regarding the history of contamination associated with Site 4 and Site 5. Mr. Scatoloni and his firm conducted assessment activities at Site 4 and Site 5 in the early 2000s. According to Mr. Scatoloni, the assessment work was performed in conjunction with the discovery of contamination associated with petroleum USTs at both locations. Oversight of the initial assessment work was performed by the County Fire Department. Mr. Scatoloni indicated that significant contamination was identified in association with "Site 5", which is on the subject Site. However, further assessment and remediation was not undertaken at the time since the associated area was not developed and was not being used. Mr. Scatoloni indicated that the need for further assessment of time impacts at "Site 5" would be at the discretion of the DTSC of RWQB.

The interviews conducted with Mr. Schmitt and Mr. Scatoloni confirmed the presence of ground water contamination with “Site 4” (off-site) and “Site 5” (on-site). Each site is considered a REC due to the presence of ground water contamination. Neither site has received regulatory closure.

8.0 ADDITIONAL SERVICES

No additional services are included in this Phase I ESA.

9.0 SIGNIFICANT DATA GAPS

Limitations in data and resources were encountered during the preparation of this report. These include the following:

- The earliest aerial photograph available is dated 1928. Gaps between aerial photographs averaged eight and a half years; however, there was a gap of 12 years between available photographs dated 1956 and 1968, and a gap of 12 years between available photographs dated 1977 and 1989.
- Access to the following structures was not provided:
    - Trailer 8
    - Trailer 15
    - Trailer 7A – Pediatric Clinic
    - Trailer 12 – CARES Child Care Center
    - Trailer 11 (Building 432) – Violence Intervention Program
    - Trailer 26 – Patient Financial Services
    - Annex 1
    - Annex 2
    - Annex 3
    - Building Trades Offices
    - Trailer 30 – Women and Children's Hospital Pediatric Clinic
    - 1744 Zonal Avenue – Capital Improvement Project Office

Although these limitations were encountered, these are not considered to be significant data gaps for this Site as defined in ASTM 1527-05 Section 3.2.20 since sufficient information regarding the past use of the property was obtained from other historical documents and/or interviews, and the buildings there were not accessed and not suspected of a release to the environment at this time based on their observed use.

There is always the possibility that recognized environmental conditions have escaped detection due to the limitations of this study, the incompleteness or inaccuracy of governmental records, or the presence of undetected and unreported environmental accidents.

Conclusions were based on practically reviewable information available within reasonable time and cost constraints. There is always the possibility that potential sources of contamination have escaped detection due to the limitations of this study, the inaccuracy of governmental records, or the presence of undetected and unreported environmental accidents.

10.0 FINDINGS

KHA conducted a Phase I ESA on the subject Site. This assessment was conducted utilizing currently accepted scientific principles and methodologies and was designed to meet the minimum work scope criteria outlined in ASTM Standard Practice E 1527-05. This is an original environmental assessment of the subject property and not an update to an earlier assessment. The findings in this document are based on visual observations, available records research data, and regulatory files. The following is a summary of our findings.

The Site and the LAC+USC Medical Center are located in East Los Angeles in an area characterized by commercial and industrial properties. A multi-family residential neighborhood is located south of the Medical Center along the southern side of Marengo Street. County judicial and administrative offices are located north of the Medical Center as is the campus of the University of Southern California School of Medicine. The Medical Center has continuously operated as a hospital and medical facility on and adjacent to the Site since or before 1890.

The Site is located within the LAC+USC Medical Center campus within an area characterized by medical offices and facilities including support uses like storage and waste areas. To the north, the Site is bound by Zonal Avenue. The Site is bound to the east by North State Street and by the present day LA County USC Hospital. The Site is bordered to the south by a pedestrian bridge that connects North State Street to a former pharmacy building and the Coroner's office. The Site is bordered to the west by North Mission Avenue.

Various buildings are located on the Site, which are used for non-medical purposes. A four-story parking structure, which serves as employee parking is located along the southern side of North Mission Road. There are various trailer/portable buildings on Site that are used for non-medical purposes. Uses for these trailers include offices, a child care facility; and a former location of the Violence I Prevention Office. There are areas on-site that are used and occupied by various building trades that support the mission of the Medical Center (e.g. plumbers, mason, electricians, and carpenters). Three incinerators, a trash compactor area, and a biohazard waste storage area were all observed in the northeast quadrant of the property.

Historically, the Site was previously occupied by dormitories for male and female nurses, a psychopathic ward, contagious disease ward, tuberculosis ward, laundry, utility building, powerhouse, incinerator, hospital, and leper ward. Several RECs were identified in association with the past uses of the subject Site.

11.0 CONCLUSIONS

KHA has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 for an approximate 20-acre property located near the southeast corner of North Mission Road and Zonal Avenue, Los Angeles, Los Angeles County, California. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- Trash compactor area on the eastern side of the Site
- Existing waste incinerators on the eastern side of the Site, immediately north of the trash compactor structure
- Petroleum contaminated ground water contamination on-site associated with Site 5
- Petroleum contamination in the ground water adjacent to the Site associated with Site 4
- Hazardous materials storage area located east of the former Women and Children's Hospital
- Former powerhouse and boilers located on the eastern side of the Site, west of North State Street
- Former incinerator once located on the south central portion of the Site
- Former laundry facility previously located in the south central portion of the Site
- Former maintenance shop previously located north and adjacent to the laundry
- Former utility building located in the central portion of the Site north of the laundry
- Former paint shop formerly located northwest of the laundry
- Biohazard storage area located on the eastern side of the Site north of the existing incinerators.

The REC locations are depicted on **Figure 6**.

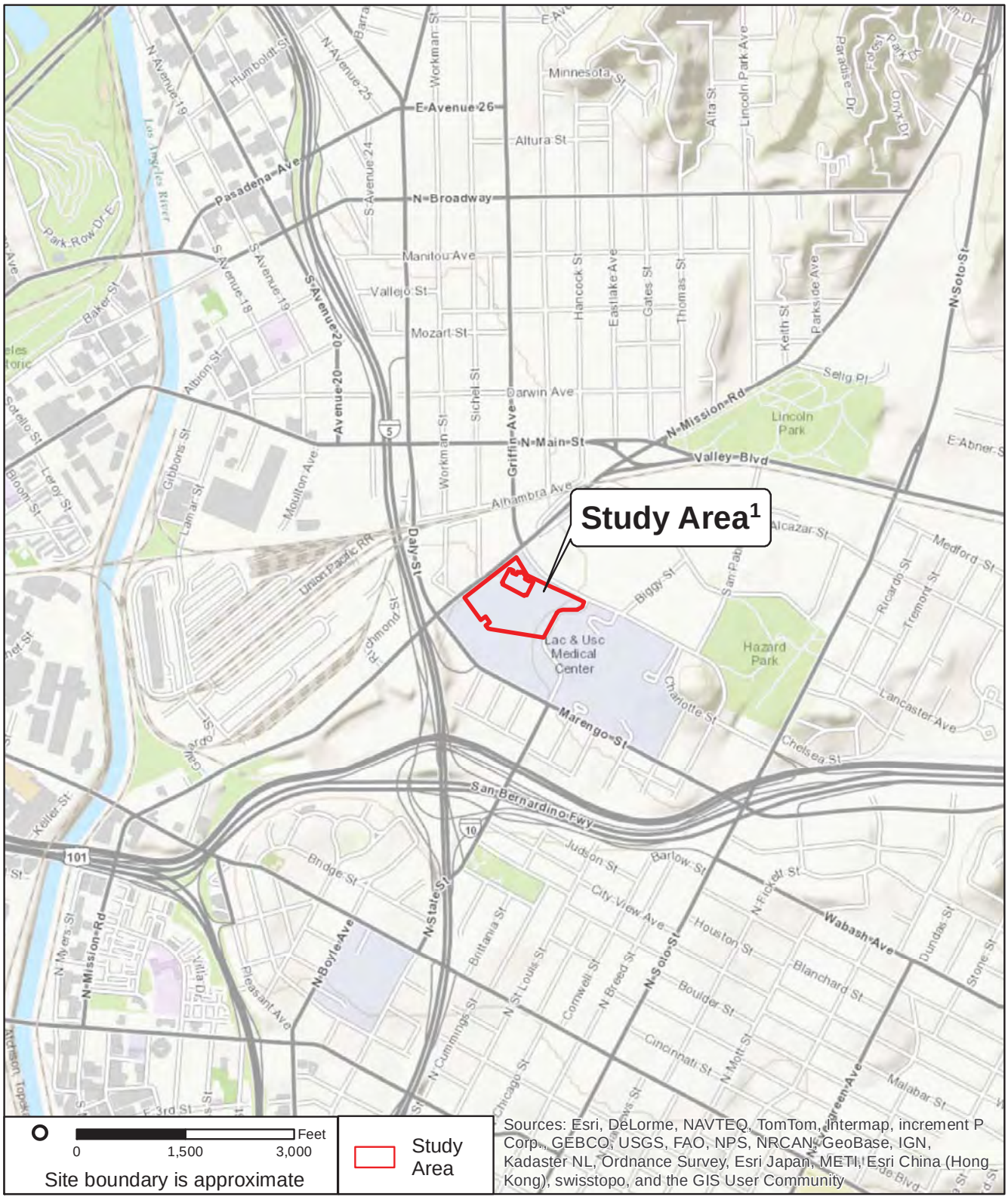
12.0 DEVIATIONS

No deviations as defined in ASTM Standard Method E 1527-05 were part of this Phase I ESA.

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Please refer to the qualifications of personnel participating in this assessment attached in **Appendix J**.

FIGURES



Kimley-Horn and Associates, Inc.

765 The City Drive, Ste 200
Orange, CA 92868
Phone: (714) 939-1030

Vicinity Map

1200 N. State Street
Los Angeles County, California

PHASE I ESA | FIGURE 1

[1] Women and Children's Hospital Excluded from Study Area

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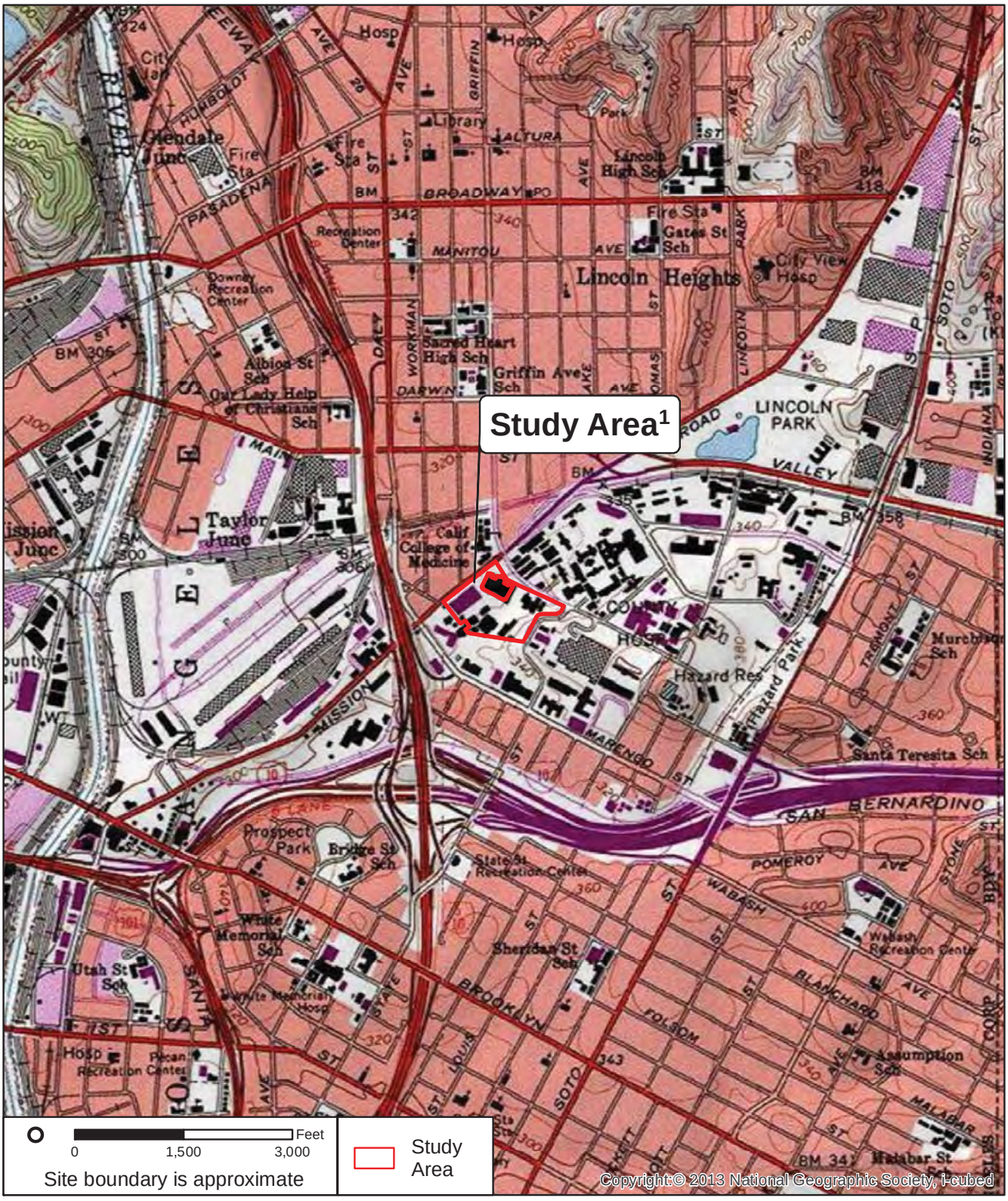
Orange, CA 92868
Phone: (714) 939-1030

Aerial

1200 N. State Street
Los Angeles County, California

PHASE I ESA

FIGURE 2



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Phone: (714) 939-1030

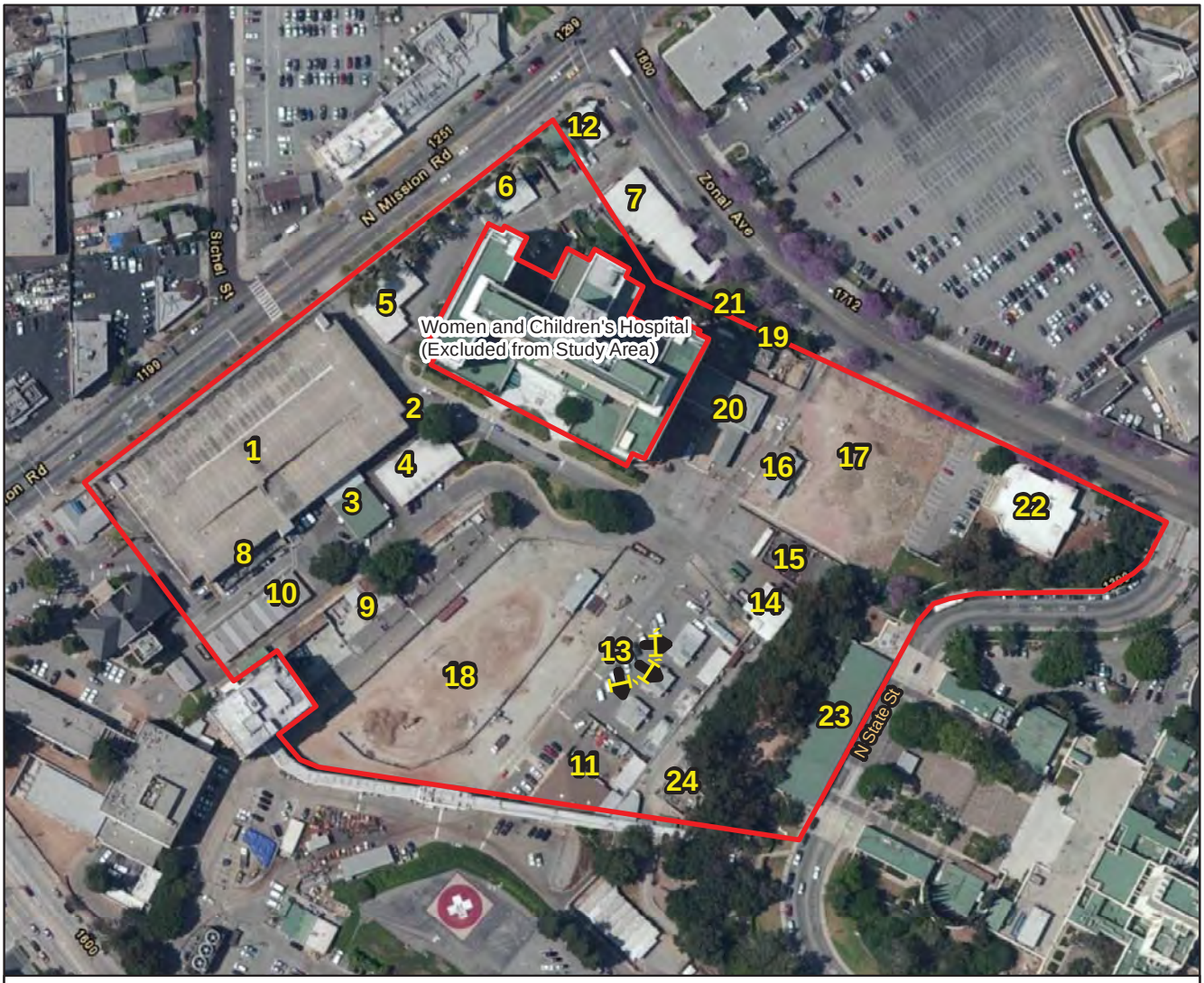
USGS *Los Angeles, California* 7.5-Minute Quadrangle Map

1200 N. State Street
Los Angeles County, California

PHASE I ESA

FIGURE 3

[1] Women and Children's Hospital Excluded from Study Area



1. Parking structure
2. Modular structure labeled “Parking Services”
3. Trailer 8
4. Trailer 15
5. Trailer 7A – Pediatric Clinic
6. Trailer 12 – CARES Childcare center
7. Trailer 7B and 7C – Medical Records
8. Storage Area, adjacent to and south of parking structure
9. Five adjacent outdoor storage areas
10. Steel storage building
11. Mason shop and associated storage
12. Trailer 11 – Violence Intervention Program (Bldg 432)
13. Building Trades trailers and associated storage
14. Trash collection areas and 3 incinerators
15. Biohazardous waste area
16. Trailer 30 – Women and Children’s Hospital Pediatric Clinic
17. Vacant dirt lot
18. Construction staging area and trailer
19. Materials Management Warehouse
20. Women and Children’s Hospital storage
21. Cooling tower and air compression unit
22. 1744 Zonal Avenue
23. Trailer 26 – Patient Financial Services
24. Storage Area

0 200 400 Feet

Site boundary is approximate

Study Area

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Orange, CA 92868
Phone: (714) 939-1030

Current Buildings Location Map

1200 N. State Street
Los Angeles County, California

PHASE I ESA

FIGURE 4

(c) 2013 Esri, DeLome, NAVTEC, Tom Tom, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

1. Women and Children's Bldg., 1970
2. Chapel, 1920, 1951
3. Nurses Headquarters, 1906
   Nurses Headquarters expanded 4x, 1920, 1951
   Intern's Quarters, 1970
4. Contagious Pavilion, 1906, 1921
   Osteopathic Ward, 1951
5. Psychopathic Ward, 1920, 1951
6. Contagious Ward, 1951
   Research Bldg., 1971
7. Medical Pavilion A, 1906
8. Watertower, 1894
9. Medical Pavilion B, 1906
10. Library Work Clinic, 1970
11. Watertower, 1906
12. Leper Ward, 1920
13. Incinerator, 1970
14. Buggy Wash, 1906
15. Masonry Bldg., 1951
16. Ward, 1984; Administration Bldg., 1906 *
17. Laundry Room, 1894, 1906, 1920
18. Shop, 1951
19. Employees Bldg., 1906; Surgical Bldg., 1920 *
20. Coffin Making, 1906 *
21. Overflow Ward, 1920 *
22. Incinerator Bldg., 1951
23. Engine Room/Boiler Room, 1920, 1951
24. Watchtower, 1951
25. Jail Ward, 1920, 1961 *
26. Tubercular Ward, 1920; Misc. storage, 1951 *
27. Nurses Headquarters, 1920, 1951, 1970 *

* Building Off-site

Building data source: Sanborn Maps

0 200 400 Feet

Site boundary is approximate

Study Area

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Phone: (714) 939-1030

Former Buildings Location Map

1200 N. State Street
Los Angeles County, California

PHASE I ESA

FIGURE 5

(c) 2013 Esri, DeLome, NAVTEC, Tom Tom, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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Orange, CA 92868
Phone: (714) 939-1030

REC Location Map

1200 N. State Street
Los Angeles County, California

PHASE I ESA

FIGURE 6

Imagery Source: (c) ESRI, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community
Transportation Source: (c) 2013 Esri, DeLorme, NAVTEQ, TomTom

APPENDIX A

Chicago Title Company

Commercial/Industrial Division,
700 South Flower, Suite 800 Los Angeles, CA 90017 (213) 488-4300

Title Department:

Chicago Title Company
Attn: Karl Daly
Email: Karl.Daly@CTT.com
Phone: (213) 612-4157
Fax: (213) 488-4385
Order No.: 12020543-X59

PRELIMINARY REPORT

Property Address: LAC+USC Medical Center, Property 1

Dated as of: September 24, 2012 at 7:30 am

In response to the application for a policy of title insurance referenced herein, Chicago Title Company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a policy or policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception herein or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations or Conditions of said Policy forms.

The printed Exceptions and Exclusion from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The policy(s) of title insurance to be issued hereunder will be policy(s) of Chicago Title Insurance Company

Please read the exceptions shown or referred to herein and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

SCHEDULE A

1. The estate or interest in the land hereinafter described or referred to covered by this report is:

   A Fee

2. Title to said estate or interest at the date hereof is vested in:

   The City of Los Angeles, a municipal corporation, **subject to Item No. 59 of Schedule B,** as to Parcels 7, 8, 9, 10 and 11;

   County of Los Angeles, as to the remainder.

3. The land referred to in this report is situated in the State of California, County of Los Angeles and is described in the Legal Description, attached hereto:

END OF SCHEDULE A

LEGAL DESCRIPTION

PARCEL 1:

LOT 1 OF TRACT NO. 2082, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 32 PAGE 73, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 1A:

LOT 1 OF TRACT NO. 9800, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 138 PAGES 36 AND 37 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, TOGETHER WITH THE NORTHWESTERLY HALF OF BRITTANIA STREET, 50 FEET WIDE, AS SHOWN ON SAID TRACT NO. 9800, AS VACATED BY ORDINANCE 121,334, OF THE CITY OF LOS ANGELES RECORDED MARCH 26, 1962 AS INSTRUMENT NO. 5151 OF OFFICIAL RECORDS, BOUNDED ON THE SOUTHWEST BY THE SOUTHEASTERLY PROLONGATION OF THE SOUTHWESTERLY LINE OF SAID LOT 1 AND BOUNDED ON THE NORTHEAST BY THE SOUTHEASTERLY PROLONGATION OF THE NORTHEASTERLY LINE OF SAID LOT 1.

PARCEL 2:

LOTS 56 TO 65 INCLUSIVE AND LOTS 72 TO 81 INCLUSIVE OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

TOGETHER WITH THE SOUTHEASTERLY HALF OF BRITTANIA STREET, 50 FEET WIDE, AS SHOWN ON SAID MARENGO TERRACE TRACT, AS VACATED BY ORDINANCE 121,334, OF THE CITY OF LOS ANGELES RECORDED MARCH 26, 1962 AS INSTRUMENT NO. 5151 OF OFFICIAL RECORDS, BOUNDED ON THE SOUTHWEST BY THE NORTHWESTERLY PROLONGATION OF THE SOUTHWESTERLY LINE OF LOT 65 OF SAID MARENGO TERRACE AND BOUNDED ON THE NORTHEAST BY THE NORTHWESTERLY PROLONGATION OF THE NORTHEASTERLY LINE OF LOT 56 OF SAID MARENGO TERRACE TRACT.

ALSO TOGETHER WITH THE NORTHEASTERLY HALF OF CHARLOTTE STREET, 60 FEET WIDE, AS SHOWN ON SAID MARENGO TERRACE TRACT, AS VACATED BY ORDINANCE 121,334, OF THE CITY OF LOS ANGELES RECORDED MARCH 26, 1962 AS INSTRUMENT NO. 5151 OF OFFICIAL RECORDS, BOUNDED ON THE SOUTHEAST BY THE SOUTHWESTERLY PROLONGATION OF THE SOUTHEASTERLY LINE OF LOT 72 OF SAID MARENGO TERRACE AND BOUNDED ON THE NORTHWEST BY THE SOUTHWESTERLY PROLONGATION OF THE CENTER LINE OF BRITTANIA STREET AS SHOWN ON SAID MARENGO TERRACE TRACT.

ALSO TOGETHER WITH THAT CERTAIN ALLEY, 12 FEET WIDE, AS SHOWN ON SAID MARENGO TERRACE TRACT, AS VACATED BY ORDINANCE 121,334, OF THE CITY OF LOS ANGELES RECORDED MARCH 26, 1962 AS INSTRUMENT NO. 5151 OF OFFICIAL RECORDS, BOUNDED ON THE SOUTHWEST BY THE SOUTHEASTERLY PROLONGATION OF THE SOUTHWESTERLY LINE OF LOT 65 OF SAID MARENGO TERRACE AND BOUNDED ON THE NORTHEAST BY THE SOUTHEASTERLY PROLONGATION OF THE NORTHEASTERLY LINE OF LOT 56 OF SAID MARENGO TERRACE TRACT.

LEGAL DESCRIPTION
(continued)

PARCEL 3:

PARCEL 3A:

LOT 11 IN BLOCK 5 OF THE AMENDED MAP OF FLORENCE TERRACE, CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 30 PAGE 19 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THE SOUTHWESTERLY 30 FEET THEREOF.

PARCEL 3B:

LOTS 220, 221, AND 222 OF MARENGO TERRACE, CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 22 PAGE 21 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THE SOUTHWESTERLY 30 FEET OF LOT 220.

ALSO EXCEPTING ALL OIL, GAS, ASPHALTUM, HYDROCARBON MINERALS AND KINDRED SUBSTANCES IN AND UNDER SAID LAND BELOW THE DEPTH OF 500 FEET FROM THE SURFACE THEREOF, BUT WITHOUT RIGHT OF ENTRY THROUGH THE SURFACE OF SAID LAND RESERVED BY ROBERT LARNER AND BEVERLY LARNER, HUSBAND AND WIFE, IN DEED RECORDED JULY 30, 1965 AS INSTRUMENT NO. 1637, OF OFFICIAL RECORDS.

PARCEL 3C:

LOTS 92 TO 108 INCLUSIVE OF THE MARENGO TERRACE TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY TOGETHER WITH THE NORTH ONE-HALF OF THAT PORTION OF THE ALLEY ADJOINING SAID LOT 99 ON THE SOUTH AND THE SOUTH ONE-HALF OF THAT PORTION OF THE ALLEY ADJOINING SAID LOT 100 ON THE NORTH AS VACATED BY ORDINANCE 19759, NEW SERIES, BOUNDED EAST AND WEST, RESPECTIVELY, BY THE EAST AND WEST LINES OF SAID LOTS PRODUCED SOUTHERLY TO THE CENTER LINE OF SAID ALLEY.

EXCEPT FROM LOT 99, ALL OIL, GAS, MINERALS AND OTHER HYDROCARBON SUBSTANCES IN AND UNDER SAID LAND LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREOF, BUT WITH NO RIGHT OF SURFACE ENTRY, AS PROVED IN THE DEED RECORDED DECEMBER 4, 1978 AS INSTRUMENT NO. 78-1342568, OF OFFICIAL RECORDS.

ALSO EXCEPT FROM LOT 103, ALL MINERAL RIGHTS BELOW A DEPTH OF 500 FEET AS RESERVED IN DEED RECORDED JUNE 21, 1983 AS INSTRUMENT NO. 83-712511, OF OFFICIAL RECORDS.

LEGAL DESCRIPTION
(continued)

PARCEL 3D:

LOTS 165 TO 177 INCLUSIVE OF MARENGO TERRACE TRACT, IN THE CITY OF LOS ANGELS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 13 PAGES 21 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THE SOUTHWESTERLY 30 FEET OF SAID LOT 177.

PARCEL 3E:

LOTS 178 TO 209 INCLUSIVE OF MARENGO TERRACE TRACT, IN THE CITY OF LOS ANGELS, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 13 PAGES 21 OF MAPS AND LOTS 66 TO 71 INCLUSIVE OF THE MARENGO TERRACE TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, TOGETHER WITH THE SOUTHEAST ONE-HALF OF THAT PORTION OF BRITTANIA STREET ADJOINING SAID LOTS ON THE NORTHWEST, ALSO TOGETHER WITH THE SOUTHWESTERLY ONE-HALF OF THAT PORTION OF CHARLOTTE STREET ADJOINING SAID LOTS ON THE NORTHEAST, ALSO TOGETHER WITH THAT CERTAIN TWELVE (12) FOOT WIDE ALLEY AS SAID STREETS AND ALLEY WERE VACATED BY ORDINANCE 121,334, OF THE CITY OF LOS ANGELES RECORDED MARCH 26, 1962 AS INSTRUMENT NO. 5151 OF OFFICIAL RECORDS, SAID ALLEY BEING BOUNDED ON THE NORTHEAST BY THE NORTHWESTERLY PROLONGATION THE NORTHEASTERLY LINE OF LOT 71 OF SAID MARENGO TERRACE TRACT.

EXCEPT THE SOUTHWESTERLY 30 FEET OF SAID LOTS 178 AND 209.

PARCEL 4:

THAT PORTION OF CUMMINGS STREET FORMERLY KNOWN AS PLYMOUTH STREET 50 FEET WIDE AND VARIABLE WIDTH LYING ADJACENT TO LOTS 178 TO 192 INCLUSIVE AND LYING SOUTHWESTERLY OF THE SOUTHEASTERLY PROLONGATION OF THE NORTHEASTERLY LINE OF LOT 192, TOGETHER WITH THE NORTH-SOUTH ALLEY 12 FEET IN WIDTH LYING ADJACENT TO LOTS 165 TO 177 INCLUSIVE AND LYING EASTERLY OF CUMMINGS STREET AND LYING SOUTHWESTERLY OF THE SOUTHEASTERLY PROLONGATION OF THE NORTHEASTERLY LINE OF LOT 165, ALL AS DEDICATED BY THE MAP OF THE MARENGO TERRACE SHEET 2, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 13 PAGE 21 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THOSE PORTIONS THEREOF LYING WITHIN MARENGO STREET.

LEGAL DESCRIPTION
(continued)

PARCEL 5:

THAT PORTION OF CUMMINGS STREET FORMERLY KNOWN AS PLYMOUTH STREET 50 FEET IN WIDTH LYING ADJACENT TO LOTS 68 TO 71 INCLUSIVE, TOGETHER WITH THE NORTH-SOUTH ALLEY 12 FEET IN WIDTH LYING ADJACENT TO LOTS 92 TO 95 INCLUSIVE AND LYING EASTERLY OF CUMMINGS STREET, AS DEDICATED BY THE MAP OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

BOTH CUMMINGS STREET AND THE ALLEY LIE SOUTHWESTERLY OF THE SOUTHWESTERLY LINE OF CHARLOTTE STREET AS SHOWN ON THE MAP OF SAID MARENGO TERRACE.

PARCEL 6:

THAT CERTAIN EAST-WEST ALLEY 12 FEET IN WIDTH ABUTTING LOTS 11, 12 AND 13 IN BLOCK 5 AS DEDICATED BY THE MAP OF LACY'S ORANGE SLOPE TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 15 PAGES 55 AND 56 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 7:

THOSE PORTIONS OF LOTS 82 AND 83 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, INCLUDED WITHIN A STRIP OF LAND 86 FEET WIDE LYING 43 FEET ON EACH SIDE OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE CENTER LINE OF NORFOLK STREET, AS SAID CENTER LINE IS SHOWN ON THE MAP OF TRACT 27029, AS PER MAP RECORDED IN BOOK 707 PAGE 90 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, WITH THE SOUTHERLY PROLONGATION OF A PARALLEL WITH AND DISTANT 43 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE WESTERLY LINE OF SAN PABLO STREET, 80 FEET WIDE. AS SHOWN ON SAID MAP OF TRACT 27029; THENCE SOUTHERLY ALONG SAID PARALLEL LINE 66.62 FEET; THENCE SOUTHERLY ALONG A TANGENT CURVE CONCAVE TO THE WEST AND HAVING A RADIUS OF 1100 FEET, THROUGH A CENTRAL ANGLE OF 13° 09′ 55″ AN ARC DISTANCE OF 252.75 FEET; THENCE SOUTHERLY ALONG A LINE TANGENT TO SAID CURVE 271.22 FEET TO A POINT, SAID POINT TO BE THE **TRUE POINT OF BEGINNING** FOR PURPOSES OF THIS DESCRIPTION; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE NORTHWEST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 20° 03′ 26″ AN ARC DISTANCE OF 280.05 FEET; THENCE SOUTHWESTERLY ALONG A LINE TANGENT TO SAID LAST-MENTIONED CURVE 195.02 FEET; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE SOUTHEAST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 21° 07′ 07″ AN ARC DISTANCE OF 294.87 FEET.

ALSO, THAT PORTION OF SAID LOT 82, BOUNDED AND DESCRIBED AS FOLLOWS:

LEGAL DESCRIPTION
(continued)

BEGINNING AT THE INTERSECTION OF THE NORTHWESTERLY LINE OF SAID STRIP OF LAND 86 FEET WIDE WITH THE NORTHEASTERLY LINE OF SAID LOT 82; THENCE SOUTHWESTERLY ALONG SAID NORTHWESTERLY LINE TO A POINT DISTANT 15 FEET SOUTHWESTERLY, MEASURED ALONG SAID NORTHWESTERLY LINE, FROM A LINE PARALLEL WITH AND DISTANT 6 FEET SOUTHWESTERLY MEASURED AT RIGHT ANGLES FROM SAID NORTHEASTERLY LINE; THENCE NORTHERLY IN A DIRECT LINE T A POINT IN SAID LAST-MENTIONED PARALLEL LINE DISTANT 15 FEET NORTHWESTERLY, MEASURED ALONG SAID LAST-MENTIONED LINE, FROM SAID NORTHWESTERLY LINE; THENCE NORTHWESTERLY ALONG SAID LAST-MENTIONED PARALLEL LINE TO THE NORTHWESTERLY LINE OF SAID LOT 82; THENCE NORTHWESTERLY ALONG SAID LAST-MENTIONED NORTHWESTERLY LINE TO SAID NORTHEASTERLY LINE; THENCE SOUTHEASTERLY ALONG SAID NORTHEASTERLY LINE TO THE POINT OF BEGINNING.

EXCEPT THEREFROM THE SOUTHEASTERLY 60 FEET OF SAID LOTS.

ALSO EXCEPT THEREFROM ALL OIL, GAS, WATER AND MINERAL RIGHTS WITHOUT, HOWEVER, THE RIGHT TO USE THE SURFACE OF THE LAND TO A DEPTH OF 500 FEET BELOW THE SURFACE FOR THE EXTRACTION OF SAID OIL, GAS, WATER AND MINERALS, AS RESERVED BY THE CITY OF LOS ANGELES IN GRANT DEED RECORDED DECEMBER 11, 1996 AS INSTRUMENT NO. 1996954, OF OFFICIAL RECORDS.

PARCEL 8:

LOTS 82 AND 83 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM THOSE PORTIONS OF SAID LOTS INCLUDED WITHIN A STRIP OF LAND 86 FEET WIDE LYING 43 FEET ON EACH SIDE OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE CENTER LINE OF NORFOLK STREET, AS SAID CENTER LINE IS SHOWN ON THE MAP OF TRACT 27029, AS PER MAP RECORDED IN BOOK 707 PAGE 90 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, WITH THE SOUTHERLY PROLONGATION OF A PARALLEL WITH AND DISTANT 43 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE WESTERLY LINE OF SAN PABLO STREET, 80 FEET WIDE. AS SHOWN ON SAID MAP OF TRACT 27029; THENCE SOUTHERLY ALONG SAID PARALLEL LINE 66.62 FEET; THENCE SOUTHERLY ALONG A TANGENT CURVE CONCAVE TO THE WEST AND HAVING A RADIUS OF 1100 FEET, THROUGH A CENTRAL ANGLE OF 13° 09′ 55″ AN ARC DISTANCE OF 252.75 FEET; THENCE SOUTHERLY ALONG A LINE TANGENT TO SAID CURVE 271.22 FEET TO A POINT, SAID POINT TO BE THE **TRUE POINT OF BEGINNING** FOR PURPOSES OF THIS DESCRIPTION; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE NORTHWEST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 20° 03′ 26″ AN ARC DISTANCE OF 280.05 FEET; THENCE SOUTHWESTERLY ALONG A LINE TANGENT TO SAID LAST-MENTIONED CURVE 195.02 FEET; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE SOUTHEAST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 21° 07′ 07″ AN ARC DISTANCE OF 294.87 FEET.

LEGAL DESCRIPTION
(continued)

ALSO EXCEPT THEREFROM THE SOUTHEASTERLY 60 FEET OF SAID LOTS.

ALSO, EXCEPT THAT PORTION OF SAID LOT 82, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTHWESTERLY LINE OF SAID STRIP OF LAND 86 FEET WIDE WITH THE NORTHEASTERLY LINE OF SAID LOT 82; THENCE SOUTHWESTERLY ALONG SAID NORTHWESTERLY LINE TO A POINT DISTANT 15 FEET SOUTHWESTERLY, MEASURED ALONG SAID NORTHWESTERLY LINE, FROM A LINE PARALLEL WITH AND DISTANT 6 FEET SOUTHWESTERLY MEASURED AT RIGHT ANGLES FROM SAID NORTHEASTERLY LINE; THENCE NORTHERLY IN A DIRECT LINE TO A POINT IN SAID LAST-MENTIONED PARALLEL LINE DISTANT 15 FEET NORTHWESTERLY, MEASURED ALONG SAID LAST-MENTIONED LINE, FROM SAID NORTHWESTERLY LINE; THENCE NORTHWESTERLY ALONG SAID LAST-MENTIONED PARALLEL LINE TO THE NORTHWESTERLY LINE OF SAID LOT 82; THENCE NORTHWESTERLY ALONG SAID LAST-MENTIONED NORTHWESTERLY LINE TO SAID NORTHEASTERLY LINE; THENCE SOUTHEASTERLY ALONG SAID NORTHEASTERLY LINE TO THE POINT OF BEGINNING.

ALSO EXCEPT THEREFROM ALL OIL, GAS, WATER AND MINERAL RIGHTS WITHOUT, HOWEVER, THE RIGHT TO USE THE SURFACE OF THE LAND TO A DEPTH OF 500 FEET BELOW THE SURFACE FOR THE EXTRACTION OF SAID OIL, GAS, WATER AND MINERALS, AS RESERVED BY THE CITY OF LOS ANGELES IN GRANT DEED RECORDED DECEMBER 11, 1996 AS INSTRUMENT NO. 1996954, OF OFFICIAL RECORDS.

PARCEL 9:

THE SOUTHEASTERLY 60 FEET OF LOTS 82 AND 83 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM ALL OIL, GAS, WATER AND MINERAL RIGHTS WITHOUT, HOWEVER, THE RIGHT TO USE THE SURFACE OF THE LAND TO A DEPTH OF 500 FEET BELOW THE SURFACE FOR THE EXTRACTION OF SAID OIL, GAS, WATER AND MINERALS, AS RESERVED BY THE CITY OF LOS ANGELES IN GRANT DEED RECORDED DECEMBER 11, 1996 AS INSTRUMENT NO. 1996954, OF OFFICIAL RECORDS.

PARCEL 10:

THOSE PORTIONS OF LOTS 84 AND 85 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, INCLUDED WITHIN A STRIP OF LAND 86 FEET WIDE LYING 43 FEET ON EACH SIDE OF A LINE DESCRIBED AS FOLLOWS:

LEGAL DESCRIPTION
(continued)

COMMENCING AT THE INTERSECTION OF THE CENTER LINE OF NORFOLK STREET, AS SAID CENTER LINE IS SHOWN ON THE MAP OF TRACT 27029, AS PER MAP RECORDED IN BOOK 707 PAGE 90 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, WITH THE SOUTHERLY PROLONGATION OF A PARALLEL WITH AND DISTANT 43 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE WESTERLY LINE OF SAN PABLO STREET, 80 FEET WIDE. AS SHOWN ON SAID MAP OF TRACT 27029; THENCE SOUTHERLY ALONG SAID PARALLEL LINE 66.62 FEET; THENCE SOUTHERLY ALONG A TANGENT CURVE CONCAVE TO THE WEST AND HAVING A RADIUS OF 1100 FEET, THROUGH A CENTRAL ANGLE OF 13° 09′ 55″ AN ARC DISTANCE OF 252.75 FEET; THENCE SOUTHERLY ALONG A LINE TANGENT TO SAID CURVE 271.22 FEET TO A POINT, SAID POINT TO BE THE **TRUE POINT OF BEGINNING** FOR PURPOSES OF THIS DESCRIPTION; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE NORTHWEST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 20° 03′ 26″ AN ARC DISTANCE OF 280.05 FEET; THENCE SOUTHWESTERLY ALONG A LINE TANGENT TO SAID LAST-MENTIONED CURVE 195.02 FEET; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE SOUTHEAST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 21° 07′ 07″ AN ARC DISTANCE OF 294.87 FEET.

EXCEPT THEREFROM ALL OIL, GAS, WATER AND MINERAL RIGHTS WITHOUT, HOWEVER, THE RIGHT TO USE THE SURFACE OF THE LAND TO A DEPTH OF 500 FEET BELOW THE SURFACE FOR THE EXTRACTION OF SAID OIL, GAS, WATER AND MINERALS, AS RESERVED BY THE CITY OF LOS ANGELES IN GRANT DEED RECORDED DECEMBER 11, 1996 AS INSTRUMENT NO. 1996954, OF OFFICIAL RECORDS.

PARCEL 11:

LOTS 84 AND 85 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM THOSE PORTIONS OF SAID LOTS INCLUDED WITHIN A STRIP OF LAND 86 FEET WIDE LYING 43 FEET ON EACH SIDE OF A LINE DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE CENTER LINE OF NORFOLK STREET, AS SAID CENTER LINE IS SHOWN ON THE MAP OF TRACT 27029, AS PER MAP RECORDED IN BOOK 707 PAGE 90 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, WITH THE SOUTHERLY PROLONGATION OF A PARALLEL WITH AND DISTANT 43 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE WESTERLY LINE OF SAN PABLO STREET, 80 FEET WIDE. AS SHOWN ON SAID MAP OF TRACT 27029; THENCE SOUTHERLY ALONG SAID PARALLEL LINE 66.62 FEET; THENCE SOUTHERLY ALONG A TANGENT CURVE CONCAVE TO THE WEST AND HAVING A RADIUS OF 1100 FEET, THROUGH A CENTRAL ANGLE OF 13° 09′ 55″ AN ARC DISTANCE OF 252.75 FEET; THENCE SOUTHERLY ALONG A LINE TANGENT TO SAID CURVE 271.22 FEET TO A POINT, SAID POINT TO BE THE **TRUE POINT OF BEGINNING** FOR PURPOSES OF THIS DESCRIPTION; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE NORTHWEST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 20° 03′ 26″ AN ARC DISTANCE OF 280.05 FEET; THENCE SOUTHWESTERLY ALONG A LINE TANGENT TO SAID LAST-MENTIONED CURVE 195.02 FEET; THENCE SOUTHWESTERLY ALONG A TANGENT CURVE CONCAVE TO THE SOUTHEAST AND HAVING A RADIUS OF 800 FEET, THROUGH A CENTRAL ANGLE OF 21° 07′ 07″ AN ARC DISTANCE OF 294.87 FEET.

LEGAL DESCRIPTION
(continued)

ALSO EXCEPT THEREFROM ALL OIL, GAS, WATER AND MINERAL RIGHTS WITHOUT, HOWEVER, THE RIGHT TO USE THE SURFACE OF THE LAND TO A DEPTH OF 500 FEET BELOW THE SURFACE FOR THE EXTRACTION OF SAID OIL, GAS, WATER AND MINERALS, AS RESERVED BY THE CITY OF LOS ANGELES IN GRANT DEED RECORDED DECEMBER 11, 1996 AS INSTRUMENT NO. 1996954, OF OFFICIAL RECORDS.

PARCEL 12:

LOTS 86, 87 AND 88 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 13:

LOTS 89 AND 90 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 14:

LOT 91 OF MARENGO TERRACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGES 166 AND 167 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

END OF LEGAL DESCRIPTION

SCHEDULE B

At the date hereof, items to be considered and exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

A. Said land is shown as exempt on the Los Angeles County Tax Roll for the fiscal year 2012 - 2013

Assessors Parcel Number: 5201-001-901

Affects: Parcels 1 and 1A

B. Property taxes, including any assessments collected with taxes, for the fiscal year 2012 - 2013

1st Installment:	$552.82
Penalty:	$55.28 (Due after December 10)
2nd Installment:	$552.81
Penalty and Cost:	$65.28 (Due after April 10)
Homeowners Exemption:	$None
Code Area:	0012703

Assessors Parcel Number: 8940-365-437

Affects: Possessory interest only of Parcels 1 and 1A

C. Property taxes, including any assessments collected with taxes, for the fiscal year 2012 - 2013

1st Installment:	$418.12
Penalty:	$41.81 (Due after December 10)
2nd Installment:	$418.10
Penalty and Cost:	$51.81 (Due after April 10)
Homeowners Exemption:	$None
Code Area:	0012703

Assessors Parcel Number: 8940-365-439

Affects: Possessory interest only of Parcels 1 and 1A

SCHEDULE B
(continued)

D. Property taxes, including any assessments collected with taxes, for the fiscal year 2012 - 2013

1st Installment:	$969.03
Penalty:	$96.90 (Due after December 10)
2nd Installment:	$969.03
Penalty and Cost:	$106.90 (Due after April 10)
Homeowners Exemption:	$None
Code Area:	0012703
Assessors Parcel Number:	8940-365-447
Affects:	Possessory interest only of Parcels 1 and 1A

E. Property taxes, including any assessments collected with taxes, for the fiscal year 2012 - 2013

1st Installment:	$818.01
Penalty:	$81.80 (Due after December 10)
2nd Installment:	$818.01
Penalty and Cost:	$91.80 (Due after April 10)
Homeowners Exemption:	$None
Code Area:	0012703
Assessors Parcel Number:	8940-365-471
Affects:	Possessory interest only of Parcels 1 and 1A

F. Property taxes, including any assessments collected with taxes, for the fiscal year 2012 - 2013

1st Installment:	$164.68
Penalty:	$16.46 (Due after December 10)
2nd Installment:	$164.67
Penalty and Cost:	$26.46 (Due after April 10)
Homeowners Exemption:	$None
Code Area:	0012703
Assessors Parcel Number:	8940-365-472
Affects:	Possessory interest only of Parcels 1 and 1A

SCHEDULE B
(continued)

G. Property taxes, including any assessments collected with taxes, for the fiscal year 2012 - 2013

1st Installment:	$455.60
Penalty:	$45.56 (Due after December 10)
2nd Installment:	$455.59
Penalty and Cost:	$55.55 (Due after April 10)
Homeowners Exemption:	$None
Code Area:	0012703
Assessors Parcel Number:	8940-365-477
Affects:	Possessory interest only of Parcels 1 and 1A

H. Said land is shown as exempt on the Los Angeles County Tax Roll for the fiscal year 2012 - 2013

Assessors Parcel Number: 5201-008-904

Affects: Parcel 2

I. Said land is shown as exempt on the Los Angeles County Tax Roll for the fiscal year 2012 - 2013

Assessors Parcel Number: 5201-009-904 through 932 inclusive

Affects: Parcel 3

J. Said land is shown as exempt on the Los Angeles County Tax Roll for the fiscal year 2012 - 2013

Assessors Parcel Number: 5201-008-908 through 915

Affects: Parcels 7 through 14

K. The lien of supplemental or escaped assessments of property taxes, if any, made pursuant to the provisions of Part 0.5, Chapter 3.5 or Part 2, Chapter 3, Articles 3 and 4 respectively (commencing with Section 75) of the Revenue and Taxation Code of the State of California as a result of the transfer of title to the vestee named in Schedule A; or as a result of changes in ownership or new construction occurring prior to date of policy.

THE FOLLOWING MATTERS AFFECT PARCELS 1 AND 1A:

1. Any interest of the person(s) shown below as appearing as an assessed owner(s) of said land on the county secured tax rolls.

Name: Focus One Community Credit Union

SCHEDULE B
(continued)

2. Any interest of the person(s) shown below as appearing as an assessed owner(s) of said land on the county secured tax rolls.

   Name: Focus One Credit Union

3. Any interest of the person(s) shown below as appearing as an assessed owner(s) of said land on the county secured tax rolls.

   Name: North County Vending

4. Any interest of the person(s) shown below as appearing as an assessed owner(s) of said land on the county secured tax rolls.

   Name: Morrison Management Specialists

5. Any interest of the person(s) shown below as appearing as an assessed owner(s) of said land on the county secured tax rolls.

   Name: Morrison Management Specialist

6. Any interest of the person(s) shown below as appearing as an assessed owner(s) of said land on the county secured tax rolls.

   Name: Cater Craft Foods Inc

7. Covenants, conditions, restrictions and easements (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

   Recorded: In Book 4797 Page 198 of Deeds
   In Book 5216 Page 102 of Deeds
   In Book 4245 Page 217 of Deeds
   In Book 6712 Page 190 of Deeds
   In Book 4955 Page 142 of Deeds

   Note: Section 12956.1 of the government code provides the following: “If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status.”

SCHEDULE B
(continued)

8. An easement affecting the portion of said land and for the purposes stated herein and incidental purposes (No representation is made as to the present ownership of said easement)

In Favor of:	City of Los Angeles
For:	Poles and wires for the transmission of electrical energy and telephones
Recorded:	In Book 2067 Page 20, Official Records
Affects:	Portion of said land.

9. Easement(s) for the purpose(s) shown below and rights incidental thereto as reserved in a document;

Purpose:	Private driveway
Recorded:	April 24, 1923 in Book 2116 Page 261, and in Book 2191 Page 197, and in Book 2454 Page 170, and in Book 2120 Page 349, and in Book 2195 Page 132, all of Official Records
Affects:	Portion of said land.

10. An easement affecting the portion of said land and for the purposes stated herein and incidental purposes (No representation is made as to the present ownership of said easement)

In Favor of:	City of Los Angeles, a municipal corporation
For:	Public street
Recorded:	In Book 14417 Page 355, Official Records
Affects:	Portion of said land.

11. A covenant and agreement upon and subject to the terms and conditions therein

Executed by:	County of Los Angeles
In favor of:	City of Los Angeles
Recorded:	January 10, 1951 as Instrument No. 2956, of Official Records

Reference is hereby made to said document for full particulars.

Affects:	Lot 1 of Tract No. 2082

12. A covenant and agreement upon and subject to the terms and conditions therein

Executed by:	County of Los Angeles
In favor of:	City of Los Angeles
Recorded:	February 19, 1951 as Instrument No. 2912, of Official Records

Reference is hereby made to said document for full particulars.

Affects:	Lot 1 of Tract No. 9800

SCHEDULE B
(continued)

13. A covenant and agreement upon and subject to the terms and conditions therein

Executed by:	County of Los Angeles
In favor of:	City of Los Angeles
Recorded:	September 6, 1951 as Instrument No. 2558, in Book 37153 Page 402, of Official Records

Reference is hereby made to said document for full particulars.

Affects:	Lot 1 of Tract No. 9800

14. An easement affecting the portion of said land and for the purposes stated herein and incidental purposes (No representation is made as to the present ownership of said easement)

In Favor of:	City of Los Angeles, a municipal corporation
For:	Outdoor type distributing station for electrical energy
Recorded:	May 14, 1952 as Instrument No. 3122, Official Records
Affects:	A portion of Lot 1 of Tract No. 2082 as more particularly described therein

15. A document entitled "A Joint Exercise of Powers Agreement", dated November 9, 1997, executed by the County of Los Angeles and the City of Los Angeles, subject to all the terms, provision(s) and conditions therein contained, recorded April 24, 1973 as Instrument No. 301, Official Records.

Affects:	The herein described land and other land.

16. An easement affecting the portion of said land and for the purposes stated herein, and incidental purposes, condemned by final decree.

Defendant:	County of Los Angeles, DOE One to DOE Fifty, inclusive
Plaintiff:	The City of Los Angeles, a municipal corporation
Nature of Action:	Condemnation
Case No.:	115122
Recorded:	February 25, 1975 as Instrument No. 2193, of Official Records

Reference is hereby made to said document for full particulars.

The effect of a "Stipulation for Transfer of Possession in Lieu of Order of Immediate Possession", recorded January 30, 1976 as Instrument No. 3967, Official Records.

Affects:	A portion of the land described herein and other land.

SCHEDULE B
(continued)

17. The terms, conditions and provisions of that certain waiver of damages, indemnification agreement, and right of ingress and egress to run with the land,

    Recorded: October 7, 1993 as Instrument No. 93-1964361, of Official Records

    Affects: Lot 1 of Tract No. 2082

18. The terms, conditions and provisions of that certain waiver of damages, indemnification agreement, and right of ingress and egress to run with the land,

    Recorded: October 7, 1993 as Instrument No. 93-1964362, of Official Records

    Affects: Lot 1 of Tract No. 2082

19. A Leasehold Certificate of Compliance

    Dated: July 10, 1998
    Executed by: Robert J. Armstrong
    Compliance No.: CC 98-0196
    Recorded: October 8, 1998 as Instrument No. 98-1840904, of Official Records

    Affects: Portion of Lot 1 of Tract No. 2082

20. A covenant and agreement upon and subject to the terms and conditions therein

    Executed by: County of Los Angeles
    In favor of: City of Los Angeles
    Recorded: April 5, 2005 as Instrument No. 05-789401, of Official Records

    Reference is hereby made to said document for full particulars.

    Affects: Portion of Lot 1 of Tract No. 9800 and other land

21. A covenant and agreement upon and subject to the terms and conditions therein

    Executed by: County of Los Angeles
    In favor of: City of Los Angeles
    Recorded: April 5, 2005 as Instrument No. 05-789402, of Official Records

    Reference is hereby made to said document for full particulars.

    Affects: Portion of Lot 1 of Tract No. 9800 and other land

SCHEDULE B
(continued)

22. The terms, conditions and provisions of that certain waiver of damages, indemnification agreement, and right of ingress and egress to run with the land,

    Recorded: April 5, 2005 as Instrument No. 05-789403, of Official Records

    Affects: Lot 1 of Tract No. 9800 and other land

23. The terms, conditions and provisions of that certain waiver of damages, indemnification agreement, and right of ingress and egress to run with the land,

    Recorded: April 5, 2005 as Instrument No. 05-789404, of Official Records

    Affects: Lot 1 of Tract No. 9800 and other land

24. The fact that said land is included within the Adelante Eastside Redevelopment Project Area, and that proceedings for redevelopment have been instituted.

    Recorded: October 29, 2009 as Instrument No. 2009-1635006, of Official Records

25. Any claims for mechanics' liens on said land that may be recorded, by reason of a recent work of improvement that is disclosed by a Notice of Completion.

    Recorded: August 10, 2012 as Instrument No. 2012-1195015, of Official Records

26. Any claims for mechanics' liens on said land that may be recorded, by reason of a recent work of improvement that is disclosed by a Notice of Completion.

    Recorded: August 10, 2012 as Instrument No. 2012-1195048, of Official Records

THE FOLLOWING MATTERS AFFECT PARCEL 2:

27. A right of way for canal purposes, as granted to the City of Los Angeles, by deed recorded in Book 88 page 155 of Deeds.

28. An easement for the construction, reconstruction, maintenance, inspection, alteration and repair of public sewers and storm drains over that portion of said land included within the lines of Wood Avenue (vacated), as reserved by the in the City of Los Angeles in Ordinance No. 34,974 (New Series) adopted on October 31, 1916 by the City Council of the City of Los Angeles vacating said Wood Avenue.

SCHEDULE B
(continued)

29. Covenants, conditions and restrictions (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

Recorded: in Book 2944 page 90 of Deeds

Note: Section 12956.1 of the government code provides the following: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

30. Covenants, conditions and restrictions (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

Recorded: in Book 4212 page 45 of Deeds

Note: Section 12956.1 of the government code provides the following: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

31. Covenants, conditions and restrictions (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

Recorded: in Book 1688 page 98, of Official Records

Note: Section 12956.1 of the government code provides the following: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

SCHEDULE B
(continued)

32. Covenants, conditions and restrictions (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

Recorded: in Book 4370 page 390, of Official Records

Note: Section 12956.1 of the government code provides the following: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

33. An easement for the purpose shown below and rights incidental thereto as set forth in a document.

Purpose:	Roadway and parking
Recorded:	November 2, 1949 in Book 31388 page 67, of Official Records
Affects:	Portion of said land

34. A waiver in favor of the City of Los Angeles of any claims for damage to said land by reason of the location of a public street contiguous thereto as contained in deed, recorded October 20, 1936 as Instrument No. 1065 in Book 14417 page 355, of Official Records.

35. A document subject to all the terms, provisions and conditions therein contained.

Entitled:	Joint Exercise of Power of Agreement Between the County of Los Angeles and the City of Los Angeles Creating an Agency to be Known as The Los Angeles County Health Facilities Authority
Recorded:	April 24, 1973 as Instrument No. 301, of Official Records

36. A document subject to all the terms, provisions and conditions therein contained.

Entitled:	Statement Concerning Lien Encumbering Property
Recorded:	December 27, 1999 as Instrument No. 99-2371514, of Official Records

SCHEDULE B
(continued)

THE FOLLOWING MATTERS AFFECT PARCELS 3A AND 3B:

37. A covenant and agreement wherein the owners of said land covenant and agree that said land shall be held as one parcel and no portion shall be sold separately, which covenant is expressed to run with the land and be binding upon future owners.

    Recorded: January 15, 1965 as Instrument No. 3945, of Official Records

38. An irrevocable offer to dedicate an easement over a portion of said land for public street or highway purposes.

    Recorded: September 14, 1965 as Instrument No. 4287, of Official Records

    Said offer was accepted for public use by a resolution.

    Recorded: February 7, 1966 as Instrument No. 3571, of Official Records

39. A covenant and agreement wherein the owners of said land covenant and agree that said land shall be held as one parcel and no portion shall be sold separately, which covenant is expressed to run with the land and be binding upon future owners.

    Recorded: December 14, 1983 as Instrument No. 83-1482253, of Official Records

THE FOLLOWING MATTERS AFFECT PARCEL 3C:

40. Easement(s) for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the recorded map shown below:

    Map of: Lacy's Orange Slope Tract, Book 15 page 55 of Miscellaneous Records
    Purpose: street
    Affects: That portion of said land as shown on said map.

    Affects: Lots 98, 99, 100, 101, 105 and 106

41. An easement for the purposes shown below and rights incidental thereto as reserved in a document

    Purpose: Public sewers
    Affects: Over that portion of said land lying within the alley vacated by Ordinance No. 19,759.

    Affects: Lots 99, 100 and 101

SCHEDULE B
(continued)

42. Covenants, conditions and restrictions (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

Recorded: in Book 4303 page 39 of Deeds

Note: Section 12956.1 of the government code provides the following: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

Said covenants, conditions and restrictions provide that a violation thereof shall not defeat the lien of any mortgage or deed of trust made in good faith and for value.

Affects: Lots 94 and 95

43. An easement for the purpose shown below and rights incidental thereto as set forth in a document.

Purpose: Right of way for ingress, egress
Recorded: February 28, 1990 as Instrument No. 90-327008 of Official Records
Affects: That portion of said land as described in the document attached hereto.

Affects: Lots 105 and 106

44. A covenant and agreement upon and subject to the terms and conditions therein

Recorded: July 18, 1991 as Instrument No. 91-1103423, of Official Records

Reference is hereby made to said document for full particulars.

Affects: Lot 93

SCHEDULE B
(continued)

THE FOLLOWING MATTERS AFFECT PARCEL 3D:

45. Easement(s) for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the recorded map shown below:

Map of:	Lacy's Orange Slope Tract, Book 15 page 55 of Miscellaneous Records
Purpose:	street
Affects:	That portion of said land as shown on said map.
Affects:	Lots 169 and 170

46. An easement for the purpose shown below and rights incidental thereto as set forth in a document.

Purpose:	Utilities
Recorded:	In Book 8 page 155 of Deeds
Affects:	That portion of said land as described in the document attached hereto.
Affects:	Lots 171, 172 and 173

47. A covenant and agreement wherein the owners of said land covenant and agree that said land shall be held as one parcel and no portion shall be sold separately, which covenant is expressed to run with the land and be binding upon future owners.

Recorded:	March 8, 1985 as Instrument No. 85-260580, of Official Records
Affects:	Lots 174 through 177 inclusive

48. An easement for the purpose shown below and rights incidental thereto as set forth in a document.

Purpose:	Public street, road or highway
Recorded:	March 20, 1985 as Instrument No. 85-306161 and accepted by resolution recorded April 18, 1986 as Instrument No. 86-482302, both of Official Records
Affects:	That portion of said land as described in the document attached hereto.
Affects:	Lots 174 through 177 inclusive

SCHEDULE B
(continued)

THE FOLLOWING MATTERS AFFECT PARCEL 3E:

49. Covenants, conditions and restrictions (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

    Recorded: in Book 4212 page 45 of Deeds

    Note: Section 12956.1 of the government code provides the following: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

    Affects: Lots 68 through 71 inclusive

50. Covenants, conditions and restrictions (but omitting any covenant or restrictions, if any, based upon on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law) as set forth in the document

    Recorded: in Book 759 page 395, of Official Records

    Note: Section 12956.1 of the government code provides the following: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

    Affects: Lot 203

51. The effect of an instrument dated July 29, 1936, executed by Warren Marliave, as grantor, in favor of the City of Los Angeles, wherein said grantor waives and claim for damages to said Lot 179 and consents to certain slope rights within the lines of said Lot 179, by reason of the improvement of Marengo Street, between Cornwell Street and Mission Road, recorded in Book 14437 page 252, of Official Records.

52. The effect of a final decree of condemnation in favor of the City of Los Angeles, condemning certain rights in Marengo Street which are appurtenant to said Lot 178, including the rights of ingress and egress to and from said street, entered in Case No. 409289, Superior Court. A certified copy thereof being recorded in Book 15486 page 103, of Official Records, therein designated as Parcel 12-B.

SCHEDULE B
(continued)

53. A document subject to all the terms, provisions and conditions therein contained.

Entitled:	Joint Exercise of Powers Agreement Between the County of Los Angeles and The City of Los Angeles Creating an Agency to be Known as the Los Angeles County Health Facilities Authority
Recorded:	April 24, 1973 as Instrument No. 301, of Official Records

54. A document subject to all the terms, provisions and conditions therein contained.

Entitled:	Statement Concerning Lien Encumbering Property
Recorded:	December 27, 1999 as Instrument No. 99-2371514, of Official Records

Said document, among other things, provides for a lien in favor of the Office of Emergency Services of the State of California in the amount of $473,191,873.00 and any other amounts due.

THE FOLLOWING MATTERS AFFECT PARCELS 4, 5 AND 6:

55. An easement affecting the portion of said land and for the purposes stated herein, and incidental purposes, dedicated by City Ordinance.

In Favor of:	City of Los Angeles, a municipal corporation
Purpose:	For the protection of drainage, sanitary sewer, and public utility facilities
Ordinance No.:	174973
Affects:	A portion of said land more particularly described therein.

The exact location and extent of said easement is not disclosed of record.

56. Proceedings regarding the intention to vacate certain streets and/or alleys as set out in that certain City of Los Angeles Ordinance No. 174973 approved November 20, 2002.

SCHEDULE B
(continued)

THE FOLLOWING MATTERS AFFECT PARCELS 7, 8, 9, 10, 11, 12, 13 AND 14:

57. A pending Court Action as disclosed by a recorded notice.

Defendant:	David L. Stokesbary, et al.
Plaintiff:	The City of Los Angeles, a municipal corporation
Nature of Action:	condemnation
Case No.:	C 54154
Recorded:	April 6, 1973 as Instrument No. 4134, of Official Records

Reference is hereby made to said document for full particulars.

Judgment and Final Order of Condemnation (as to Parcel Nos. 24AA and 24R described in the Lis Pendens shown above), a certified copy of which recorded November 27, 1973 as Instrument No. 2717, of Official Records.

Said Judgment and Final Order of Condemnation, among other things, condemns Parcel No. 24AA in fee for public street purposes and Parcel No. 24R for reservation purposes.

58. A document subject to all the terms, provisions and conditions therein contained.

Entitled:	Notice of Building(s) Classified as a Nuisance or Hazard to Life or Property, and Demolition Abatement Proceedings
Recorded:	September 15, 1978 as Instrument No. 78-1028577, of Official Records
Affects:	That part of Lots 82, 83, 84 and 85 lying northwest of San Pablo St.

59. The effect of a deed

Transfer tax:	$None
Dated:	April 25, 1996
Grantor:	The City of Los Angeles, a municipal corporation
Grantee:	County of Los Angeles
Recorded:	December 11, 1996 as Instrument No. 96-1996954, of Official Records
Defect:	The legal description contained therein is ambiguous

SCHEDULE B
(continued)

THE FOLLOWING MATTERS AFFECT AS SHOWN:

60. A leasehold as created by that certain Master Site Lease, dated November 1, 2010, executed by County of Los Angeles, a political subdivision of the State of California, as lessor, and Los Angeles County Public Works Financing Authority, a joint powers authority organized and existing under the laws of the State of California, as lessee, and recorded November 22, 2010 as Instrument No. 2010-1688247 of Official Records for the term, upon and subject to all of the provisions contained therein, and subject to the terms, covenants, conditions and provisions of the Master Sublease shown below.

    Certain rights of the lessee under said Master Site Lease have been assigned to U.S. Bank National Association, a national banking association, as Trustee pursuant to an unrecorded Master Indenture dated November 1, 2010, all as provided in the Memorandum of Assignment dated November 1, 2010, and recorded November 22, 2010 as Instrument No. 2010-1688249 of Official Records.

    The present ownership of the leasehold created by said lease and other matters affecting the interest of the lessee are not shown herein.

    Affects: Parcels 1 through 6

61. A subleasehold as created by that certain Master Sublease, dated November 1, 2010, executed by Los Angeles County Public Works Financing Authority, a joint powers authority organized and existing under the laws of the State of California, as sublessor, and County of Los Angeles, a political subdivision of the State of California, as sublessee, and recorded November 22, 2010 as Instrument No. 2010-1688248 of Official Records, for the term, upon and subject to all of the provisions contained therein, and subject to the terms, covenants, conditions and provisions of the Master Site Lease shown above.

    Certain rights of the sublessor under said Master Sublease have been assigned to U.S. Bank National Association, a national banking association, as Trustee pursuant to that certain unrecorded Master Indenture dated November 1, 2010, all as provided in the Memorandum of Assignment dated November 1, 2010, and recorded November 22, 2010 as Instrument No. 2010-1688249 of Official Records.

    The present ownership of the leasehold created by said lease and other matters affecting the interest of the lessee are not shown herein.

    Affects: Parcels 1 through 6

62. Any right of the United States to recover funds from the owner or from any transferee of said land, or of any portion thereon, by reason of the advance of federal funds including, but not limited to those authorized under the Hill-Burton Act.

63. Water rights, claims or title to water, whether or not disclosed by the public records.

SCHEDULE B
(continued)

64. Matters which may be disclosed by an inspection and/or by a correct ALTA/ACSM Land Title Survey of said land that is satisfactory to this Company, and/or by inquiry of the parties in possession thereof.

    This office must be notified at least 7 business days prior to the scheduled closing in order to arrange for an inspection of the land; upon completion of this inspection you will be notified of the removal of specific coverage exceptions and/or additional exceptions to coverage.

65. Any rights of parties in possession of said land, based on any unrecorded lease, or leases.

    This Company will require a full copy of any unrecorded lease, together with all supplements, assignments, and amendments for review.

END OF SCHEDULE B

INFORMATIONAL NOTES

Note No. 1: Section 12413.1, California Insurance Code became effective January 1, 1990. This legislation regulates the disbursement of funds deposited with any title entity acting in an escrow or sub-escrow capacity. The law requires that all funds be deposited and collected by the title entity's escrow and/or sub-escrow account prior to disbursement of any funds. Some methods of funding may be subject to a holding period, which must expire before any funds may be disbursed. In order to avoid any such delays, all funding should be done via wire transfer. Funds deposited with the Company via wire transfer may be disbursed upon receipt. Funds deposited by cashiers checks, certified checks, and teller's checks is one business day after the day deposited. Other checks may require hold periods from two to five business days after the day deposited, and may delay your closing. The Company may receive benefits from such banks based upon the balances in such accounts. Such benefits will be retained by the Company as part of its compensation for handling such funds.

Note No. 2: The charge where an order is cancelled after the issuance of the report of title, will be that amount which in the opinion of the Company is proper compensation for the services rendered or the purpose for which the report is used, but in no event shall said charge be less that the minimum amount required under Section 12404.1 of the Insurance Code of the State of California. If the report cannot be cancelled "no fee" pursuant to the provisions of said Insurance Code, then the minimum cancellation fee shall be that permitted by law.

Note No. 3: California Revenue and Taxation Code Section 18668, effective January 1, 1991, requires that the buyer in all sales of California Real Estate, withhold 3-1/3% of the total sales price as California State Income Tax, subject to the various provisions of the law as therein contained, and as amended.

INFORMATIONAL NOTES
(continued)

Note No. 4: Wire Transfers

In the event your transaction is being escrowed by a Chicago Title office, contact should be made with the office to obtain correct wiring instructions. Failure to do so could result in a delay in the receipt of funds and subsequent closing of your transaction.

Chicago Title will disburse by wire-out only collected funds or funds received by confirmed wire-in.

The Company's wire-in instructions are:

Bank:	Bank of America 275 Valencia Blvd Brea, CA 92823
Int'l SWIFT Code:	BOFAUSN3N
Bank ABA No.:	026009593
Account Name:	Chicago Title Company
Account No.:	12570-64888
For Credit To:	Chicago Title Company 700 South Flower, Suite 800 Los Angeles, CA 90017
Title Order No.:	12020543-X59

Please note: Our office does not accept ACH transfers. These instructions are for the purpose of sending wire transfers only.

LENDER NOTE: **On the DATE you fund the Loan and WIRE Funds to Chicago Title and reference the above Order Number, you must send written NOTICE to the Title Officer's Unit by messenger or E-Mail that you sent the Funds.**

Chicago Title will send an E-Mail acknowledging receipt of the funds as soon as practicable.

Chicago Title will NOT be responsible for any delay in Closing and Recording the transaction, nor will Chicago Title be liable for any claim of lost Interest unless such written Notice is sent the day of Funding and Chicago Title has acknowledged receipt of funds.

Note No. 5: Your application for title insurance was placed by reference to a street address or assessor's parcel number. Based upon our records, we believe that the description in this report covers the parcel that you requested.

To prevent errors, we require written confirmation that the legal description contained herein covers the parcel that you requested.

INFORMATIONAL NOTES
(continued)

Note No. 6: The plat, (map), which is attached to this report, is to assist you in locating land with reference to streets and other parcels. While this plat is believed to be correct, the Company assumes no liability for any loss occurring by reason of reliance thereon.

Note No. 7: The policy of title insurance will include an arbitration provision. The Company or the insured may demand arbitration. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the insured arising out of or relating to this policy, any service of the Company in connection with its issuance or the breach of a policy provision or other obligation. Please ask your escrow or title officer for a sample copy of the policy to be issued if you wish to review the arbitration provisions and any other provisions pertaining to your Title Insurance coverage.

Note No. 8: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the amount, if any, set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.

Note No. 9: Important notice regarding documents to be recorded in the Los Angeles County. Please review the following CRITICAL MESSAGE from the Los Angeles County Recorder's Office as it will likely impact your closing:

SUBJECT: ACCEPTANCE OF NOTARY ACKNOWLEDGEMENTS

Effective May 1, 2008, the Los Angeles Registrar-Recorder/County Clerk's Office will work diligently to be more efficient in examining notary acknowledgements as our part in minimizing notary fraud. In our efforts, we will strictly adhere to the following requirements for accepting Notary Acknowledgments/Certificates:

- Notaries must comply with the requirements set forth by the state where the oath is administered.

- Notary Acknowledgments/Certificates may not contain white-out, corrective tape, arrows and/or asterisks.

- Notary Acknowledgments/Certificates completed by a California Notary that are destined for recording in the County of Los Angeles must be presented exactly in the form prescribed by Civil Code Section 1189(a)(1).

A Notary Acknowledgment/Certificate that does not meet existing state requirements in addition to the requirements set forth above may not be re-submitted after it has been rejected by the Recorder. A new Notary Acknowledgment/Certificate will be required when re-submitting a rejected document.

If you have any questions, please contact the Registrar-Recorder/County Clerk at (562) 462-2125.

INFORMATIONAL NOTES
(continued)

Fidelity National Financial, Inc
Privacy Statement

Fidelity National Financial, Inc. and its subsidiaries ("FNF") respect the privacy and security of your non-public personal information ("Personal Information") and protecting your Personal Information is one of our top priorities. This Privacy Statement explains FNFs privacy practices, including how we use the Personal Information we receive from you and from other specified sources, and to whom it may be disclosed. FNF follows the privacy practices described in this Privacy Statement and, depending on the business performed, FNF companies may share information as described herein.

Personal Information Collected
We may collect Personal Information about you from the following sources:

- Information we receive from you on applications or other forms, such as your name, address, social security number, tax identification number, asset information and income information;
- Information we receive from you through our Internet websites, such as your name, address, Internet Protocol address, the website links you used to get to our websites, and your activity while using or reviewing our websites;
- Information about your transactions with or services performed by us, our affiliates, or others, such as information concerning your policy, premiums, payment history, information about your home or other real property, information from lenders and other third parties involved in such transactions, account balances, and credit card information; and
- Information we receive from consumer or other reporting agencies and publicly recorded.

Disclosure of Personal Information
We may provide your Personal Information (excluding information we receive from our consumer or other credit reporting agencies) to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Disclosures may include, without limitation, the following:

- To insurance agents, brokers, representatives, support organizations, or others to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure in connections with an insurance transactions;
- To third-party contractors or service providers for the purpose of determining your eligibility for an insurance benefit or payment and/or providing you with services you have requested;
- To an insurance regulatory, or law enforcement or other governmental authority, in a civil action, in connection with a subpoena or a governmental investigation;
- To companies that perform marketing services on our behalf or to other financial institutions with which we have had joint marketing agreements and/or
- To lenders, lien holders, judgment creditors, or other parties claiming an encumbrance or an interest in title whose claim or interest must be determined, settled, paid or released prior to a title or escrow closing.

We may also disclose your Personal Information to others when we believe, in good faith, that such disclosure is reasonably necessary to comply with the law or to protect the safety of our customers, employees, or property and/or to comply with a judicial proceeding, court order or legal process.

Disclosure to Affiliated Companies - We are permitted by law to share your name, address and facts about your transaction with other FNF companies, such as insurance companies, agents, and other real estate service providers to provide you with services you have requested, for marketing or product development research, or to market products or services to you. We do not, however, disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent, in conformity with applicable law, unless such disclosure is otherwise permitted by law.

Disclosure to Nonaffiliated Third Parties - We do not disclose Personal Information about our customers or former customers to nonaffiliated third parties, except as outlines herein or as otherwise permitted by law.

Confidentiality and Security of Personal Information
We restrict access to Personal Information about you to those employees who need to know that information to provide products or services to you. We maintain physical , electronic, and procedural safeguards that comply with federal regulation to guard Personal Information.

Access to Personal Information/
Requests for Correction, Amendment, or Deletion of Personal Information
As required by applicable law, we will afford you the right to access your Personal Information, under certain circumstances to find out to whom your Personal Information has been disclosed, and request correction or deletion of your Personal Information. However, FNF's current policy is to maintain customers' Personal Information for no less than your state's required record retention requirements for the purpose of handling future coverage claims.

For your protection, all requests made under this section must be in writing and must include your notarized signature to establish your identity. Where permitted by law we may charge a reasonable fee to cover the costs incurred in responding to such requests. Please send requests to:

Chief Privacy Officer
Fidelity National Financial, Inc.
601 Riverside Drive
Jacksonville, FL 32204

Changes to this Privacy Statement
This Privacy Statement may be amended from time to time consistent with applicable privacy laws. When we amend this Privacy Statement, we will post a notice of such changes on our website. The effective date of this Privacy Statement, as stated above, indicates the last time this Privacy Statement was revised or materially changed.

ATTACHMENT ONE

AMERICAN LAND TITLE ASSOCIATION
RESIDENTIAL TITLE INSURANCE POLICY (6-1-87) EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:
   - land use
   - improvements on the land
   - land division
   - environmental protection

   This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at policy date.
   This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless:
   - a notice of exercising the right appears in the public records on the Policy Date
   - the taking happened prior to the Policy Date and is binding on you if you bought the land without knowledge of the taking
3. Title Risks:
   - that are created, allowed, or agreed to by you
   - that are known to you, but not to us, on the Policy Date-unless they appeared in the public records
   - that result in no loss to you
   - that first affect your title after the Policy Date – this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
   - to any land outside the area specifically described and referred to in Item 3 of Schedule A
     or
   - in streets, alleys, or waterways that touch your land

   This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

In addition to the Exclusions, you are not insured against loss, costs, attorneys' fees, and the expenses resulting from:

1. Any rights, interests, or claims of parties in possession of the land not shown by the public records.
2. Any easements or liens not shown by the public records. This does not limit the lien coverage in Item 8 of Covered Title Risks.
3. Any facts about the land which a correct survey would disclose and which are not shown by the public records. This does not limit the forced removal coverage in Item 12 of Covered Title Risks.
4. Any water rights or claims or title to water in or under the land, whether or not shown by the public records.

CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY – 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

SCHEDULE B, PART I
EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

PART I

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

FORMERLY AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (10-17-92)
WITH A.L.T.A. ENDORSEMENT-FORM 1 COVERAGE
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy (except to the extent that this policy insures the priority of the lien of the insured mortgage over any statutory lien for services, labor or material or to the extent insurance is afforded herein as to assessments for street improvements under construction or completed at Date of Policy); or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any statutory lien for services, labor or materials (or the claim of priority of any statutory lien for services, labor or materials over the lien of the insured mortgage) arising from an improvement or work related to the land which is contracted for and commenced subsequent to Date of Policy and is not financed in whole or in part by proceeds of the indebtedness secured by the insured mortgage which at Date of Policy the insured has advanced or is obligated to advance.
7. Any claim, which arises out of the transaction creating the interest of the mortgagee insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the interest of the insured mortgagee being deemed a fraudulent conveyance or fraudulent transfer; or

(ii) the subordination of the interest of the insured mortgagee as a result of the application of the doctrine of equitable subordination; or
(iii) the transaction creating the interest of the insured mortgagee being deemed a preferential transfer except where the preferential transfer results from the failure:
(a) to timely record the instrument of transfer; or
(b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

2006 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

FORMERLY AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (10-17-92)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy, or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the estate or interest insured by this policy.
4. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the estate or interest insured by this policy being deemed a fraudulent conveyance or fraudulent transfer; or
   (ii) the transaction creating the estate or interest insured by this policy being deemed a preferential transfer except where the preferential transfer results from the failure:
      (a) to timely record the instrument of transfer; or
      (b) of such recordation to impart notice to a purchaser for value or a judgement or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.

2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

2006 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10-22-03)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10-22-03)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes ordinances, laws and regulations concerning:
   a. building
   b. zoning
   c. Land use
   d. improvements on Land
   e. Land division
   f. environmental protection

   This Exclusion does not apply to violations or the enforcement of these matters if notice of the violation or enforcement appears in the Public Records at the Policy Date.
   This Exclusion does not limit the coverage described in Covered Risk 14, 15, 16, 17 or 24.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at the Policy Date.
3. The right to take the Land by condemning it, unless:
   a. notice of exercising the right appears in the Public Records at the Policy Date; or
   b. the taking happened before the Policy Date and is binding on You if You bought the Land without Knowing of the taking.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they appear in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they appear in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date – this does not limit the coverage described in Covered Risk 7, 8.d, 22, 23, 24 or 25.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any Land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

   This Exclusion does not limit the coverage described in Covered Risk 11 or 18.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 14, 15, 16 and 18, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 14:	1.00% of Policy Amount or $ 2,500.00 (whichever is less)	$ 10,000.00
Covered Risk 15:	1.00% of Policy Amount or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 16:	1.00% of Policy Amount or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 18:	1.00% of Policy Amount or $ 2,500.00 (whichever is less)	$ 5,000.00

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:

   a. building;
   b. zoning;
   c. land use;
   d. improvements on the Land;
   e. land division; and
   f. environmental protection.

   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.

2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.

3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.

4. Risks:

   a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.

5. Failure to pay value for Your Title.

6. Lack of a right:

   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.

7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19 and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1.00% of Policy Amount Shown in Schedule A or $ 2,500.00 (whichever is less)	$ 10,000.00
Covered Risk 18:	1.00% of Policy Amount Shown in Schedule A or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 19:	1.00% of Policy Amount Shown in Schedule A or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 21:	1.00% of Policy Amount Shown in Schedule A or $ 2,500.00 (whichever is less)	$ 5,000.00

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (10/13/01)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the Land; (ii) the character, dimensions or location of any improvements now or hereafter erected on the Land; (iii) a separation in ownership or a change in the dimensions or areas of the Land or any parcel of which the Land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records at Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records at Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the Public Records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without Knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (this paragraph does not limit the coverage provided under Covered Risks 8, 16, 18, 19, 20, 21, 22, 23, 24, 25 and 26); or
   (e) resulting in loss or damage which would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of the Insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the Land is situated.

5. Invalidity or unenforceability of the lien of the Insured Mortgage, or claim thereof, which arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, except as provided in Covered Risk 27, or any consumer credit protection or truth in lending law.
6. Real property taxes or assessments of any governmental authority which become a lien on the Land subsequent to Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 7, 8(e) and 26.
7. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This exclusion does not limit the coverage provided in Covered Risk 8.
8. Lack of priority of the lien of the Insured Mortgage as to each and every advance made after Date of Policy, and all interest charged thereon, over liens, encumbrances and other matters affecting the title, the existence of which are Known to the Insured at:
   (a) The time of the advance; or
   (b) The time a modification is made to the terms of the Insured Mortgage which changes the rate of interest charged, if the rate of interest is greater as a result of the modification than it would have been before the modification. This exclusion does not limit the coverage provided in Covered Risk 8.
9. The failure of the residential structure, or any portion thereof to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at Date of Policy.

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07/26/10)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

   (i) the occupancy, use, or enjoyment of the Land;

   (ii) the character, dimensions, or location of any improvement erected on the Land;

   (iii) the subdivision of land; or

   (iv) environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.

3. Defects, liens, encumbrances, adverse claims, or other matters

   (a) created, suffered, assumed, or agreed to by the Insured Claimant;

   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

   (c) resulting in no loss or damage to the Insured Claimant;

   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or

   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.

4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.

5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.

6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.

7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.

8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.

9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is

   (a) a fraudulent conveyance or fraudulent transfer, or

   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.

NOTICE

You may be entitled to receive a $20.00 discount on escrow services if you purchased, sold or refinanced residential property in California between May 19, 1995 and November 1, 2002. If you had more than one qualifying transaction, you may be entitled to multiple discounts.

If your previous transaction involved the same property that is the subject of your current transaction, you do not have to do anything; the Company will provide the discount, provided you are paying for escrow or title services in this transaction.

If your previous transaction involved property different from the property that is subject of your current transaction, you must - prior to the close of the current transaction - inform the Company of the earlier transaction, provide the address of the property involved in the previous transaction, and the date or approximate date that the escrow closed to be eligible for the discount.

Unless you inform the Company of the prior transaction on property that is not the subject of this transaction, the Company has no obligation to conduct an investigation to determine if you qualify for a discount. If you provide the Company information concerning a prior transaction, the Company is required to determine if you qualify for a discount which is subject to other terms and conditions.

Notice of Available Discounts

Pursuant to Section 2355.3 in Title 10 of the California Code of Regulations Fidelity National Financial, Inc. and its subsidiaries ("FNF") must deliver a notice of each discount available under our current rate filing along with the delivery of escrow instructions, a preliminary report or commitment. Please be aware that the provision of this notice does not constitute a waiver of the consumer's right to be charged the filed rate. As such, your transaction may not qualify for the below discounts.

You are encouraged to discuss the applicability of one or more of the below discounts with a Company representative. These discounts are generally described below; consult the rate manual for a full description of the terms, conditions and requirements for such discount. These discounts only apply to transactions involving services rendered by the FNF Family of Companies. This notice only applies to transactions involving property improved with a one-to-four family residential dwelling.

Not all discounts are offered by every FNF Company. The discount will only be applicable to the FNF Company as indicated by the named discount.

FNF Underwritten Title Companies
CTC – Chicago Title Company

FNF Underwriters
CTIC – Chicago Title Insurance Co.

Available Discounts

CREDIT FOR PRELIMINARY TITLE REPORTS AND/OR COMMITMENTS ON SUBSEQUENT POLICIES

Where no major change in the title has occurred since the issuance of the original report or commitment, the order may be reopened within 12 - 36 months and all or a portion of the charge previously paid for the report or commitment may be credited on a subsequent policy charge within the following time period from the date of the report.

FEE REDUCTION SETTLEMENT PROGRAM

Eligible customers shall receive a $20.00 reduction in their title and/or escrow fees charged by the Company for each eligible transaction in accordance with the terms of the Final Judgments entered in The People of the State of California.

DISASTER LOANS

The charge for a Lender's Policy (Standard or Extended coverage) covering the financing or refinancing by an owner of record, within 24 months of the date of a declaration of a disaster area by the government of the United States or the State of California on any land located in said area, which was partially or totally destroyed in the disaster, will be 50% of the appropriate title insurance rate.

CHURCHES OR CHARITABLE NON-PROFIT ORGANIZATIONS

On properties used as a church or for charitable purposes within the scope of the normal activities of such entities, provided said charge is normally the church's obligation the charge for an owner's policy shall be 50% to 70% of the appropriate title insurance rate, depending on the type of coverage selected. The charge for a lender's policy shall be 32% to 50% of the appropriate title insurance rate, depending on the type of coverage selected.

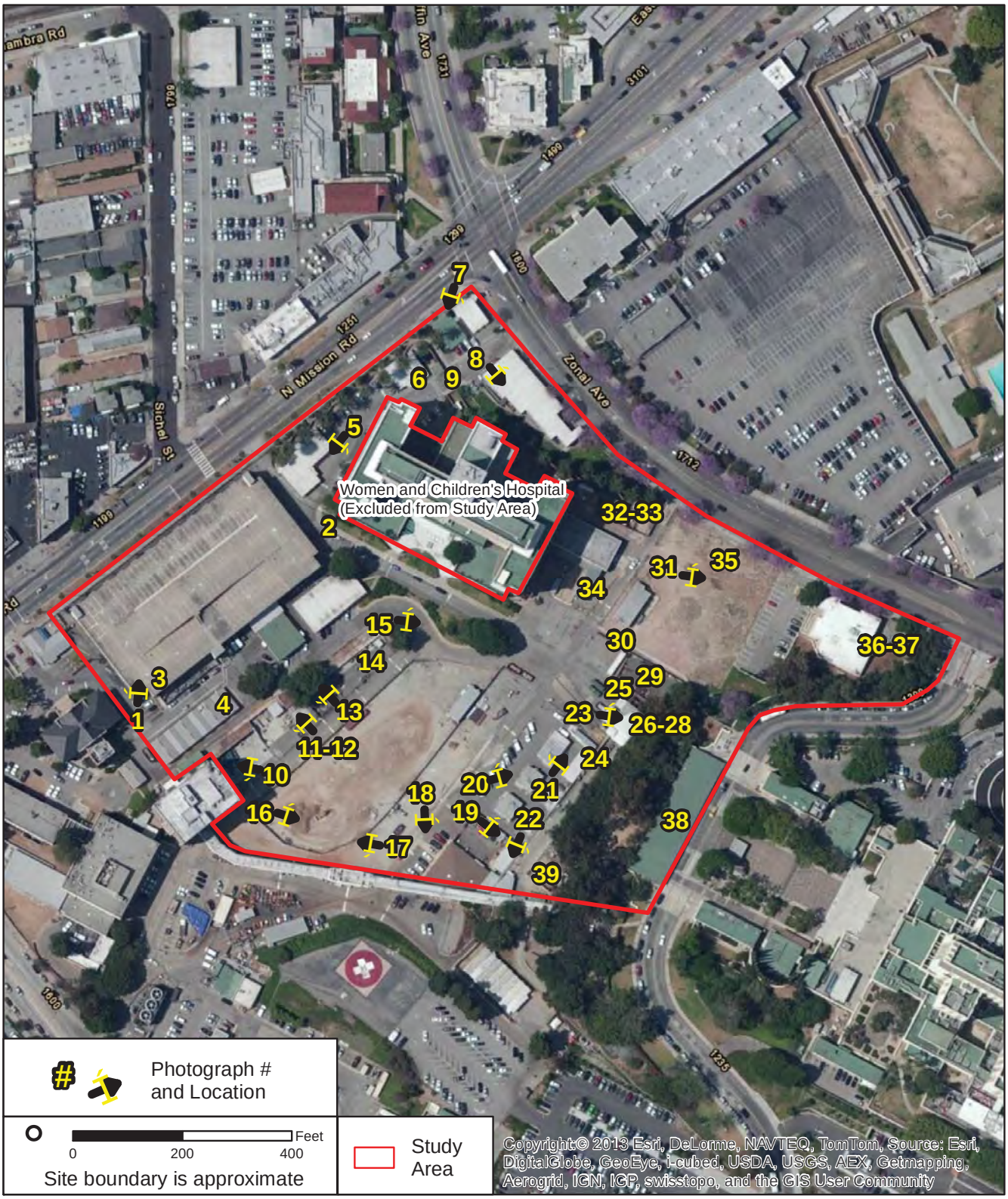
SHORT TERM RATE

The Short Term Rate is a reduction of the charges shown in the Insurance Tables which is allowable only when the current order is placed within 60 months from the date of issuance of a prior CLTA or ALTA Form of Policy of any qualified title insurer and provided further that the grantor, borrower, lender, lessor or assignor is insured by or under the terms of a prior policy, or is the vested owner of the interest insured by said policy. The short term rate is 64% to 92% of the appropriate title insurance rate depending on the type of coverage selected.

EMPLOYEE RATE

No charge shall be made to employees (including employees on approved retirement) of the Company or its underwritten, subsidiary or affiliated title companies for policies or escrow services in connection with financing, refinancing, sale or purchase of the employees' bona fide home property. Waiver of such charges is authorized only in connection with those costs which the employee would be obligated to pay, by established custom, as a party to the transaction.

APPENDIX B



Kimley-Horn and Associates, Inc.
765 The City Drive, Ste 200
Orange, CA 92868
Phone: (714) 939-1030

Aerial/Site Photographs

1200 N. State Street
Los Angeles County, California

PHASE I ESA | Appendix B

Photo 1: View of the four-story concrete and steel parking structure located in the northwest portion of the Site.

Photo 2: View of the modular structure, labeled “Parking Services” located at the base of the parking structure.

Kimley-Horn and Associates, Inc.

765 The City Drive, Suite 200
Orange, California 92868
Phone: (714) 939-1030 / Fax: (714) 938-9488

Site Photos

1200 N. State Street
Los Angeles, Los Angeles County, California

Job No. 099037007

Not to scale

Photo 3: View of a storage area located adjacent to and south of the parking structure. The area was enclosed with chain link fencing and contains stacked sheet metal, aluminum piping, old appliances, fencing material and (two) four-tank air purifiers.

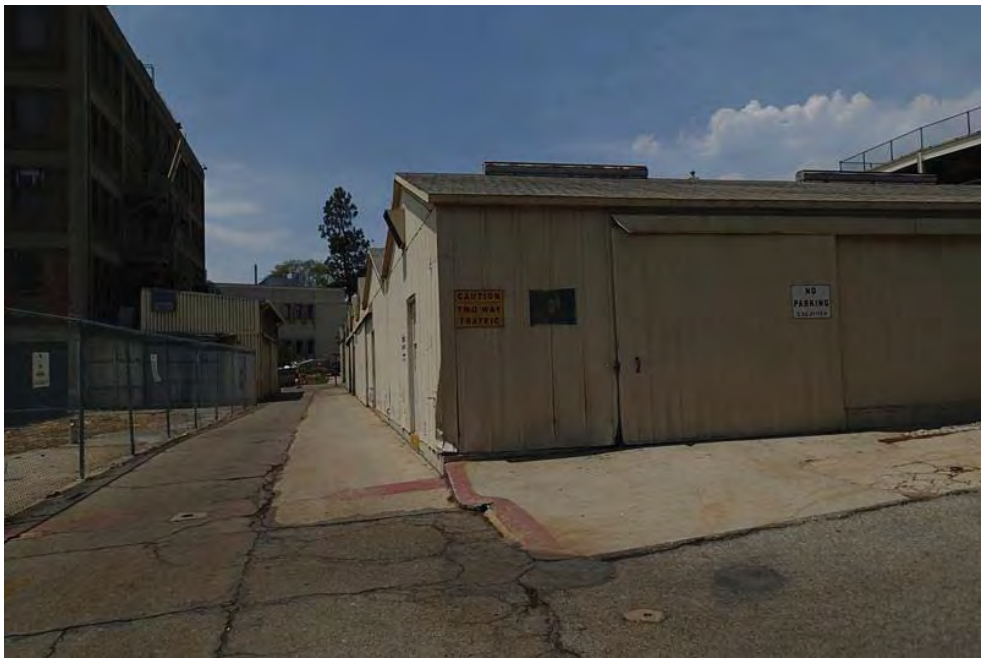


Photo 4: View of a steel storage building located south of the parking structure.

Kimley-Horn and Associates, Inc.
765 The City Drive, Suite 200
Orange, California 92868
Phone: (714) 939-1030 / Fax: (714) 938-9488

Site Photos

1200 N. State Street
Los Angeles, Los Angeles County, California

Job No. 099037007

Not to scale

Photo 5: View of a modular building, labeled "Trailer 7A – Pediatric Clinic" is located in the northern portion of the Site.

Photo 6: View of Trailer 12 –CARES Child Care Center located on the south corner of North Mission Road and Zonal Avenue.

Kimley-Horn and Associates, Inc.
765 The City Drive, Suite 200
Orange, California 92868
Phone: (714) 939-1030 / Fax: (714) 938-9488

Site Photos

1200 N. State Street
Los Angeles, Los Angeles County, California

Job No. 099037007

Not to scale

Photo 7: View of Trailer 11 – Violence Intervention Program (Bldg 432) located on the south corner of North Mission Road and Zonal Avenue.

Photo 8: View of two modular buildings, labeled "Trailer 7B and Trailer 7C – Medical Records" located near the corner of North Mission Road and Zonal Avenue .

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Orange, California 92868
Phone: (714) 939-1030 / Fax: (714) 938-9488

Site Photos

1200 N. State Street
Los Angeles, Los Angeles County, California

Job No. 099037007

Not to scale

Photo 9: View of a transformer located adjacent to Trailer 7B and 7C.

Photo 10: View of the storage area (series of five adjacent outdoor storage areas) closest to the pharmacy building (the pharmacy is located immediately adjacent to the Site to the west), which houses chain link fencing materials and two small portable buildings.

Photo 11: View of second outdoor storage area, which contains concrete products (unmixed) and gravel, empty linen carts, a basketball hoop, cabinets, scrap metal, construction equipment such as augers, hydraulic hoses and garden hoses.

Photo 12: View of second outdoor storage area described in Photo 11 above.

Photo 13: View of the third storage area, which contains traffic control barricades and cones, shelves with rebar, a pallet of red bricks, cabinets, a portable mobile mini trailer and several wooden pallets.

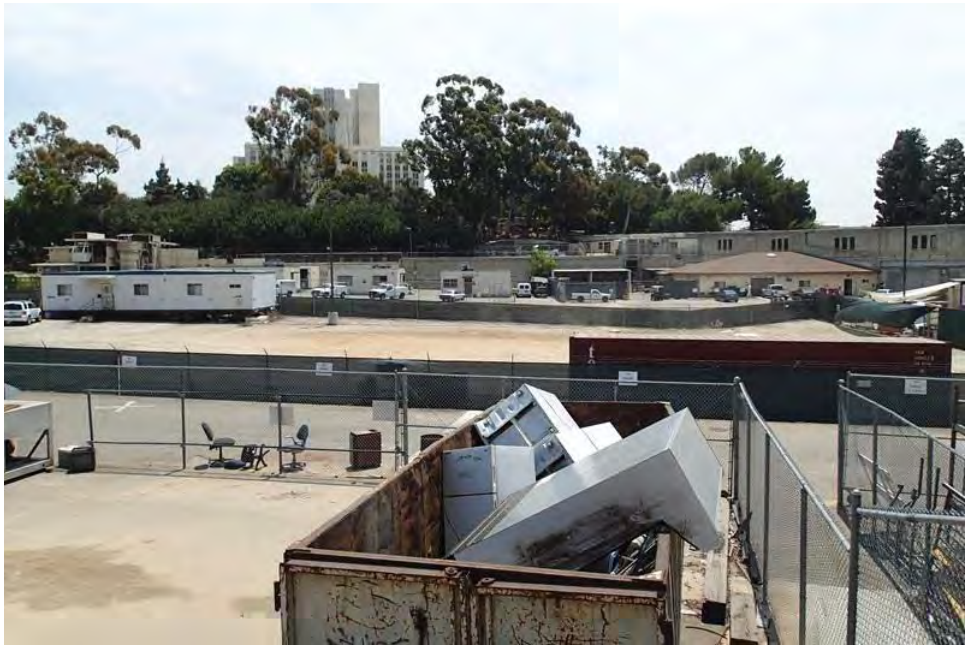

Photo 14: View of the fourth storage area, which contains several non-operational appliances.

Photo 15: View of the fifth storage area, which contains a storage pod (in the background).

Photo 16: View of three areas that appear to be used for construction staging located in the middle of the Site.

Photo 17: View of construction trailer located in the western most construction staging area.

Photo 18: View of mason shop and parking area located in the southern portion of the Site.

Photo 19: View of storage area associated with the mason shop located in the southern portion of the Site.

Photo 20: View of three modular buildings labeled Annex 1, 2 and 3 located just north of the mason shop.

Photo 21: View of old furniture, fencing, and piping materials that are being stored behind the Annex buildings.

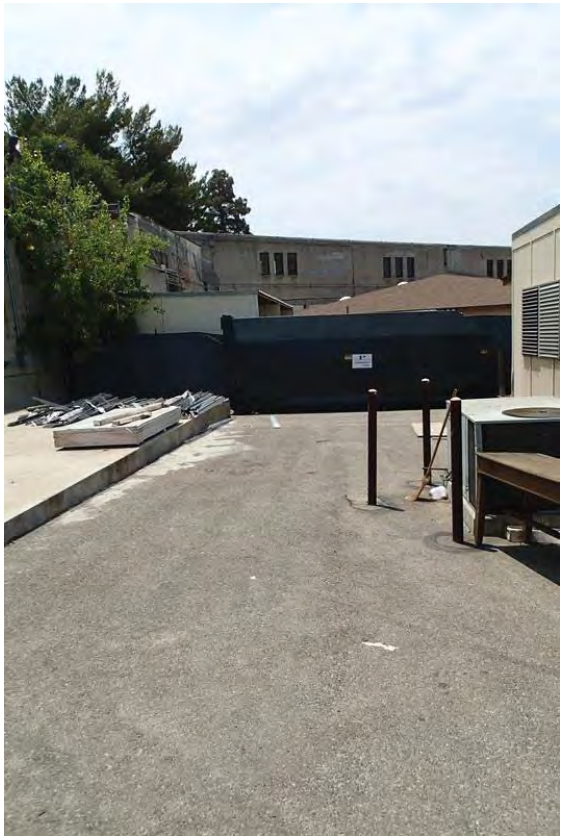

Photo 22: View of old furniture, fencing, and piping materials that are being stored behind the Annex buildings.

Photo 23: View of the trash collection area and large compactor within a masonry brick building located north of the mason shop and Annex buildings.

Photo 24: Trash compactor on the west side of the trash collection area.

Photo 25: Full roll-off dumpsters located adjacent to the trash collection area.

Photo 26: View of three incinerators with associated smoke stacks located within the trash collection area.

Photo 27: View of three incinerators with associated smoke stacks located within the trash collection area.

Photo 28: A Geiger meter, used for measuring levels of radioactive materials, is located in between two of the three incinerators.

Photo 29: View of fenced area marked “bio-hazardous waste” located north of the incinerators.

Photo 30: Trailer 30 – Women’s and Children’s Hospital Pediatric Clinic located in the eastern portion of the Site. A monitoring well is located in the foreground.

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Orange, California 92868
Phone: (714) 939-1030 / Fax: (714) 938-9488

Site Photos

1200 N. State Street
Los Angeles, Los Angeles County, California

Job No. 099037007

Not to scale

Photo 31: View of the vacant dirt lot located in the eastern portion of the Site.

Photo 32: View of Material Management Warehouse storage area located south of the former hospital.

Photo 33: A transformer located adjacent to the of Material Management Warehouse storage area.

Photo 34: View of the Women and Children's Hospital Storage located adjacent to the former hospital.

Photo 35: View of the cooling tower and air compression unit associated with and located south of the former hospital.

Photo 36: View of 1744 Zonal Avenue located on the eastern boundary of the Site. A monitoring well is located in the foreground.

Photo 37: A transformer located adjacent to 1744 Zonal Avenue.

Photo 38: Trailer 26 – Patient Financial Services located on the southern boundary of the Site along North State Street.

Photo 39: View of fenced storage area located in the southern portion of the Site at the base of the earthen berm that separates Trailer 26 from the rest of the Site.

APPENDIX C

Lac Usc Phase I
1200 N State Street
Los Angeles, CA

Inquiry Number: 3659410.7
July 15, 2013

The EDR Environmental LienSearch™ Report

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental LienSearch™ Report

TARGET PROPERTY INFORMATION

ADDRESS

Lac Usc Phase I
1200 N State Street
Los Angeles, CA

RESEARCH SOURCE

Source 1: Los Angeles County Assessor
Source 2: Los Angeles County Recorder

DEED INFORMATION

Deed 1:

Type of Deed: Order of Condemnation
Grantor: City of Los Angeles, a municipal corporation of the State of California
Grantee: The County of Los Angeles
Deed Recorded: 02/25/1975
Instrument: 2193

LEGAL DESCRIPTION

A vacant street adjacent to Lot 1 of Tract 9800 and Lot 1 of Tract 2082, according to the map or plat thereof, as filed of record in Book 32, Page 73, Los Angeles County, State of California

Property Identifier: 5201-001-901

ENVIRONMENTAL LIEN

Found: ☐ Not Found: ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Found: ☐ Not Found: ☒

EDR Environmental LienSearch™ Report

Deed - Exhibit

FEB 25 1975

2193

RECORDING REQUESTED BY AND MAIL TO

BURT PINES, City Attorney
21st Floor, City Hall, Los Angeles
485- 5414
CLAUDE E. HILKER,
Assistant City Attorney
NORMAN L. ROBERTS,
Deputy City Attorney

Attorneys for Plaintiff
The City of Los Angeles

RECORDED IN OFFICIAL RECORDS
OF LOS ANGELES COUNTY, CA
11 MIN. PAST 12 P.M. FEB 25 1975
Recorder's Office

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

FREE 16C

THE CITY OF LOS ANGELES,
a municipal corporation,

Plaintiff,

vs.

COUNTY OF LOS ANGELES,

DOE ONE to DOE FIFTY,
inclusive,

Defendants.

NO. 115122

L I S P E N D E N S

NOTICE IS HEREBY GIVEN that an action has been commenced in the Superior Court of the State of California, for the County of Los Angeles, against the above named defendants by The City of Los Angeles, a municipal corporation.

Said action is brought for the condemnation of certain interests in real properties and rights in connection with the "Mission Road Grade Separation at the Southern Pacific Company's El Paso Line Tracks and Eastlake Avenue" improvement project, in the City of Los Angeles, County of Los Angeles, State of California, more particularly described as follows:

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///

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Attorney
Form CA 113
2-74 (N-4)

FEB 25 1975

FEB 25 1975

PARCELS NOS.19 (PORTION OF A LARGER PARCEL)

PARCEL NO. 19W (Easement for retaining walls and sub-surface wall footings together with drainage devices and appurtenant structures).

The westerly 32 feet of the southerly 8.33 feet of Lot 16 and the westerly 32 feet of the northerly 1.67 feet of Lot 18, both in Block 4, Moulton's Addition, as per map recorded in Book 5, page 468, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County.

PARCEL NO. 19T (Temporary right to enter for purposes of sloping, grading and filling to support public improvement to extend to December 20, 1976 or until date of acceptance by Board of Public Works of the City of Los Angeles, or time of termination by notice that said rights are no longer required.)

Those portions of Lots 10, 12, 14 and 16, Block 4, Moulton's Addition, as per map recorded in Book 5, page 468, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County, lying westerly of a line described as follows:

Beginning at a point in a line parallel with and distant 1.67 feet southerly measured at right angles from the southerly line of said Lot 16, distant 30 feet easterly measured along said parallel line from the westerly line of said block; thence northerly in a direct line to a point in the northerly line of said Lot 10 distant 11.31 feet easterly measured along said northerly line from the westerly line of said Lot 10.

ALSO, that portion of said Lot 10, bounded and described as follows:

Beginning at the intersection of said direct line with a line parallel with and distant 4.7 feet southerly measured at right angles from the northerly line of said Lot 10; thence easterly in a direct line to a point in a line parallel with and distant 10.7 feet southerly measured at right angles from said northerly line distant 44 feet easterly measured along said last-mentioned parallel line from the westerly line of said Lot 10; thence southerly parallel with said last-mentioned westerly line 31 feet; thence westerly in a direct line to the intersection of a line parallel with and distant 7.3 feet northerly measured at right angles from the southerly line of said Lot 10 with said direct line; thence northerly along said direct line to the point of beginning.

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EXCEPTING therefrom that portion within the southerly 8.33 feet of said Lot 16.

PARCEL NO. 19S (Easement to maintain slopes, cuts and fills to latterly and vertically support the public ways or adjacent real properties, and to construct and maintain drainage devices)

Those portions of Lots 12, 14 and 16, Block 4, Moulton's Addition, as per map recorded in Book 5, page 408, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County, lying westerly of a line described as follows:

Beginning at a point in a line parallel with and distant 1.67 feet southerly measured at right angles from the southerly line of said Lot 16 distant 50 feet easterly measured along said parallel line from the westerly line of said block; thence northerly in a direct line to a point in the northerly line of Lot 10, said Block 4, distant 11.31 feet easterly measured along said northerly line from the westerly line of said Lot 10.

EXCEPTING therefrom that portion within the southerly 8.33 feet of said Lot 16.

PARCELS NOS. 23 (PORTION OF A LARGER PARCEL)

PARCEL NO. 23A (Easement for Public Street Purposes)

Those portions of Lots 1 and 2, Block 9, Moulton's Addition, as per map recorded in Book 5, page 421, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County, lying southeasterly of a line described as follows:

Beginning at the intersection of the westerly line of said Lot 2 with the northwesterly line of Mission Road, 100 feet wide, as shown in City Engineer's Field Book No. 18609, pages 19 and 20, on file in the office of the City Engineer of The City of Los Angeles; thence northeasterly along said northwesterly line to a line extending northwesterly at right angles from the center line of said Mission Road from a point in said center line distant 109.47 feet southwesterly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as shown on page 19 of said Field Book; thence northeasterly along a curve tangent to said northwesterly line, concave to the Northwest and having a radius of 2950 feet, an arc distance of 98.37 feet to the easterly line of said Lot 1.

ALSO, those portions of Lots 16, 17 and 18, said Block 9, lying easterly of a line described as follows:

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Commencing at a point in the center line of Alhambra Avenue, 100 feet wide, distant 5.87 feet westerly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 19607, page 52, on file in the office of the City Engineer of The City of Los Angeles, said center line of Alhambra Avenue to have a bearing of South 78° 05' 52" West for the purposes of this description; thence South 1° 28' 52" East to the easterly prolongation of the northerly line of said Lot 16; thence westerly along said easterly prolongation and along said northerly line to a point in a line parallel with and distant 43 feet westerly measured at right angles from said course having a bearing of South 1° 28' 52" East, said last-mentioned point to be the TRUE POINT OF BEGINNING: thence southerly along said parallel line 60.70 feet; thence southerly along a tangent curve concave to the East and having a radius of 803.61 feet an arc distance of 102.29 feet.

EXCEPTING therefrom those portions within public street.

PARCEL NO. 23W (Easement for retaining walls and sub-surface wall footings together with drainage devices and appurtenant structures.)

Those portions of Lots 16, 17 and 18, Block 9, Moulton's Addition, as per map recorded in Book 5, page 421, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County included within a strip of land 1.25 feet wide lying westerly of and contiguous to a line described as follows:

Commencing at a point in the center line of Alhambra Avenue, 100 feet wide, distant 5.87 feet westerly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as said center linesare shown in City Engineer's Field Book No. 19607, page 52, on file in the office of the City Engineer of the City of Los Angeles, said center line of Alhambra Avenue to have a bearing of South 78° 05' 52" West for purpose of this description; thence South 1° 28' 52" East to the easterly prolongation of the northerly line of said Lot 16; thence westerly along said easterly prolongation and along said northerly line to a point in a line parallel with and distant 43 feet westerly measured at right angles from said course having a bearing of South 1° 28' 52" East, said last-mentioned point to be the TRUE POINT OF BEGINNING; thence southerly along said parallel line 60.70 feet; thence southerly along a tangent curve concave to the East and having a radius of 803.61 feet and arc distance of 102.29 feet; thence southerly along a compound curve concave to the East and having a radius of 1087 feet an arc distance of 10 feet.

ALSO, that portion of said Lot 16, bounded and described as follows:

Beginning at the intersection of the westerly line of said strip of land 1.25 feet wide with the northerly line of said Lot 16; thence westerly along said northerly line to a point distant 26 feet westerly measured along said northerly line from the easterly line of said strip of land 1.25 feet wide; thence southerly at right angles from said northerly line 6.5 feet; thence easterly parallel with said northerly line to the westerly line of said strip of land 1.25 feet wide; thence northerly along said westerly line to the point of beginning.

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ALSO, that portion of Lot 15, said Block 9, included within a strip of land 3 feet wide lying easterly of and contiguous to a line described as follows:

Beginning at the northwest corner of said Lot 15; thence southerly along the westerly line of said Lot 15 a distance of 19 feet.

PARCEL NO. 23DU (Easement for Underground Drainage Purposes and Appurtenant Structures)

The northerly 20 feet of Lots 15 and 16, Block 9, Moulton's Addition, as per map recorded in Book 5, page 421, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County.

EXCEPTING therefrom that portion lying easterly of a line described as follows:

Commencing at a point in the center line of Alhambra Avenue, 100 feet wide, distant 5.87 feet westerly measrued along said center line from the center line of Griffin Avenue, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 19607, page 52, on file in the office of the City Engineer of The City of Los Angeles, said center line of Alhambra Avenue to have a bearing of South 7[illegible] 05' 52" West for purposes of this description; thence South 1° 28' 52" East to the easterly prolongation of the northerly line of said Lot 16; thence westerly along said easterly prolongation to a point in a line parallel with and distant 44.25 feet westerly measured at right angles from said course having a bearing of South 1° 28' 52" East, said last-mentioned point to be the TRUE POINT OF BEGINNING: thence southerly along said parallel line 61.70 feet.

ALSO EXCEPTING therefrom that portion included within a strip of land 6.5 feet wide lying southerly of and contiguous to a line described as follows:

Beginning at the Northeast corner of said Lot 16; thence westerly along the northerly line of said Lot 16 a distance of 34.32 feet.

ALSO EXCEPTING therefrom that portion included within a strip of land 3 feet wide lying easterly of and contiguous to a line described as follows:

Beginning at the northwest corner of said Lot 15; thence southerly along the westerly line of said Lot 15 a distance of 19 feet.

PARCEL NO. 23T (Temporary right to enter for purposes of sloping, grading and filling to support public improvement to extend to December 20, 1976, or until date of acceptance by Board of Public

FEB 25 1975

FEB 25 1975

Works of the City of Los Angeles, or time of termination by notice that said rights are no longer required.)

The southerly 4 feet of the northerly 24 feet of Lots 15 and 16, Block 9, Moulton's Addition, as per map recorded in Book 5, page 421, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County.

ALSO, those portions of said lots bounded and described as follows:

Beginning at the intersection of the southerly line of the northerly 24 feet of said lots with the easterly line of the westerly 15 feet of said Lot 16; thence westerly along said southerly line to the westerly line of said Lot 15; thence southerly along said westerly line to a line parallel with and distant 45 feet southerly measured at right angles from the northerly line of said Lot 15; thence easterly along said parallel line to a point distant 10 feet westerly, measured along said parallel line, from the easterly line of said Lot 15; thence southeasterly in a direct line to the southeasterly corner of said Lot 15; thence easterly along the southerly line of said Lot 16 to said easterly line of the westerly 15 feet of said Lot 16; thence northerly along said last-mentioned easterly line to the point of beginning.

ALSO, those portions of Lots 16, 17, 18 and 19, said Block 9, included within a strip of land 10 feet wide lying westerly of and contiguous to a line parallel with and distant 1.25 feet westerly measured at right angles from a line, to be hereinafter referred to as "Line A," described as follows:

Commencing at a point in the center line of Alhambra Avenue, 100 feet wide, distant 5.87 feet westerly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 19607, page 52, on file in the office of the City Engineer of The City of Los Angeles, said center line of Alhambra Avenue to have a bearing of South 78° 05' 52" West for purposes of this description; thence South 1° 28' 52" East to the easterly prolongation of the northerly line of said Lot 16; thence westerly along said easterly prolongation and along said northerly line to a point in a line parallel with and distant 43.00 feet westerly measured at right angles from said course having a bearing of South 1° 28' 52" East, said last-mentioned point to be the TRUE POINT OF BEGINNING; thence southerly along said last-mentioned parallel line 60.70 feet; thence southerly along a tangent curve concave to the East and having a radius of 803.61 feet an arc distance of 102.29 feet; thence southeasterly along a compound curve concave to the Northeast and having a radius of 1088.25 feet an arc distance of 70 feet.

ALSO, those portions of Lots 1 and 2, said Block 9, included within a strip of land 1 foot wide lying northwesterly of and contiguous to a line described as follows:

Beginning at the intersection of the westerly line of said Lot 2 with the northwesterly line of Mission Road, 100 feet wide, as shown in City Engineer's Field Book No. 18609, pages 19 and 20, on file in the office of the City Engineer of The City of Los Angeles; thence northeasterly along said northwesterly

Form CA 111
1000—7-74 (N-3)

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line to a line extending northwesterly at right angles from the center line of said Mission Road from a point in said center line distant 109.47 feet southwesterly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as shown on page 19 of said Field Book; thence northeasterly along a curve tangent to said northwesterly line, concave to the Northwest and having a radius of 2950 feet to the easterly line of said Lot 1. The northerly line of said strip of land 1 foot wide is to be prolonged easterly so as to terminate in said last-mentioned easterly line.

EXCEPTING therefrom that portion lying easterly of said "Line A."

ALSO EXCEPTING therefrom that portion within the northerly 20 feet of said Lot 16.

PARCELS NOS. 26 (PORTIONS OF A LARGER PARCEL)

PARCEL NO. 26A (Easement for Public Street Purposes)

Those portions of Lots 5, 6, 7, and 8, Block 8, Moulton's Addition, as per map recorded in Book 5, page 421, of Miscellaneous Records in the office of the County Recorder of Los Angeles County, included within a strip of land 86 feet wide lying 43 feet on each side of a line described as follows:

Beginning at a point in the center line of Alhambra Avenue, 100 feet wide, distant 5.87 feet westerly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 19607, page 52, on file in the office of the City Engineer of the City of Los Angeles, said center line of Alhambra Avenue to have a bearing of South 78°05'52" West for purposes of this description; thence South 1°28'52" East 71.90 feet; thence southeasterly along a tangent curve concave to the Northeast and having a radius of 1040 feet, through a central angle of 41°07'26" an arc distance of 746.46 feet.

ALSO, those portions of Lots 3, 4, 5, and 6, said Block 8, lying southerly of a line described as follows:

Commencing at the intersection of the center line of Mission Road, 100 feet wide, with the center line of Johnston Street, 60 feet wide, as said center lines are shown in City Engineer's Field Book No. 18609, page 19, on file in the office of the City Engineer of The City of Los Angeles; thence North 0° 53'28" West along said center line of Johnston Street 149.84 feet; thence westerly at right angles from said last-mentioned center line 30 feet to a point in the westerly line of said Johnston Street, said point to be the TRUE POINT OF BEGINNING for purposes of this description; thence South 43°24'54" West 106.23 feet; thence southwesterly along a tangent curve concave to the Southeast and having a radius of 110 feet, through a central angle of 41°28'08" an arc distance of 79.62 feet, thence southwesterly along a reverse curve concave to the Northwest and having a radius of 15 feet, through a central angle of 45°54'21" an arc distance of 12.02 feet; thence southwesterly along a line tangent to said last-mentioned curve to the beginning of a tangent curve concave to the Northeast, having a radius of 25 feet and being tangent at its point of ending to the

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easterly line of said strip of land 86 feet wide; thence northwesterly along said last-mentioned curve to said point of ending in said easterly line.

EXCEPTING therefrom those portions within public street.

PARCEL NO. 26S (Easement to maintain slopes, cuts and fills to latterly and vertically support the public ways or adjacent real properties, and to construct and maintain drainage devices)

Those portions of Lots 6, 7, and 8, Block 8 of Moulton's Addition, as per map recorded in Book 5, page 421, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County, bounded westerly of a line, to be hereinafter referred to as "Line A", parallel with and distant 43 feet easterly measured at right angles from a line described as follows:

Beginning at a point in the center line of Alhambra Avenue, 100 feet wide, distant 5.87 feet westerly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 19607, page 52, on file in the office of the City Engineer of The City of Los Angeles, said center line of Alhambra Avenue to have a bearing of South 78°05'52" West for purposes of this description; thence South 1°28'52" East 71.90 feet; thence southeasterly along a tangent curve concave to the Northeast and having a radius of 1040 feet through a central angle of 41°07'26" an arc distance of 746.46 feet.

And, bounded easterly by a line described as follows:

Commencing at the intersection of the center line of Mission Road, 100 feet wide, with the center line of Johnston Street, 60 feet wide, as said center lines are shown in City Engineer's Field Book No. 18609, page 19, on file in the office of the City Engineer of The City of Los Angeles; thence North 0°53'28" West along said center line of Johnston Street 149.84 feet; thence westerly at right angles from said last-mentioned center line 30 feet to the westerly line of said Johnston Street; thence South 43°24'54" West 106.23 feet; thence southwesterly along a tangent curve concave to the Southeast and having a radius of 110 feet, through a central angle of 41°28'08" an arc distance of 79.62 feet; thence southwesterly along a reverse curve concave to the Northwest and having a radius of 15 feet, through a central angle of 45°54'21" an arc distance of 12.02 feet; thence southwesterly along a line tangent to said last-mentioned curve to the beginning of a tangent curve concave to the Northeast, having a radius of 25 feet and being tangent at its point of ending to said "Line A"; thence northwesterly along said last-mentioned curve to said point of ending, said point of ending to be the TRUE POINT OF BEGINNING; thence northerly in a direct line to a point in the northerly line of said Lot 7 distant 37 feet easterly measured along said northerly line from the Northwest corner of said Lot 7; thence northerly in a direct line to a point in the northerly line of said Lot 8, distant 35.17 feet easterly measured along said last-mentioned northerly line from the Northwest corner of said Lot 8.

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PARCEL NO. 26SL (Easement for Public Street Lighting Purposes)

That portion of Lot 4, Block 8, Moulton's Addition, as per map recorded in Book 5, page 421, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County, included within a strip of land 16 feet wide lying 8 feet on each side of a line described as follows:

Commencing at the intersection of the center line of Griffin Avenue, 80 feet wide, with the center line of Mission Road, 100 feet wide, as said center lines are shown in City Engineer's Field Book No. 18609, page 19, on file in the office of the City Engineer of the City of Los Angeles; thence North 52° 02' 05" East along said center line of Mission Road 216.73 feet; thence North 42° 08' 53" West 65.81 feet; thence North 47° 51' 07" East 70.19 feet to the TRUE POINT OF BEGINNING for purposes of this description; thence North 42° 08' 53" West 16 feet.

PARCELS NOS. 42, 46, 47 and 54 (PORTIONS OF A LARGER PARCEL)

PARCELS NOS. 42A, 46A and 47A (Easement for Public Street Purposes)

That portion of Lot 1, Tract No. 15492, as per map recorded in Book 438, pages 30 and 31 of Maps, in the office of the County Recorder of Los Angeles County, lying northerly of a line described as follows:

Beginning at a point in that certain course in the northwesterly line of said lot shown on said map as having a length of 393.17 feet, said point being the beginning of a tangent curve concave to the South, having a radius of 104 feet and being tangent at its point of ending to the northerly line of said lot; thence easterly along said curve to said point of ending in said northerly line; thence easterly along said northerly line to the beginning of a tangent curve concave to the South, having a radius of 100 feet and being tangent at its point of ending to the northeasterly line of said lot; thence easterly along said last-mentioned curve to said point of ending in said northeasterly line.

ALSO, those portions of Lots 1 and 2, said Tract No. 15492, of Lots 1 and 2, Brett Tract, as per map recorded in Book 17, page 173, of Maps, of Lot 3, Block B, of the Transit Tract, as per map recorded in Book 31, page 56, of Miscellaneous Records of Lot 1, Tract No. 2082, as per map recorded in Book 32, page 73, of Maps, of Lots 43 and 44, F. Biggy's Subdivision, as per map recorded in Book 29, pages 75 and 76 of Miscellaneous Records and of Lot 1, Tract No. 9800, as per map recorded in Book 138, pages 36 and 37 of Maps, all in the office of said County Recorder, included within a strip of land 86 feet wide, lying 43 feet on each side of a line described as follows:

Beginning at a point in the center line of Alhambra Avenue, 100 feet wide, distant 5.87 feet westerly measured along said center line from the center line of Griffin Avenue, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 19607, page 52, on file in the office of the City Engineer of The City of Los Angeles, said center line of Alhambra Avenue to have a bearing of South 78°05'52" West for purposes of this

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description; thence South 1°28'52" East 71.90 feet; thence southeasterly along a tangent curve concave to the Northeast and having a radius of 1040 feet, through a central angle of 41°07'26" an arc distance of 746.46 feet; thence easterly along a compound curve concave to the Northeast and having a radius of 828 feet, through a central angle of 22°02'04" an arc distance of 318.45 feet; thence South 64°38'00" East tangent to said last-mentioned curve 435.40 feet.

ALSO, that portion of said Lot 3 bounded and described as follows:

Beginning at the intersection of the southeasterly line of the northwesterly 20 feet of said Lot 3 with the northeasterly line of said strip of land 86 feet wide; thence southeasterly along said northeasterly line 17.14 feet; thence northerly along a compound curve concave to the East and having a radius of 20 feet to said southeasterly line; thence southwesterly along said southeasterly line to the point of beginning.

EXCEPTING therefrom those portions within public street.

PARCELS NOS. 42T, 46T, 47T, and 54T (Temporary right to enter for purposes of sloping, grading and filling to support public improvement to extend to December 20, 1976 or until date of acceptance by Board of Public Works of the City of Los Angeles, or time of termination by notice that said rights are no longer required.)

Those portions of Lot 2, Tract No. 15492, as per map recorded in Book 438, pages 30 and 31, of Maps, of Lots 1 and 2, Brett Tract, as per map recorded in Book 17, page 173, of Maps, and of Lot 3, Block B, Transit Tract, as per map recorded in Book 31, page 56, of Miscellaneous Records, all in the office of the County Recorder of Los Angeles County, bounded and described as follows:

Commencing at the intersection of the center line of Zonal Avenue, 60 feet wide, with the center line of Henry Street, 60 feet wide, as said center lines are shown on the map of said Tract No. 15492; thence South 65°56'31" East along said center line of Zonal Avenue 10 feet; thence northeasterly at right angles from said last-mentioned center line 54.97 feet to a line having a bearing of South 64°38'00" East; thence northwesterly along a curve tangent to said line bearing South 64°38'00" East, concave to the Northeast and having a radius of 785 feet to a point in the southeasterly line of said Lot 1, Brett Tract, said point to be the TRUE POINT OF BEGINNING; thence continuing northwesterly along said curve an arc distance of 150.03 feet to a point to be hereinafter referred to as "Point A"; thence continuing northwesterly along said curve an arc distance of 138.18 feet to a point to be hereinafter referred to as "Point B"; thence northwesterly along a compound curve concave to the Northeast and having a radius of 997 feet to the southeasterly line of the northwesterly 20 feet of said Lot 3, Transit Tract; thence northeasterly along said last-mentioned southeasterly line 10 feet; thence southeasterly along a direct line, to be

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hereinafter referred to as "Line A", to a point in a radial line of said last-mentioned curve which passes through said "Point B" distant 12 feet northeasterly, measured along said radial line, from said last-mentioned curve; thence southeasterly in a direct line to a point in a radial line of said curve having a radius of 785 feet which passes through said "Point A" distant 8 feet northeasterly, measured along said last-mentioned radial line; from said last-mentioned curve; thence southeasterly in a direct line to a point in said southeasterly line of said Lot 1 distant 15 feet northeasterly, measured along said last-mentioned southeasterly line from the TRUE POINT OF BEGINNING; thence southwesterly along said last-mentioned southeasterly line to the TRUE POINT OF BEGINNING.

ALSO, that portion of said Lot 2, Tract No. 15492, bounded and described as follows:

Beginning at the intersection of the southeasterly line of said Lot 3, Transit Tract, with said "Line A"; thence southeasterly along said "Line A" to a line parallel with and distant 20 feet southeasterly measured at right angles from said last-mentioned southeasterly line; thence northeasterly along said parallel line to a point distant 30 feet northeasterly measured along said parallel line, from said curve having a radius of 997 feet; thence northwesterly at right angles from said parallel line to said last-mentioned southeasterly line; thence southwesterly along said last-mentioned southeasterly line to the point of beginning.

ALSO, those portions of Lots 43 and 44, F. Biggy's Subdivision, as per map recorded in Book 29, pages 75 and 76 of Miscellaneous Records, in the office of said County Recorder, included within a strip of land 10 feet wide lying northeasterly of and contiguous to a line described as follows:

Beginning at the southeasterly terminus of said curve having a radius of 785 feet; thence South 64°38'00" East along a line tangent to said last-mentioned curve a distance of 150 feet.

ALSO, that portion of Lot 1, said Tract No. 15492, included within a strip of land 3 feet wide lying northeasterly of and contiguous to that certain course in the southwesterly line of said last-mentioned Lot 1, shown on said last-mentioned map as having a bearing and length of North 65°31'15" West, 266.81 feet. The northeasterly line of said strip of land 3 feet wide is to be prolonged southeasterly so as to terminate in the northwesterly line of State Street as shown on said last-mentioned map.

ALSO, those portions of Lots 3 to 15, inclusive, Block B of said Transit Tract, of Lots 1 to 4, inclusive, Block C of said Transit Tract, of May Street, 60 feet wide, vacated by Ordinance No. 34973 N.S. of The City of Los Angeles, approved October 31, 1916, and of Lot 1, said Tract No. 15492, included within a strip of land 1 foot wide lying southeasterly and southerly of and contiguous to a line described as follows:

Beginning at the intersection of said curve having a radius of 997 feet with the southeasterly line of the northwesterly 20 feet of said Lot 3, Block B; thence northeasterly along said last-mentioned southeasterly line and its northeasterly prolongation and along the northwesterly line of said Lot 1, Tract No.

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15492, to the beginning of a tangent curve concave to the South, having a radius of 104 feet and being tangent at its point of ending to the northerly line of said last-mentioned Lot ; thence easterly along said last-mentioned curve to said point of ending in said northerly line; thence easterly along said northerly line to the beginning of a tangent curve concave to the South, having a radius of 100 feet and being tangent at its point of ending to the northeasterly line of said last-mentioned Lot 1; thence easterly along said last-mentioned curve to said point of ending in said northeasterly line.

ALSO, those portions of said Lot 1, Tract No. 15492, and of Lot 4, said Block C of the Transit Tract, included within a strip of land 2 feet wide lying southeasterly of and contiguous to a line described as follows:

Beginning at a point in the southeasterly line of said strip of land 1 foot wide distant 56.96 feet southwesterly measured along said last-mentioned southeasterly line from a radial line of said curve having a radius of 104 feet, said radial line passing through the westerly terminus of said last-mentioned curve; thence southwesterly along said last-mentioned southeasterly line 315 feet.

ALSO, those portions of Lot 1, Tract No. 2082, as per map recorded in Book 32, page 73, and of Lot 1, Tract No. 9800, as per map recorded in Book 138, pages 36 and 37, both of Maps, in the office of said County Recorder, bounded and described as follows:

Commencing at the intersection of said center lines of Henry Street and Zonal Avenue; thence South 65°36'31" East along said center line of Zonal Avenue 10 feet; thence southwesterly at right angles from said last-mentioned center line 31.03 feet to a point, to be hereinafter referred to as "Point C", to be THE TRUE POINT OF BEGINNING; thence South 64°38'00" East 174.40 feet to a point to be hereinafter referred to as "Point D", thence continuing South 64°38'00" East, 261.00 feet; thence southwesterly at right angles from said center line of Zonal Avenue 10 feet; thence North 64°38'00" West, 100 feet; thence southwesterly at right angles from said last-mentioned course 14 feet; thence North 64°38'00" West, 26 feet; thence northeasterly at right angles from said last-mentioned course 14 feet; thence North 64°38'00" West, 110 feet; thence westerly in a direct line to a point in a line extending southwesterly at right angles from said course having a bearing of South 64°38'00" East at said "Point D" distant 15 feet southwesterly, measured along said last-mentioned line extending southwesterly, from said "Point D"; thence North 64°38'00" West, 64 feet; thence northeasterly at right angles from said last-mentioned course 10 feet; thence North 64° 38' 00" West to a line bearing South 25° 22' 00" West which passes through the TRUE POINT OF BEGINNING; thence North 25° 22' 00" East to the TRUE POINT OF BEGINNING.

ALSO, that portion of said Lot 1, Tract No. 2082, bounded and described as follows:

Beginning at said "Point C"; thence northwesterly along a curve tangent to said course having a bearing and length of South 64° 38' 00" East, 174.40 feet, concave to the Northeast and having a radius of 871 feet to its intersection with the northeasterly line of said last-mentioned Lot 1; thence northwesterly

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along said last-mentioned northeasterly line to a curve concave to the Northeast, having a radius of 876 feet and being concentric with said curve having a radius of 871 feet; thence southeasterly along said curve having a radius of 876 feet to a line extending southwesterly at right angles from said center line of Zonal Avenue at a point distant 39.84 feet northwesterly measured along said last-mentioned center line from its intersection with the center line of Henry Street; thence southwesterly along said last-mentioned line extending southwesterly to a line parallel with and distant 25 feet southwesterly measured at right angles from said last-mentioned northeasterly line; thence southeasterly along said last mentioned parallel line 26 feet; thence northeasterly parallel with said last-mentioned line extending southwesterly to a line parallel with and distant 5 feet southwesterly measured at right angles from said course having a bearing and length of South 64° 38' 00" East, 174.40 feet; thence southeasterly along said last-mentioned parallel line to said course having a bearing South 25° 22' 00" West; thence North 25° 22' 00" East to the point of beginning.

ALSO, that portion of said Lot 1, Tract No. 2082, bounded and described as follows:

Commencing at a point in said center line of Zonal Avenue distant 125.84 feet northwesterly, measured along said last-mentioned center line, from said center line of Henry Street; thence southwesterly at right angles from said center line of Zonal Avenue to a point in said northeasterly line of said last-mentioned Lot 1, said last-mentioned point to be the TRUE POINT OF BEGINNING; thence northwesterly along said last-mentioned northeasterly line to the northwesterly line of said last-mentioned Lot 1; thence southwesterly along said last-mentioned northwesterly line 160 feet; thence southeasterly at right angles from said last-mentioned northwesterly line 5 feet;

thence northeasterly parallel with said last-mentioned northwesterly line to a line parallel with and distant 43 feet southwesterly measured at right angles from that certain course in the northeasterly line of said last-mentioned Lot 1 shown on said map of Tract No. 2082 as having a length of 239.09 feet; thence southeasterly along said last-mentioned parallel line to a line parallel with and distant 12 feet southwesterly measured at right angles from that certain course in said last-mentioned northeasterly line shown on said last-mentioned map as having a length of 726.24 feet; thence southeasterly along said last-mentioned parallel line to a line extending southwesterly at right angles from said center line of Zonal Avenue from a point in said last-mentioned center line distant 147.84 feet northwesterly measured along said center line of Zonal Avenue from said center line of Henry Street; thence southwesterly along said last-mentioned line extending southwesterly 20 feet; thence southeasterly along a line parallel with said last-mentioned northeasterly line 22 feet; thence northeasterly at right angles from said last-mentioned parallel line to the TRUE POINT OF BEGINNING.

EXCEPTING therefrom that portion within said Lot 3, Block 8, Transit Tract, lying northwesterly of a line described as follows:

Beginning at a point in said curve having a radius of 997 feet distant 17.14 feet southeasterly measured along said last-mentioned curve from the southeasterly line of the northwesterly 20 feet of said Lot 3; thence northeasterly along a

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compound curve concave to the Southeast and having a radius of 20 feet to said last-mentioned southeasterly line.

ALSO EXCEPTING therefrom any portion presently occupied by an existing structure.

PARCELS NOS. 43 (ENTIRE PARCEL)

PARCEL NO. 43AA (In Fee Simple for Public Street Purposes)

That portion of Block 1, Moulton's Addition, as per map recorded in Book 5, page 468, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County, lying southeasterly of a line parallel with and distant 50 feet northwesterly measured at right angles from a line described as follows:

Beginning at the intersection of that certain course in the center line of Mission Road, 100 feet wide, having a length of 10.91 feet with the center line of North Main Street, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 50051, page 5, on file in the office of the City Engineer of The City of Los Angeles, said center line of North Main Street to have a bearing of South 89° 07' 16" West for purposes of this description; thence South 60° 07' 12" West 507.03 feet.

ALSO, that portion of said Block 1 lying southwesterly of a line parallel with and distant 10 feet northeasterly measured at right angles from a line described as follows:

Commencing at a point in the center line of North Main Street distant 145 feet easterly measured along said center line from the center line of Hancock Street as said center lines are shown in City Engineer's Field Book No. 18609, page 28, on file in said City Engineer's Office; thence southeasterly along a tangent curve concave to the Southwest and having a radius of 415 feet, through a central angle of 38° 06' 08" an arc distance of 275.98 feet to the TRUE POINT OF BEGINNING for purposes of this description; thence southeasterly along a line tangent to said curve 135 feet.

ALSO, that portion of said Block 1, bounded and described as follows:

Beginning at the intersection of the westerly line of said Block 1 with said last-mentioned parallel line; thence southeasterly along said last-mentioned parallel line to the beginning of a tangent curve concave to the Northeast, having a radius of 18.83 feet and being tangent at its point of ending to said westerly line; thence northwesterly along said last-mentioned curve to said point of ending in said westerly line; thence southerly along said westerly line to the point of beginning.

ALSO, that portion of said Block 1, bounded and described as follows:

Beginning at the Northwest corner of said Block 1; thence easterly along the northerly line of said block to the beginning of a tangent curve concave to the Southeast, having a radius of 15 feet and being tangent at its point of ending to the westerly line of said Block 1; thence southwesterly along said last-mentioned curve to said point of ending in said westerly line; thence

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northerly along said westerly line to the point of beginning.

EXCEPTING therefrom those portions within public street.

PARCEL NO. 43R (In Fee Simple for the Establishment and Maintenance of Reservations).

Block 1, Moulton's Addition, as per map recorded in Book 5, page 468, of Miscellaneous Records, in the office of the County Recorder of Los Angeles County.

EXCEPTING therefrom that portion lying southeasterly of a line parallel with and distant 50 feet northwesterly measured at right angles from a line described as follows:

Beginning at the intersection of that certain course in the center line of Mission Road, 100 feet wide, having a length of 10.91 feet with the center line of North Main Street, 80 feet wide, as said center lines are shown in City Engineer's Field Book No. 50051, page 5, on file in the office of the City Engineer of The City of Los Angeles, said center line of North Main Street to have a bearing of South 89° 07' 16" West for purposes of this description; thence South 60° 07' 12" West 507.03 feet.

ALSO EXCEPTING therefrom that portion lying southwesterly of a line parallel with and distant 10 feet northeasterly measured at right angles from a line described as follows:

Commencing at a point in the center line of North Main Street distant 145 feet easterly measured along said center line from the center line of Hancock Street as said center lines are shown in City Engineer's Field Book No. 18609, page 28, on file in said City Engineer's Office; thence southeasterly along a tangent curve concave to the Southwest and having a radius of 415 feet, through a central angle of 38° 06' 08" an arc distance of 275.98 feet to the TRUE POINT OF BEGINNING for purposes of this description; thence southeasterly along a line tangent to said curve 135 feet.

ALSO EXCEPTING therefrom that portion bounded and described as follows:

Beginning at the intersection of the westerly line of said Block 1 with said last-mentioned parallel line; thence southeasterly along said last-mentioned parallel line to the beginning of a tangent curve concave to the Northeast, having a radius of 18.83 feet and being tangent at its point of ending to said westerly line; thence northwesterly along said last-mentioned curve to said point of ending in said westerly line; thence southerly along said westerly line to the point of beginning.

ALSO EXCEPTING therefrom that portion bounded and described as follows:

Beginning at the Northwest corner of said Block 1; thence easterly along the northerly line of said block to the beginning

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of a tangent curve concave to the Southeast, having a radius of 15 feet and being tangent at its point of ending to the westerly line of said block; thence southwesterly along said last-mentioned curve to said point of ending in said westerly line; thence northerly along said westerly line to the point of beginning.

PARCEL NO. 56T (PORTION OF A LARGER PARCEL) (Temporary right to enter for purposes of sloping, grading and filling to support public improvement to extend to December 20, 1976 or until date of acceptance by Board of Public Works of the City of Los Angeles, or time of termination by notice that said rights are no longer required.

That portion of Lot 2, Tract No. 1324, as per map recorded in Book 18, page 59, of Maps, in the office of the County Recorder of Los Angeles County, included within a strip of land 1 foot wide lying northwesterly of and contiguous to a line described as follows:

Beginning at the southeasterly corner of said lot; thence southwesterly along the southeasterly line of said lot a distance of 50 feet.

The northwesterly line of said strip of land is to be prolonged northeasterly so as to terminate in the easterly line of said lot.

DATED: Feb 20, 1975

BURT PINES, City Attorney
CLAUDE E. HILKER, Assistant City Atty.
NORMAN L. ROBERTS, Deputy City Atty.

By Norman L. Roberts
NORMAN L. ROBERTS

Attorneys for Plaintiff
THE CITY OF LOS ANGELES

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APPENDIX D

Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Inquiry Number: 3659410.2s
July 09, 2013

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1200 N STATE STREET
LOS ANGELES, CA 90033

COORDINATES

Latitude (North):	34.0610000 - 34° 3' 39.60''
Longitude (West):	118.2114000 - 118° 12' 41.04''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	388204.2
UTM Y (Meters):	3769387.0
Elevation:	322 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	34118-A2 LOS ANGELES, CA
Most Recent Revision:	1994

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2012
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
1200 N. STATE ST., LA COUNTY USC 1200 N. STATE ST., LA COUNTY USC HOSPITAL LOS ANGELES, CA	CHMIRS	N/A
LA COUNTY MEDICAL CENTER TELEPHON 1200 N STATE ST LOS ANGELES, CA 90033	UST	N/A
LA USC MEDICAL CENTER 1200 NORTH STATE STREET LOS ANGELES, CA 90033	RCRA-SQG HIST CORTESE LUST HIST UST	CAT080016892
LOS ANGELES COUNTY/USC MEDICAL CE 1200 N STATE ST LOS ANGELES, CA 90033	HAZNET	N/A

USC MEDICAL CENTER, 1200 STATE ST USC MEDICAL CENTER, 1200 STATE STREET LOS ANGELES, CA	CHMIRS	N/A
LA CO- USC MEDICAL 1200 N STATE ST LOS ANGELES, CA 90033	RCRA-LQG FINDS US AIRS	CAD095615027
1200 N. STATE ST. 1200 N. STATE ST. LOS ANGELES, CA	CHMIRS EMI	N/A
L A COUNTY USC MEDICAL CENTER 1200 N STATE ST LOS ANGELES, CA 90063	CA FID UST SWEEPS UST EMI	N/A
LA CO USC MEDICAL CENTER 1200 N STATE ST LOS ANGELIS, CA	LOS ANGELES CO. HMS	N/A
LAC/USC REPLACEMENT PROJECT 1200 N STATE ST LOS ANGELES, CA 90033	WDS	N/A
USC MEDICAL CENTER 1200 N STATE ST LOS ANGELES, CA 90063	LUST Status: Open - Eligible for Closure HIST UST LA Co. Site Mitigation	N/A
LAC USC MEDICAL CENTER 1200 NORTH STATE STREET LOS ANGELES, CA 90033	HAZNET	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls
LUCIS ---------- Land Use Control Information System

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations

ODI	Open Dump Inventory
WMUDS/SWAT	Waste Management Unit Database
SWRCY	Recycler Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
AOCONCERN	San Gabriel Valley Areas of Concern
CDL	Clandestine Drug Labs
US HIST CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information
LIENS	Environmental Liens Listing
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
UIC	UIC Listing
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
Notify 65	Proposition 65 Records
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List

ENF---------- Enforcement Action Listing
INDIAN RESERV---------- Indian Reservations
SCRD DRYCLEANERS---------- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR---------- Financial Assurance Information
EPA WATCH LIST---------- EPA WATCH LIST
PRP---------- Potentially Responsible Parties
2020 COR ACTION---------- 2020 Corrective Action Program List
LEAD SMELTERS---------- Lead Smelter Sites
Financial Assurance---------- Financial Assurance Information Listing
HWT---------- Registered Hazardous Waste Transporter Database
COAL ASH EPA---------- Coal Combustion Residues Surface Impoundments List
COAL ASH DOE---------- Steam-Electric Plant Operation Data
MWMP---------- Medical Waste Management Program Listing
PCB TRANSFORMER---------- PCB Transformer Registration Database
PROC---------- Certified Processors Database

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 02/04/2013 has revealed that there are 2 CERCLIS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NU WAY PLATING CO	***1805 SICHEL ST***	***NNW 1/8 - 1/4 (0.147 mi.)***	***64***	***127***
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
BREWERY PCBS	2020 N. MAIN STREET	NW 1/4 - 1/2 (0.390 mi.)	S121	216

EXECUTIVE SUMMARY

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 02/05/2013 has revealed that there are 2 CERC-NFRAP sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BUILDERS HARDWARE FINISHERS	***1846 SICHEL ST***	***NNW 1/8 - 1/4 (0.206 mi.)***	***84***	***162***
CONSOLIDATED FREIGHTWAYS CORP	***1633 N SAN PABLO ST***	***ENE 1/4 - 1/2 (0.416 mi.)***	***U123***	***219***

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 02/12/2013 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MAIN STREET CENTER	***1630 NORTH MAIN STREET***	***WNW 1/2 - 1 (0.876 mi.)***	***V136***	***253***

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 02/12/2013 has revealed that there are 4 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON STATION 9 3690	***1101 N MISSION***	***W 0 - 1/8 (0.057 mi.)***	***E36***	***73***
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.100 mi.)***	***F53***	***98***
UNIVERSITY OF SOUTHERN CALIFOR	1540 ALCAZAR ST. CHP 14	ESE 1/8 - 1/4 (0.196 mi.)	78	149

Lower Elevation	Address	Direction / Distance	Map ID	Page
CENTRAL PARKING ENFORCEMENT RE	***1016 NORTH MISSION ROAD***	***WSW 1/8 - 1/4 (0.221 mi.)***	***K89***	***172***

EXECUTIVE SUMMARY

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 02/12/2013 has revealed that there are 8 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VIACOM OUTDOOR	***1731 WORKMAN ST***	***WNW 0 - 1/8 (0.065 mi.)***	***C42***	***87***
CBS OUTDOOR	1731 WORKMAN ST.	WNW 0 - 1/8 (0.065 mi.)	C44	90
BUILDERS HARDWARE FINISHERS	***1846 SICHEL ST***	***NNW 1/8 - 1/4 (0.206 mi.)***	***84***	***162***
CENTRAL EASTLAKE JUVENILE	***1605 EASTLAKE***	***ENE 1/8 - 1/4 (0.237 mi.)***	***P99***	***180***
MODERN SCREEN PRINTING	***2919 1/2 N MAIN ST***	***N 1/8 - 1/4 (0.247 mi.)***	***104***	***186***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC / USC IMAGING SCIENCE CTR	***1744 ZONAL AVE***	***0 - 1/8 (0.000 mi.)***	***13***	***50***
U S LABS LOS ANGELES	***1640 MARENGO ST STE 600***	***SW 0 - 1/8 (0.066 mi.)***	***45***	***92***
FORMER TMT PATHWAY	***1021 N MISSION RD***	***WSW 1/8 - 1/4 (0.169 mi.)***	***K71***	***142***

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 05/06/2013 has revealed that there are 2 RESPONSE sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
M.O.R.E. OIL COMPANY	***645 S AVENUE 21***	***NW 1/4 - 1/2 (0.341 mi.)***	***S115***	***200***
BORTZ OIL COMPANY	***1746 NORTH SPRING STREE***	***NW 1/2 - 1 (0.955 mi.)***	***W142***	***306***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/06/2013 has revealed that there are 17 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CENTRAL REGION HIGH SCHOOL #15	***MARENGO STREET / CHICAG***	***SE 1/4 - 1/2 (0.363 mi.)***	***117***	***206***
Status: Inactive - Needs Evaluation				

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FRANCISCO BRAVO MEDICAL MAGNET Status: Inactive - Needs Evaluation	***1200 NORTH CORNWELL STRE***	***SE 1/4 - 1/2 (0.378 mi.)***	***120***	***212***
CELOTEX CORP Status: No Further Action	***1633 SAN PABLO***	***ENE 1/4 - 1/2 (0.416 mi.)***	***U122***	***217***
MANUAL ARTS NEW ELEMENTARY SCH Status: No Further Action	***700 STATE STREET***	***SSW 1/2 - 1 (0.508 mi.)***	***128***	***230***
SOTO STREET Status: Inactive - Action Required	***1010 SOTO STREET***	***SE 1/2 - 1 (0.599 mi.)***	***129***	***233***
ROOSEVELT HIGH SCHOOL ADDITION Status: No Further Action	***3921 SELIG PLACE***	***NE 1/2 - 1 (0.726 mi.)***	***131***	***238***
WONG PROPERTY Status: Refer: 1248 Local Agency	***2716 MEDFORD ST.***	***E 1/2 - 1 (0.860 mi.)***	***132***	***241***
ACCURATE PLATING CO. Status: Refer: Other Agency	***2811 ALCAZAR ST***	***E 1/2 - 1 (0.873 mi.)***	***134***	***251***
STARLIGHT ORIGINALS, INC. Status: Refer: Other Agency	1601 N. INDIANA STREET	E 1/2 - 1 (0.926 mi.)	140	303
CHARO - COMMUNITY DEVELOPMENT Status: Inactive - Action Required	***4301 VALLEY BLVD.***	***E 1/2 - 1 (0.943 mi.)***	***141***	***304***

Lower Elevation	Address	Direction / Distance	Map ID	Page
M.O.R.E. OIL COMPANY Status: Certified	***645 S AVENUE 21***	***NW 1/4 - 1/2 (0.341 mi.)***	***S115***	***200***
EMPIRE CHEMICAL CO., INC. Status: Refer: Other Agency	***715 LAMAR ST***	***WNW 1/2 - 1 (0.613 mi.)***	***130***	***235***
TRUFLEX RUBBER Status: Inactive - Needs Evaluation	***1667 N MAIN ST***	***WNW 1/2 - 1 (0.860 mi.)***	***V133***	***245***
SO CAL GAS/LA MAIN ST MGP Status: Inactive - Needs Evaluation	***1630 NORTH MAIN STREET***	***WNW 1/2 - 1 (0.876 mi.)***	***V137***	***291***
LA DEPARTMENT WATER & POWER Status: Active	1630 N MAIN ST STE 16	WNW 1/2 - 1 (0.876 mi.)	V138	297
BAUCHET ST SITE Status: Active	***490 BAUCHET ST***	***W 1/2 - 1 (0.911 mi.)***	***139***	***299***
BORTZ OIL COMPANY Status: Active	***1746 NORTH SPRING STREE***	***NW 1/2 - 1 (0.955 mi.)***	***W142***	***306***

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 06/17/2013 has revealed that there are 25 LUST sites within approximately 0.5 miles of the target property.

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STEPHEN'S AUTO SERVICE CENTER	***1201 N MISSION RD***	***NW 0 - 1/8 (0.013 mi.)***	***D19***	***54***
Status: Open - Remediation				
STODDARD SERVICE	***1721 WORKMAN ST***	***WNW 0 - 1/8 (0.048 mi.)***	***C29***	***66***
Status: Completed - Case Closed				
STODDARD AUTOMOTIVE	1721 WORKMAN ST	WNW 0 - 1/8 (0.048 mi.)	C32	69
CHEVRON #9-3690	1101 MISSION RD N	W 0 - 1/8 (0.058 mi.)	E37	76
Status: Open - Remediation				
GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST	WNW 0 - 1/8 (0.065 mi.)	C41	86
AL-SAL OIL #17	1848 MARENGO ST	SSE 0 - 1/8 (0.124 mi.)	H60	118
AL-SAL OIL #17	***1848 MARENGO ST***	***SSE 0 - 1/8 (0.124 mi.)***	***H61***	***119***
Status: Open - Assessment & Interim Remedial Action				
UNION RAILROAD-LA TRANS. CTR.	***2100 ALHAMBRA AVE***	***NW 1/8 - 1/4 (0.199 mi.)***	***M80***	***158***
Status: Completed - Case Closed				
UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE	NW 1/8 - 1/4 (0.199 mi.)	M82	160
A-1 EASTERN HOMADE PICKLE COMP	1832 JOHNSTON STREET	NNE 1/8 - 1/4 (0.220 mi.)	88	170
Status: Open - Site Assessment				
NORRIS CANCER HOSPITAL	***1441 EASTLAKE AVE***	***E 1/8 - 1/4 (0.247 mi.)***	***Q107***	***189***
Status: Completed - Case Closed				
MOBIL - CARDENAS,RICHARD	2829 MAIN ST N	N 1/4 - 1/2 (0.257 mi.)	108	191
Status: Completed - Case Closed				
ALCAZAR MAINTENANCE YARD	***1525 ALCAZAR ST.***	***ENE 1/4 - 1/2 (0.303 mi.)***	***R111***	***195***
Status: Completed - Case Closed				
ALCAZAR MAINTENANCE YARD	1525 ALCAZAR ST	ENE 1/4 - 1/2 (0.303 mi.)	R112	197
USC CENTER FOR MOLECULAR MED.	***1540 ALCAZAR ST***	***ENE 1/4 - 1/2 (0.318 mi.)***	***R113***	***198***
Status: Completed - Case Closed				
USC MEDICAL FACILITY	***1540 ALCAZAR ST***	***ENE 1/4 - 1/2 (0.318 mi.)***	***R114***	***199***
ESTELLE DOHENY EYE HOSPITAL	1537 NORFOLK ST	E 1/4 - 1/2 (0.373 mi.)	T118	209
ESTELLE DOHENY EYE HOSPITAL	***1537 NORFOLK ST***	***E 1/4 - 1/2 (0.373 mi.)***	***T119***	***210***
Status: Completed - Case Closed				
FRANCISCO BRAVO MEDICAL MAGNET	***1200 NORTH CORNWELL STRE***	***SE 1/4 - 1/2 (0.378 mi.)***	***120***	***212***
Status: Completed - Case Closed				
CELOTEX CORP	***1632 SAN PABLO ST N***	***ENE 1/4 - 1/2 (0.428 mi.)***	***U125***	***222***
Status: Completed - Case Closed				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MORTON INT'L WHITTAKER CORP.	***1021 MISSION RD N***	***WSW 1/8 - 1/4 (0.169 mi.)***	***K70***	***140***
SAN ANTONIO WINERY	1016 MISSION RD N	WSW 1/8 - 1/4 (0.219 mi.)	K87	168
Status: Completed - Case Closed				
UNOCAL #2579	***2600 MAIN ST N***	***NNW 1/4 - 1/2 (0.302 mi.)***	***110***	***193***
Status: Completed - Case Closed				
TUNEUP MASTERS INC.	***2131 N MAIN ST***	***NW 1/4 - 1/2 (0.356 mi.)***	***116***	***204***
Status: Completed - Case Closed				
LAC MTA, DIVISION 10	742 MISSION RD N	WSW 1/4 - 1/2 (0.466 mi.)	126	224
Status: Open - Remediation				

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 06/17/2013 has revealed that there are 9 SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GANNETT OUTDOOR SYSTEMS, INC.	***1731 WORKMAN ST***	***WNW 0 - 1/8 (0.065 mi.)***	***C40***	***83***
Facility Status: Open - Remediation				
Facility Status: Open - Site Assessment				
INFINITY OUTDOOR	1731 WORKMAN	WNW 0 - 1/8 (0.069 mi.)	F46	93
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.100 mi.)***	***F53***	***98***
Facility Status: Open - Site Assessment				
LAC - USC MEDICAL CENTER REPLA	2000 MARENGO ST	SSE 1/8 - 1/4 (0.227 mi.)	L96	178
Facility Status: Completed - Case Closed				
ALCAZAR MAINTENANCE YARD	1525 ALCAZAR	ENE 1/4 - 1/2 (0.302 mi.)	R109	193
ALCAZAR MAINTENANCE YARD	***1525 ALCAZAR ST.***	***ENE 1/4 - 1/2 (0.303 mi.)***	***R111***	***195***
Facility Status: Open - Site Assessment				
CONSOLIDATED FREIGHTWAYS	***1637 SAN PABLO ST***	***ENE 1/4 - 1/2 (0.420 mi.)***	***U124***	***221***
Facility Status: Completed - Case Closed				
CELOTEX FACILITY (FORMER)	1630 SAN PABLO ST	ENE 1/4 - 1/2 (0.483 mi.)	127	230
Facility Status: Completed - Case Closed				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MORTON INT'L WHITTAKER CORP.	***1021 MISSION RD N***	***WSW 1/8 - 1/4 (0.169 mi.)***	***K70***	***140***
Facility Status: Open - Remediation				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 06/17/2013 has revealed that there are 13 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LA COUNTY USC MEDICAL CENTER-R	1900 ZONAL AVE	E 0 - 1/8 (0.008 mi.)	B14	52
MEDICAL EXAMINER - CORONER	***1104 N MISSION RD***	***W 0 - 1/8 (0.037 mi.)***	***C27***	***64***
CHEVRON STATION #9-3690	1101 N MISSION RD	W 0 - 1/8 (0.054 mi.)	E34	71
CHROMAL PLATING CO	***1748 WORKMAN ST***	***NW 0 - 1/8 (0.100 mi.)***	***F52***	***98***
LAC+USC MEDICAL CENTER	1129 N STATE ST	SSE 0 - 1/8 (0.119 mi.)	H54	113
AL SAL #17	1848 MARENGO ST	SSE 0 - 1/8 (0.124 mi.)	H59	117
LAC+USC MEDICAL CENTER	1830 GRIFFIN AVE	N 1/8 - 1/4 (0.162 mi.)	J66	131
LAC/USC MEDICAL CENTER	1950 MARENGO ST	SSE 1/8 - 1/4 (0.191 mi.)	L77	149
LAC+USC MEDICAL CENTER	1175 N CUMMINGS ST	ESE 1/8 - 1/4 (0.230 mi.)	O98	180
CENTRAL JUVENILE HALL	***1605 EASTLAKE AVE***	***ENE 1/8 - 1/4 (0.237 mi.)***	***P100***	***183***
UNIV. OF SO. CAL/NORRIS HOSP.	1441 EASTLAKE AVE	E 1/8 - 1/4 (0.247 mi.)	Q105	188

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC+USC MEDICAL CENTER STEAM P	1635 MARENGO ST	SSW 0 - 1/8 (0.073 mi.)	G47	93

Lower Elevation	Address	Direction / Distance	Map ID	Page
TMT-PATHWAY, LLC	1021 N MISSION RD	WSW 1/8 - 1/4 (0.169 mi.)	K68	138

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 2 HIST Cal-Sites sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
M.O.R.E. OIL COMPANY	***645 S AVENUE 21***	***NW 1/4 - 1/2 (0.341 mi.)***	***S115***	***200***
BORTZ OIL COMPANY	***1746 NORTH SPRING STREE***	***NW 1/2 - 1 (0.955 mi.)***	***W142***	***306***

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 23 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STEPHEN'S AUTO SERVICE CENTER	***1201 N MISSION RD***	***NW 0 - 1/8 (0.013 mi.)***	***D19***	***54***
USC MEDICAL CENTER	***1240 N MISSION RD***	***NNW 0 - 1/8 (0.013 mi.)***	***D22***	***62***
U S C MEDICAL CENTER	***1910 ZONAL AVE***	***E 0 - 1/8 (0.022 mi.)***	***B25***	***63***
MEDICAL EXAMINER - CORONER	1104 MISSION RD	WSW 0 - 1/8 (0.038 mi.)	C28	65
STODDARD SERRVICE	1721 WORKMAN ST	WNW 0 - 1/8 (0.048 mi.)	C31	68
93690	1101 N MISSION	W 0 - 1/8 (0.058 mi.)	E38	82
PACIFIC OUTDOOR ADVERSTISING	***1731 WORKMAN ST***	***WNW 0 - 1/8 (0.065 mi.)***	***C43***	***89***
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.100 mi.)***	***F53***	***98***
IT CORP	***1129 N STATE ST***	***SSE 0 - 1/8 (0.119 mi.)***	***H55***	***113***
UNIVERSITY OF SO CALIFORNIA	***1969 ZONAL AVE***	***E 0 - 1/8 (0.121 mi.)***	***I57***	***115***
KWIK #17 STATION	***1848 MARENGO ST***	***SSE 0 - 1/8 (0.124 mi.)***	***H62***	***124***
UNIVERSITY OF SO CALIFORNIA	***2011 ZONAL AVE***	***ESE 1/8 - 1/4 (0.175 mi.)***	***I73***	***146***
COAST FREIGHTWAYS INC	***2100 ALHAMBRA AVE***	***NW 1/8 - 1/4 (0.199 mi.)***	***M81***	***160***
MONTGOMERY WARD SERVICE STATIO	***925 RICHMOND ST***	***WSW 1/8 - 1/4 (0.223 mi.)***	***K92***	***176***
CENTRAL JUVENILE HALL	***1605 N EASTLAKE AVE***	***ENE 1/8 - 1/4 (0.238 mi.)***	***P101***	***184***
ESTHER M HILDAGO	***2006 MARENGO ST***	***SSE 1/8 - 1/4 (0.238 mi.)***	***102***	***184***
KEN NORRIS JR CANCER HOSP/RESE	1441 EASTLAKE AVE	E 1/8 - 1/4 (0.247 mi.)	Q106	189

Lower Elevation	Address	Direction / Distance	Map ID	Page
USC MEDICAL CENTER POWER PLANT	***1635 MARENGO ST***	***SSW 0 - 1/8 (0.073 mi.)***	***G49***	***94***
BAUER COATINGS	***1021 N MISSION RD***	***WSW 1/8 - 1/4 (0.169 mi.)***	***K67***	***131***
JOE'S CHEVRON	***1011 N MISSION RD***	***WSW 1/8 - 1/4 (0.201 mi.)***	***K83***	***162***

Lower Elevation	Address	Direction / Distance	Map ID	Page
GANNETT OUTDOOR CO INC	***1016 N MISSION RD***	***WSW 1/8 - 1/4 (0.219 mi.)***	***K86***	***166***
PETROLEUM DYNAMICS, INC	***995 N MISSION RD***	***WSW 1/8 - 1/4 (0.226 mi.)***	***N95***	***177***
OAK MANUFACTURING COMPANY, INC	***650 S AVENUE 21***	***WNW 1/8 - 1/4 (0.243 mi.)***	***103***	***185***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 12 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO CO.	1201 N MISSION RD	NW 0 - 1/8 (0.013 mi.)	D20	60
MOZAS TIRE SHOP	***1201 N MISSION RD***	***NW 0 - 1/8 (0.013 mi.)***	***D21***	***61***
MEDICAL EXAMINER - CORONER	***1104 N MISSION RD***	***W 0 - 1/8 (0.037 mi.)***	***C27***	***64***
93690	***1101 N MISSION RD***	***W 0 - 1/8 (0.054 mi.)***	***E35***	***71***
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.100 mi.)***	***F53***	***98***
KWIK #17 STATION	***1848 MARENGO ST***	***SSE 0 - 1/8 (0.124 mi.)***	***H62***	***124***
COAST FREIGHTWAYS, INC.	2100 ALHAMBRA AVE	NW 1/8 - 1/4 (0.199 mi.)	M79	158
CENTRAL JUVENILE HALL	***1605 EASTLAKE AVE***	***ENE 1/8 - 1/4 (0.237 mi.)***	***P100***	***183***

Lower Elevation	Address	Direction / Distance	Map ID	Page
USC MEDICAL CENTER POWER PLANT	1635 MARENGO ST	SSW 0 - 1/8 (0.075 mi.)	G50	97
BAUER COATINGS	1021 N MISSION RD	WSW 1/8 - 1/4 (0.169 mi.)	K69	138
GANNETT OUTDOOR CO., INC. OF S	1016 N MISSION RD	WSW 1/8 - 1/4 (0.221 mi.)	K91	174
PETROLEUM DYNAMICS INC	995 N MISSION RD	WSW 1/8 - 1/4 (0.226 mi.)	N94	177

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 25 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STEPHEN'S AUTO SERVICE CENTER	***1201 N MISSION RD***	***NW 0 - 1/8 (0.013 mi.)***	***D19***	***54***
USC MEDICAL CENTER	***1240 N MISSION RD***	***NNW 0 - 1/8 (0.013 mi.)***	***D22***	***62***
U S C MEDICAL CENTER	***1910 ZONAL AVE***	***E 0 - 1/8 (0.022 mi.)***	***B25***	***63***
MEDICAL EXAMINER - CORONER	***1104 N MISSION RD***	***W 0 - 1/8 (0.037 mi.)***	***C27***	***64***
STODDARD SERVICE	***1721 WORKMAN ST***	***WNW 0 - 1/8 (0.048 mi.)***	***C29***	***66***
93690	***1101 N MISSION RD***	***W 0 - 1/8 (0.054 mi.)***	***E35***	***71***
PACIFIC OUTDOOR ADVERSTISING	***1731 WORKMAN ST***	***WNW 0 - 1/8 (0.065 mi.)***	***C43***	***89***
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.100 mi.)***	***F53***	***98***
IT CORP	***1129 N STATE ST***	***SSE 0 - 1/8 (0.119 mi.)***	***H55***	***113***
UNIVERSITY OF SO CALIFORNIA	***1969 ZONAL AVE***	***E 0 - 1/8 (0.121 mi.)***	***I57***	***115***
AL - SAL STATION 17	1848 MARENGO ST	SSE 0 - 1/8 (0.124 mi.)	H58	115
LAC+USC MEDICAL CENTER/GENERAL	1830 N GRIFFIN AVE	N 1/8 - 1/4 (0.161 mi.)	J65	131
UNIVERSITY OF SO CALIFORNIA	***2011 ZONAL AVE***	***ESE 1/8 - 1/4 (0.175 mi.)***	***I73***	***146***
COAST FREIGHTWAYS INC	***2100 ALHAMBRA AVE***	***NW 1/8 - 1/4 (0.199 mi.)***	***M81***	***160***
MONTGOMERY WARD SERVICE STATIO	***925 RICHMOND ST***	***WSW 1/8 - 1/4 (0.223 mi.)***	***K92***	***176***
LAC+USC MEDICAL CENTER/OUTPATI	1175 N CUMMINGS ST	ESE 1/8 - 1/4 (0.230 mi.)	O97	180
CENTRAL JUVENILE HALL	***1605 N EASTLAKE AVE***	***ENE 1/8 - 1/4 (0.238 mi.)***	***P101***	***184***

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ESTHER M HILDAGO	***2006 MARENGO ST***	***SSE 1/8 - 1/4 (0.238 mi.)***	***102***	***184***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC+USC PARKING LOT 13/MEDICAL	1635 MARENGO RD	SSW 0 - 1/8 (0.073 mi.)	G48	94
USC MEDICAL CENTER POWER PLANT	***1635 MARENGO ST***	***SSW 0 - 1/8 (0.073 mi.)***	***G49***	***94***
BAUER COATINGS	***1021 N MISSION RD***	***WSW 1/8 - 1/4 (0.169 mi.)***	***K67***	***131***
JOE'S CHEVRON	***1011 N MISSION RD***	***WSW 1/8 - 1/4 (0.201 mi.)***	***K83***	***162***
GANNETT OUTDOOR CO INC	***1016 N MISSION RD***	***WSW 1/8 - 1/4 (0.219 mi.)***	***K86***	***166***
PETROLEUM DYNAMICS, INC	***995 N MISSION RD***	***WSW 1/8 - 1/4 (0.226 mi.)***	***N95***	***177***
OAK MANUFACTURING COMPANY, INC	***650 S AVENUE 21***	***WNW 1/8 - 1/4 (0.243 mi.)***	***103***	***185***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 02/12/2013 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NU WAY PLATING CO	***1805 SICHEL ST***	***NNW 1/8 - 1/4 (0.147 mi.)***	***64***	***127***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TRANSPORT CARTAGE&DISTR CO	***1039 RICHMOND***	***WSW 1/8 - 1/4 (0.182 mi.)***	***K74***	***147***

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 12/31/2011 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BUILDERS HARDWARE FINISHERS	***1846 SICHEL ST***	***NNW 1/8 - 1/4 (0.206 mi.)***	***84***	***162***

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BORTZ OIL COMPANY	1746 NORTH SPRING STREE	NW 1/2 - 1 (0.955 mi.)	W143	329

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 14 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STODDARD SERVICE	***1721 WORKMAN ST***	***WNW 0 - 1/8 (0.048 mi.)***	***C29***	***66***
CHEVRON STATION 9 3690	***1101 N MISSION***	***W 0 - 1/8 (0.057 mi.)***	***E36***	***73***
GANNETT OUTDOOR SYSTEMS, INC.	***1731 WORKMAN ST***	***WNW 0 - 1/8 (0.065 mi.)***	***C40***	***83***
AL-SAL OIL #17	***1848 MARENGO ST***	***SSE 0 - 1/8 (0.124 mi.)***	***H61***	***119***
UNION RAILROAD-LA TRANS. CTR.	***2100 ALHAMBRA AVE***	***NW 1/8 - 1/4 (0.199 mi.)***	***M80***	***158***
NORRIS CANCER HOSPITAL	***1441 EASTLAKE AVE***	***E 1/8 - 1/4 (0.247 mi.)***	***Q107***	***189***
ALCAZAR MAINTENANCE YARD	***1525 ALCAZAR ST.***	***ENE 1/4 - 1/2 (0.303 mi.)***	***R111***	***195***
USC CENTER FOR MOLECULAR MED.	***1540 ALCAZAR ST***	***ENE 1/4 - 1/2 (0.318 mi.)***	***R113***	***198***
ESTELLE DOHENY EYE HOSPITAL	***1537 NORFOLK ST***	***E 1/4 - 1/2 (0.373 mi.)***	***T119***	***210***
FRANCISCO BRAVO MEDICAL MAGNET	***1200 NORTH CORNWELL STRESE 1/4 - 1/2 (0.378 mi.)***		***120***	***212***
CELOTEX CORP	***1632 SAN PABLO ST N***	***ENE 1/4 - 1/2 (0.428 mi.)***	***U125***	***222***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MORTON INT'L WHITTAKER CO	1021 MISSION	WSW 1/8 - 1/4 (0.169 mi.)	K72	146
SAN ANTONIO WINERY	1016 MISSION	WSW 1/8 - 1/4 (0.221 mi.)	K90	174
UNOCAL #2579	***2600 MAIN ST N***	***NNW 1/4 - 1/2 (0.302 mi.)***	***110***	***193***

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 05/28/2013 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MAIN STREET CENTER	***1630 NORTH MAIN STREET***	***WNW 1/2 - 1 (0.876 mi.)***	***V136***	***253***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there are 2 EDR MGP sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SO CAL GAS/ LA MAIN ST MGP	1630 NORTH MAIN STREET	WNW 1/2 - 1 (0.876 mi.)	V135	253
SO CAL GAS/ALISO D MGP	CESAR CHAVEZ AND LYONS	WSW 1/2 - 1 (0.970 mi.)	144	330

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 15 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MC CRAE BUCK	1131 N MISSION RD	W 0 - 1/8 (0.010 mi.)	C15	52
Not reported	1201 N MISSION RD	NW 0 - 1/8 (0.013 mi.)	D18	53
GIFTIN R D	1237 N MISSION RD	NNW 0 - 1/8 (0.014 mi.)	D23	63
PLUMB G A	1121 N MISSION RD	W 0 - 1/8 (0.020 mi.)	C24	63
GREEN J B	1301 N MISSION RD	N 0 - 1/8 (0.024 mi.)	26	64
FERRARO JOHN	1721 WORKMAN ST	WNW 0 - 1/8 (0.048 mi.)	C30	67
JOE'S CHEVRON	1101 N MISSION RD	W 0 - 1/8 (0.054 mi.)	E33	70
Not reported	1901 ZONAL AVE	E 0 - 1/8 (0.061 mi.)	B39	82
Not reported	1736 WORKMAN ST	WNW 0 - 1/8 (0.088 mi.)	F51	98
Not reported	1770 WORKMAN ST	NW 0 - 1/8 (0.120 mi.)	56	114
STIRLING JAS	1848 MARENGO ST	S 1/8 - 1/4 (0.128 mi.)	H63	126
HART C J	3131 ALHAMBRA AVE	NNE 1/8 - 1/4 (0.186 mi.)	75	148

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1722 POMEROY AVE	SSW 1/8 - 1/4 (0.188 mi.)	76	149
Not reported	1001 N MISSION RD	WSW 1/8 - 1/4 (0.218 mi.)	K85	165
Not reported	995 N MISSION RD	WSW 1/8 - 1/4 (0.226 mi.)	N93	177

EDR US Hist Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there are 2 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

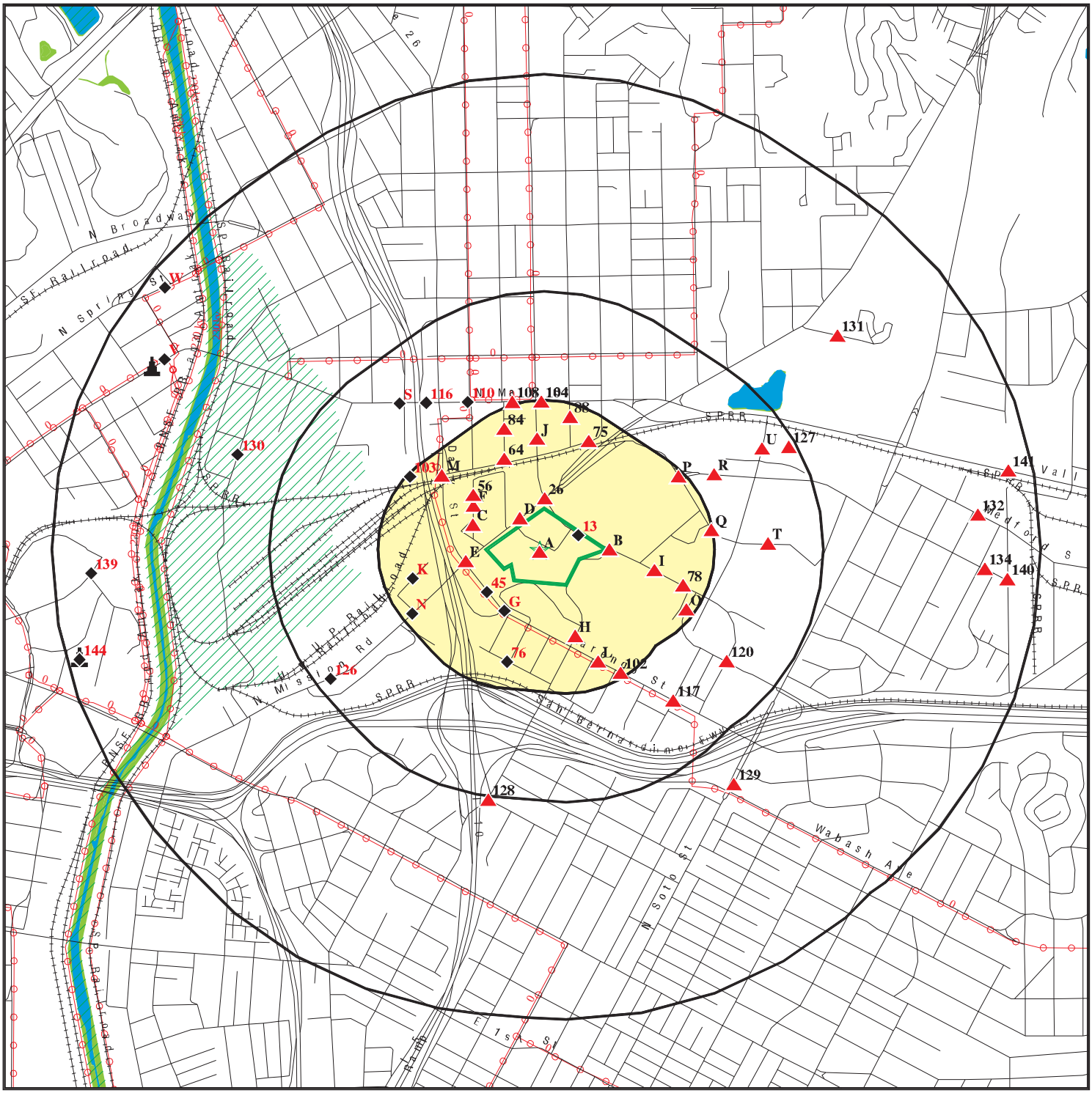
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
YEE WING	1137 N MISSION RD	W 0 - 1/8 (0.011 mi.)	C16	53
ORZEVSKY JACOB	1135 N MISSION RD	W 0 - 1/8 (0.011 mi.)	C17	53

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 20 records.

Site Name	Database(s)
BARLEY FLATS (CAMP 18)	HIST UST
	AST
CNTY LOS ANGELES USC MEDICAL CENTE	HAZNET
GENERAL TELEPHONE OF CA	RCRA-SQG,FINDS,HAZNET
CALTRANS 07 4 A 1704	RCRA-SQG,FINDS
CALTRANS	RCRA-SQG,FINDS
LA PUMPING PLANT #22	RCRA-SQG,FINDS
LA PUMPING PLANT 56	RCRA-SQG,FINDS
LA PUMPING PLANT 33	RCRA-SQG,FINDS
LA PUMPING PLANT 36	RCRA-SQG,FINDS
LA PUMPING PLANT 64	RCRA-SQG,FINDS
LA PUMPING PLANT #86	RCRA-SQG,FINDS
LA COMMUNITY BUILDING	RCRA-SQG,FINDS
SHELL OIL CO/WCD PIPELINES	RCRA-SQG,FINDS
USC CONSOLIDATED FREIGHTWAYS SITE	RCRA-SQG
CERTAINTEED CORP	RCRA-SQG,FINDS
LA PUMPING PLANT #82	RCRA-SQG,FINDS
LA PUMPING PLANT 52	RCRA-SQG,FINDS
USC CONSOLIDATED FREIGHTWAYS SITE	FINDS
VULCAN MATERIALS CO.	MINES

OVERVIEW MAP - 3659410.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Lac Usc Phase I	CLIENT: Kimley Horn & Associates, Inc.
ADDRESS: 1200 N State Street Los Angeles CA 90033	CONTACT: Jennifer Steen
LAT/LONG: 34.061 / 118.2114	INQUIRY #: 3659410.2s DATE: July 09, 2013 5:05 pm

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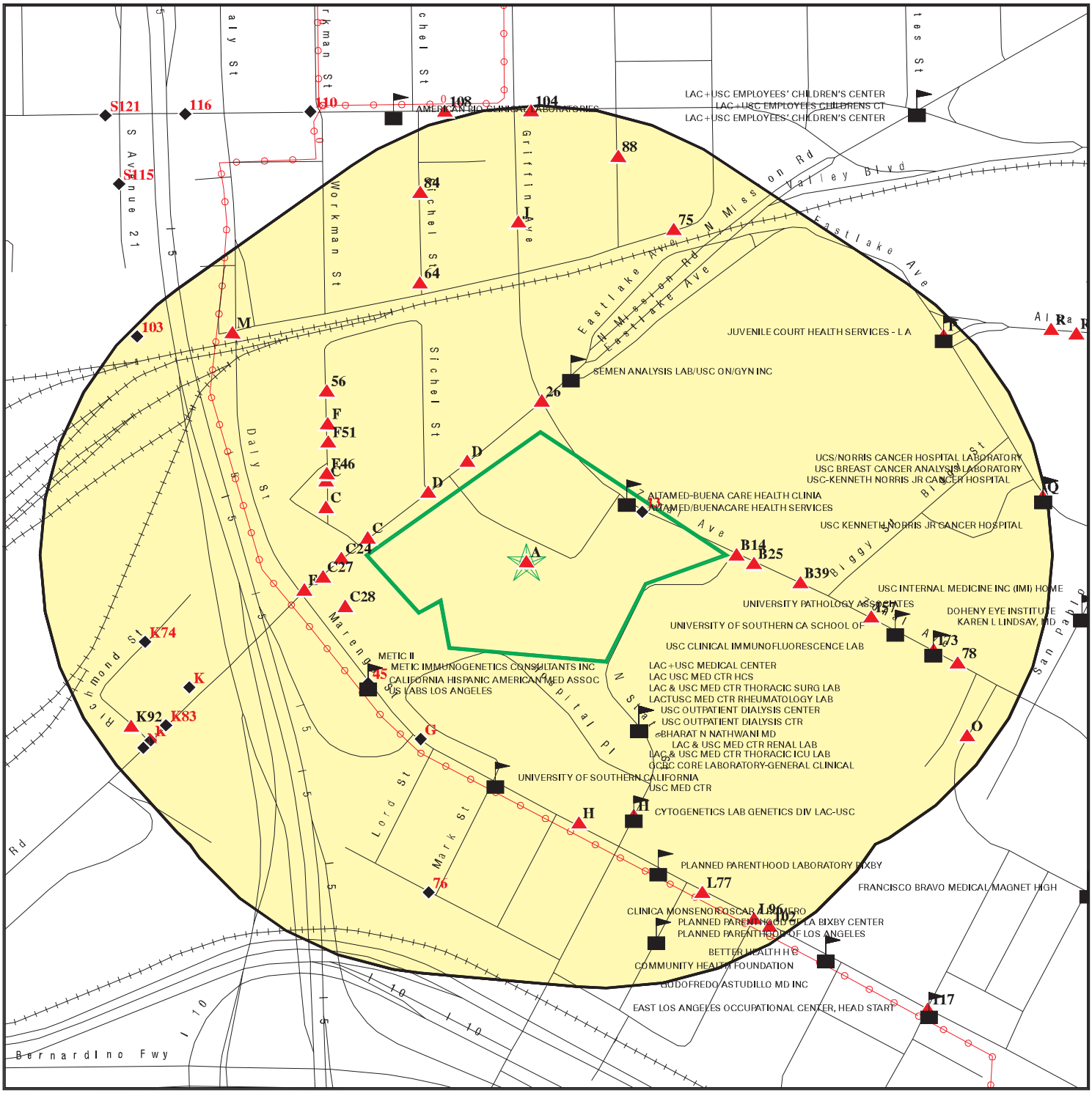
DETAIL MAP - 3659410.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Lac Usc Phase I	CLIENT: Kimley Horn & Associates, Inc.
ADDRESS: 1200 N State Street Los Angeles CA 90033	CONTACT: Jennifer Steen
LAT/LONG: 34.061 / 118.2114	INQUIRY #: 3659410.2s DATE: July 09, 2013 5:10 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	1	1	NR	NR	2
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	1	1	NR	NR	2
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	1	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250	1	2	2	NR	NR	NR	5
RCRA-SQG	0.250	1	4	4	NR	NR	NR	9
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	1	1	NR	2
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	4	13	NR	17
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500	2	7	6	12	NR	NR	27

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		3	2	4	NR	NR	9
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250	1	7	6	NR	NR	NR	14
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	1	1	NR	2
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250	1	12	11	NR	NR	NR	24
HIST UST	0.250	2	7	5	NR	NR	NR	14
SWEEPS UST	0.250	1	13	12	NR	NR	NR	26
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP	3	NR	NR	NR	NR	NR	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	2	NR	NR	NR	2
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	1	0	0	NR	1
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500	1	4	4	6	NR	NR	15
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	TP	1	NR	NR	NR	NR	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
LOS ANGELES CO. HMS	TP	1	NR	NR	NR	NR	NR	1
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	2	NR	NR	NR	NR	NR	2
EMI	TP	2	NR	NR	NR	NR	NR	2
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
WDS	TP	1	NR	NR	NR	NR	NR	1
PRP	TP		NR	NR	NR	NR	NR	0
US AIRS	TP	1	NR	NR	NR	NR	NR	1
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HWP	1.000		0	0	0	1	NR	1
HWT	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
COAL ASH EPA	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	2	NR	2
EDR US Hist Auto Stat	0.250		10	5	NR	NR	NR	15
EDR US Hist Cleaners	0.250		2	0	NR	NR	NR	2

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
Target Property **1200 N. STATE ST., LA COUNTY USC HOSPITAL**
LOS ANGELES, CA

CHMIRS **S105663104**
N/A

Site 1 of 12 in cluster A

Actual:
322 ft.

CHMIRS:

OES Incident Number:	99-0549
OES notification:	02/05/1999
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1999
Agency:	L.A. City Fire
Incident Date:	2/5/199912:00:00 AM
Admin Agency:	Los Angeles City Fire Department
Amount:	Not reported

(Continued) **S105663104**

Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Formalin
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0
Grams:	0
Pounds:	0
Liters:	0
Ounces:	8
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Spill occurred when a beaker was dropped by a lab tech at the hospital.

A2 **LA COUNTY MEDICAL CENTER TELEPHONE EXCHANGE** **UST** **U003780447**
Target **1200 N STATE ST** **N/A**
Property **LOS ANGELES, CA 90033**

Site 2 of 12 in cluster A

Actual: 322 ft.

UST:

Facility ID:	23998
Latitude:	34.05933
Longitude:	-118.21005

A3 **LA USC MEDICAL CENTER** **RCRA-SQG** **1000427580**
Target **1200 NORTH STATE STREET** **HIST CORTESE** **CAT080016892**
Property **LOS ANGELES, CA 90033** **LUST**
HIST UST

Site 3 of 12 in cluster A

Actual: 322 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	LA USC MEDICAL CENTER
Facility address:	1200 NORTH STATE STREET LOS ANGELES, CA 90033
EPA ID:	CAT080016892
Mailing address:	1237 NORTH MISSION ROAD LOS ANGELES, CA 90033
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09

LA USC MEDICAL CENTER (Continued) **1000427580**

Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LOS ANGELES COUNTY
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/01/1981
Facility name: LA USC MEDICAL CENTER
Classification: Large Quantity Generator

Violation Status: No violations found

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA

LA USC MEDICAL CENTER (Continued) **1000427580**

Reg Id: 900330270

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330270	
Status:	Remediation Plan	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700846	
W Global ID:	Not reported	
Staff:	MB	
Local Agency:	19050	
Cross Street:	MARENGO	
Enforcement Type:	DLSEL	
Date Leak Discovered:	5/13/1988	
Date Leak First Reported:		11/7/1988
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		10/1/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	Corrosion	
Leak Source:	Tank	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		12580.343301261849715610186143
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		2/21/1989
Remediation Plan Submitted:		7/21/2003
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		860
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	JOHN KELLEY	
RP Address:	GENERAL HOSPITAL, RM#1112, 1200 S. STATE ST.	
Program:	LUST	
Lat/Long:	34.0596424 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	

LA USC MEDICAL CENTER (Continued) **1000427580**

Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 5 UST AREAS IDENTIFIED: THEY ARE MORE TANKS SHOWN ON MAP W/OSUPPORTING REMOVAL DATA. OK TO BAIL FP MONTHLY. PREPARING ; 1/12/01 ADD'L SUBSURFACE INVEST. & GW MON WELL WP; 1/22/01 QTR GW MON RPT SEPT.-JAN. 20001

HIST UST:
Region: STATE
Facility ID: 00000033992
Facility Type: Other
Other Type: MEDICAL CENTER
Total Tanks: 0012
Contact Name: Not reported
Telephone: 2132266084
Owner Name: LOS ANGELES COUNTY DEPARTMENT
Owner Address: 313 NORTH FIGUEROA
Owner City,St,Zip: LOS ANGELES, CA 90012

Tank Num: 001
Container Num: G.H. #1
Year Installed: 1964
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: G.H. #2
Year Installed: 1972
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: G.H. #3
Year Installed: Not reported
Tank Capacity: 00001500
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: G.H. #4
Year Installed: Not reported
Tank Capacity: 00000300
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 005

LA USC MEDICAL CENTER (Continued) **1000427580**

Container Num: OP. #5
Year Installed: 1961
Tank Capacity: 00000800
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: P-6
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: PP #7
Year Installed: 1952
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 3/16 inches
Leak Detection: Stock Inventor

Tank Num: 008
Container Num: PP #8
Year Installed: 1952
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 3/16 inches
Leak Detection: Stock Inventor

Tank Num: 009
Container Num: T #9
Year Installed: 1958
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 12 gauge
Leak Detection: Stock Inventor

Tank Num: 010
Container Num: W 10
Year Installed: 1958
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 12 gauge
Leak Detection: Stock Inventor

Tank Num: 011
Container Num: W #11
Year Installed: 1958
Tank Capacity: 00000500

LA USC MEDICAL CENTER (Continued) **1000427580**

Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 12 gauge
Leak Detection: Stock Inventor

Tank Num: 012
Container Num: 12
Year Installed: 1969
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

A4 **LOS ANGELES COUNTY/USC MEDICAL CENTER** **HAZNET** **S113002223**
Target **1200 N STATE ST** **N/A**
Property **LOS ANGELES, CA 90033**

Site 4 of 12 in cluster A

Actual:
322 ft.

HAZNET:
Year: 2011
Gepaid: CAD095615027
Contact: STEVEN PRIETO/SAFETY ASSISTANT
Telephone: 3234093036
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST RM 128
Mailing City,St,Zip: LOS ANGELES, CA 900334525
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 6
Facility County: Los Angeles

Year: 2011
Gepaid: CAD095615027
Contact: STEVEN PRIETO/SAFETY ASSISTANT
Telephone: 3234093036
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST RM 128
Mailing City,St,Zip: LOS ANGELES, CA 900334525
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 6
Facility County: Los Angeles

Year: 2011
Gepaid: CAD095615027
Contact: STEVEN PRIETO/SAFETY ASSISTANT
Telephone: 3234093036
Mailing Name: Not reported

LOS ANGELES COUNTY/USC MEDICAL CENTER (Continued) **S113002223**

Mailing Address:	1200 N STATE ST RM 128
Mailing City,St,Zip:	LOS ANGELES, CA 900334525
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	2.6565
Facility County:	Los Angeles

Year:	2011
Gepaid:	CAD095615027
Contact:	STEVEN PRIETO/SAFETY ASSISTANT
Telephone:	3234093036
Mailing Name:	Not reported
Mailing Address:	1200 N STATE ST RM 128
Mailing City,St,Zip:	LOS ANGELES, CA 900334525
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	2.6565
Facility County:	Los Angeles

Year:	2011
Gepaid:	CAD095615027
Contact:	STEVEN PRIETO/SAFETY ASSISTANT
Telephone:	3234093036
Mailing Name:	Not reported
Mailing Address:	1200 N STATE ST RM 128
Mailing City,St,Zip:	LOS ANGELES, CA 900334525
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.0375
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
811 additional CA_HAZNET: record(s) in the EDR Site Report.

A5 **CHMIRS** **S109047214**
Target Property **USC MEDICAL CENTER, 1200 STATE STREET** **N/A**
LOS ANGELES, CA

Site 5 of 12 in cluster A

Actual: 322 ft.

CHMIRS:

OES Incident Number:	07-4589
OES notification:	07/31/2007
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported

(Continued) **S109047214**

Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Flood channel
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	Los Angeles County Public Works
Incident Date:	7/31/2007 12:00:00 AM
Admin Agency:	Los Angeles City Fire Department
Amount:	Not reported
Contained:	Unknown
Site Type:	Other
E Date:	Not reported
Substance:	Sewage
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	2000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0

(Continued) **S109047214**

Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Large amount of Rags and paper towels in sewer line that caused stoppage and spill

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A6 **LA CO- USC MEDICAL** **RCRA-LQG** **1000240200**
Target **1200 N STATE ST** **FINDS** **CAD095615027**
Property **LOS ANGELES, CA 90033** **US AIRS**

Site 6 of 12 in cluster A

Actual: 322 ft.

RCRA-LQG:

Date form received by agency:	02/22/2012
Facility name:	LAC+USC MEDICAL CENTER
Facility address:	1200 N. STATE STREET RM #128 LOS ANGELES, CA 90033
EPA ID:	CAD095615027
Mailing address:	N. STATE STREET RM #128 LOS ANGELES, CA 90033
Contact:	STEVEN PRIETO
Contact address:	N. STATE STREET LOS ANGELES, CA 90033
Contact country:	Not reported
Contact telephone:	(323) 409-7485
Contact email:	STPRIETO@DHS.LACOUNTY.GOV
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	LOS ANGELES COUNTY
Owner/operator address:	N. STATE STREET LOS ANGELES, CA 90033
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	County
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1934
Owner/Op end date:	Not reported

LA CO- USC MEDICAL (Continued) **1000240200**

Owner/operator name: MUNICIPAL GOVERNMENT
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LOS ANGELES COUNTY
Owner/operator address: N. STATE STREET
LOS ANGELES, CA 90033
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1934
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): Yes
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

LA CO- USC MEDICAL (Continued) **1000240200**

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: No

Historical Generators:
Date form received by agency: 02/19/2008
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/23/2006
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/16/2004
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 08/23/2002
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: LAC+USC MEDICAL CENTER
Site name: LOS ANGELES COUNTY/USC MED, CENTER
Classification: Large Quantity Generator

Date form received by agency: 04/21/1999
Facility name: LAC+USC MEDICAL CENTER
Site name: LOS ANGELES COUNTY/USC MED, CENTER
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: LAC+USC MEDICAL CENTER
Site name: LA HEALTH SVC LAC USC MED CTR
Classification: Large Quantity Generator

Date form received by agency: 04/17/1981
Facility name: LAC+USC MEDICAL CENTER
Site name: LA HEALTH SVC LAC USC MED CTR
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS

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USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D009
Waste name: MERCURY

Waste code: D011
Waste name: SILVER

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: P105
Waste name: SODIUM AZIDE

Waste code: U122
Waste name: FORMALDEHYDE

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 24725.3

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

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Amount (Lbs): 1601.9

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
Amount (Lbs): 1482.9

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 406.5

Waste code: D011
Waste name: SILVER
Amount (Lbs): 13742

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 15059.9

Waste code: P105
Waste name: SODIUM AZIDE
Amount (Lbs): 1482.9

Waste code: U122
Waste name: FORMALDEHYDE
Amount (Lbs): 1482.9

Violation Status: No violations found

FINDS:

Registry ID: 110000844445

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

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The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

AIRS (AFS):

Compliance and Violation Data Major Sources:

EPA plant ID:	110000844445
Plant name:	LA CO- USC MEDICAL
Plant address:	1200 N STATE ST LOS ANGELES, CA 90033
County:	LOS ANGELES
Region code:	09
Dunn & Bradst #:	095615027
Air quality cntrl region:	024
Sic code:	8062
Sic code desc:	Not reported
North Am. industrial classf:	622110
NAIC code description:	General Medical and Surgical Hospitals
Default compliance status:	IN COMPLIANCE - INSPECTION
Default classification:	ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS
Govt facility:	ALL OTHER FACILITIES NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT
Current HPV:	Not reported

Compliance and Enforcement Major Issues:

Air program:	TITLE V PERMITS
National action type:	MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved:	001219
Penalty amount:	000000000
Air program:	SIP SOURCE
National action type:	MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved:	001219
Penalty amount:	000000000
Air program:	SIP SOURCE
National action type:	S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD

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Date achieved: 010202
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 010202
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: SV RESOLVED
Date achieved: 010328
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 020108
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 020108
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 020215
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 020215
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION EPA REVIEW
Date achieved: 020808
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 020930
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 020930
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 030304
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: NXXXXX
Date achieved: 030307
Penalty amount: Not reported

LA CO- USC MEDICAL (Continued) **1000240200**

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 030310
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 030417
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE DAY 0
Date achieved: 030514
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: NXXXXX
Date achieved: 030624
Penalty amount: 000015000

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 031003
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 031003
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 040112
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 040112
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: SV RESOLVED
Date achieved: 040205
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 040227
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 040227
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE

LA CO- USC MEDICAL (Continued) **1000240200**

Date achieved: 040518
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 040518
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 040518
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 040518
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 050112
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 050112
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 050325
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 050325
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 050325
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 050325
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 060209
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 060209
Penalty amount: Not reported

LA CO- USC MEDICAL (Continued) **1000240200**

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 060616
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 060616
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 060727
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 060727
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 060803
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 060803
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 060803
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 060803
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 060908
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 060908
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 070824
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE

LA CO- USC MEDICAL (Continued) **1000240200**

Date achieved: 070824
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 070824
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 070824
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 070825
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 070825
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: NXXXXX
Date achieved: 071003
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: NXXXXX
Date achieved: 071003
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 071015
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 071015
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE DAY 0
Date achieved: 080309
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE DAY 0
Date achieved: 080309
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: NXXXXX
Date achieved: 080328
Penalty amount: 000001000

LA CO- USC MEDICAL (Continued) **1000240200**

Air program: SIP SOURCE
National action type: NXXXXX
Date achieved: 080328
Penalty amount: 000001000

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 080402
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 080402
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 080403
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 080403
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: SV RESOLVED
Date achieved: 080619
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: SV RESOLVED
Date achieved: 080619
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 080801
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: NXXXXX
Date achieved: 080801
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: NXXXXX
Date achieved: 080801
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 080801
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE

LA CO- USC MEDICAL (Continued) **1000240200**

Date achieved: 080801
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 080801
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 080910
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 080910
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE DAY 0
Date achieved: 081216
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE DAY 0
Date achieved: 081216
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: NXXXXX
Date achieved: 090109
Penalty amount: 000000500

Air program: TITLE V PERMITS
National action type: NXXXXX
Date achieved: 090109
Penalty amount: 000000500

Air program: SIP SOURCE
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY
Date achieved: 090220
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY
Date achieved: 090220
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 090222
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 090222
Penalty amount: Not reported

LA CO- USC MEDICAL (Continued) **1000240200**

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 090402
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 090402
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 090403
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 090403
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 090403
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 090403
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: SV RESOLVED
Date achieved: 090520
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: SV RESOLVED
Date achieved: 090520
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 090622
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: S/L REQ (O/O COND) STACK TEST/NOT OBSV BUT REVWD
Date achieved: 090622
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY
Date achieved: 100301
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY

LA CO- USC MEDICAL (Continued) **1000240200**

Date achieved: 100301
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 100326
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 100326
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 100702
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 100702
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 100702
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 100702
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 110217
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY
Date achieved: 110217
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 110217
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY
Date achieved: 110217
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 110712
Penalty amount: Not reported

LA CO- USC MEDICAL (Continued) **1000240200**

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 110712
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 110712
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 110712
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY
Date achieved: 120223
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: TITLE V ANN COMPL CERT DUE/RCV BY PERMIT AUTHORITY
Date achieved: 120223
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 120405
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 120405
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 120405
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 120405
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED PCE/ ON-SITE
Date achieved: 120405
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 120405
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER

LA CO- USC MEDICAL (Continued) **1000240200**

Date achieved: 980529
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 980529
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: NXXXXX
Date achieved: 981103
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: STATE DAY 0
Date achieved: 990304
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: NXXXXX
Date achieved: 990330
Penalty amount: 000150000

Air program: TITLE V PERMITS
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 990928
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 990928
Penalty amount: 000000000

Historical Compliance Minor Sources:
State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1001
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1001
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1002
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1002
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1003
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1003
Air prog code hist file: V

LA CO- USC MEDICAL (Continued) **1000240200**

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1004
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1004
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1101
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1101
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1102
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1102
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1103
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1103
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1104
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1104
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1201
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1201
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1202
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1202
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION

LA CO- USC MEDICAL (Continued) **1000240200**

Hist compliance date: 1203
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1203
Air prog code hist file: V

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1204
Air prog code hist file: 0

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1204
Air prog code hist file: V

Permit Information:
Compliance plant ID: 00161
Permit number: 20197
Permit category: V
Permit category desc: TITLE V PERMIT - PLANT SP

Permit Source:
Compliance plant ID: 00161
Plant name: LA CO- USC MEDICAL
Plant address: 1200 N STATE ST
LOS ANGELES, CA 90033

Event Information:
Compliance permit ID: 00161
Permit number: 20197
Event action type: IF
Event description: *PERMIT AUTHORITY ISSUES FINAL PERMIT
Event action #: 001
Event date: 20061024

A7 **CHMIRS S106388992**
Target Property **1200 N. STATE ST.** **EMI N/A**
LOS ANGELES, CA

Site 7 of 12 in cluster A

Actual: 322 ft.

CHMIRS:
OES Incident Number: 26461
OES notification: Not reported
OES Date: 1/6/1993
OES Time: 07:10:00 PM
Incident Date: Not reported
Date Completed: **Not reported**
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported

(Continued) **S106388992**

Property Management:	Not reported	
Special Studies 1:	Not reported	
Special Studies 2:	Not reported	
Special Studies 3:	Not reported	
Special Studies 4:	Not reported	
Special Studies 5:	Not reported	
Special Studies 6:	Not reported	
More Than Two Substances Involved?:		Not reported
Resp Agncy Personel # Of Decontaminated:		Not reported
Responding Agency Personel # Of Injuries:		Not reported
Responding Agency Personel # Of Fatalities:		Not reported
Others Number Of Decontaminated:		Not reported
Others Number Of Injuries:		Not reported
Others Number Of Fatalities:		Not reported
Vehicle Make/year:	Not reported	
Vehicle License Number:	Not reported	
Vehicle State:	Not reported	
Vehicle Id Number:	Not reported	
CA/DOT/PUC/ICC Number:	Not reported	
Company Name:	Not reported	
Reporting Officer Name/ID:	Not reported	
Report Date:	Not reported	
Comments:	Not reported	
Facility Telephone:	Not reported	
Waterway Involved:	Not reported	
Waterway:	Not reported	
Spill Site:	Not reported	
Cleanup By:	la fd did clean up	
Containment:	Not reported	
What Happened:	Not reported	
Type:	CHEMICAL	
Measure:	Not reported	
Other:	Not reported	
Date/Time:	Not reported	
Year:	1993	
Agency:	la city fd	
Incident Date:	1619	
Admin Agency:	Not reported	
Amount:	1/4 gal	
Contained:	Not reported	
Site Type:	Not reported	
E Date:	Not reported	
Substance:	peroxyaletic acid	
Quantity Released:	Not reported	
BBLS:	Not reported	
Cups:	Not reported	
CUFT:	Not reported	
Gallons:	Not reported	
Grams:	Not reported	
Pounds:	Not reported	
Liters:	Not reported	
Ounces:	Not reported	
Pints:	Not reported	
Quarts:	Not reported	
Sheen:	Not reported	
Tons:	Not reported	
Unknown:	Not reported	

(Continued) **S106388992**

Evacuations:	UNKNOWN	
Number of Injuries:	UNKNOWN	
Number of Fatalities:	UNKNOWN	
Description:	dropped by employee in hospital	
OES Incident Number:	05-4036	
OES notification:	07/08/2005	
OES Date:	Not reported	
OES Time:	Not reported	
Incident Date:	Not reported	
Date Completed:	**Not reported**	
Property Use:	Not reported	
Agency Id Number:	Not reported	
Agency Incident Number:	Not reported	
Time Notified:	Not reported	
Time Completed:	Not reported	
Surrounding Area:	Not reported	
Estimated Temperature:	Not reported	
Property Management:	Not reported	
Special Studies 1:	Not reported	
Special Studies 2:	Not reported	
Special Studies 3:	Not reported	
Special Studies 4:	Not reported	
Special Studies 5:	Not reported	
Special Studies 6:	Not reported	
More Than Two Substances Involved?:		Not reported
Resp Agncy Personel # Of Decontaminated:		Not reported
Responding Agency Personel # Of Injuries:		Not reported
Responding Agency Personel # Of Fatalities:		Not reported
Others Number Of Decontaminated:		Not reported
Others Number Of Injuries:		Not reported
Others Number Of Fatalities:		Not reported
Vehicle Make/year:	Not reported	
Vehicle License Number:	Not reported	
Vehicle State:	Not reported	
Vehicle Id Number:	Not reported	
CA/DOT/PUC/ICC Number:	Not reported	
Company Name:	Not reported	
Reporting Officer Name/ID:	Not reported	
Report Date:	Not reported	
Comments:	Not reported	
Facility Telephone:	Not reported	
Waterway Involved:	Not reported	
Waterway:	Not reported	
Spill Site:	Not reported	
Cleanup By:	Contractor	
Containment:	Not reported	
What Happened:	Not reported	
Type:	Not reported	
Measure:	Not reported	
Other:	Not reported	
Date/Time:	Not reported	
Year:	2005	
Agency:	LA CO. USC Med. Center	
Incident Date:	7/8/200512:00:00 AM	
Admin Agency:	Los Angeles City Fire Department	
Amount:	Not reported	

(Continued) **S106388992**

Contained:	Yes
Site Type:	School
E Date:	Not reported
Substance:	Hydraulic Oil
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	25
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	A ruptured line caused the release.

EMI:

Year:	2001
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	B
Total Organic Hydrocarbon Gases Tons/Yr:	26
Reactive Organic Gases Tons/Yr:	14
Carbon Monoxide Emissions Tons/Yr:	11
NOX - Oxides of Nitrogen Tons/Yr:	17
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

A8 **L A COUNTY USC MEDICAL CENTER** **CA FID UST** **S101582624**
Target **1200 N STATE ST** **SWEEPS UST** **N/A**
Property **LOS ANGELES, CA 90063** **EMI**

Site 8 of 12 in cluster A

Actual:
322 ft.

CA FID UST:

Facility ID:	19000861
Regulated By:	UTNKA
Regulated ID:	00020696
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132266084
Mail To:	Not reported
Mailing Address:	1100 N EASTERN AVE
Mailing Address 2:	Not reported

L A COUNTY USC MEDICAL CENTER (Continued) **S101582624**

Mailing City,St,Zip: LOS ANGELES 900630000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 1451
Number: 4
Board Of Equalization: 44-011805
Referral Date: 03-05-93
Action Date: 03-29-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001451-000001
Actv Date: 10-09-92
Capacity: 500
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 2

Status: Active
Comp Number: 1451
Number: 4
Board Of Equalization: 44-011805
Referral Date: 03-05-93
Action Date: 03-29-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001451-000003
Actv Date: 04-20-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: Not reported

EMI:
Year: 1987
County Code: 19
Air Basin: SC
Facility ID: 20197
Air District Name: SC
SIC Code: 8062
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 11
Reactive Organic Gases Tons/Yr: 9

L A COUNTY USC MEDICAL CENTER (Continued) **S101582624**

Carbon Monoxide Emissions Tons/Yr:	28
NOX - Oxides of Nitrogen Tons/Yr:	26
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	46
Reactive Organic Gases Tons/Yr:	30
Carbon Monoxide Emissions Tons/Yr:	13
NOX - Oxides of Nitrogen Tons/Yr:	26
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	60
Reactive Organic Gases Tons/Yr:	54
Carbon Monoxide Emissions Tons/Yr:	7
NOX - Oxides of Nitrogen Tons/Yr:	28
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1996
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	60
Reactive Organic Gases Tons/Yr:	55
Carbon Monoxide Emissions Tons/Yr:	5
NOX - Oxides of Nitrogen Tons/Yr:	9
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

L A COUNTY USC MEDICAL CENTER (Continued) **S101582624**

Year:	1997
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	64
Reactive Organic Gases Tons/Yr:	43
Carbon Monoxide Emissions Tons/Yr:	5
NOX - Oxides of Nitrogen Tons/Yr:	9
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1998
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	55
Reactive Organic Gases Tons/Yr:	39
Carbon Monoxide Emissions Tons/Yr:	5
NOX - Oxides of Nitrogen Tons/Yr:	9
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1999
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	64
Reactive Organic Gases Tons/Yr:	43
Carbon Monoxide Emissions Tons/Yr:	5
NOX - Oxides of Nitrogen Tons/Yr:	9
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	2000
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062

L A COUNTY USC MEDICAL CENTER (Continued) **S101582624**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	64
Reactive Organic Gases Tons/Yr:	43
Carbon Monoxide Emissions Tons/Yr:	5
NOX - Oxides of Nitrogen Tons/Yr:	9
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	2002
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	19
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	10
NOX - Oxides of Nitrogen Tons/Yr:	13
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	2003
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	19
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	10
NOX - Oxides of Nitrogen Tons/Yr:	13
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	2004
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18.974056
Reactive Organic Gases Tons/Yr:	10.41
Carbon Monoxide Emissions Tons/Yr:	9.5682

L A COUNTY USC MEDICAL CENTER (Continued) **S101582624**

NOX - Oxides of Nitrogen Tons/Yr:	12.86331
SOX - Oxides of Sulphur Tons/Yr:	0.0990865
Particulate Matter Tons/Yr:	0.9709025
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.97

Year:	2006
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8060
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	19.49641893940661344
Reactive Organic Gases Tons/Yr:	13.911
Carbon Monoxide Emissions Tons/Yr:	12.2
NOX - Oxides of Nitrogen Tons/Yr:	6.283
SOX - Oxides of Sulphur Tons/Yr:	.1
Particulate Matter Tons/Yr:	3.84
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3.033346

Year:	2007
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6.904450531009455335
Reactive Organic Gases Tons/Yr:	5.55175
Carbon Monoxide Emissions Tons/Yr:	4.62875
NOX - Oxides of Nitrogen Tons/Yr:	2.26
SOX - Oxides of Sulphur Tons/Yr:	.065814
Particulate Matter Tons/Yr:	3.5087835
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.7082172

Year:	2007
County Code:	19
Air Basin:	SC
Facility ID:	20197
Air District Name:	SC
SIC Code:	8060
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	19.49043085161806837
Reactive Organic Gases Tons/Yr:	13.911
Carbon Monoxide Emissions Tons/Yr:	12.2
NOX - Oxides of Nitrogen Tons/Yr:	6.283
SOX - Oxides of Sulphur Tons/Yr:	.1
Particulate Matter Tons/Yr:	3.84
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3.033346

A9 **LA CO USC MEDICAL CENTER** **LOS ANGELES CO. HMS** **S106915082**
Target **1200 N STATE ST** **N/A**
Property **LOS ANGELIS, CA**

Site 9 of 12 in cluster A

Actual:
322 ft.

LOS ANGELES CO. HMS:
Region: LA
Facility Id: 016571-022029
Facility Type: Not reported
Facility Status: OPEN
Area: 3F
Permit Number: Not reported
Permit Status: Not reported

A10 **LAC/USC REPLACEMENT PROJECT** **WDS** **S102057505**
Target **1200 N STATE ST** **N/A**
Property **LOS ANGELES, CA 90033**

Site 10 of 12 in cluster A

Actual:
322 ft.

CA WDS:
Facility ID: Los Angeles River 196100119
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAG994004 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 4
Facility Telephone: 7146397873
Facility Contact: Jim Osborne
Agency Name: PURE EFFECT INCORPORATED
Agency Address: Not reported
Agency City,St,Zip: 0
Agency Contact: Not reported
Agency Telephone: Not reported
Agency Type: Private
SIC Code: 8062
SIC Code 2: Not reported
Primary Waste: Contaminated Ground Water
Primary Waste Type: Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 1
Baseline Flow: 1
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
Treat To Water: 0
Complexity: Not reported

A11 **USC MEDICAL CENTER** **LUST** **U001562387**
Target **1200 N STATE ST** **HIST UST** **N/A**
Property **LOS ANGELES, CA 90063** **LA Co. Site Mitigation**

Site 11 of 12 in cluster A

Actual:
322 ft.

LUST:

Region:	STATE
Global Id:	T0603700846
Latitude:	34.0596424
Longitude:	-118.2102981
Case Type:	LUST Cleanup Site
Status:	Open - Eligible for Closure
Status Date:	02/05/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	MB
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330270
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700846
Contact Type:	Regional Board Caseworker
Contact Name:	MAGDY BAIADY
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	LOS ANGELES
Email:	mbaiady@waterboards.ca.gov
Phone Number:	2135766699

Global Id:	T0603700846
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T0603700846
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603700846
Action Type:	RESPONSE
Date:	10/15/2002
Action:	Monitoring Report - Quarterly

Global Id:	T0603700846
Action Type:	RESPONSE
Date:	01/15/2003

USC MEDICAL CENTER (Continued) **U001562387**

Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2003
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 07/15/2002
Action: Staff Letter

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 06/28/2002
Action: Site Visit / Inspection / Sampling

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2003
Action: Soil and Water Investigation Report

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

USC MEDICAL CENTER (Continued) **U001562387**

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 04/22/2003
Action: Staff Letter

Global Id: T0603700846
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE

USC MEDICAL CENTER (Continued) **U001562387**

Date: 11/14/2005
Action: Request for Closure

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 08/15/2002
Action: Other Report / Document

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

HIST UST:
Region: STATE
Facility ID: 00000020696
Facility Type: Other
Other Type: USC
Total Tanks: 0004
Contact Name: L. A COUNTY MECHANICAL DEPT.
Telephone: 2132672242
Owner Name: LOS ANGELES COUNTY MECHANICAL
Owner Address: 1100 NORTH EASTERN AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90063

Tank Num: 001
Container Num: #4
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: #1

USC MEDICAL CENTER (Continued) **U001562387**

Year Installed: Not reported
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: N/A
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: #3
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010464
Jurisdiction: State
Case ID: RO0000287
Abated: No
Assigned To: Not reported
Entered Date: 05/11/2004

A12 **LAC USC MEDICAL CENTER** **HAZNET** **S113179734**
Target **1200 NORTH STATE STREET** **N/A**
Property **LOS ANGELES, CA 90033**

Site 12 of 12 in cluster A

Actual:
322 ft.

HAZNET:
Year: 1998
Gepaid: CAT080016892
Contact: LOS ANGELES COUNTY
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1237 N MISSION RD
Mailing City,St,Zip: LOS ANGELES, CA 900331077
Gen County: Not reported
TSD EPA ID: CAD099452708
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: .0542
Facility County: Los Angeles

13 **LAC / USC IMAGING SCIENCE CTR** **RCRA-SQG** **1000685801**
1744 ZONAL AVE **FINDS** **CAD983624578**
< 1/8 **LOS ANGELES, CA 90033** **HAZNET**
1 ft.

Relative:
Lower

Actual:
321 ft.

RCRA-SQG:

Date form received by agency:	03/24/1992
Facility name:	LAC / USC IMAGING SCIENCE CTR
Facility address:	1744 ZONAL AVE LOS ANGELES, CA 90033
EPA ID:	CAD983624578
Mailing address:	ZONAL AVE LOS ANGELES, CA 90033
Contact:	LINDA NEEDHAM
Contact address:	1744 ZONAL AVE LOS ANGELES, CA 90033
Contact country:	US
Contact telephone:	(213) 221-2744
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	AMERICAN HEALTH SVC CORP
Owner/operator address:	4440 VON KARMAN STE 320 NEWPORT BEACH, CA 92660
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 476-0133
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

LAC / USC IMAGING SCIENCE CTR (Continued) **1000685801**

Registry ID: 110002871795

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Year:	1998
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0233
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method:	Recycler
Tons:	.0208
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Recycler
Tons:	.0025
Facility County:	Los Angeles

LAC / USC IMAGING SCIENCE CTR (Continued) **1000685801**

Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0065
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0208
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
9 additional CA_HAZNET: record(s) in the EDR Site Report.

B14 **LA COUNTY USC MEDICAL CENTER-REAR OF HOSPITAL** **UST** **U003780148**
East **1900 ZONAL AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.008 mi.
43 ft. **Site 1 of 3 in cluster B**

Relative:
Higher

Actual:
331 ft.

UST:

Facility ID:	23633
Latitude:	34.06104
Longitude:	-118.20851

C15 **MC CRAE BUCK** **EDR US Hist Auto Stat** **1009078311**
West **1131 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.010 mi.
55 ft. **Site 1 of 15 in cluster C**

Relative:
Higher

Actual:
332 ft.

EDR Historical Auto Stations:

Name:	JAKES SUPER SERVICE STATION
Year:	1929
Type:	AUTOMOBILE REPAIRING AND SERVICE STATIONS
Name:	MC CRAE BUCK

MC CRAE BUCK (Continued) **1009078311**

Year: 1933
Type: AUTOMOBILE REPAIRING

Name: MC CRAE BUCK
Year: 1937
Type: AUTOMOBILE REPAIRING

C16 **YEE WING** **EDR US Hist Cleaners** **1009191435**
West **1137 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.011 mi.
56 ft. **Site 2 of 15 in cluster C**

Relative:
Higher

Actual:
332 ft.

EDR Historical Cleaners:
Name: YEE WING
Year: 1942
Type: LAUNDRIES ORIENTAL

C17 **ORZEVSKY JACOB** **EDR US Hist Cleaners** **1009191966**
West **1135 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.011 mi.
56 ft. **Site 3 of 15 in cluster C**

Relative:
Higher

Actual:
332 ft.

EDR Historical Cleaners:
Name: ORZEVSKY JACOB
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

D18 **EDR US Hist Auto Stat** **1009083187**
NW **1201 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.013 mi.
66 ft. **Site 1 of 6 in cluster D**

Relative:
Higher

Actual:
330 ft.

EDR Historical Auto Stations:
Name: KOHN J C
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

Name: AUTO CARE MEDIC
Year: 2002
Address: 1201 N MISSION RD

Name: DADDYS AUTO REPAIR
Year: 2008
Address: 1201 N MISSION RD

Name: DADDYS AUTO REPAIR
Year: 2009
Address: 1201 N MISSION RD

Name: DADDYS AUTO REPAIR
Year: 2010
Address: 1201 N MISSION RD

(Continued) **1009083187**

Name: ALTECH AUTOMOTIVE
Year: 2011
Address: 1201 N MISSION RD

D19 **STEPHEN'S AUTO SERVICE CENTER** **LUST** **S101586263**
NW **1201 N MISSION RD** **CA FID UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033** **SWEEPS UST**
0.013 mi.
66 ft. **Site 2 of 6 in cluster D**

Relative: Higher

Actual: 330 ft.

LUST:

Region:	STATE
Global Id:	T0603717863
Latitude:	34.062218
Longitude:	-118.212499
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	02/19/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330370
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply, Soil
Potential Contaminants of Concern:	Gasoline, Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603717863
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603717863
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Regulatory Activities:

Global Id:	T0603717863
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0603717863
Action Type:	ENFORCEMENT
Date:	04/20/2011

STEPHEN'S AUTO SERVICE CENTER (Continued) **S101586263**

Action: Staff Letter

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 02/21/2003
Action: Soil and Water Investigation Workplan

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 12/14/2011
Action: Remedial Progress Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 09/26/2008
Action: Soil and Water Investigation Workplan

Global Id: T0603717863
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 03/16/2003
Action: File review

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/19/2003
Action: Other Report / Document

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2009
Action: Preliminary Site Assessment Report

STEPHEN'S AUTO SERVICE CENTER (Continued) **S101586263**

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2013
Action: Pilot Study/ Treatability Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2011
Action: Interim Remedial Action Plan

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2010
Action: Remedial Progress Report

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 04/16/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0603717863
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603717863
Action Type: RESPONSE
Date: 12/15/2005
Action: Other Report / Document

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 02/19/2013
Action: Staff Letter

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 09/16/2008
Action: Notice to Comply

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 10/29/2008
Action: Staff Letter

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: ENFORCEMENT

STEPHEN'S AUTO SERVICE CENTER (Continued) **S101586263**

Date: 03/17/2003
Action: Staff Letter

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2011
Action: Interim Remedial Action Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 12/07/2005
Action: Staff Letter

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/18/2011
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603717863
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

STEPHEN'S AUTO SERVICE CENTER (Continued) **S101586263**

Global Id:	T0603717863
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Free Product Removal

Global Id:	T0603717863
Action Type:	RESPONSE
Date:	04/15/2010
Action:	CAP/RAP - Feasibility Study Report

Global Id:	T0603717863
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Pump & Treat (P&T) Groundwater

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330370	
Status:	Preliminary site assessment workplan submitted	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603717863	
W Global ID:	Not reported	
Staff:	AT	
Local Agency:	19050	
Cross Street:	ZONAL AVE.	
Enforcement Type:	TA-GEN	
Date Leak Discovered:	4/4/2002	
Date Leak First Reported:		8/30/2002
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	4/4/2002	
Date Case Last Changed on Database:		Not reported
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Close Tank	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		Not reported
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		8/5/2002
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported

STEPHEN'S AUTO SERVICE CENTER (Continued) **S101586263**

Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: 404
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: JAMES CANTORE
RP Address: 1528 SUGARLOAF DR.
Program: LUST
Lat/Long: 0 / 0
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

CA FID UST:
Facility ID: 19042496
Regulated By: UTNKA
Regulated ID: 00017365
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132224909
Mail To: Not reported
Mailing Address: 840 N BROADWAY
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 1186
Number: 2
Board Of Equalization: 44-011649
Referral Date: 08-30-93
Action Date: 08-30-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001186-000001
Actv Date: 04-20-88
Capacity: Not reported
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: 3

STEPHEN'S AUTO SERVICE CENTER (Continued) **S101586263**

Status:	Active
Comp Number:	1186
Number:	2
Board Of Equalization:	44-011649
Referral Date:	08-30-93
Action Date:	08-30-93
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001186-000002
Actv Date:	04-20-88
Capacity:	Not reported
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1186
Number:	2
Board Of Equalization:	44-011649
Referral Date:	08-30-93
Action Date:	08-30-93
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001186-000003
Actv Date:	04-20-88
Capacity:	Not reported
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

D20 **TEXACO CO.** **HIST UST** **U001561371**
NW **1201 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.013 mi.
66 ft. **Site 3 of 6 in cluster D**

Relative:
Higher

Actual:
330 ft.

HIST UST:

Region:	STATE
Facility ID:	00000017365
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0003
Contact Name:	TONY BRISTOL
Telephone:	2132252820
Owner Name:	SUNSET-FIGUEROA OIL CORPORATIO
Owner Address:	840 NORTH BROADWAY
Owner City,St,Zip:	LOS ANGELES, CA 90012

Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	Not reported
Type of Fuel:	Not reported

TEXACO CO. (Continued) **U001561371**

Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 002
Container Num: 0000000001
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

D21 **MOZAS TIRE SHOP** **HIST UST** **U001561297**
NW **1201 N MISSION RD** **HAULERS** **N/A**
< 1/8 **LOS ANGELES, CA CA900**
0.013 mi.
66 ft. **Site 4 of 6 in cluster D**

Relative:
Higher

Actual:
330 ft.

HIST UST:
Region: STATE
Facility ID: 00000005314
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0003
Contact Name: TONY BRISTOL
Telephone: 8184441898
Owner Name: HIRAM KWAN
Owner Address: 840 N. BROADWAY
Owner City,St,Zip: LOS ANGELES, CA 90012

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00007000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 003

MOZAS TIRE SHOP (Continued) **U001561297**

Container Num: 3
Year Installed: Not reported
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor

HAULERS:
Facility ID: 1203752
Facility Phone: (323) 222-5172

D22 **USC MEDICAL CENTER** **CA FID UST** **S101583782**
NNW **1240 N MISSION RD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033** **LOS ANGELES CO. HMS**
0.013 mi.
66 ft. **Site 5 of 6 in cluster D**

Relative:
Higher

Actual:
328 ft.

CA FID UST:
Facility ID: 19006170
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 1240 N MISSION RD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 8189
Number: 4
Board Of Equalization: Not reported
Referral Date: 06-15-93
Action Date: 06-15-93
Created Date: 06-15-93
Tank Status: A
Owner Tank Id: 8189
Swrcb Tank Id: 19-050-008189-000001
Actv Date: 06-15-93
Capacity: 2000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 1

LOS ANGELES CO. HMS:

USC MEDICAL CENTER (Continued) **S101583782**

Region: LA
Facility Id: 016612-022096
Facility Type: Not reported
Facility Status: OPEN
Area: 3F
Permit Number: Not reported
Permit Status: Not reported

D23 **GIFTIN R D** **EDR US Hist Auto Stat** **1009081524**
NNW **1237 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.014 mi.
76 ft. **Site 6 of 6 in cluster D**

Relative:
Higher

Actual:
329 ft.

EDR Historical Auto Stations:
Name: GIFTIN R D
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

C24 **PLUMB G A** **EDR US Hist Auto Stat** **1009080091**
West **1121 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.020 mi.
103 ft. **Site 4 of 15 in cluster C**

Relative:
Higher

Actual:
333 ft.

EDR Historical Auto Stations:
Name: PLUMB G A
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: SCOTT R B
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

B25 **U S C MEDICAL CENTER** **CA FID UST** **S101588219**
East **1910 ZONAL AVE** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.022 mi.
118 ft. **Site 2 of 3 in cluster B**

Relative:
Higher

Actual:
334 ft.

CA FID UST:
Facility ID: 19056459
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 1910 ZONAL AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported

U S C MEDICAL CENTER (Continued) **S101588219**

EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 7211
Number: 9
Board Of Equalization: Not reported
Referral Date: 01-11-93
Action Date: 01-11-93
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

---

26 **GREEN J B** **EDR US Hist Auto Stat** **1009079742**
North **1301 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.024 mi.
128 ft.

Relative:
Higher

Actual:
328 ft.

EDR Historical Auto Stations:
Name: GOLDMAN PHILIP
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: GREEN J B
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

Name: GORELICK SIMON
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

C27 **MEDICAL EXAMINER - CORONER** **UST** **U001562339**
West **1104 N MISSION RD** **HIST UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033** **SWEEPS UST**
0.037 mi.
196 ft. **Site 5 of 15 in cluster C**

Relative:
Higher

Actual:
334 ft.

UST:
Facility ID: 24760
Latitude: 34.0608
Longitude: -118.21415

HIST UST:
Region: STATE
Facility ID: 00000020720

MEDICAL EXAMINER - CORONER (Continued) **U001562339**

Facility Type: Other
Other Type: CORONER
Total Tanks: 0001
Contact Name: L.A. COUNTY MECHANICAL DEPT.
Telephone: 2132672242
Owner Name: LOS ANGELES COUNTY MECHANICAL
Owner Address: 1100 NORTH EASTERN AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90063

Tank Num: 001
Container Num: TANK #1
Year Installed: Not reported
Tank Capacity: 00001500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 1463
Number: 4
Board Of Equalization: 44-011798
Referral Date: 09-24-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001463-000001
Actv Date: 04-20-88
Capacity: 1500
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 1

C28 **MEDICAL EXAMINER - CORONER** **CA FID UST** **S101617582**
WSW **1104 MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90063**
0.038 mi.
201 ft. **Site 6 of 15 in cluster C**

Relative:
Higher

Actual:
324 ft.

CA FID UST:
Facility ID: 19055402
Regulated By: UTNKA
Regulated ID: 00020720
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132672242
Mail To: Not reported
Mailing Address: 1100 N EASTERN AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900630000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported

MEDICAL EXAMINER - CORONER (Continued) **S101617582**

EPA ID: Not reported
Comments: Not reported
Status: Active

C29 **STODDARD SERVICE** **NPDES** **S100875104**
WNW **1721 WORKMAN ST** **HIST CORTESE** **N/A**
< 1/8 **LOS ANGELES, CA 90031** **LUST**
0.048 mi. **SWEEPS UST**
255 ft. **Site 7 of 15 in cluster C**

Relative: Higher

Actual: 338 ft.

NPDES:

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	0
Region:	4
Regulatory Measure Id:	369805
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19C356030
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	08/17/2009
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	03/03/2011
Discharge Name:	CBS Outdoor
Discharge Address:	3150 S 48th St
Discharge City:	Phoenix
Discharge State:	Arizona
Discharge Zip:	85040

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900310316

LUST:

Region:	STATE
Global Id:	T0603700812
Latitude:	34.061726
Longitude:	-118.214281
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/17/1998
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310316
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Aviation
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

STODDARD SERVICE (Continued) **S100875104**

Contact:
Global Id: T0603700812
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700812
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Regulatory Activities:
Global Id: T0603700812
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

SWEEPS UST:
Status: Not reported
Comp Number: 4032
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

C30 **FERRARO JOHN** **EDR US Hist Auto Stat** **1009081498**
WNW **1721 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.048 mi.
255 ft. **Site 8 of 15 in cluster C**

Relative:
Higher

Actual:
338 ft.

EDR Historical Auto Stations:
Name: FERRARO JOHN
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

Name: STEPHENS AUTO SERVICE CENTER

FERRARO JOHN (Continued) **1009081498**

Year: 1999
Address: 1721 WORKMAN ST

Name: STEPHENS AUTO SERVICE CTR
Year: 2001
Address: 1721 WORKMAN ST

Name: STODDARD AUTOMOTIVE
Year: 2002
Address: 1721 WORKMAN ST

Name: STEPHENS AUTO SERVICE CTR
Year: 2003
Address: 1721 WORKMAN ST

Name: STEPHENS AUTO SERVICE CTR
Year: 2004
Address: 1721 WORKMAN ST

Name: STEPHENS AUTO SERVICE CENTER
Year: 2005
Address: 1721 WORKMAN ST

Name: STEPHENS AUTO SERVICE CENTER
Year: 2006
Address: 1721 WORKMAN ST

Name: STEPHENS AUTO SERVICE CENTER
Year: 2007
Address: 1721 WORKMAN ST

C31 **STODDARD SERRVICE** **CA FID UST** **S101586023**
WNW **1721 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.048 mi.
255 ft. **Site 9 of 15 in cluster C**

Relative:
Higher

Actual:
338 ft.

CA FID UST:
Facility ID: 19036552
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132258224
Mail To: Not reported
Mailing Address: 1721 WORKMAN ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900310000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

C32
WNW
< 1/8
0.048 mi.
255 ft.

STODDARD AUTOMOTIVE
1721 WORKMAN ST
LOS ANGELES, CA 90031

Site 10 of 15 in cluster C

LUST **S103281981**
N/A

Relative:
Higher

Actual:
338 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900310316	
Status:	Case Closed	
Substance:	1	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700812	
W Global ID:	W0605100649	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		8/19/1993
Date Leak Record Entered:	2/9/1998	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/17/1998
Date the Case was Closed:		7/17/1998
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8586.1072565741750750119577 56
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	STODDARD AUTOMOTIVE	
RP Address:	1721 WORKMAN ST., LOS ANGELES, CA 90031	
Program:	LUST	
Lat/Long:	34.0636082 / -1	
Local Agency Staff:	PEJ	

STODDARD AUTOMOTIVE (Continued) **S103281981**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: 2600649-001GEN
Summary: Not reported

E33 **JOE'S CHEVRON** **EDR US Hist Auto Stat** **1008996126**
West **1101 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90000**
0.054 mi.
287 ft. **Site 1 of 6 in cluster E**

Relative:
Higher

Actual:
332 ft.

EDR Historical Auto Stations:

Name: MARTEEN C H
Year: 1933
Type: AUTOMOBILE REPAIRING

Name: MARTEEN C H
Year: 1937
Type: AUTOMOBILE REPAIRING

Name: JOE'S CHEVRON
Year: 1994
Type: Not reported

Name: JOES CHEVRON
Year: 1999
Address: 1101 N MISSION RD

Name: JOES CHEVRON
Year: 2001
Address: 1101 N MISSION RD

Name: GO CHEVRON
Year: 2002
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2003
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2004
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2005
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2006
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2007
Address: 1101 N MISSION RD

JOE'S CHEVRON (Continued) **1008996126**

Name: RAFIS CHEVRON 4
Year: 2008
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2009
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON
Year: 2010
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2011
Address: 1101 N MISSION RD

Name: RAFIS CHEVRON 4
Year: 2012
Address: 1101 N MISSION RD

E34
West
< 1/8
0.054 mi.
287 ft.

CHEVRON STATION #9-3690 **UST** **U003938963**
1101 N MISSION RD **N/A**
LOS ANGELES, CA 90033

Site 2 of 6 in cluster E

Relative:
Higher

Actual:
332 ft.

UST:
Facility ID: 23745
Latitude: 34.06065
Longitude: -118.21441

E35
West
< 1/8
0.054 mi.
287 ft.

93690 **HIST UST** **U001561337**
1101 N MISSION RD **SWEEPS UST** **N/A**
LOS ANGELES, CA 90033

Site 3 of 6 in cluster E

Relative:
Higher

Actual:
332 ft.

HIST UST:
Region: STATE
Facility ID: 00000062486
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Contact Name: HAJJ,JOSEPH G
Telephone: 2132276500
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 0000370 unknown

93690 (Continued) **U001561337**

Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000370 unknown
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000370 unknown
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000370 unknown
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 3550
Number: 9
Board Of Equalization: 44-013095
Referral Date: 02-25-93
Action Date: 04-22-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-003550-000001
Actv Date: 04-20-88
Capacity: 1000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: 3

Status: Active
Comp Number: 3550
Number: 9
Board Of Equalization: 44-013095
Referral Date: 02-25-93
Action Date: 04-22-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-003550-000002

93690 (Continued) **U001561337**

Actv Date:	04-20-88
Capacity:	10000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	3550
Number:	9
Board Of Equalization:	44-013095
Referral Date:	02-25-93
Action Date:	04-22-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-003550-000003
Actv Date:	04-20-88
Capacity:	10000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

E36 **CHEVRON STATION 9 3690** **RCRA-LQG** **1000686568**
West **1101 N MISSION** **FINDS** **CAD983638925**
< 1/8 **LOS ANGELES, CA 90033** **HIST CORTESE**
0.057 mi. **HAZNET**
302 ft. **Site 4 of 6 in cluster E**

Relative:
Higher

Actual:
331 ft.

RCRA-LQG:

Date form received by agency:	03/05/2012
Facility name:	CHEVRON 93690
Facility address:	1101 N MISSION LOS ANGELES, CA 90033
EPA ID:	CAD983638925
Mailing address:	PO BOX 6004 SAN RAMON, CA 94583
Contact:	KATHY L NORRIS
Contact address:	PO BOX 6004 SAN RAMON, CA 94583
Contact country:	US
Contact telephone:	877-386-6044
Contact email:	NAWTDESK@CHEVRON.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

CHEVRON STATION 9 3690 (Continued) **1000686568**

Owner/Operator Summary:
Owner/operator name: RAFAT A SALIB AND SUZAN SALIB
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/09/2001
Owner/Op end date: Not reported

Owner/operator name: RAFAT A SALIB AND SUZAN SALIB
Owner/operator address: 1101 N MISSION
LOS ANGELES, CA 90033
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/09/2001
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 06/02/1992
Facility name: CHEVRON 93690
Site name: CHEVRON STATION 9 3690
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018

CHEVRON STATION 9 3690 (Continued) **1000686568**

Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110002878155

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330089

HAZNET:
Year: 1997
Gepaid: CAD983638925
Contact: CHERVON PRODUCTS CO
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Not reported
Tons: .3336
Facility County: Los Angeles

Year: 1997
Gepaid: CAD983638925
Contact: CHERVON PRODUCTS CO
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD982484933
TSD County: Not reported
Waste Category: Empty containers less than 30 gallons
Disposal Method: Disposal, Other
Tons: .2500
Facility County: Los Angeles

Year: 1997
Gepaid: CAD983638925
Contact: CHERVON PRODUCTS CO

CHEVRON STATION 9 3690 (Continued) **1000686568**

Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD008302903
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	.3336
Facility County:	Los Angeles

Year:	1996
Gepaid:	CAD983638925
Contact:	CHERVON PRODUCTS CO
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAT080010101
TSD County:	Not reported
Waste Category:	Invalid waste code
Disposal Method:	Transfer Station
Tons:	.1251
Facility County:	Los Angeles

Year:	1996
Gepaid:	CAD983638925
Contact:	CHERVON PRODUCTS CO
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD008302903
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	.1668
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

E37 **CHEVRON #9-3690** **LUST** **S105051300**
West **1101 MISSION RD N** **N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033**
0.058 mi.
307 ft. **Site 5 of 6 in cluster E**

Relative:
Higher

Actual:
331 ft.

LUST:

Region:	STATE
Global Id:	T0603700831
Latitude:	34.0607724
Longitude:	-118.2145292
Case Type:	LUST Cleanup Site
Status:	Open - Remediation

CHEVRON #9-3690 (Continued) **S105051300**

Status Date:	10/22/2007
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330089
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700831
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700831
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Regulatory Activities:

Global Id:	T0603700831
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603700831
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Semi-Annually

Global Id:	T0603700831
Action Type:	RESPONSE
Date:	04/15/2011
Action:	Remedial Progress Report

Global Id:	T0603700831
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Monitoring Report - Semi-Annually

Global Id:	T0603700831
Action Type:	RESPONSE
Date:	07/15/2007
Action:	Monitoring Report - Quarterly

CHEVRON #9-3690 (Continued) **S105051300**

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 09/19/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2007
Action: Remedial Progress Report

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: ENFORCEMENT

CHEVRON #9-3690 (Continued) **S105051300**

Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/30/2006
Action: Interim Remedial Action Plan

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: ENFORCEMENT
Date: 12/03/2002
Action: * No Action

Global Id: T0603700831
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Quarterly

CHEVRON #9-3690 (Continued) **S105051300**

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE

CHEVRON #9-3690 (Continued) **S105051300**

Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 02/13/2008
Action: Interim Remedial Action Report

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330089
Status: Remedial action (cleanup) Underway
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Remove Free Product
Global ID: T0603700831
W Global ID: W0605100649
Staff: AT
Local Agency: 19050
Cross Street: DALY ST
Enforcement Type: None Taken
Date Leak Discovered: 7/14/1986
Date Leak First Reported: 2/28/1996
Date Leak Record Entered: 8/11/1987
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 9/19/2002
Date the Case was Closed: Not reported
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: Other Source
Operator: Not reported
Water System: DAVE GRIFFITH L A D W P
Well Name: Not reported
Approx. Dist To Production Well (ft): 8398.3415415562548539917551 84
Source of Cleanup Funding: Other Source
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 12/24/1991
Remediation Plan Submitted: 12/23/1992
Remedial Action Underway: 12/20/1996
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: 1/1/1965
Hist Max MTBE Conc in Groundwater: 18700
Hist Max MTBE Conc in Soil: Not reported

CHEVRON #9-3690 (Continued) **S105051300**

Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: Y. M. TUAN
RP Address: P.O. BOX 2833
Program: LUST
Lat/Long: 34.0607724 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: 2600649-001GEN
Summary: FP RECOVERY-3 WELLS ; MW-5,6-7 SLOTTED BELOW TOP OF GW; 6/9/00 2ND QTR GW MON RPT 2000; 11/27/00 3RD QTR GW MON RPT 2000; 1/22/01 4TH QTR GW MON RPT 2000; 4/18/01 1ST QTR GW MON RPT 2001

E38 **93690** **CA FID UST** **S101617354**
West **1101 N MISSION** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.058 mi.
307 ft. **Site 6 of 6 in cluster E**

Relative:
Higher

Actual:
331 ft.

CA FID UST:
Facility ID: 19001247
Regulated By: UTNKA
Regulated ID: 00062486
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132276500
Mail To: Not reported
Mailing Address: 575 MARKET
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

B39 **EDR US Hist Auto Stat** **1015289780**
East **1901 ZONAL AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.061 mi.
321 ft. **Site 3 of 3 in cluster B**

Relative:
Higher

Actual:
346 ft.

EDR Historical Auto Stations:
Name: STEVES AUTO PARK
Year: 2009
Address: 1901 ZONAL AVE

C40 **GANNETT OUTDOOR SYSTEMS, INC.** **NPDES** **S103066160**
WNW **1731 WORKMAN ST** **HIST CORTESE** **N/A**
< 1/8 **LOS ANGELES, CA 90031** **SLIC**
0.065 mi. **ENF**
341 ft. **Site 11 of 15 in cluster C**

Relative:
Higher

Actual:
338 ft.

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	191087
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I016130
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/04/2000
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	CBS Outdoor
Discharge Address:	1731 Workman St
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90031

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900310143

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	11/05/1998
Global Id:	T0603700795
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0621933
Longitude:	-118.2142652
Case Type:	Cleanup Program Site
Case Worker:	LM
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	1072
File Location:	Not reported
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	09/17/2001
Global Id:	SLT43704702
Lead Agency:	LOS ANGELES RWQCB (REGION 4)

GANNETT OUTDOOR SYSTEMS, INC. (Continued) **S103066160**

Lead Agency Case Number:	Not reported
Latitude:	34.0624013046696
Longitude:	-118.214349746704
Case Type:	Cleanup Program Site
Case Worker:	LM
Local Agency:	Not reported
RB Case Number:	1072
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern:	1,1,1-Trichloroethane (TCA), Other Solvent or Non-Petroleum Hydrocarbon, Tetrachloroethylene (PCE), Trichloroethylene (TCE)
Site History:	The CBS Outdoor Inc. (COI) facility is located in the City of Los Angeles and is primarily used for billboard fabrication and maintenance. In 1992 the Gannett Company, owner and operator of the facility at that time, removed five (5) USTs that contained gasoline, diesel, and waste oil. The facility, then known as Outdoor Systems, Inc. and later as Infinity Outdoor, Inc., was purchased in July of 1996 by Viacom. On January 1, 2006, Viacom split into two entities, Viacom and CBS Corporation. CBS Corporation acquired the assets associated with the Outdoor business and the new entity was renamed CBS Outdoor Inc. Previous investigations conducted at the site in 1993 indicated that soil and groundwater had been impacted by gasoline. In addition, halogenated volatile organic compounds (HVOCs) were detected in groundwater at the site but not in soil.Hexavalent chromium and total chromium were detected for the first time in groundwater samples collected from all of the wells at the COI facility during the first quarter 2001 groundwater sampling event. Maximum concentrations of hexavalent chromium were detected from wells MW-2 and MW-3 at concentrations of 300 mg/L and 270 mg/L, respectively. Active remediation began at the site using soil vapor extraction (SVE) technology in November 1998 in accordance with the Regional Boards request to address the source area contamination in soils and free product in groundwater. The SVE system was operated for about a year and 5 months and removed an estimated 6,300 lbs of volatile petroleum hydrocarbons. The influent hydrocarbon concentrations decreased from an initial high of approximately 3,200 parts per million by volume (ppmv) to a constant influent of about 50 ppmv (%10 ppmv) in the last six months of operation. Semi-annual groundwater monitoring is being conducted. Site assessment and remediation are still underway.

Click here to access the California GeoTracker records for this facility:

ENF:

Region:	4
Facility Id:	226710
Agency Name:	OUTDOOR SYSTEMS INC.
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.0619670
Place Longitude:	-118.21406
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported

GANNETT OUTDOOR SYSTEMS, INC. (Continued) **S103066160**

SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	TANKS
# Of Programs:	1
WDID:	900310143
Reg Measure Id:	168146
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	229240
Region:	4
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	09/02/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	09/02/1999
ACL Issuance Date:	Not reported

GANNETT OUTDOOR SYSTEMS, INC. (Continued) **S103066160**

EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 900310143
Description:	Level 1 enforcement letter sent 9/2/99 for deficient 2Q99 groundwater monitoring report.
Program:	TANKS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

C41 **GANNETT OUTDOOR SYSTEMS, INC.** **LUST** **S103281857**
WNW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.065 mi.
341 ft. **Site 12 of 15 in cluster C**

Relative:
Higher

Actual:
338 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900310143	
Status:	Remedial action (cleanup) Underway	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Remove Free Product
Global ID:	T0603700795	
W Global ID:	W0605100649	
Staff:	AT	
Local Agency:	19050	
Cross Street:	MISSION	
Enforcement Type:	EF	
Date Leak Discovered:	7/31/1992	
Date Leak First Reported:		7/31/1992
Date Leak Record Entered:	8/8/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/9/2001
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	ALLEN ROSSI	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8500.085521658377026104414844
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		7/31/1992
Pollution Characterization Began:		2/4/1997

GANNETT OUTDOOR SYSTEMS, INC. (Continued) **S103281857**

Remediation Plan Submitted:	8/12/1998
Remedial Action Underway:	11/5/1998
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	8/25/1999
Historical Max MTBE Date:	11/18/1998
Hist Max MTBE Conc in Groundwater:	9200
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Yes
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	JOAN B. SISINE
RP Address:	191 PEACHTREE ST., NORTHEAST, 16TH FL,
Program:	LUST
Lat/Long:	34.0621933 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	091
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	2600649-001GEN
Summary:	APPROVED WP TO CONDUCT SVE PILOT TEST; 7/11/00 2ND QTR GW MON RPT 2000; 10/15/00 3RD QTR GW MON RPT 2000; 1/15/01 4TH QTR GW MON RPT 2000; 3/27/01 1ST QTR GW MON RPT 2001

C42 **VIACOM OUTDOOR** **RCRA-SQG 1004676491**
WNW **1731 WORKMAN ST** **FINDS CAR000085951**
< 1/8 **LOS ANGELES, CA 90031**
0.065 mi.
341 ft. **Site 13 of 15 in cluster C**

Relative:
Higher

Actual:
338 ft.

RCRA-SQG:

Date form received by agency:	12/20/2001
Facility name:	VIACOM OUTDOOR
Facility address:	1731 WORKMAN ST LOS ANGELES, CA 90031
EPA ID:	CAR000085951
Contact:	DOUG KAWAGUCHI
Contact address:	1731 WORKMAN ST LOS ANGELES, CA 90031
Contact country:	US
Contact telephone:	(323) 276-7247
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	VIACOM OUTDOOR INC
Owner/operator address:	1731 WORKMAN ST LOS ANGELES, CA 90031
Owner/operator country:	Not reported

VIACOM OUTDOOR (Continued) **1004676491**

Owner/operator telephone: (323) 276-7247
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D000
Waste name: Not Defined

Waste code: D009
Waste name: MERCURY

Waste code: D018
Waste name: BENZENE

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110012210650

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

C43 **PACIFIC OUTDOOR ADVERSTISING** **CA FID UST** **S101583426**
WNW **1731 WORKMAN ST** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90031** **WDS**
0.065 mi.
341 ft. **Site 14 of 15 in cluster C**

Relative:
Higher

Actual:
338 ft.

CA FID UST:

Facility ID:	19003711
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132227171
Mail To:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	5865
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

CA WDS:

Facility ID:	4 19I016130
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	4
Facility Telephone:	3232767264
Facility Contact:	ALLEN ROSSI

PACIFIC OUTDOOR ADVERSTISING (Continued) **S101583426**

Agency Name:	INFINITY OUTDOOR
Agency Address:	1731 Workman St
Agency City,St,Zip:	Los Angeles 900313334
Agency Contact:	ALLEN ROSSI
Agency Telephone:	3232767264
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

C44 **CBS OUTDOOR** **RCRA-SQG** **1010313321**
WNW **1731 WORKMAN ST.** **CAL000286770**
< 1/8 **LOS ANGELES, CA 90031**
0.065 mi.
341 ft. **Site 15 of 15 in cluster C**

Relative:
Higher

Actual:
338 ft.

RCRA-SQG:

Date form received by agency:	05/02/2006
Facility name:	CBS OUTDOOR
Facility address:	1731 WORKMAN ST. LOS ANGELES, CA 90031
EPA ID:	CAL000286770
Mailing address:	1731 WORKMAN ST LOS ANGELES, CA 90031
Contact:	ALLEN A ROSSI
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(323) 276-7264
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

CBS OUTDOOR (Continued) **1010313321**

Owner/Operator Summary:
Owner/operator name: CBS OUTDOOR
Owner/operator address: 1731 WORKMAN ST.
LOS ANGELES, CA 90031
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2001
Owner/Op end date: Not reported

Owner/operator name: CBS OUTDOOR
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2001
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 05/02/2006
Facility name: CBS OUTDOOR
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: 134
Waste name: 134

Waste code: D007
Waste name: CHROMIUM

Violation Status: No violations found

45
SW
< 1/8
0.066 mi.
350 ft.

U S LABS LOS ANGELES
1640 MARENGO ST STE 600
LOS ANGELES, CA 90033

RCRA-SQG
FINDS

1004675524
CAR000073999

Relative:
Lower

Actual:
321 ft.

RCRA-SQG:

Date form received by agency:	05/25/2000
Facility name:	U S LABS LOS ANGELES
Facility address:	1640 MARENGO ST STE 600 LOS ANGELES, CA 90033
EPA ID:	CAR000073999
Mailing address:	16255 LAGUNA CANYON RD IRVINE, CA 92618
Contact:	ROBERT MOVERLY
Contact address:	16255 LAGUNA CANYON RD IRVINE, CA 92618
Contact country:	US
Contact telephone:	(949) 788-9115
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MICHAEL DANZI
Owner/operator address:	16255 LAGUNA CANYON RD IRVINE, CA 92618
Owner/operator country:	Not reported
Owner/operator telephone:	(949) 450-0145
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	F003

U S LABS LOS ANGELES (Continued) **1004675524**

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110002937519

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

F46 **INFINITY OUTDOOR** **SLIC S105219918**
WNW **1731 WORKMAN** **N/A**
< 1/8 **LOS ANGELES, CA 90013**
0.069 mi.
364 ft. **Site 1 of 4 in cluster F**

Relative:
Higher

Actual:
338 ft.

SLIC REG 4:
Region: 4
Facility Status: Site Assessment
SLIC: 1072
Substance: Chromium
Staff: AH

G47 **LAC+USC MEDICAL CENTER STEAM PLANT** **UST U003780533**
SSW **1635 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.073 mi.
386 ft. **Site 1 of 4 in cluster G**

Relative:
Lower

Actual:
317 ft.

UST:
Facility ID: 24096
Latitude: 34.05901
Longitude: -118.21282

G48
SSW
< 1/8
0.073 mi.
386 ft.

LAC+USC PARKING LOT 13/MEDICAL CENTER
1635 MARENGO RD
LOS ANGELES, CA 90033

Site 2 of 4 in cluster G

SWEEPS UST **S106928456**
N/A

Relative:
Lower

Actual:
317 ft.

SWEEPS UST:

Status:	Active
Comp Number:	8191
Number:	5
Board Of Equalization:	Not reported
Referral Date:	07-28-93
Action Date:	07-28-93
Created Date:	06-15-93
Tank Status:	A
Owner Tank Id:	8191
Swrcb Tank Id:	19-050-008191-000001
Actv Date:	06-15-93
Capacity:	3000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	1

G49
SSW
< 1/8
0.073 mi.
386 ft.

USC MEDICAL CENTER POWER PLANT
1635 MARENGO ST
LOS ANGELES, CA 90063

Site 3 of 4 in cluster G

CA FID UST **S101617593**
SWEEPS UST **N/A**

Relative:
Lower

Actual:
317 ft.

CA FID UST:

Facility ID:	19055399
Regulated By:	UTNKA
Regulated ID:	00020693
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132672242
Mail To:	Not reported
Mailing Address:	1100 N EASTERN AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900630000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	1449
Number:	Not reported
Board Of Equalization:	44-011798
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported

USC MEDICAL CENTER POWER PLANT (Continued) **S101617593**

Swrcb Tank Id: 19-050-001449-000001
Actv Date: Not reported
Capacity: 55000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: DIESEL
Number Of Tanks: 4

Status: Not reported
Comp Number: 1449
Number: Not reported
Board Of Equalization: 44-011798
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001449-000002
Actv Date: Not reported
Capacity: 50000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 1449
Number: Not reported
Board Of Equalization: 44-011798
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001449-000003
Actv Date: Not reported
Capacity: 11000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 1449
Number: Not reported
Board Of Equalization: 44-011798
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001449-000004
Actv Date: Not reported
Capacity: 1000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: DIESEL

USC MEDICAL CENTER POWER PLANT (Continued) **S101617593**

Number Of Tanks: Not reported

Status: Active
Comp Number: 8192
Number: 5
Board Of Equalization: Not reported
Referral Date: 07-28-93
Action Date: 07-28-93
Created Date: 06-15-93
Tank Status: A
Owner Tank Id: 8192-1
Swrcb Tank Id: 19-050-008192-000001
Actv Date: 06-15-93
Capacity: 55000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 4

Status: Active
Comp Number: 8192
Number: 5
Board Of Equalization: Not reported
Referral Date: 07-28-93
Action Date: 07-28-93
Created Date: 06-15-93
Tank Status: A
Owner Tank Id: 8192-1
Swrcb Tank Id: 19-050-008192-000002
Actv Date: 06-15-93
Capacity: 50000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8192
Number: 5
Board Of Equalization: Not reported
Referral Date: 07-28-93
Action Date: 07-28-93
Created Date: 06-15-93
Tank Status: A
Owner Tank Id: 8192-1
Swrcb Tank Id: 19-050-008192-000003
Actv Date: 06-15-93
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8192
Number: 5
Board Of Equalization: Not reported

USC MEDICAL CENTER POWER PLANT (Continued) **S101617593**

Referral Date:	07-28-93
Action Date:	07-28-93
Created Date:	06-15-93
Tank Status:	A
Owner Tank Id:	8192-1
Swrcb Tank Id:	19-050-008192-000003
Actv Date:	06-15-93
Capacity:	1000
Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	Not reported

G50 **USC MEDICAL CENTER POWER PLANT** **HIST UST** **U001562388**
SSW **1635 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90063**
0.075 mi.
398 ft. **Site 4 of 4 in cluster G**

Relative:
Lower

Actual:
317 ft.

HIST UST:

Region:	STATE
Facility ID:	00000020693
Facility Type:	Other
Other Type:	USC
Total Tanks:	0004
Contact Name:	L.A. COUNTY MECHANICAL DEPT.
Telephone:	2132672242
Owner Name:	LOS ANGELES COUNTY MECHANICAL
Owner Address:	1100 NORTH EASTERN AVENUE
Owner City,St,Zip:	LOS ANGELES, CA 90063

Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00055000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00050000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00011000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

USC MEDICAL CENTER POWER PLANT (Continued) **U001562388**

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

F51 **EDR US Hist Auto Stat** **1015271418**
WNW **1736 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.088 mi.
465 ft. **Site 2 of 4 in cluster F**

Relative:
Higher

Actual:
337 ft.

EDR Historical Auto Stations:
Name: MASTER TRANSMISSION REPAIR
Year: 2002
Address: 1736 WORKMAN ST

F52 **CHROMAL PLATING CO** **TRIS** **1006815991**
NW **1748 WORKMAN ST** **UST** **90031CHRML17**
< 1/8 **LOS ANGELES, CA 90031**
0.100 mi.
526 ft. **Site 3 of 4 in cluster F**

Relative:
Higher

Actual:
335 ft.

TRIS:

Click this hyperlink while viewing on your computer to access
1 additional US_TRIS: record(s) in the EDR Site Report.

UST:
Facility ID: 25008
Latitude: 34.06256
Longitude: -118.21406

F53 **CHROMAL PLATING COMPANY, INC** **RCRA-LQG** **1000334315**
NW **1748 WORKMAN STREET** **FINDS** **CAD008314163**
< 1/8 **LOS ANGELES, CA 90031** **NPDES**
0.100 mi. **CA FID UST**
526 ft. **Site 4 of 4 in cluster F** **SLIC**
HIST UST

Relative:
Higher

SWEEPS UST
EMI
WDS

Actual:
335 ft.

RCRA-LQG:
Date form received by agency: 05/04/2010
Facility name: CHROMAL PLATING COMPANY, INC
Facility address: 1748 WORKMAN STREET
LOS ANGELES, CA 900313395
EPA ID: CAD008314163
Mailing address: WORKMAN ST
LOS ANGELES, CA 90031
Contact: RAY F BOKELMAN

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Contact address: WORKMAN ST
LOS ANGELES, CA 90031
Contact country: US
Contact telephone: (323) 225-6121
Contact email: RAY@CHROMAL.COM
EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: CHROMAL PLATING CO, INC
Owner/operator address: WORKMAN STREET
LOS ANGELES, CA 90031
Owner/operator country: Not reported
Owner/operator telephone: (323) 225-6121
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/10/1952
Owner/Op end date: Not reported

Owner/operator name: RAY BOKELMAN
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 07/01/1984
Owner/Op end date: Not reported

Owner/operator name: CHROMAL PLATING CO INC
Owner/operator address: SAME
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/08/1949
Owner/Op end date: Not reported

Owner/operator name: CHROMAL PLATING COMPANY A CORPORATION
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: RAY BOKELMAN
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 07/01/1984
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/01/2008
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING COMPANY INC
Classification: Large Quantity Generator

Date form received by agency: 04/20/2006
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO. INC.
Classification: Small Quantity Generator

Date form received by agency: 04/20/2006
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO. INC.

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO
Classification: Small Quantity Generator

Date form received by agency: 07/14/1980
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: 135
Waste name: 135

Waste code: 181
Waste name: 181

Waste code: 214
Waste name: 214

Waste code: 223
Waste name: 223

Waste code: 791
Waste name: 791

Waste code: 792
Waste name: 792

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D007

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Waste name: CHROMIUM

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D007
Waste name: CHROMIUM

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: TSD IS-Preparedness and Prevention
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Preparedness and Prevention
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/14/1994
Date achieved compliance: 06/14/1999
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 03/20/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Preparedness and Prevention
Date achieved compliance: 06/25/2009
Evaluation lead agency: EPA

Evaluation date: 03/20/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 06/25/2009
Evaluation lead agency: EPA

Evaluation date: 03/24/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/14/1999
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110002632278

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	188780
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I001292
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/27/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Chromal Plating Co
Discharge Address:	1748 Workman St
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90031

CA FID UST:

Facility ID:	19028346
Regulated By:	UTNKA
Regulated ID:	00016814
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132256121
Mail To:	Not reported
Mailing Address:	1748 WORKMAN ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	05/12/2004
Global Id:	SL0603764270
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0625435136517
Longitude:	-118.213813304901
Case Type:	Cleanup Program Site
Case Worker:	LM
Local Agency:	Not reported
RB Case Number:	1159

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

File Location: Regional Board
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Chromium
Site History: Chromal Plating Inc. has operated on the site since the 1960s. It refurbishes new and used parts for the aerospace industry by machining, grinding and plating to return parts to original specifications. Chrome plating is conducted with various plating tanks with depths ranging from 8 feet to 24 feet. Site assessments began in 2005 after the Regional Board staff conducted a site inspection on September 30, 2004 of the facility and sent a directive letter, based on the site inspection and site assessment results from the downgradient CBS site which is also under Regional Board's oversight. The Site assessments indicated that the soil and groundwater were contaminated with chromium, including hexavalent chromium. Site assessment is still underway.

Click here to access the California GeoTracker records for this facility:

HIST UST:
Region: STATE
Facility ID: 00000016814
Facility Type: Other
Other Type: HARD CHROME PLATING
Total Tanks: 0012
Contact Name: RAYMOND BOKELMAN
Telephone: 2132256121
Owner Name: CHROMAL PLATINE COMPANY, A COR
Owner Address: 1748 WORKMAN ST.
Owner City,St,Zip: LOS ANGELES, CA 90031

Tank Num: 001
Container Num: 1
Year Installed: 1979
Tank Capacity: 00002400
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1979
Tank Capacity: 00001500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1979
Tank Capacity: 00006900
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Visual, Stock Inventor

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Tank Num: 004
Container Num: 4
Year Installed: 1979
Tank Capacity: 00003300
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4" inches
Leak Detection: Visual, Stock Inventor

Tank Num: 005
Container Num: 5
Year Installed: 1979
Tank Capacity: 00002500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4" inches
Leak Detection: Visual, Stock Inventor

Tank Num: 006
Container Num: 6
Year Installed: 1979
Tank Capacity: 00002700
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4" inches
Leak Detection: Visual

Tank Num: 007
Container Num: 8
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 008
Container Num: 9
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 009
Container Num: 10
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 11/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 010
Container Num: 11
Year Installed: 1979

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Tank Capacity: 00000300
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/8 inches
Leak Detection: Visual

Tank Num: 011
Container Num: 12
Year Installed: 1979
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/8 inches
Leak Detection: Visual

Tank Num: 012
Container Num: 13
Year Installed: 1979
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000001
Actv Date: 04-20-88
Capacity: 2400
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: 12

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000002
Actv Date: 04-20-88
Capacity: 1500
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000003
Actv Date: 04-20-88
Capacity: 6900
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000004
Actv Date: 04-20-88
Capacity: 3300
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000005
Actv Date: 04-20-88
Capacity: 2500
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000006
Actv Date: 04-20-88
Capacity: 2700
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000007
Actv Date: 04-20-88
Capacity: 500
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000008
Actv Date: 04-20-88
Capacity: 500
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001006-000009

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Actv Date:	04-20-88
Capacity:	500
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001006-000010
Actv Date:	04-20-88
Capacity:	300
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001006-000011
Actv Date:	04-20-88
Capacity:	1000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001006-000012
Actv Date:	04-20-88
Capacity:	8000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

EMI:

Year:	1993
County Code:	19
Air Basin:	SC
Facility ID:	6616
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	6616
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

CA WDS:

Facility ID:	4 19I001292
Facility Type:	Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	4
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	CHROMAL PLATING INC
Agency Address:	Not reported
Agency City,St,Zip:	0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported
POTW: Not reported
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

H54 **LAC+USC MEDICAL CENTER** **UST** **U003780532**
SSE **1129 N STATE ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.119 mi.
630 ft. **Site 1 of 8 in cluster H**

Relative:
Higher

Actual:
335 ft.

UST:
Facility ID: 24095
Latitude: 34.05818
Longitude: -118.20997

H55 **IT CORP** **CA FID UST** **S101583783**
SSE **1129 N STATE ST** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.119 mi.
630 ft. **Site 2 of 8 in cluster H**

Relative:
Higher

Actual:
335 ft.

CA FID UST:
Facility ID: 19006171
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 1129 N STATE ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

IT CORP (Continued) **S101583783**

SWEEPS UST:

Status:	Not reported
Comp Number:	7207
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	0

Status:	Active
Comp Number:	8188
Number:	4
Board Of Equalization:	Not reported
Referral Date:	06-15-93
Action Date:	06-15-93
Created Date:	06-15-93
Tank Status:	A
Owner Tank Id:	8188
Swrcb Tank Id:	19-050-008188-000001
Actv Date:	06-15-93
Capacity:	2000
Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	1

56
NW
< 1/8
0.120 mi.
636 ft.

1770 WORKMAN ST
LOS ANGELES, CA 90031

EDR US Hist Auto Stat **1015274714**
N/A

Relative:
Higher

Actual:
329 ft.

EDR Historical Auto Stations:

Name:	CITY TERRACE TOWING SVC INC
Year:	2010
Address:	1770 WORKMAN ST

I57 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101588299**
East **1969 ZONAL AVE** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.121 mi.
637 ft. **Site 1 of 2 in cluster I**

Relative:
Higher

Actual:
356 ft.

CA FID UST:

Facility ID:	19056545
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	UNK
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	7951
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

H58 **AL - SAL STATION 17** **SWEEPS UST** **S104916144**
SSE **1848 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.124 mi.
657 ft. **Site 3 of 8 in cluster H**

Relative:
Higher

Actual:
322 ft.

SWEEPS UST:

Status:	Active
Comp Number:	377
Number:	9
Board Of Equalization:	44-011139
Referral Date:	01-15-93
Action Date:	03-15-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported

AL - SAL STATION 17 (Continued) **S104916144**

Swrcb Tank Id: 19-050-000377-000001
Actv Date: 04-20-88
Capacity: 20000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 6

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000377-000002
Actv Date: 04-20-88
Capacity: 20000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000377-000003
Actv Date: 04-20-88
Capacity: 20000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000377-000004
Actv Date: 04-20-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED

AL - SAL STATION 17 (Continued) **S104916144**

Number Of Tanks: Not reported

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000377-000005
Actv Date: 04-20-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000377-000006
Actv Date: 04-20-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

H59 **AL SAL #17** **UST** **U003937471**
SSE **1848 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.124 mi.
657 ft. **Site 4 of 8 in cluster H**

Relative:
Higher

Actual:
322 ft.

UST:
Facility ID: 24191
Latitude: 34.05805
Longitude: -118.21071

H60 **AL-SAL OIL #17** **LUST** **S105051404**
SSE **1848 MARENGO ST** **N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033**
0.124 mi.
657 ft. **Site 5 of 8 in cluster H**

Relative:
Higher

Actual:
322 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330325	
Status:	Pollution Characterization	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700851	
W Global ID:	Not reported	
Staff:	AT	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	VER	
Date Leak Discovered:	11/30/1993	
Date Leak First Reported:		12/1/1993
Date Leak Record Entered:	5/30/1995	
Date Confirmation Began:	12/1/1993	
Date Leak Stopped:	11/30/1993	
Date Case Last Changed on Database:		11/13/2000
Date the Case was Closed:		Not reported
How Leak Discovered:	Tank Test	
How Leak Stopped:	Not reported	
Cause of Leak:	Other Cause	
Leak Source:	Piping	
Operator:	AL-SAL OIL CO	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		12237.2455122414369713139128
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		6/5/1996
Preliminary Site Assessment Began:		5/15/1998
Pollution Characterization Began:		8/19/2003
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		6/12/2003
Hist Max MTBE Conc in Groundwater:		130000
Hist Max MTBE Conc in Soil:		36.5
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	=	
Soil Qualifier:	=	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MONTRI PHUVADAKORN	
RP Address:	501 MAIN ST., SUITE #112B	
Program:	LUST	
Lat/Long:	34.0580074 / -1	
Local Agency Staff:	PEJ	

AL-SAL OIL #17 (Continued) **S105051404**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 05/15/98 - RPT ON ASSESSMENT ACTIVITIES GROUNDWATER CONTAMINATION EVIDENT, SITE HAS ONLY ONCE GW MONITORING WELL. NEEDS FURTHER ASSESSMENT. 10/14/98 - GW ASSESSMENT WORKPLAN; 11/13/00 REVISED GW ASSESSMENT WP

H61 **AL-SAL OIL #17** **HIST CORTESE S103065667**
SSE **1848 MARENGO ST** **LUST N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033**
0.124 mi.
657 ft. **Site 6 of 8 in cluster H**

Relative:
Higher

Actual:
322 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330325

LUST:
Region: STATE
Global Id: T0603700851
Latitude: 34.0580074
Longitude: -118.2108131
Case Type: LUST Cleanup Site
Status: Open - Assessment & Interim Remedial Action
Status Date: 06/29/2009
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: AT
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900330325
LOC Case Number: Not reported
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700851
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Global Id: T0603700851
Contact Type: Regional Board Caseworker
Contact Name: ARMAN TOUMARI
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES

AL-SAL OIL #17 (Continued) **S103065667**

Email: atoumari@waterboards.ca.gov
Phone Number: 2135766708

Regulatory Activities:

Global Id: T0603700851
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 02/09/2011
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 08/19/2003
Action: Soil and Water Investigation Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2008
Action: Soil and Water Investigation Workplan

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2009

AL-SAL OIL #17 (Continued) **S103065667**

Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/16/2009
Action: Well Installation Workplan

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2009
Action: Soil and Water Investigation Workplan

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2013
Action: Remedial Progress Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 06/17/2009
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

AL-SAL OIL #17 (Continued) **S103065667**

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/20/2011
Action: Well Installation Workplan

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 07/15/2002
Action: Staff Letter

Global Id: T0603700851
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603700851
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE

AL-SAL OIL #17 (Continued) **S103065667**

Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2008
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2009
Action: Interim Remedial Action Plan

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 05/13/2003
Action: * Verbal Communication

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 02/04/2013
Action: Staff Letter

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

AL-SAL OIL #17 (Continued) **S103065667**

Global Id:	T0603700851
Action Type:	RESPONSE
Date:	10/19/2005
Action:	Soil and Water Investigation Report
Global Id:	T0603700851
Action Type:	RESPONSE
Date:	10/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603700851
Action Type:	RESPONSE
Date:	08/15/2002
Action:	Other Report / Document
Global Id:	T0603700851
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Free Product Removal
Global Id:	T0603700851
Action Type:	ENFORCEMENT
Date:	06/29/2009
Action:	Staff Letter
Global Id:	T0603700851
Action Type:	RESPONSE
Date:	07/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603700851
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603700851
Action Type:	RESPONSE
Date:	01/18/2008
Action:	CAP/RAP - Feasibility Study Report
Global Id:	T0603700851
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Soil Vapor Extraction (SVE)

H62 **KWIK #17 STATION** **CA FID UST 1000266510**
SSE **1848 MARENGO ST** **HIST UST N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.124 mi.
657 ft. **Site 7 of 8 in cluster H**

Relative:
Higher

Actual:
322 ft.

CA FID UST:

Facility ID:	19023610
Regulated By:	UTNKA
Regulated ID:	00004071
Cortese Code:	Not reported
SIC Code:	Not reported

KWIK #17 STATION (Continued) **1000266510**

Facility Phone: 2132214016
Mail To: Not reported
Mailing Address: 5121 SUNSET BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST UST:
Region: STATE
Facility ID: 00000004071
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0006
Contact Name: MONTRI
Telephone: 2136664471
Owner Name: AL-SAL OIL CO.
Owner Address: 5121 SUNSET BLVD.
Owner City,St,Zip: LOS ANGELES, CA 90027

Tank Num: 001
Container Num: 7
Year Installed: 1978
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1978
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 3
Year Installed: 1978
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 1
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT

KWIK #17 STATION (Continued) **1000266510**

Type of Fuel: REGULAR
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 2
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 006
Container Num: 3
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

H63 **STIRLING JAS** **EDR US Hist Auto Stat** **1009076998**
South **1848 MARENGO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.128 mi.
675 ft. **Site 8 of 8 in cluster H**

Relative: Higher

Actual: 322 ft.

EDR Historical Auto Stations:

Name: STIRLING JAS
Year: 1924
Type: AUTOMOBILE SERVICE STATIONS

Name: STIRLING JAS
Year: 1929
Type: GASOLINE AND OIL SERVICE STATION

Name: BENSTEAD W O
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: WEID E M
Year: 1937
Type: AUTOMOBILE REPAIRING

Name: SEMAN J G
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

Name: GARCIA JUARIGUL
Year: 1942
Type: AUTOMOBILE REPAIRING

Name: BURNETT SHELTON
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

64
NNW
1/8-1/4
0.147 mi.
775 ft.

NU WAY PLATING CO
1805 SICHEL ST
LOS ANGELES, CA 90031

CERCLIS **1000435845**
RCRA NonGen / NLR **CAD008309890**
FINDS
PRP

Relative:
Higher

Actual:
324 ft.

CERCLIS:

Site ID:	0905156
EPA ID:	CAD008309890
Facility County:	LOS ANGELES
Short Name:	NU-WAY PLATING
Congressional District:	30
IFMS ID:	09AY
SMSA Number:	4480
USGC Hydro Unit:	18070105
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.90000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	O
EPA Region:	09
Classification:	Abandoned
Site Settings Code:	Not reported
NPL Status:	Not on the NPL
DMNSN Unit Code:	ACRE
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Removal Only Site (No Site Assessment Work Needed)
Non NPL Status Date:	/ /
Site Fips Code:	06037
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	9000068.00000
Contact Name:	Tom J. Dunkelman
Contact Tel:	(415) 972-3044
Contact Title:	On-Scene Coordinator (OSC)
Contact Email:	Not reported
Contact ID:	9271184.00000
Contact Name:	Karen Jurist
Contact Tel:	(415) 972-3219
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez
Contact Tel:	(415) 972-3978
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13003858.00000

NU WAY PLATING CO (Continued) **1000435845**

Contact Name: Sharon Murray
Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Alias Comments: Not reported
Site Description: AN ABANDONED ELECTROPLATING FACILITY SITUATED IN LOS ANGELES, CALIFORNIA.

CERCLIS Assessment History:

Action Code: 001
Action: Notice Letters Issued
Date Started: / /
Date Completed: 01/12/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL NEGOTIATIONS
Date Started: 01/12/95
Date Completed: 01/30/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 01/30/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ADMINISTRATIVE RECORDS
Date Started: 04/03/95
Date Completed: 04/03/95
Priority Level: Admin Record Compiled for a Removal Event
Operable Unit: SITEWIDE

NU WAY PLATING CO (Continued) **1000435845**

Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 03/01/95
Date Completed: 08/30/95
Priority Level: Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

RCRA NonGen / NLR:
Date form received by agency: 05/31/1995
Facility name: NU WAY PLATING CO
Facility address: 1805 SICHEL ST
LOS ANGELES, CA 90031
EPA ID: CAD008309890
Mailing address: CHATSWORTH DR
SAN FERNANDO, CA 91340
Contact: RAZMIK GOZALIANS
Contact address: 314 CHATSWORTH DR
SAN FERNANDO, CA 91340
Contact country: US
Contact telephone: (818) 365-1170
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: MARTHA DE ANGELIS
Owner/operator address: 24618 BLUE DANE LANE
MALIBU, CA 90205
Owner/operator country: Not reported
Owner/operator telephone: (315) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MARTHA DE ANGELIS
Owner/operator address: 24618 BLUE DANE LANE
MALIBU, CA 90205
Owner/operator country: Not reported
Owner/operator telephone: (310) 456-5129
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

NU WAY PLATING CO (Continued) **1000435845**

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002632198

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

PRP:
PRP name: ESTATE OF CARMELA CAIAZZO
ESTATE OF LOUIS CERROTTA
TRUST OF GAETANO CAIAZZO

J65 **LAC+USC MEDICAL CENTER/GENERAL STORAGE AREA** **SWEEPS UST** **S106928454**
North **1830 N GRIFFIN AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.161 mi.
849 ft. **Site 1 of 2 in cluster J**

Relative:
Higher

Actual:
328 ft.

SWEEPS UST:

Status:	Active
Comp Number:	8190
Number:	4
Board Of Equalization:	Not reported
Referral Date:	06-15-93
Action Date:	06-15-93
Created Date:	06-15-93
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-008190-008190
Actv Date:	06-15-93
Capacity:	4000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	1

J66 **LAC+USC MEDICAL CENTER** **UST** **U003781332**
North **1830 GRIFFIN AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.162 mi.
856 ft. **Site 2 of 2 in cluster J**

Relative:
Higher

Actual:
328 ft.

UST:

Facility ID:	25017
Latitude:	34.06482
Longitude:	-118.21151

K67 **BAUER COATINGS** **CA FID UST** **S101617358**
WSW **1021 N MISSION RD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033** **EMI**
0.169 mi. **WDS**
894 ft. **Site 1 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

CA FID UST:

Facility ID:	19001414
Regulated By:	UTNKA
Regulated ID:	00017014
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132254154
Mail To:	Not reported
Mailing Address:	10880 WILSHIRE BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported

BAUER COATINGS (Continued) **S101617358**

Status: Active

SWEEPS UST:
Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000001
Actv Date: 04-20-88
Capacity: 2000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 11

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000002
Actv Date: 04-20-88
Capacity: 2000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000003
Actv Date: 04-20-88
Capacity: 2000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3

BAUER COATINGS (Continued) **S101617358**

Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000004
Actv Date: 04-20-88
Capacity: 7500
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000005
Actv Date: 04-20-88
Capacity: 10000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000006
Actv Date: 04-20-88
Capacity: 75000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported

BAUER COATINGS (Continued) **S101617358**

Swrcb Tank Id: 19-050-001070-000007
Actv Date: 04-20-88
Capacity: 5000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000008
Actv Date: 04-20-88
Capacity: 10000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000009
Actv Date: 04-20-88
Capacity: 10000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001070-000010
Actv Date: 04-20-88
Capacity: 10000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN

BAUER COATINGS (Continued) **S101617358**

Number Of Tanks:	Not reported
Status:	Active
Comp Number:	1070
Number:	3
Board Of Equalization:	44-011574
Referral Date:	02-24-93
Action Date:	02-24-93
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001070-000011
Actv Date:	04-20-88
Capacity:	10000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	10877
Air District Name:	SC
SIC Code:	2821
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	5
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	78238
Air District Name:	SC
SIC Code:	2851
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	14
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1995
County Code:	19
Air Basin:	SC

BAUER COATINGS (Continued) **S101617358**

Facility ID:	78238
Air District Name:	SC
SIC Code:	2851
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
County Code:	19
Air Basin:	SC
Facility ID:	78238
Air District Name:	SC
SIC Code:	2851
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	1997
County Code:	19
Air Basin:	SC
Facility ID:	78238
Air District Name:	SC
SIC Code:	2851
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	17
Reactive Organic Gases Tons/Yr:	13
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smllr Tons/Yr:	4

Year:	1998
County Code:	19
Air Basin:	SC
Facility ID:	78238
Air District Name:	SC
SIC Code:	2851
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

BAUER COATINGS (Continued) **S101617358**

Total Organic Hydrocarbon Gases Tons/Yr:	21
Reactive Organic Gases Tons/Yr:	16
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smllr Tons/Yr:	4

Year:	1999
County Code:	19
Air Basin:	SC
Facility ID:	78238
Air District Name:	SC
SIC Code:	2851
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	17
Reactive Organic Gases Tons/Yr:	13
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smllr Tons/Yr:	4

Year:	2000
County Code:	19
Air Basin:	SC
Facility ID:	78238
Air District Name:	SC
SIC Code:	2851
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	17
Reactive Organic Gases Tons/Yr:	13
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smllr Tons/Yr:	4

CA WDS:

Facility ID:	4 19I015200
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	4
Facility Telephone:	3232243630
Facility Contact:	DIANA REYES

BAUER COATINGS (Continued) **S101617358**

Agency Name:	JACKSON PROD INC
Agency Address:	2997 Clarkson Rd
Agency City,St,Zip:	Chesterfield 630177368
Agency Contact:	CHRISTOPHER PAULE
Agency Telephone:	3142072700
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

K68 **TMT-PATHWAY, LLC** **UST** **U003780087**
WSW **1021 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.169 mi.
894 ft. **Site 2 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

UST:

Facility ID:	23560
Latitude:	34.05936
Longitude:	-118.21597

K69 **BAUER COATINGS** **HIST UST** **U001561342**
WSW **1021 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.169 mi.
894 ft. **Site 3 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

HIST UST:

Region:	STATE
Facility ID:	00000017014
Facility Type:	Other
Other Type:	PAINT FACTORY
Total Tanks:	0011
Contact Name:	FRED KING
Telephone:	2132254154
Owner Name:	WITTHAKER COPRORATION
Owner Address:	10880 WILSHIRE BLVD.

BAUER COATINGS (Continued) **U001561342**

Owner City,St,Zip: LOS ANGELES, CA 90024

Tank Num: 001
Container Num: 1
Year Installed: 1964
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1964
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 3
Year Installed: 1964
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 5 unknown
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 4
Year Installed: 1964
Tank Capacity: 00007500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 5
Year Installed: 1964
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 006
Container Num: 6
Year Installed: 1964
Tank Capacity: 00075000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 007

BAUER COATINGS (Continued) **U001561342**

Container Num: 7
Year Installed: 1974
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 008
Container Num: 8
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 009
Container Num: 9
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 010
Container Num: 10
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 011
Container Num: 11
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

K70 **MORTON INT'L WHITTAKER CORP.** **LUST S104916136**
WSW **1021 MISSION RD N** **SLIC N/A**
1/8-1/4 **BOYLE HEIGHTS, CA 90033**
0.169 mi.
894 ft. **Site 4 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330043
Status: Remedial action (cleanup) Underway
Substance: Solvents
Substance Quantity: Not reported

MORTON INT'L WHITTAKER CORP. (Continued) **S104916136**

Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		EDFP
Global ID:	T0603700828	
W Global ID:	W0605100649	
Staff:	TOX	
Local Agency:	19050	
Cross Street:	MARENGO	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		5/21/1986
Date Leak Record Entered:	9/9/1987	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		2/15/1991
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Tank	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7904.700531523642228216880 1593
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		4/15/1988
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MBR CONSTRUCTION	
RP Address:	1301 E. SPRING PO BOX 7917, LONG BEACH, CA 90807	
Program:	SLIC	
Lat/Long:	34.0593994 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	PRODUCT RECOVERY UNDERWAY. OFFSITE INVESTIGATION IN PROGRESSSOLVENTS. RCRA CASE	

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	04/15/1988

MORTON INT'L WHITTAKER CORP. (Continued) **S104916136**

Global Id:	T0603700828
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0593994
Longitude:	-118.2161952
Case Type:	Cleanup Program Site
Case Worker:	DDD
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330043
File Location:	Not reported
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	* Solvents
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

K71 **FORMER TMT PATHWAY** **RCRA-SQG 1000421643**
WSW **1021 N MISSION RD** **FINDS CAD083024141**
1/8-1/4 **LOS ANGELES, CA 90033**
0.169 mi.
894 ft. **Site 5 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

RCRA-SQG:

Date form received by agency:	09/14/2011
Facility name:	FORMER TMT PATHWAY
Facility address:	1021 N MISSION ROAD LOS ANGELES, CA 90033 1218
EPA ID:	CAD083024141
Mailing address:	3100 STATE RD DOW ENGINEERING SVCS CROYDON, PA 19021
Contact:	ROBERT L CASSELBERRY JR
Contact address:	3100 STATE RD DOW ENGINEERING SVCS CROYDON, PA 19021
Contact country:	US
Contact telephone:	215-785-7917
Contact email:	RCASSELBERRY@DOW.COM
EPA Region:	09
Land type:	Private
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	THE DOW CHEMICAL COMPANY
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	04/29/2001
Owner/Op end date:	Not reported

FORMER TMT PATHWAY (Continued) **1000421643**

Owner/operator name: ARARAT MISSION LLC
Owner/operator address: 1021 N MSSION RD
LOS ANGELES, CA 90033
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/10/2007
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 07/18/2006
Facility name: FORMER TMT PATHWAY
Site name: TMT PATHWAY
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 05/15/2002
Facility name: FORMER TMT PATHWAY
Site name: TMT - PATHWAY, LLC
Classification: Small Quantity Generator

Date form received by agency: 05/15/2002
Facility name: FORMER TMT PATHWAY
Site name: TMT - PATHWAY, LLC
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: FORMER TMT PATHWAY
Site name: TMT-PATHWAY, LLC
Classification: Large Quantity Generator

Date form received by agency: 05/19/1999
Facility name: FORMER TMT PATHWAY
Site name: T M T PATHWAY L L C
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL, INC.

FORMER TMT PATHWAY (Continued) **1000421643**

Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: FORMER TMT PATHWAY
Site name: T M T PATHWAY L L C
Classification: Large Quantity Generator

Date form received by agency: 03/28/1996
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL, INC.
Classification: Large Quantity Generator

Date form received by agency: 03/29/1994
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL, INC./BAUER
Classification: Large Quantity Generator

Date form received by agency: 03/09/1992
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL BAUER COATINGS
Classification: Large Quantity Generator

Date form received by agency: 04/10/1990
Facility name: FORMER TMT PATHWAY
Site name: WHITTAKER CORP. BAUER COATINGS DIV
Classification: Large Quantity Generator

Date form received by agency: 08/15/1980
Facility name: FORMER TMT PATHWAY
Site name: T M T PATHWAY L L C
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/14/1994
Date achieved compliance: 07/07/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported

FORMER TMT PATHWAY (Continued) **1000421643**

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/12/1991
Date achieved compliance: 05/26/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 07/24/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: Local

Evaluation date: 04/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/07/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/12/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/26/1992
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110000473611

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource

FORMER TMT PATHWAY (Continued) **1000421643**

Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

K72 **MORTON INT'L WHITTAKER CO** **HIST CORTESE** **S104406291**
WSW **1021 MISSION** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.169 mi.
894 ft. **Site 6 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330043

I73 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101588300**
ESE **2011 ZONAL AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.175 mi.
922 ft. **Site 2 of 2 in cluster I**

Relative:
Higher

Actual:
374 ft.

CA FID UST:

Facility ID:	19056546
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	UNK
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported

UNIVERSITY OF SO CALIFORNIA (Continued) **S101588300**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 7952
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

K74 **TRANSPORT CARTAGE&DISTR CO** **RCRA NonGen / NLR** **1000320949**
WSW **1039 RICHMOND** **FINDS** **CAD028614527**
1/8-1/4 **LOS ANGELES, CA 90033**
0.182 mi.
962 ft. **Site 7 of 15 in cluster K**

Relative:
Lower

Actual:
317 ft.

RCRA NonGen / NLR:
Date form received by agency: 07/31/1980
Facility name: TRANSPORT CARTAGE&DISTR CO
Facility address: 1039 RICHMOND
LOS ANGELES, CA 90033
EPA ID: CAD028614527
Mailing address: P O BOX 60018 TERMINAL ANNEX
LOS ANGELES, CA 90060
Contact: ENVIRONMENTAL MANAGER
Contact address: 1039 RICHMOND
LOS ANGELES, CA 90033
Contact country: US
Contact telephone: (213) 223-3131
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: TRANSPORT CARTAGE & DISTRIBUTING CO
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

TRANSPORT CARTAGE&DISTR CO (Continued) **1000320949**

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002640713

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

75
NNE
1/8-1/4
0.186 mi.
983 ft.

HART C J **EDR US Hist Auto Stat** **1009122789**
3131 ALHAMBRA AVE **N/A**
LOS ANGELES, CA

Relative:
Higher

Actual:
333 ft.

EDR Historical Auto Stations:
Name: HART C J
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

76
SSW
1/8-1/4
0.188 mi.
992 ft.

1722 POMEROY AVE
LOS ANGELES, CA 90033

EDR US Hist Auto Stat **1015269793**
N/A

Relative:
Lower

Actual:
309 ft.

EDR Historical Auto Stations:

Name:	GTO TRANSMISSIONS
Year:	2002
Address:	1722 POMEROY AVE
Name:	GTO TRANSMISSION
Year:	2003
Address:	1722 POMEROY AVE

L77
SSE
1/8-1/4
0.191 mi.
1009 ft.

LAC/USC MEDICAL CENTER
1950 MARENGO ST
LOS ANGELES, CA 90033

Site 1 of 2 in cluster L

UST **U003879609**
N/A

Relative:
Higher

Actual:
339 ft.

UST:

Facility ID:	25035
Latitude:	34.05732
Longitude:	-118.20907

78
ESE
1/8-1/4
0.196 mi.
1033 ft.

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
1540 ALCAZAR ST. CHP 148
LOS ANGELES, CA 90033

RCRA-LQG **1000431649**
CAT000617597

Relative:
Higher

Actual:
379 ft.

RCRA-LQG:

Date form received by agency:	03/16/2012
Facility name:	UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Facility address:	1540 ALCAZAR ST. CHP 148 LOS ANGELES, CA 90033
EPA ID:	CAT000617597
Mailing address:	ALCAZAR ST. CHP 148 LOS ANGELES, CA 90033
Contact:	MICHELLE LEE
Contact address:	ALCAZAR ST. CHP 148 LOS ANGELES, CA 90033
Contact country:	Not reported
Contact telephone:	(323) 864-3188
Contact email:	MLEE@CAPS.USC.EDU
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	UNIVERSITY OF SOUTHERN CALIFORNIA
Owner/operator address:	ALCAZAR ST. CHP 148 LOS ANGELES, CA 90033
Owner/operator country:	US
Owner/operator telephone:	(323) 442-2200
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	07/01/1976
Owner/Op end date:	Not reported

Owner/operator name:	UNIVERSITY OF SOUTHERN CALIFORNIA
Owner/operator address:	ALCAZAR ST. CHP 148 LOS ANGELES, CA 90033
Owner/operator country:	Not reported
Owner/operator telephone:	(323) 442-2200
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	07/01/1976
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Universal Waste Summary:

Waste type:	A
Accumulated waste on-site:	Yes
Generated waste on-site:	No

Waste type:	C
Accumulated waste on-site:	Yes
Generated waste on-site:	No

Waste type:	E
Accumulated waste on-site:	Yes
Generated waste on-site:	No

Waste type:	Batteries
Accumulated waste on-site:	Yes

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: No

Historical Generators:
Date form received by agency: 06/17/2010
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Classification: Large Quantity Generator

Date form received by agency: 02/01/2008
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Classification: Large Quantity Generator

Date form received by agency: 02/16/2006
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

Date form received by agency: 02/05/2004
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

Date form received by agency: 02/19/2002
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: USC HSC
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA
Classification: Large Quantity Generator

Date form received by agency: 03/26/1996
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Date form received by agency: 03/28/1994
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: USC HEALTH SCIENCES CAMPUS
Classification: Large Quantity Generator

Date form received by agency: 02/20/1992
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFOR
Classification: Large Quantity Generator

Date form received by agency: 04/16/1990
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY SOUTHERN CALIFORNIA
Classification: Large Quantity Generator

Date form received by agency: 08/14/1980
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA
Classification: Large Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D004
Waste name: ARSENIC

Waste code: D005
Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D010
Waste name: SELENIUM

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: D019
Waste name: CARBON TETRACHLORIDE

Waste code: D021
Waste name: CHLOROBENZENE

Waste code: D022
Waste name: CHLOROFORM

Waste code: D024
Waste name: M-CRESOL

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: D038
Waste name: PYRIDINE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: P003
Waste name: ACROLEIN

Waste code: P005
Waste name: ALLYL ALCOHOL

Waste code: P022
Waste name: CARBON DISULFIDE

Waste code: P028
Waste name: BENZENE, (CHLOROMETHYL)-

Waste code: P075
Waste name: NICOTINE, & SALTS

Waste code: P087
Waste name: OSMIUM OXIDE OSO4, (T-4)-

Waste code: P098
Waste name: POTASSIUM CYANIDE

Waste code: P105
Waste name: SODIUM AZIDE

Waste code: P120
Waste name: VANADIUM OXIDE V2O5

Waste code: U001
Waste name: ACETALDEHYDE (I)

Waste code: U003
Waste name: ACETONITRILE (I,T)

Waste code: U007
Waste name: ACRYLAMIDE

Waste code: U019
Waste name: BENZENE (I,T)

Waste code: U020
Waste name: BENZENESULFONIC ACID CHLORIDE (C,R)

Waste code: U021
Waste name: BENZIDINE

Waste code: U052

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste name: CRESOL (CRESYLIC ACID)

Waste code: U103
Waste name: DIMETHYL SULFATE

Waste code: U133
Waste name: HYDRAZINE (R,T)

Waste code: U134
Waste name: HYDROFLUORIC ACID (C,T)

Waste code: U136
Waste name: ARSINIC ACID, DIMETHYL-

Waste code: U138
Waste name: METHANE, IODO-

Waste code: U147
Waste name: 2,5-FURANDIONE

Waste code: U162
Waste name: METHYL METHACRYLATE (I,T)

Waste code: U165
Waste name: NAPHTHALENE

Waste code: U188
Waste name: PHENOL

Waste code: U194
Waste name: 1-PROPANAMINE (I,T)

Waste code: U196
Waste name: PYRIDINE

Waste code: U204
Waste name: SELENIOUS ACID

Waste code: U211
Waste name: CARBON TETRACHLORIDE

Waste code: U219
Waste name: THIOUREA

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 33150

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste code:	D002
Waste name:	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs):	19000
Waste code:	D005
Waste name:	BARIUM
Amount (Lbs):	9450
Waste code:	D007
Waste name:	CHROMIUM
Amount (Lbs):	9450
Waste code:	D008
Waste name:	LEAD
Amount (Lbs):	950
Waste code:	D009
Waste name:	MERCURY
Amount (Lbs):	8500
Waste code:	D010
Waste name:	SELENIUM
Amount (Lbs):	950
Waste code:	D011
Waste name:	SILVER
Amount (Lbs):	8500
Waste code:	D018
Waste name:	BENZENE
Amount (Lbs):	8500
Waste code:	D022
Waste name:	CHLOROFORM
Amount (Lbs):	38000
Waste code:	D035
Waste name:	METHYL ETHYL KETONE
Amount (Lbs):	13100
Waste code:	F002
Waste name:	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs):	13900

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste code:	F003
Waste name:	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs):	58100
Waste code:	P075
Waste name:	NICOTINE, & SALTS
Amount (Lbs):	950
Waste code:	P087
Waste name:	OSMIUM OXIDE OSO4, (T-4)-
Amount (Lbs):	950
Waste code:	P098
Waste name:	POTASSIUM CYANIDE
Amount (Lbs):	950
Waste code:	P105
Waste name:	SODIUM AZIDE
Amount (Lbs):	950
Waste code:	P120
Waste name:	VANADIUM OXIDE V2O5
Amount (Lbs):	950
Waste code:	U019
Waste name:	BENZENE (I,T)
Amount (Lbs):	8500
Waste code:	U133
Waste name:	HYDRAZINE (R,T)
Amount (Lbs):	8500
Waste code:	U136
Waste name:	ARSINIC ACID, DIMETHYL-
Amount (Lbs):	8500
Waste code:	U162
Waste name:	METHYL METHACRYLATE (I,T)
Amount (Lbs):	8500
Waste code:	U165
Waste name:	NAPHTHALENE
Amount (Lbs):	8500
Waste code:	U188
Waste name:	PHENOL
Amount (Lbs):	8500

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste code: U204
Waste name: SELENIOUS ACID
Amount (Lbs): 950

Waste code: U211
Waste name: CARBON TETRACHLORIDE
Amount (Lbs): 8500

Waste code: U219
Waste name: THIOUREA
Amount (Lbs): 8500

Violation Status: No violations found

M79 **COAST FREIGHTWAYS, INC.** **HIST UST** **U001561270**
NW **2100 ALHAMBRA AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.199 mi.
1049 ft. **Site 1 of 4 in cluster M**

Relative:
Higher

Actual:
322 ft.

HIST UST:
Region: STATE
Facility ID: 00000017574
Facility Type: Other
Other Type: FREIGHT FORWARDER
Total Tanks: 0001
Contact Name: BYRNE MILLER
Telephone: 2132251331
Owner Name: COAST FREIGHTWAYS, INC.
Owner Address: 2100 ALHAMBRA AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90031

Tank Num: 001
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00009940
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual, Pressure Test

M80 **UNION RAILROAD-LA TRANS. CTR.** **HIST CORTESE** **S101296870**
NW **2100 ALHAMBRA AVE** **LUST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.199 mi.
1049 ft. **Site 2 of 4 in cluster M**

Relative:
Higher

Actual:
322 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900310198

LUST:
Region: STATE
Global Id: T0603700800

UNION RAILROAD-LA TRANS. CTR. (Continued) **S101296870**

Latitude:	34.0635657
Longitude:	-118.2151535
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/22/1998
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310198
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700800
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700800
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Regulatory Activities:

Global Id:	T0603700800
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603700800
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0603700800
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

M81 **COAST FREIGHTWAYS INC** **CA FID UST** **S101617330**
NW **2100 ALHAMBRA AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.199 mi.
1049 ft. **Site 3 of 4 in cluster M**

Relative:
Higher

Actual:
322 ft.

CA FID UST:

Facility ID:	19003142
Regulated By:	UTNKA
Regulated ID:	00017574
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132251331
Mail To:	Not reported
Mailing Address:	2100 ALHAMBRA AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	1280
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001280-000001
Actv Date:	Not reported
Capacity:	9940
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	1

M82 **UNION RAILROAD-LA TRANS. CTR.** **LUST** **S103281867**
NW **2100 ALHAMBRA AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.199 mi.
1049 ft. **Site 4 of 4 in cluster M**

Relative:
Higher

Actual:
322 ft.

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	900310198
Status:	Case Closed
Substance:	Hydrocarbons
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Groundwater

UNION RAILROAD-LA TRANS. CTR. (Continued) **S103281867**

Abatement Method Used at the Site:		Excavate and Dispose
Global ID:	T0603700800	
W Global ID:	W0605100649	
Staff:	AT	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	5/10/1991	
Date Leak First Reported:		7/11/1991
Date Leak Record Entered:	7/6/1991	
Date Confirmation Began:	7/11/1991	
Date Leak Stopped:	5/10/1991	
Date Case Last Changed on Database:		2/24/1998
Date the Case was Closed:		1/22/1998
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Piping	
Operator:	OLD CASE #071991-01	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8057.432851381311242960834619
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		4/27/1992
Pollution Characterization Began:		9/2/1997
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	UNION PACIFIC RAILROADS	
RP Address:	ONE MARKET PLAZA, SAN FRANCISCO, CA 94105	
Program:	LUST	
Lat/Long:	34.0635112 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	09/02/97 - WP FOR INSTALL & SAMPLING GW; 11/17/97 - MEETING TO DISCUSS WP; 01/12/98 - FIELD INVESTIGATION RPT; 02/24/98 - ABANDONMENT OF GW MONITORING WELLS	

K83 **JOE'S CHEVRON** **CA FID UST** **S101587920**
WSW **1011 N MISSION RD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.201 mi.
1063 ft. **Site 8 of 15 in cluster K**

Relative:
Lower

Actual:
319 ft.

CA FID UST:

Facility ID:	19056145
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132276500
Mail To:	Not reported
Mailing Address:	1011 N MISSION RD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	5890
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

---

84 **BUILDERS HARDWARE FINISHERS** **CERC-NFRAP** **1000278696**
NNW **1846 SICHEL ST** **RCRA-SQG** **CAD020155461**
1/8-1/4 **LOS ANGELES, CA 90031** **CONSENT**
0.206 mi. **FINDS**
1086 ft. **PRP**

Relative:
Higher

Actual:
325 ft.

CERC-NFRAP:

Site ID:	0900183
Federal Facility:	Not a Federal Facility
NPL Status:	Not on the NPL
Non NPL Status:	Removal Only Site (No Site Assessment Work Needed)

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID:	13055157.00000
Person ID:	9271184.00000

BUILDERS HARDWARE FINISHERS (Continued) **1000278696**

Contact Sequence ID: 13290309.00000
Person ID: 13003854.00000

Contact Sequence ID: 13295904.00000
Person ID: 13003858.00000

Contact Sequence ID: 13301762.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: BHFI
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:
Action: JUDICIAL/CIVIL JUDGMENT
Date Started: / /
Date Completed: 01/02/92
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 01/26/90
Priority Level: Not reported

Action: ADMINISTRATIVE RECORDS
Date Started: 04/24/89
Date Completed: 04/24/89
Priority Level: Admin Record Compiled for a Removal Event

Action: REMOVAL
Date Started: 05/23/88
Date Completed: 07/18/88
Priority Level: Cleaned up

Action: CONSENT DECREE
Date Started: 05/14/90
Date Completed: 10/31/90
Priority Level: Not reported

Action: SECTION 107 LITIGATION
Date Started: 09/29/89
Date Completed: 10/31/90
Priority Level: Not reported

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: BUILDERS HARDWARE FINISHERS
Facility address: 1846 SICHEL ST
LOS ANGELES, CA 90031
EPA ID: CAD020155461

BUILDERS HARDWARE FINISHERS (Continued) **1000278696**

Mailing address:	SICHEL ST
	LOS ANGELES, CA 90031
Contact:	Not reported
Contact address:	Not reported
	Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	JOE DURAN
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

BUILDERS HARDWARE FINISHERS (Continued) **1000278696**

CONSENT:
EPA ID: CAD020155461
Site ID: Not reported
Case Title: U.S. V BUILDER'S HARDWARE FINISHERS, INC.
Court Num: 90-5428
District: California, Cent
Entered Date: 19901031
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

FINDS:

Registry ID: 110002638682

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

PRP name: HERMAN, BRADLEY LEE AS CO-TRUSTEE
HERMAN, HOWARD LANDO AS CO-TRUSTEE

K85 **EDR US Hist Auto Stat** **1015121076**
WSW **1001 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 9 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

EDR Historical Auto Stations:
Name: A AUTO GLASS
Year: 2010
Address: 1001 N MISSION RD

K86 **GANNETT OUTDOOR CO INC** **CA FID UST** **S101583985**
WSW **1016 N MISSION RD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031** **EMI**
0.219 mi.
1158 ft. **Site 10 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

CA FID UST:

Facility ID:	19007776
Regulated By:	UTNKA
Regulated ID:	00029591
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132227171
Mail To:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	1838
Number:	1
Board Of Equalization:	44-012006
Referral Date:	06-07-93
Action Date:	04-07-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001838-000005
Actv Date:	04-20-88
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	2

Status:	Active
Comp Number:	1838
Number:	1
Board Of Equalization:	44-012006
Referral Date:	06-07-93
Action Date:	04-07-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001838-000007
Actv Date:	04-20-88
Capacity:	25000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

GANNETT OUTDOOR CO INC (Continued) **S101583985**

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	13287
Air District Name:	SC
SIC Code:	3993
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	13287
Air District Name:	SC
SIC Code:	3993
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	42
Reactive Organic Gases Tons/Yr:	39
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1993
County Code:	19
Air Basin:	SC
Facility ID:	13287
Air District Name:	SC
SIC Code:	3993
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	13287
Air District Name:	SC

GANNETT OUTDOOR CO INC (Continued) **S101583985**

SIC Code:	3993
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

K87 **SAN ANTONIO WINERY** **LUST** **S103281890**
WSW **1016 MISSION RD N** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.219 mi.
1158 ft. **Site 11 of 15 in cluster K**

Relative:
Lower

Actual:
320 ft.

LUST:

Region:	STATE
Global Id:	T0603700843
Latitude:	34.059277
Longitude:	-118.215707
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/22/1998
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330243
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700843
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Global Id:	T0603700843
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

SAN ANTONIO WINERY (Continued) **S103281890**

Regulatory Activities:

Global Id:	T0603700843
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603700843
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330243	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700843	
W Global ID:	W0605100649	
Staff:	AT	
Local Agency:	19050	
Cross Street:	FWY 5	
Enforcement Type:	Not reported	
Date Leak Discovered:	7/31/1992	
Date Leak First Reported:		7/31/1992
Date Leak Record Entered:	12/22/1992	
Date Confirmation Began:	9/14/1992	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		4/1/1998
Date the Case was Closed:		1/22/1998
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	Corrosion	
Leak Source:	Tank	
Operator:	RIPP, BILL	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7949.505466087510032822041858
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		2/10/1994
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		7/13/1995
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported

SAN ANTONIO WINERY (Continued) **S103281890**

GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	SAN ANTONIO WINERY
RP Address:	737 LAMAR ST., LOS ANGELES, CA 90031
Program:	LUST
Lat/Long:	34.0591944 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	2600649-001GEN
Summary:	4/1/98 DOCUMENTATION FOR WELL DECOMMISSIONING ACTIVITIES

88
NNE
1/8-1/4
0.220 mi.
1161 ft.

A-1 EASTERN HOMADE PICKLE COMPANY **LUST** **S107619717**
1832 JOHNSTON STREET **N/A**
LOS ANGELES, CA 90031

Relative:
Higher

Actual:
331 ft.

LUST:

Region:	STATE
Global Id:	T0603719830
Latitude:	34.065414
Longitude:	-118.210192
Case Type:	LUST Cleanup Site
Status:	Open - Site Assessment
Status Date:	08/15/2008
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	JW
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310370
LOC Case Number:	2444
File Location:	Regional Board
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline, MTBE / TBA / Other Fuel Oxygenates
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603719830
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603719830
Contact Type:	Regional Board Caseworker
Contact Name:	JIMMIE WOO
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES

A-1 EASTERN HOMADE PICKLE COMPANY (Continued) **S107619717**

Email: jwoo@waterboards.ca.gov
Phone Number: 2135766600

Regulatory Activities:

Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2008
Action: Well Installation Report

Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2007
Action: Soil and Water Investigation Workplan

Global Id: T0603719830
Action Type: ENFORCEMENT
Date: 10/18/2006
Action: Staff Letter

Global Id: T0603719830
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603719830
Action Type: ENFORCEMENT
Date: 08/15/2008
Action: Staff Letter

Global Id: T0603719830
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603719830
Action Type: ENFORCEMENT
Date: 08/02/2007
Action: Staff Letter

Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603719830
Action Type: RESPONSE
Date: 11/30/2006
Action: Other Report / Document

K89 **CENTRAL PARKING ENFORCEMENT REPAIR SHOP** **RCRA-LQG** **1000314427**
WSW **1016 NORTH MISSION ROAD** **FINDS** **CAD982462194**
1/8-1/4 **LOS ANGELES, CA 90023**
0.221 mi.
1165 ft. **Site 12 of 15 in cluster K**

Relative:
Lower

Actual:
319 ft.

RCRA-LQG:

Date form received by agency:	07/15/2010
Facility name:	CENTRAL PARKING ENFORCEMENT REPAIR SHOP
Facility address:	1016 NORTH MISSION ROAD LOS ANGELES, CA 90023
EPA ID:	CAD982462194
Mailing address:	EAST FIRST STREET ROOM 600 LOS ANGELES, CA 90012
Contact:	EMMANUEL AMESI
Contact address:	EAST FIRST STREET ROOM 600 LOS ANGELES, CA 90012
Contact country:	Not reported
Contact telephone:	(213) 978-3798
Contact email:	EMMANUEL.AMESI@LACITY.ORG
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	CITY OF LOS ANGELES, DEPT OF GEN SVC
Owner/operator address:	Not reported 90012
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1950
Owner/Op end date:	Not reported
Owner/operator name:	GANNETT INC
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	CITY OF LOS ANGELES
Owner/operator address:	NORTH MAIN STREET ROOM 709

CENTRAL PARKING ENFORCEMENT REPAIR SHOP (Continued) **1000314427**

LOS ANGELES, CA 90012
Owner/operator country: Not reported
Owner/operator telephone: (213) 978-3798
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1950
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 10/05/2005
Facility name: CENTRAL PARKING ENFORCEMENT REPAIR SHOP
Site name: CENTRAL PARKING ENFORCEMENT AUTO REPAIR
Classification: Small Quantity Generator

Date form received by agency: 12/31/1988
Facility name: CENTRAL PARKING ENFORCEMENT REPAIR SHOP
Site name: GANNETT OUTDOOR OF SO CA
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: P051
Waste name: 2,7:3,6-DIMETHANONAPHTH [2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA,2BETA,2ABETA,3ALPHA,6ALPHA,6ABETA,7BETA, 7AALPHA)-, & METABOLITES

CENTRAL PARKING ENFORCEMENT REPAIR SHOP (Continued) **1000314427**

Waste code: P123
Waste name: TOXAPHENE

Waste code: U002
Waste name: ACETONE (I)

Waste code: U036
Waste name: CHLORDANE, ALPHA & GAMMA ISOMERS

Waste code: U070
Waste name: BENZENE, 1,2-DICHLORO-

Violation Status: No violations found

FINDS:

Registry ID: 110002816105

Environmental Interest/Information System
The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

K90 **SAN ANTONIO WINERY** **HIST CORTESE** **S103989470**
WSW **1016 MISSION** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.221 mi.
1165 ft. **Site 13 of 15 in cluster K**

Relative:
Lower

Actual:
319 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330243

K91 **GANNETT OUTDOOR CO., INC. OF S** **HIST UST** **U001561350**
WSW **1016 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.221 mi.
1165 ft. **Site 14 of 15 in cluster K**

Relative:
Lower

Actual:
319 ft.

HIST UST:
Region: STATE
Facility ID: 00000029591
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0007
Contact Name: Not reported
Telephone: 2132227171
Owner Name: GANNETT OUTDOOR CO., INC. OF S
Owner Address: 1731 WORKMAN STREET
Owner City,St,Zip: LOS ANGELES, CA 90031

Tank Num: 001

GANNETT OUTDOOR CO., INC. OF S (Continued) **U001561350**

Container Num: #5
Year Installed: Not reported
Tank Capacity: 00007500
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: #6
Year Installed: 1970
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: #10
Year Installed: 1978
Tank Capacity: 00025000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: #1
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: #2
Year Installed: 1976
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: #3
Year Installed: Not reported
Tank Capacity: 00007500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: #9
Year Installed: 1980
Tank Capacity: 00025000

GANNETT OUTDOOR CO., INC. OF S (Continued) **U001561350**

Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: .5 inches
Leak Detection: Stock Inventor

K92 **MONTGOMERY WARD SERVICE STATIO** **CA FID UST** **S101585690**
WSW **925 RICHMOND ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.223 mi.
1175 ft. **Site 15 of 15 in cluster K**

Relative:
Higher

Actual:
322 ft.

CA FID UST:
Facility ID: 19027645
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 925 RICHMOND ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 6998
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: 0

N93 **EDR US Hist Auto Stat** **1015690516**
WSW **995 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.226 mi.
1193 ft. **Site 1 of 3 in cluster N**

Relative:
Lower

Actual:
320 ft.

EDR Historical Auto Stations:
Name: GTO AUTO GLASS
Year: 2002
Address: 995 N MISSION RD

N94 **PETROLEUM DYNAMICS INC** **HIST UST** **U001561365**
WSW **995 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.226 mi.
1193 ft. **Site 2 of 3 in cluster N**

Relative:
Lower

Actual:
320 ft.

HIST UST:
Region: STATE
Facility ID: 00000005272
Facility Type: Other
Other Type: Not reported
Total Tanks: 0001
Contact Name: Not reported
Telephone: 2132211167
Owner Name: PETROLEUM DYNAMICS, INC.
Owner Address: 995 NO. MISSION ROAD
Owner City,St,Zip: LOS ANGELES, CA 90033

Tank Num: 001
Container Num: 0016
Year Installed: 1974
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

N95 **PETROLEUM DYNAMICS, INC** **CA FID UST** **S101617368**
WSW **995 N MISSION RD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.226 mi.
1193 ft. **Site 3 of 3 in cluster N**

Relative:
Lower

Actual:
320 ft.

CA FID UST:
Facility ID: 19008205
Regulated By: UTNKI
Regulated ID: 00005272
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132211167
Mail To: Not reported
Mailing Address: 995 N MISSION RD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported

PETROLEUM DYNAMICS, INC (Continued) **S101617368**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 561
Number: Not reported
Board Of Equalization: 44-011276
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000561-000001
Actv Date: Not reported
Capacity: 4000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

L96 **LAC - USC MEDICAL CENTER REPLACEMENT PROJECT** **SLIC** **S104404878**
SSE **2000 MARENGO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.227 mi.
1198 ft. **Site 2 of 2 in cluster L**

Relative:
Higher

Actual:
341 ft.

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 01/27/2010
Global Id: SL2046W1657
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number: Not reported
Latitude: 34.057032
Longitude: -118.208399
Case Type: Cleanup Program Site
Case Worker: DI
Local Agency: Not reported
RB Case Number: 0861
File Location: Regional Board
Potential Media Affected: Aquifer used for drinking water supply, Soil, Soil Vapor
Potential Contaminants of Concern: Benzene, Xylene, Lead, Crude Oil, Diesel, MTBE / TBA / Other Fuel Oxygenates, Gasoline, Methane
Site History: The Site is located approximately 2.4 miles northeast of downtown Los Angeles near the Interstate 10 (I-10) and Interstate 5 (I-5) Freeways interchange. It is approximately 15 acres and is bounded by State Street to the west, Chicago Street to the east, Marengo street to the south and existing LAC-USC Medical Center buildings to the north. The Site is part of the 80-acre LAC-USC Medical Center property enclosed between Mission Road, Chicago and Marengo Streets and Zonal Avenue. The purpose of the Replacement Project was to remove the old buildings and construct new medical facilities to replace the old facilities. The construction of the replacement facilities was completed at the end of 2008 and the facilities have since been

LAC - USC MEDICAL CENTER REPLACEMENT PROJECT (Continued) **S104404878**

opened for service. The new medical facilities include a 600-bed inpatient tower, a diagnostic/treatment facility, an outpatient clinic building and a central energy plant. Most portion of the Site was historically used as a medical facility. Historical information about the LAC-USC Medical Center property indicates that the first building for the hospital was constructed in approximately 1878. However, two gas stations once operated in adjacent parcels at different periods of time in the southeast part of the site between the former Cummings Street and Chicago Street north of Marengo Street. The Richfield Oil Company (ARCO) gas station operated from approximately 1960 to 1985 and the Standard Oil Company gas station was in operation from approximately 1965 to 1974. Both parcels were later redeveloped into a strip mall and a Burger King Restaurant, after the gas stations were demolished. In 1995 and 1996, the County of Los Angeles purchased this portion of the Site as part of the Replacement Project for construction of the New Central Energy Plant. Environmental impact investigations were conducted at the Site in 1993, 1995, 1999, and 2000 that involved soil gas surveys, soil borings for collection and analysis of soil samples, installation of groundwater monitoring wells, and the collection and analysis of groundwater samples. A Phase I Environmental Site Assessment (ESA) was conducted in 1999 to identify various Areas of Concerns (AOCs) related to historical and current operations. The site assessments indicated the soil and groundwater beneath the former location of the gas stations are contaminated with total petroleum hydrocarbons (TPH) and aromatic volatile organic compounds (VOCs) such as benzene, toluene, ethylbenzene and xylenes. Remedial measures involving excavation of contaminated soil and pumping and treating contaminated groundwater were implemented between April 2003 and Septemeber 2004 in conjuction with the construction work. Approximately 18,706 tons of VOC/fuel impacted soils were removed from the site between June and September 2003 and approximately 1,724,000 gallons of groundwater were pumped and treated. In October 2008 and 2009, confirmation soil, soil vapor and groundwater sampling was conducted onsite and offsite to verify the remedial work completed which was implemented voluntarily without the Regional Board oversight and to assess the full extent of the soil and groundwater contamination onsite and offsite. Based upon the information submitted, the Regional Board issued a no further requirements (NFR) letter on January 27, 2010 for soils and groundwater at the Site. The case is closed.

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:
Region: 4
Facility Status: Site Assessment
SLIC: 0861
Substance: TPH
Staff: SSH

O97 **LAC+USC MEDICAL CENTER/OUTPATIENT BUILDING** **SWEEPS UST** **S106928455**
ESE **1175 N CUMMINGS ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.230 mi.
1217 ft. **Site 1 of 2 in cluster O**

Relative:
Higher

Actual:
411 ft.

SWEEPS UST:

Status:	Active
Comp Number:	8187
Number:	4
Board Of Equalization:	Not reported
Referral Date:	06-15-93
Action Date:	06-15-93
Created Date:	06-15-93
Tank Status:	A
Owner Tank Id:	8187
Swrcb Tank Id:	19-050-008187-000001
Actv Date:	06-15-93
Capacity:	500
Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	1

O98 **LAC+USC MEDICAL CENTER** **UST** **U003781132**
ESE **1175 N CUMMINGS ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.230 mi.
1217 ft. **Site 2 of 2 in cluster O**

Relative:
Higher

Actual:
411 ft.

UST:

Facility ID:	24771
Latitude:	34.05909
Longitude:	-118.20551

P99 **CENTRAL EASTLAKE JUVENILE** **RCRA-SQG** **1004675544**
ENE **1605 EASTLAKE** **FINDS** **CAR000074336**
1/8-1/4 **LOS ANGELES, CA 90033** **HAZNET**
0.237 mi.
1253 ft. **Site 1 of 3 in cluster P**

Relative:
Higher

Actual:
339 ft.

RCRA-SQG:

Date form received by agency:	06/01/2000
Facility name:	CENTRAL EASTLAKE JUVENILE
Facility address:	1605 EASTLAKE LOS ANGELES, CA 90033
EPA ID:	CAR000074336
Contact:	TANYA FIELDS
Contact address:	1605 EASTLAKE LOS ANGELES, CA 90033
Contact country:	US
Contact telephone:	(323) 226-8671
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous

CENTRAL EASTLAKE JUVENILE (Continued) **1004675544**

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: L A COUNTY
Owner/operator address: 1605 EASTLAKE
LOS ANGELES, CA 90033
Owner/operator country: Not reported
Owner/operator telephone: (323) 226-8671
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110002937680

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CENTRAL EASTLAKE JUVENILE (Continued) **1004675544**

HAZNET:

Year:	2001
Gepaid:	CAR000074336
Contact:	TANYA FIELDS
Telephone:	3232268671
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAL000827758
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Not reported
Tons:	0.4
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAR000074336
Contact:	TANYA FIELDS
Telephone:	3232268671
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Transfer Station
Tons:	4.72
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAR000074336
Contact:	TANYA FIELDS
Telephone:	3232268671
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Latex waste
Disposal Method:	Transfer Station
Tons:	0.84
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAR000074336
Contact:	TANYA FIELDS
Telephone:	3232268671
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD008302903
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture

CENTRAL EASTLAKE JUVENILE (Continued) **1004675544**

Disposal Method: Recycler
Tons: 3.33
Facility County: Los Angeles

Year: 2000
Gepaid: CAR000074336
Contact: TANYA FIELDS
Telephone: 3232268671
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Transfer Station
Tons: 0.22
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

P100 **CENTRAL JUVENILE HALL** **UST** **U001562241**
ENE **1605 EASTLAKE AVE** **HIST UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.237 mi.
1253 ft. **Site 2 of 3 in cluster P**

Relative:
Higher

Actual:
339 ft.

UST:
Facility ID: 24982
Latitude: 34.06353
Longitude: -118.20585

HIST UST:
Region: STATE
Facility ID: 00000020736
Facility Type: Other
Other Type: COUNTY
Total Tanks: 0001
Contact Name: L.A. COUNTY MECHANICAL DEPT.
Telephone: 2132672242
Owner Name: LOS ANGELES COUNTY MECHANICAL
Owner Address: 1100 NORTH EASTERN AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90063

Tank Num: 001
Container Num: TANK #1
Year Installed: Not reported
Tank Capacity: 00000550
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

P101 **CENTRAL JUVENILE HALL** **CA FID UST** **S101617572**
ENE **1605 N EASTLAKE AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90063**
0.238 mi.
1255 ft. **Site 3 of 3 in cluster P**

Relative:
Higher

Actual:
339 ft.

CA FID UST:

Facility ID:	19044678
Regulated By:	UTNKA
Regulated ID:	00020736
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132672242
Mail To:	Not reported
Mailing Address:	1100 N EASTERN AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900630000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	1465
Number:	4
Board Of Equalization:	44-011798
Referral Date:	01-22-93
Action Date:	03-16-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001465-000001
Actv Date:	04-20-88
Capacity:	550
Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	1

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102 **ESTHER M HILDAGO** **CA FID UST** **S101587591**
SSE **2006 MARENGO ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.238 mi.
1256 ft.

Relative:
Higher

Actual:
340 ft.

CA FID UST:

Facility ID:	19055794
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	2006 MARENGO ST
Mailing Address 2:	Not reported

ESTHER M HILDAGO (Continued) **S101587591**

Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 4432
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

103
WNW
1/8-1/4
0.243 mi.
1282 ft.

Relative:
Lower

Actual:
320 ft.

OAK MANUFACTURING COMPANY, INC **CA FID UST** **S101583926**
650 S AVENUE 21 **SWEEPS UST** **N/A**
LOS ANGELES, CA 90031

CA FID UST:
Facility ID: 19007409
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 650 S AVENUE 21
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900310000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 4764
Number: Not reported
Board Of Equalization: Not reported

OAK MANUFACTURING COMPANY, INC (Continued) **S101583926**

Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	0

104
North
1/8-1/4
0.247 mi.
1302 ft.

MODERN SCREEN PRINTING
2919 1/2 N MAIN ST
LOS ANGELES, CA 90031

RCRA-SQG **1004676489**
FINDS **CAR000085936**
HAZNET

Relative:
Higher

Actual:
328 ft.

RCRA-SQG:

Date form received by agency:	10/31/2000
Facility name:	MODERN SCREEN PRINTING
Facility address:	2919 1/2 N MAIN ST LOS ANGELES, CA 90031
EPA ID:	CAR000085936
Contact:	KEVIN LENH
Contact address:	2919 1/2 N MAIN ST LOS ANGELES, CA 90031
Contact country:	US
Contact telephone:	(323) 343-8177
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MODERN SCREEN PRINTING
Owner/operator address:	2919 1/2 N MAIN ST LOS ANGELES, CA 90031
Owner/operator country:	Not reported
Owner/operator telephone:	(323) 343-8177
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No

MODERN SCREEN PRINTING (Continued) **1004676489**

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110012210632

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Year: 2002
Gepaid: CAR000085936
Contact: ENVIRONMENTAL MGR
Telephone: 3233438711
Mailing Name: Not reported
Mailing Address: 2919 1/2 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000

MODERN SCREEN PRINTING (Continued) **1004676489**

Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 0.31
Facility County: Los Angeles

Year: 2001
Gepaid: CAR000085936
Contact: ENVIRONMENTAL MGR
Telephone: 3233438711
Mailing Name: Not reported
Mailing Address: 2919 1/2 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 0.35
Facility County: Los Angeles

Year: 2000
Gepaid: CAR000085936
Contact: ENVIRONMENTAL MGR
Telephone: 3233438711
Mailing Name: Not reported
Mailing Address: 2919 1/2 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 0.06
Facility County: Los Angeles

Q105 **UNIV. OF SO. CAL/NORRIS HOSP.** **UST** **U003781734**
East **1441 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.247 mi.
1304 ft. **Site 1 of 3 in cluster Q**

Relative:
Higher

Actual:
355 ft.

UST:
Facility ID: 25513
Latitude: 34.06166
Longitude: -118.20445

Q106 **KEN NORRIS JR CANCER HOSP/RESE** **CA FID UST** **S101585584**
East **1441 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.247 mi.
1304 ft. **Site 2 of 3 in cluster Q**

Relative:
Higher

Actual:
355 ft.

CA FID UST:

Facility ID:	19025776
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2137437743
Mail To:	Not reported
Mailing Address:	1441 EASTLAKE AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

Q107 **NORRIS CANCER HOSPITAL** **HIST CORTESE** **S103065269**
East **1441 EASTLAKE AVE** **LUST** **N/A**
1/8-1/4 **BOYLE HEIGHTS, CA 90033**
0.247 mi.
1304 ft. **Site 3 of 3 in cluster Q**

Relative:
Higher

Actual:
355 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330261

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330343

LUST:

Region:	STATE
Global Id:	T0603700853
Latitude:	34.0618532
Longitude:	-118.2047929
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/11/2011
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	WR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330343
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

NORRIS CANCER HOSPITAL (Continued) **S103065269**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700853
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700853
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T0603700853
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603700853
Action Type:	RESPONSE
Date:	09/14/1994
Action:	Final Remedial Action Report / Corrective Action Report

Global Id:	T0603700853
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0603700853
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	900330343
Status:	Leak being confirmed
Substance:	Diesel
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Soil
Abatement Method Used at the Site:	Not reported
Global ID:	T0603700853
W Global ID:	Not reported

NORRIS CANCER HOSPITAL (Continued) **S103065269**

Staff:	UNK	
Local Agency:	19050	
Cross Street:	PABLO ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	6/2/1994	
Date Leak First Reported:		7/5/1994
Date Leak Record Entered:	4/15/1996	
Date Confirmation Began:	7/5/1994	
Date Leak Stopped:	6/2/1994	
Date Case Last Changed on Database:		7/5/1994
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	Structure Failure	
Leak Source:	Piping	
Operator:	USC OLD CASE #960415-04	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		12249.614996741089747160485286
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	UNIVERSITY OF SOUTHERN CA	
RP Address:	941 W 35TH ST., LA CA 90089-0681	
Program:	LUST	
Lat/Long:	34.0618532 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	CONTAMINATED SOIL EXCAVATED AND PENDING DISPOSAL OFFSITE	

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108 **MOBIL - CARDENAS,RICHARD** **LUST** **S109117676**
North **2829 MAIN ST N** **N/A**
1/4-1/2 **LOS ANGELES, CA 90031**
0.257 mi.
1355 ft.

Relative:
Higher

Actual:
323 ft.

LUST:

Region:	STATE
Global Id:	T0603710593
Latitude:	34.066314
Longitude:	-118.211961

MOBIL - CARDENAS,RICHARD (Continued) **S109117676**

Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/17/2011
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	TP
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	XS0000624
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603710593
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603710593
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T0603710593
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603710593
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T0603710593
Action Type:	RESPONSE
Date:	02/25/1991
Action:	Final Remedial Action Report / Corrective Action Report

R109
ENE
1/4-1/2
0.302 mi.
1593 ft.

ALCAZAR MAINTENANCE YARD
1525 ALCAZAR
BOYLE HEIGHTS, CA 90033

Site 1 of 5 in cluster R

SLIC **S101296868**
N/A

Relative:
Higher

Actual:
342 ft.

SLIC REG 4:

Region:	4
Facility Status:	Inactive
SLIC:	0756
Substance:	VOCs
Staff:	Jenny Au

110
NNW
1/4-1/2
0.302 mi.
1595 ft.

UNOCAL #2579
2600 MAIN ST N
LOS ANGELES, CA 90031

HIST CORTESE **S101297116**
LUST **N/A**

Relative:
Lower

Actual:
321 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900310234

LUST:

Region:	STATE
Global Id:	T0603700804
Latitude:	34.0658581
Longitude:	-118.2154673
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/09/2003
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DMB
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310234
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700804
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700804
Contact Type:	Regional Board Caseworker
Contact Name:	DAVID M. BJOSTAD
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4th Street, Suite 200

UNOCAL #2579 (Continued) **S101297116**

City: Los Angeles
Email: dbjostad@waterboards.ca.gov
Phone Number: Not reported

Regulatory Activities:
Global Id: T0603700804
Action Type: RESPONSE
Date: 03/28/2003
Action: Unknown

Global Id: T0603700804
Action Type: RESPONSE
Date: 01/03/2003
Action: Other Report / Document

Global Id: T0603700804
Action Type: ENFORCEMENT
Date: 01/09/2003
Action: Closure/No Further Action Letter

Global Id: T0603700804
Action Type: ENFORCEMENT
Date: 12/20/2002
Action: * No Action

Global Id: T0603700804
Action Type: ENFORCEMENT
Date: 08/14/1998
Action: * Historical Enforcement

Global Id: T0603700804
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700804
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900310234
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Excavate and Dispose
Global ID: T0603700804
W Global ID: W0605100649
Staff: TCS
Local Agency: 19050

UNOCAL #2579 (Continued) **S101297116**

Cross Street:	DALY ST	
Enforcement Type:	CLOS	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		8/29/1989
Date Leak Record Entered:	9/5/1990	
Date Confirmation Began:	8/29/1989	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/12/2002
Date the Case was Closed:		1/9/2003
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8346.875677004793517506815171
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		9/1/1989
Preliminary Site Assessment Began:		7/13/1990
Pollution Characterization Began:		3/1/1994
Remediation Plan Submitted:		5/1/1996
Remedial Action Underway:		1/16/1998
Post Remedial Action Monitoring Began:		8/1/2000
Enforcement Action Date:		8/14/1998
Historical Max MTBE Date:		10/24/2001
Hist Max MTBE Conc in Groundwater:		380
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	=	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	RICHARD WILLIAMS	
RP Address:	P.O. BOX 7600, BREA, CA 92822-7600	
Program:	LUST	
Lat/Long:	34.0658581 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	6/30/99 2ND QTR GW MON RPT 1999; 8/13/99 3RD QTR GW MON RPT 1999; 12/31/99 4TH QTR GW MON RPT 1999; 9/7/00 3RD QTR GW MON RPT 2000; 12/31/00 4TH QTR GW MON RPT 2000; 3/31/01 1ST QTR GW MON RPT 2001	

R111 **ALCAZAR MAINTENANCE YARD** **HIST CORTESE** **S104564949**
ENE **1525 ALCAZAR ST.** **LUST** **N/A**
1/4-1/2 **BOYLE HEIGHTS, CA 90033** **SLIC**
0.303 mi.
1602 ft. **Site 2 of 5 in cluster R**

Relative:
Higher

Actual:
342 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330070

ALCAZAR MAINTENANCE YARD (Continued) **S104564949**

LUST:

Region:	STATE
Global Id:	T0603700830
Latitude:	34.0637671
Longitude:	-118.2051719
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/26/1998
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330070
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700830
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700830
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Regulatory Activities:

Global Id:	T0603700830
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	02/23/1998
Global Id:	SLT4L7961864
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0413877304965
Longitude:	-118.213487811466
Case Type:	Cleanup Program Site

ALCAZAR MAINTENANCE YARD (Continued) **S104564949**

Case Worker:	JA
Local Agency:	Not reported
RB Case Number:	0756
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

R112 **ALCAZAR MAINTENANCE YARD** **LUST** **S105051301**
ENE **1525 ALCAZAR ST** **N/A**
1/4-1/2 **BOYLE HEIGHTS, CA 90033**
0.303 mi.
1602 ft. **Site 3 of 5 in cluster R**

Relative:
Higher

Actual:
342 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330070	
Status:	Case Closed	
Substance:	Motor Oil	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Remove Free Product
Global ID:	T0603700830	
W Global ID:	Not reported	
Staff:	AT	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		5/4/1989
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		8/14/1997
Date the Case was Closed:		1/26/1998
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		12904.940742915459165526273453
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		6/12/1989
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		4/15/1997
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported

ALCAZAR MAINTENANCE YARD (Continued) **S105051301**

Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: LA COUNTY DEPT OF PUB. WORKS
RP Address: 900 S. FREMONT, ALHAMBRA, CA 91803
Program: LUST
Lat/Long: 34.0637671 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 6/10/92 G.W. MONITORING REPORT RECEIVED; 08/14/97 1ST QTRLY GW MON RPT IT CORP. IS CONDUCTING INVESTIGATION. CONTACT:CLIFFORD POLLOCK (714) 261-6441.

R113 **USC CENTER FOR MOLECULAR MED.** **HIST CORTESE** **S103632720**
ENE **1540 ALCAZAR ST** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90033**
0.318 mi.
1677 ft. **Site 4 of 5 in cluster R**

Relative:
Higher

Actual:
342 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330207

LUST:
Region: STATE
Global Id: T0603700839
Latitude: 34.063459
Longitude: -118.204501
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/29/1996
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900330207
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700839
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200

USC CENTER FOR MOLECULAR MED. (Continued) **S103632720**

City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported
Global Id:	T0603700839
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T0603700839
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

R114 **USC MEDICAL FACILITY** **LUST S101296869**
ENE **1540 ALCAZAR ST** **LOS ANGELES CO. HMS N/A**
1/4-1/2 **LOS ANGELIS, CA**
0.318 mi.
1677 ft. **Site 5 of 5 in cluster R**

Relative:
Higher

Actual:
342 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330207	
Status:	Case Closed	
Substance:	Hydrocarbons	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700839	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	SAN PABLO ST.	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		5/29/1992
Date Leak Record Entered:	5/23/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		6/1/1992
Date the Case was Closed:		7/29/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	OLD#061092-07	
Water System:	Not reported	
Well Name:	Not reported	

USC MEDICAL FACILITY (Continued) **S101296869**

Approx. Dist To Production Well (ft):	12751.378427081978009944539022
Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	5/29/1992
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	UNIVERSITYOF OF SOUTHERN CA
RP Address:	UNIVERSITY PARK CAMPUS, LOS ANGELES CA 90089-0631
Program:	LUST
Lat/Long:	34.0635102 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

LOS ANGELES CO. HMS:

Region:	LA
Facility Id:	010750-010705
Facility Type:	Not reported
Facility Status:	OPEN
Area:	3F
Permit Number:	Not reported
Permit Status:	Not reported

S115 **M.O.R.E. OIL COMPANY** **HIST Cal-Sites** **S102008346**
NW **645 S AVENUE 21** **LA Co. Site Mitigation** **N/A**
1/4-1/2 **LOS ANGELES, CA 90031** **RESPONSE**
0.341 mi. **ENVIROSTOR**
1803 ft. **Site 1 of 2 in cluster S**

Relative:
Lower

Actual:
320 ft.

Calsite:

Facility ID:	19130103
Region:	3
Region Name:	GLENDALE
Branch:	SA
Branch Name:	SO CAL - GLENDALE
File Name:	Not reported
State Senate District:	05291985
Status:	CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name:	CERTIFIED
Lead Agency:	Not reported
Lead Agency:	N/A
Facility Type:	RP

M.O.R.E. OIL COMPANY (Continued) **S102008346**

Type Name:	RESPONSIBLE PARTY
NPL:	Not reported
SIC Code:	13
SIC Name:	OIL & GAS EXTRACTION
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Not reported
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	45
State Senate District Code:	22
Facility ID:	19130103
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05291985
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	645 SOUTH AVE. 21
Alternate City,St,Zip:	LOS ANGELES, CA 90031
Background Info:	M.O.R.E Oil "Mikhele Finkel" abandoned 500 drums of hazardous waste at 645 South Ave. 21. This caused spillage of acid and waste oil onto asphalt material.
Comments Date:	05291985
Comments:	545 drums of hazardous waste solids, 28 crushed drums, 3,150
Comments Date:	05291985
Comments:	gallons of waste oil were removed. The property was steam
Comments Date:	05291985
Comments:	cleaned and tested by Crosby and Overton.
ID Name:	Not reported
ID Value:	Not reported
Alternate Name:	M.O.R.E. OIL COMPANY

M.O.R.E. OIL COMPANY (Continued) **S102008346**

Special Programs Code: Not reported
Special Programs Name: Not reported

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010942
Jurisdiction: County
Case ID: RO0000982
Abated: Yes
Assigned To: PK
Entered Date: 05/11/2004

RESPONSE:
Facility ID: 19130103
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 0.01
National Priorities List: NO
Cleanup Oversight Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Lead Agency Description: Not reported
Project Manager: Not reported
Supervisor: * Sayareh Amirebrahimi
Division Branch: Cleanup Chatsworth
Site Code: Not reported
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 51
Senate: 24
Special Program Status: Not reported
Status: Certified
Status Date: 05/29/1985
Restricted Use: NO
Funding: Responsible Party
Latitude: 34.06522
Longitude: -118.2169
APN: 7462029008
Past Use: ILLEGAL DUMPING
Potential COC: 3002502, 304091
Confirmed COC: 304091,3002502
Potential Description: SOIL
Alias Name: 7462029008
Alias Type: APN
Alias Name: 110002671261
Alias Type: EPA (FRS #)
Alias Name: 19130103
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 05/29/1985
Comments: 545 drums of hazardous waste solids, 28 crushed drums, 3,150 gallons of waste oil were removed. The property was steam cleaned and tested by Crosby and Overton.

Future Area Name: Not reported

M.O.R.E. OIL COMPANY (Continued) **S102008346**

Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 0.01
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Sayareh Amirebrahimi
Division Branch: Cleanup Chatsworth
Facility ID: 19130103
Site Code: Not reported
Assembly: 51
Senate: 24
Special Program: Not reported
Status: Certified
Status Date: 05/29/1985
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.06522
Longitude: -118.2169
APN: 7462029008
Past Use: ILLEGAL DUMPING
Potential COC: 3002502, 304091
Confirmed COC: 304091,3002502
Potential Description: SOIL
Alias Name: 7462029008
Alias Type: APN
Alias Name: 110002671261
Alias Type: EPA (FRS #)
Alias Name: 19130103
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 05/29/1985
Comments: 545 drums of hazardous waste solids, 28 crushed drums, 3,150 gallons of waste oil were removed. The property was steam cleaned and tested by Crosby and Overton.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported

M.O.R.E. OIL COMPANY (Continued) **S102008346**

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

116
NW
1/4-1/2
0.356 mi.
1879 ft.

TUNEUP MASTERS INC.
2131 N MAIN ST
LOS ANGELES, CA 90031

LUST **1000224615**
CA FID UST **N/A**
SWEEPS UST

Relative:
Lower

Actual:
321 ft.

LUST:

Region:	STATE
Global Id:	T0603700803
Latitude:	34.0660111
Longitude:	-118.2166063
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/08/1997
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AS
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310225
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700803
Contact Type:	Regional Board Caseworker
Contact Name:	ADNAN SIDDIQUI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	LOS ANGELES
Email:	asiddiqui@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700803
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T0603700803
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

TUNEUP MASTERS INC. (Continued) **1000224615**

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900310225	
Status:	Case Closed	
Substance:	Hydrocarbons	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700803	
W Global ID:	W0605100649	
Staff:	AS	
Local Agency:	19050	
Cross Street:	DALY ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		7/7/1992
Date Leak Record Entered:	7/9/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		10/28/1997
Date the Case was Closed:		8/8/1997
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	OLD CASE #072092-03	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8026.7561272049305895194824 52
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		7/7/1992
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		620
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	TUNEUP MASTERS	
RP Address:	P.O. BOX 6068, CAMARILLO, CA 93011	
Program:	LUST	
Lat/Long:	34.0660111 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	

TUNEUP MASTERS INC. (Continued) **1000224615**

Assigned Name: 2600649-001GEN
Summary: MR. LES HALL (714) 566-2550 EXECUTOR
FOR BRADFORD ADAMS ESTATE 31322 BROOKS ST.,
LAGUNA BEACH, CA 92677 10/28/97 GW WELL ABANDONMENT

CA FID UST:
Facility ID: 19003681
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8053751100
Mail To: Not reported
Mailing Address: 2131 N MAIN ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900310000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 7560
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

117
SE
1/4-1/2
0.363 mi.
1914 ft.

CENTRAL REGION HIGH SCHOOL #15 **SCH S107770251**
MARENGO STREET / CHICAGO STREET **ENVIROSTOR N/A**
LOS ANGELES, CA 90033

Relative:
Higher

Actual:
342 ft.

SCH:

Facility ID: 60000303
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10.67
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP

CENTRAL REGION HIGH SCHOOL #15 (Continued) **S107770251**

Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Amit Pathak
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304530
Assembly:	51
Senate:	24
Special Program Status:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	02/26/2008
Restricted Use:	NO
Funding:	School District
Latitude:	34.05607
Longitude:	-118.2058
APN:	NONE SPECIFIED
Past Use:	DRY CLEANING, MACHINE SHOP
Potential COC:	30004, 30013, 30018, 3002502
Confirmed COC:	30018-NO,30004-NO,30013-NO,3002502-NO
Potential Description:	SOIL
Alias Name:	Los Angeles Unified School District
Alias Type:	Alternate Name
Alias Name:	304530
Alias Type:	Project Code (Site Code)
Alias Name:	60000303
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/26/2008
Comments:	DTSC prepared a Cost Recovery Unit project close out memorandum. LAUSD decided not to proceed with this Site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	07/21/2006
Comments:	Accepted the scoping document for field work activities.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	04/23/2007
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Workplan
Completed Date:	06/29/2007
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported

CENTRAL REGION HIGH SCHOOL #15 (Continued) **S107770251**

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 10.67
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Amit Pathak
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 60000303
Site Code: 304530
Assembly: 51
Senate: 24
Special Program: Not reported
Status: Inactive - Needs Evaluation
Status Date: 02/26/2008
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.05607
Longitude: -118.2058
APN: NONE SPECIFIED
Past Use: DRY CLEANING, MACHINE SHOP
Potential COC: 30004, 30013, 30018, 3002502
Confirmed COC: 30018-NO,30004-NO,30013-NO,3002502-NO
Potential Description: SOIL
Alias Name: Los Angeles Unified School District
Alias Type: Alternate Name
Alias Name: 304530
Alias Type: Project Code (Site Code)
Alias Name: 60000303
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/26/2008
Comments: DTSC prepared a Cost Recovery Unit project close out memorandum. LAUSD decided not to proceed with this Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 07/21/2006
Comments: Accepted the scoping document for field work activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/23/2007

CENTRAL REGION HIGH SCHOOL #15 (Continued) **S107770251**

Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Workplan
Completed Date:	06/29/2007
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

T118 **ESTELLE DOHENY EYE HOSPITAL** **LUST** **S105051373**
East **1537 NORFOLK ST** **N/A**
1/4-1/2 **BOYLE HEIGHTS, CA 90033**
0.373 mi.
1971 ft. **Site 1 of 2 in cluster T**

Relative:
Higher

Actual:
376 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330098	
Status:	Case Closed	
Substance:	Hydrocarbons	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700832	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	SAN PABLO ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		5/6/1992
Date Leak Record Entered:	5/7/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		9/27/1992
Date the Case was Closed:		7/19/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		11899.069023478985580072393205
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported

ESTELLE DOHENY EYE HOSPITAL (Continued) **S105051373**

Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	5/6/1992
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	ESTELLE DOHENY EYE HOSPITAL
RP Address:	1537 NORFOLK ST, LOS ANGELES, CA 90033-1059
Program:	LUST
Lat/Long:	34.0613962 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

T119 **ESTELLE DOHENY EYE HOSPITAL** **HIST CORTESE** **S101583361**
East **1537 NORFOLK ST** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90033** **CA FID UST**
0.373 mi.
1971 ft. **Site 2 of 2 in cluster T**

Relative:
Higher

Actual:
376 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330098

LUST:

Region:	STATE
Global Id:	T0603700832
Latitude:	34.0613962
Longitude:	-118.2034668
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/19/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330098
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

ESTELLE DOHENY EYE HOSPITAL (Continued) **S101583361**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700832
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700832
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T0603700832
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

CA FID UST:

Facility ID:	19003530
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2133426513
Mail To:	Not reported
Mailing Address:	1537 NORFOLK ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

120
ESE
1/4-1/2
0.378 mi.
1997 ft.

FRANCISCO BRAVO MEDICAL MAGNET
1200 NORTH CORNWELL STREET
LOS ANGELES, CA 90033

SCH
HIST CORTESE
LUST
LA Co. Site Mitigation
ENVIROSTOR

S102432645
N/A

Relative:
Higher

Actual:
374 ft.

SCH:

Facility ID:	19000013
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	0
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	300794
Assembly:	53
Senate:	30
Special Program Status:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	11/22/2005
Restricted Use:	NO
Funding:	School District
Latitude:	34.05227
Longitude:	-118.2527
APN:	NONE SPECIFIED
Past Use:	* UNKNOWN
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	FRANCISCO BRAVO MEDICAL MAGNET
Alias Type:	Alternate Name
Alias Name:	FRANCISCO BRAVO MEDICAL MAGNET
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	300794
Alias Type:	Project Code (Site Code)
Alias Name:	19000013
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported

FRANCISCO BRAVO MEDICAL MAGNET (Continued) **S102432645**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330061

LUST:
Region: STATE
Global Id: T0603700829
Latitude: 34.0573104
Longitude: -118.2038188
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/27/1995
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900330061
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700829
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700829
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Regulatory Activities:
Global Id: T0603700829
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700829
Action Type: Other

FRANCISCO BRAVO MEDICAL MAGNET (Continued) **S102432645**

Date: 01/01/1950
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330061	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		GTVS
Global ID:	T0603700829	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	CHARLOTTE	
Enforcement Type:	Not reported	
Date Leak Discovered:	3/15/1988	
Date Leak First Reported:		4/8/1988
Date Leak Record Entered:	4/21/1988	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/27/1995
Date the Case was Closed:		7/27/1995
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Tank	
Operator:	LAUSD	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		10707.381993030499705321111278
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		4/8/1988
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	LOS ANGELES UNIFIED SCHOOL DIS	
RP Address:	1425 S. SAN PEDRO STREET, LOS ANGELES, CA 90051	
Program:	LUST	
Lat/Long:	34.0573104 / -1	
Local Agency Staff:	PEJ	

FRANCISCO BRAVO MEDICAL MAGNET (Continued) **S102432645**

Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: TANKS WERE REMOVED IN EARLY '80S.

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010188
Jurisdiction: State
Case ID: RO0000961
Abated: No
Assigned To: Not reported
Entered Date: 05/11/2004

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19000013
Site Code: 300794
Assembly: 53
Senate: 30
Special Program: Not reported
Status: Inactive - Needs Evaluation
Status Date: 11/22/2005
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.05227
Longitude: -118.2527
APN: NONE SPECIFIED
Past Use: * UNKNOWN
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: FRANCISCO BRAVO MEDICAL MAGNET
Alias Type: Alternate Name
Alias Name: FRANCISCO BRAVO MEDICAL MAGNET
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 300794
Alias Type: Project Code (Site Code)
Alias Name: 19000013
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

FRANCISCO BRAVO MEDICAL MAGNET (Continued) **S102432645**

Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

S121 **BREWERY PCBS** **CERCLIS** **1015730689**
NW **2020 N. MAIN STREET** **CAN000909480**
1/4-1/2 **LOS ANGELES, CA 90031**
0.390 mi.
2061 ft. **Site 2 of 2 in cluster S**

Relative:
Lower

Actual:
320 ft.

CERCLIS:
Site ID: 0909480
EPA ID: CAN000909480
Facility County: LOS ANGELES
Short Name: BREWERY PCBS
Congressional District: Not reported
IFMS ID: A925
SMSA Number: Not reported
USGC Hydro Unit: Not reported
Federal Facility: Not a Federal Facility
DMNSN Number: 0.00000
Site Orphan Flag: Not reported
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: R
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 09
Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Removal Only Site (No Site Assessment Work Needed)
Non NPL Status Date: 08/20/12
Site Fips Code: 06037
CC Concurrence Date: / /
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 9270721.00000
Contact Name: Robert Wise
Contact Tel: (562) 499-6312

BREWERY PCBS (Continued) **1015730689**

Contact Title: On-Scene Coordinator (OSC)
Contact Email: Not reported

Alias Comments: Not reported
Site Description: Not reported

CERCLIS Assessment History:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 08/31/12
Date Completed: 10/04/12
Priority Level: Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

U122 **CELOTEX CORP** **LA Co. Site Mitigation** **S101480685**
ENE **1633 SAN PABLO** **ENVIROSTOR** **N/A**
1/4-1/2 **LOS ANGELES, CA 90033**
0.416 mi.
2199 ft. **Site 1 of 4 in cluster U**

Relative:
Higher

Actual:
341 ft.

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010945
Jurisdiction: County
Case ID: RO0000739
Abated: Yes
Assigned To: Richard Clark
Entered Date: 05/11/2004

ENVIROSTOR:
Site Type: Historical
Site Type Detailed: * Historical
Acres: 1
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Cleanup Chatsworth
Facility ID: 19290035
Site Code: Not reported
Assembly: 51
Senate: 24
Special Program: * RCRA 3012 - Past Haz Waste Disp Inven Site
Status: No Further Action
Status Date: 04/12/1995
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.06466
Longitude: -118.2030
APN: 5201004003

CELOTEX CORP (Continued) **S101480685**

Past Use: MANUFACTURING - OTHER
Potential COC: 30002
Confirmed COC: 30002-NO
Potential Description: SOIL, SV, IA
Alias Name: C F CONSOLIDATE TRUCKING
Alias Type: Alternate Name
Alias Name: 5201004003
Alias Type: APN
Alias Name: CAD076199793
Alias Type: EPA Identification Number
Alias Name: 19290035
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/12/1995
Comments: NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 08/30/1994
Comments: 1984. Asbestos were removed. Some chemicals were dumped in this vacan lot. Property sold to C.F. Consolidate Trucking in 1985. Company personnel stated that all identified problems had been fixed. No other problems observed during site visit. The Department staff conducted a site visit. The site is a fenced vacant lot, backfilled with new soil on tops, located at the SW corner of San Pablo and Valley. Active rail tracks lie along the north end. A city park is across the Valley. Approximately 20 55 gallon drums scattered in this 1/2 acre lot. Celotex bought the 1633 lot in 1943, run a paper mill at 1633 lot and a roofing manufacturing operation at 1632 lot since then. The 1633 lot was shut down in 1983 and sold to an investment group. Waste Discharge Requirements were issued by the RWQCB in 1970s. EPA ID issued (still valid for 1632 lot). Buildings at 1633 lot were torn down in

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 01/17/1984
Comments: Preliminary Assessment: Roofing manufacturing. Operations from 1960 to present. Waste Pile - more than 7.8 cubic feet in size. Scrap asbestos returned to NJ. RWQCB monitors cleaned-up oil spills. Recommend inspection with sampling for asbestos, fibers. Drainage ditch on Lambie Street and storm drain on San Pablo. September 16, 1980 Fire (Letter in RWQCB): Waste Discharge Requirement issued in 1974 & 1977. Preliminary Assessment submitted to EPA (RCRA 3012).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 12/23/1981
Comments: Facility identified: LA Chamber of Commerce Dir 1956. 1980 OSHA Air Sampling: Company in compliance.

CELOTEX CORP (Continued) **S101480685**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

U123 **CONSOLIDATED FREIGHTWAYS CORP DEL** **CERC-NFRAP 1000343009**
ENE **1633 N SAN PABLO ST** **RCRA-SQG CAD076199793**
1/4-1/2 **LOS ANGELES, CA 90033** **FINDS**
0.416 mi.
2199 ft. **Site 2 of 4 in cluster U**

Relative:
Higher

Actual:
341 ft.

CERC-NFRAP:

Site ID:	0901584
Federal Facility:	Not a Federal Facility
NPL Status:	Not on the NPL
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID:	13053419.00000
Person ID:	9271184.00000
Contact Sequence ID:	13290612.00000
Person ID:	13003854.00000
Contact Sequence ID:	13296207.00000
Person ID:	13003858.00000
Contact Sequence ID:	13302065.00000
Person ID:	13004003.00000

CERCLIS-NFRAP Assessment History:

Action:	PRELIMINARY ASSESSMENT
Date Started:	/ /
Date Completed:	02/22/89
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information
Action:	ARCHIVE SITE
Date Started:	/ /
Date Completed:	02/22/89
Priority Level:	Not reported
Action:	DISCOVERY
Date Started:	/ /
Date Completed:	06/01/81
Priority Level:	Not reported
Action:	PRELIMINARY ASSESSMENT
Date Started:	03/01/84
Date Completed:	08/01/85
Priority Level:	Low priority for further assessment

CONSOLIDATED FREIGHTWAYS CORP DEL (Continued) **1000343009**

RCRA-SQG:
Date form received by agency: 04/16/1990
Facility name: CONSOLIDATED FREIGHTWAYS CORP DEL
Facility address: 1633 N SAN PABLO ST
LOS ANGELES, CA 90033
EPA ID: CAD076199793
Mailing address: 175 LINFIELD DR
MENLO PARK, CA 94023
Contact: ENVIRONMENTAL MANAGER
Contact address: 1633 N SAN PABLO ST
LOS ANGELES, CA 90033
Contact country: US
Contact telephone: (415) 326-1700
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CF PROPERTIES INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No

CONSOLIDATED FREIGHTWAYS CORP DEL (Continued) **1000343009**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002828423

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

U124 **CONSOLIDATED FREIGHTWAYS** **SLIC** **S105721849**
ENE **1637 SAN PABLO ST** **LA Co. Site Mitigation** **N/A**
1/4-1/2 **LOS ANGELES, CA**
0.420 mi.
2216 ft. **Site 3 of 4 in cluster U**

Relative:
Higher

Actual:
342 ft.

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 06/09/2006
Global Id: SL204EW2420
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number: Not reported
Latitude: 34.064022
Longitude: -118.201724
Case Type: Cleanup Program Site
Case Worker: AHS
Local Agency: Not reported
RB Case Number: 0795
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:
Region: 4
Facility Status: Site Assessment
SLIC: 0795
Substance: TPH/metals
Staff: DBR

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010312
Jurisdiction: County
Case ID: RO0000384

CONSOLIDATED FREIGHTWAYS (Continued) **S105721849**

Abated: Yes
Assigned To: Shahin Nourishad
Entered Date: 05/11/2004

U125 **CELOTEX CORP** **HIST CORTESE** **S102426473**
ENE **1632 SAN PABLO ST N** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90031**
0.428 mi.
2260 ft. **Site 4 of 4 in cluster U**

Relative:
Higher

Actual:
342 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900310170

LUST:
Region: STATE
Global Id: T0603700798
Latitude: 34.0644341
Longitude: -118.2023798
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/13/1997
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900310170
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700798
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Global Id: T0603700798
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Regulatory Activities:
Global Id: T0603700798

CELOTEX CORP (Continued) **S102426473**

Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700798
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603700798
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900310170
Status: Case Closed
Substance: Diesel
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603700798
W Global ID: W0605100649
Staff: UNK
Local Agency: 19050
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: 4/23/1996
Date Leak First Reported: 4/23/1996
Date Leak Record Entered: 8/23/1996
Date Confirmation Began: Not reported
Date Leak Stopped: 4/23/1996
Date Case Last Changed on Database: 3/27/1997
Date the Case was Closed: 5/13/1997
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: Not reported
Water System: DAVE GRIFFITH L A D W P
Well Name: Not reported
Approx. Dist To Production Well (ft): 12151.303025859332873643512125
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: 6/14/1996
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported

CELOTEX CORP (Continued) **S102426473**

Hist Max MTBE Conc in Soil: 2
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: JIM WALTER CORP.
RP Address: 4010 BOY SCOUT BLVD., TAMPA FL 33607
Program: LUST
Lat/Long: 34.0644341 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: 2600649-001GEN
Summary: 03/27/97 - RESPONSE TO ADDITIONAL INFO REQUEST

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126 **LAC MTA, DIVISION 10** **LUST** **S103587543**
WSW **742 MISSION RD N** **N/A**
1/4-1/2 **LOS ANGELES, CA 90033**
0.466 mi.
2462 ft.

Relative:
Lower

Actual:
321 ft.

LUST:
Region: STATE
Global Id: T0603700840
Latitude: 34.0573905
Longitude: -118.2183503
Case Type: LUST Cleanup Site
Status: Open - Remediation
Status Date: 12/10/2010
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: AT
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900330216
LOC Case Number: Not reported
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700840
Contact Type: Regional Board Caseworker
Contact Name: ARMAN TOUMARI
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: atoumari@waterboards.ca.gov
Phone Number: 2135766708

Global Id: T0603700840
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF

LAC MTA, DIVISION 10 (Continued) **S103587543**

Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Regulatory Activities:

Global Id: T0603700840
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700840
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700840

LAC MTA, DIVISION 10 (Continued) **S103587543**

Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: ENFORCEMENT
Date: 04/08/2003
Action: * No Action

Global Id: T0603700840
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/09/2006
Action: Well Installation Report

Global Id: T0603700840
Action Type: ENFORCEMENT
Date: 10/07/2008
Action: Staff Letter

Global Id: T0603700840
Action Type: ENFORCEMENT
Date: 05/06/2013
Action: Notification - Preclosure

Global Id: T0603700840
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603700840
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700840
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2009

LAC MTA, DIVISION 10 (Continued) **S103587543**

Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 06/28/2005
Action: Request for Closure

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 03/05/2013
Action: Correspondence

Global Id: T0603700840
Action Type: ENFORCEMENT
Date: 06/01/2003
Action: Staff Letter

Global Id: T0603700840
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

LAC MTA, DIVISION 10 (Continued) **S103587543**

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700840
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700840
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 03/05/2013
Action: Request for Closure - Regulator Responded

Global Id: T0603700840
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700840
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

LAC MTA, DIVISION 10 (Continued) **S103587543**

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330216	
Status:	Pollution Characterization	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Excavate and Dispose
Global ID:	T0603700840	
W Global ID:	W0605100649	
Staff:	AT	
Local Agency:	19050	
Cross Street:	MACY	
Enforcement Type:	LET	
Date Leak Discovered:	5/9/1988	
Date Leak First Reported:		5/9/1988
Date Leak Record Entered:	1/24/1990	
Date Confirmation Began:	8/11/1988	
Date Leak Stopped:	5/9/1988	
Date Case Last Changed on Database:		10/15/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Nuisance Conditions	
How Leak Stopped:	Not reported	
Cause of Leak:	Spill	
Leak Source:	Piping	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7331.55877155246692070199 19922
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		12/20/1996
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		12/20/2001
Hist Max MTBE Conc in Groundwater:		7000
Hist Max MTBE Conc in Soil:		120
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	=	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	KATHLEEN LETCHER	
RP Address:	ONE GATEWAY PLAZA	
Program:	LUST	
Lat/Long:	34.0573905 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	

LAC MTA, DIVISION 10 (Continued) **S103587543**

Assigned Name: 2600649-001GEN
Summary: 6/15/98 - OK TO DELAY UNTIL UST REPLACEMENT; 02/18/99 - LM JIM. CURRENT STATUS?; 1/22/01 SOIL AND GW INVESTIGATION; 4/17/01 1ST QTR GW MON RPT 2001

127
ENE
1/4-1/2
0.483 mi.
2549 ft.

CELOTEX FACILITY (FORMER) **SLIC** **S105911530**
1630 SAN PABLO ST **N/A**
LOS ANGELES, CA 90033

Relative: Higher

Actual: 345 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	05/08/2006
Global Id:	SLT43702700
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.064022
Longitude:	-118.201724
Case Type:	Cleanup Program Site
Case Worker:	AHS
Local Agency:	Not reported
RB Case Number:	1070
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	Post Remediation Monitoring
SLIC:	1070
Substance:	TPH
Staff:	AH

128
SSW
1/2-1
0.508 mi.
2682 ft.

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 1 **SCH** **S105754241**
700 STATE STREET **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90007

Relative: Higher

Actual: 349 ft.

SCH:

Facility ID:	19840001
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	7.1
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Shahir Haddad

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 1 (Continued) **S105754241**

Supervisor:	Thomas Cota
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304002
Assembly:	59
Senate:	30
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	05/19/2000
Restricted Use:	NO
Funding:	School District
Latitude:	34.01683
Longitude:	-118.2862
APN:	5037028905
Past Use:	* MUSEUMS, BOTANICAL, ZOOLOGICAL GARDENS
Potential COC:	40002, 30003, 30013, 30024, 30025, 3002502
Confirmed COC:	30024-NO,30025-NO,40002-NO,30003-NO,30013-NO,3002502-NO
Potential Description:	SOIL
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS ELEMENTARY
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS ELEMENTARY SCHOOL #1
Alias Type:	Alternate Name
Alias Name:	MANUAL ARTS NEW ELEMENTARY SCHOOL #1
Alias Type:	Alternate Name
Alias Name:	5037028905
Alias Type:	APN
Alias Name:	304002
Alias Type:	Project Code (Site Code)
Alias Name:	19840001
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/19/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Site Type:	School Investigation

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 1 (Continued) **S105754241**

Site Type Detailed: School
Acres: 7.1
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Shahir Haddad
Supervisor: Thomas Cota
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19840001
Site Code: 304002
Assembly: 59
Senate: 30
Special Program: Not reported
Status: No Further Action
Status Date: 05/19/2000
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.01683
Longitude: -118.2862
APN: 5037028905
Past Use: * MUSEUMS, BOTANICAL, ZOOLOGICAL GARDENS
Potential COC: 40002, 30003, 30013, 30024, 30025, 3002502
Confirmed COC: 30024-NO,30025-NO,40002-NO,30003-NO,30013-NO,3002502-NO
Potential Description: SOIL
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: MANUAL ARTS ELEMENTARY
Alias Type: Alternate Name
Alias Name: MANUAL ARTS ELEMENTARY SCHOOL #1
Alias Type: Alternate Name
Alias Name: MANUAL ARTS NEW ELEMENTARY SCHOOL #1
Alias Type: Alternate Name
Alias Name: 5037028905
Alias Type: APN
Alias Name: 304002
Alias Type: Project Code (Site Code)
Alias Name: 19840001
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/19/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported

MANUAL ARTS NEW ELEMENTARY SCHOOL NO. 1 (Continued) **S105754241**

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

129
SE
1/2-1
0.599 mi.
3165 ft.

SOTO STREET **SCH** **S103620300**
1010 SOTO STREET **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90023

Relative:
Higher

Actual:
358 ft.

SCH:

Facility ID: 19000004
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 4.35
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304173
Assembly: 53
Senate: 32
Special Program Status: Not reported
Status: Inactive - Action Required
Status Date: 05/30/2000
Restricted Use: NO
Funding: School District
Latitude: 34.0319
Longitude: -118.2161
APN: NONE SPECIFIED
Past Use: * UNKNOWN, NURSERY
Potential COC: 30001, 30004, 30006, 30007, 30008
Confirmed COC: 30001-NO,30004-NO,30006-NO,30007-NO,30008-NO
Potential Description: SOIL
Alias Name: LA USD-SOTO ST.SCHOOL/CDE
Alias Type: Alternate Name
Alias Name: SOTO STREET SCHOOL (PROPOSED)
Alias Type: Alternate Name
Alias Name: 304173
Alias Type: Project Code (Site Code)
Alias Name: 19000004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/30/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

SOTO STREET (Continued) **S103620300**

Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 4.35
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19000004
Site Code: 304173
Assembly: 53
Senate: 32
Special Program: Not reported
Status: Inactive - Action Required
Status Date: 05/30/2000
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.0319
Longitude: -118.2161
APN: NONE SPECIFIED
Past Use: * UNKNOWN, NURSERY
Potential COC: 30001, 30004, 30006, 30007, 30008
Confirmed COC: 30001-NO,30004-NO,30006-NO,30007-NO,30008-NO
Potential Description: SOIL
Alias Name: LA USD-SOTO ST.SCHOOL/CDE
Alias Type: Alternate Name
Alias Name: SOTO STREET SCHOOL (PROPOSED)
Alias Type: Alternate Name
Alias Name: 304173
Alias Type: Project Code (Site Code)
Alias Name: 19000004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/30/2000
Comments: Not reported

SOTO STREET (Continued) **S103620300**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

130
WNW
1/2-1
0.613 mi.
3238 ft.

Relative:
Lower

Actual:
293 ft.

EMPIRE CHEMICAL CO., INC.
715 LAMAR ST
LOS ANGELES, CA 90031

HIST CORTESE **U001561274**
LUST **N/A**
HIST UST
LA Co. Site Mitigation
EMI
ENVIROSTOR

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900310116

LUST:

Region:	STATE
Global Id:	T0603700792
Latitude:	34.0644783
Longitude:	-118.2235455
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	05/08/1997
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310116
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Kerosene
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700792
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

EMPIRE CHEMICAL CO., INC. (Continued) **U001561274**

Global Id: T0603700792
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Regulatory Activities:
Global Id: T0603700792
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700792
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

HIST UST:
Region: STATE
Facility ID: 00000004954
Facility Type: Other
Other Type: MATERIAL STORAGE TAN
Total Tanks: 0001
Contact Name: WILFRED MALET
Telephone: 2132254186
Owner Name: EMPIRE CHEMICAL CO., INC.
Owner Address: 715 LAMAR ST.
Owner City,St,Zip: LOS ANGELES, CA 90031

Tank Num: 001
Container Num: 1
Year Installed: 1960
Tank Capacity: 00007500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010938
Jurisdiction: County
Case ID: RO0000820
Abated: Yes
Assigned To: Don Thompson
Entered Date: 05/11/2004

EMI:
Year: 1987
County Code: 19
Air Basin: SC

EMPIRE CHEMICAL CO., INC. (Continued) **U001561274**

Facility ID:	7670
Air District Name:	SC
SIC Code:	2834
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	7670
Air District Name:	SC
SIC Code:	2899
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

ENVIROSTOR:

Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* Mmonroy
Division Branch:	Cleanup Chatsworth
Facility ID:	19281206
Site Code:	Not reported
Assembly:	51
Senate:	24
Special Program:	Not reported
Status:	Refer: Other Agency
Status Date:	04/15/1994
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.06432
Longitude:	-118.2238
APN:	5410013002
Past Use:	NONE SPECIFIED
Potential COC:	10002, 10003, 10009, 10063, 10064, 10077, 10097, 10098, 10196, 10198, 10199, 20020

EMPIRE CHEMICAL CO., INC. (Continued) **U001561274**

Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: EMPIRE ASSOCIATES
Alias Type: Alternate Name
Alias Name: EMPIRE CHEMICAL COMPANY
Alias Type: Alternate Name
Alias Name: 5410013002
Alias Type: APN
Alias Name: 19281206
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/15/1994
Comments: The Department received a Notice of Intent to Commence Action Under RCRA and CERCLA dated June 22, 1993. On July 30, 1993, the Department mailed the Information Request to all PRPs. The information received from the PRPs indicates that in 1945 the Empire Chemical Co. moved to the subject location. The current owner is Jerry Elkind. The company was involved in the sale of janitorial products and insecticides. It did some packing in the permises as part of their operation. One 5000-gallon UST was installed in 1947-1950 to store kerosene. Soil around the area of of the UST is contaminated with TPH and the groundwater is also suspected to be contaminated. The Department's contact with the Los Angeles City Fire Department, UG Tank Plan Check indicates that they are the lead agency. Therefore, the Department's involvement is unnecessary.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

131
NE
1/2-1
0.726 mi.
3831 ft.

ROOSEVELT HIGH SCHOOL ADDITION (SATELLITE SLC) **SCH** **S108212652**
3921 SELIG PLACE **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90031

Relative: Higher

Actual: 360 ft.

SCH:

Facility ID: 60001144
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 6.2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Ivy Osornio

ROOSEVELT HIGH SCHOOL ADDITION (SATELLITE SLC) (Continued) **S108212652**

Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304468
Assembly:	51
Senate:	24
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	09/08/2009
Restricted Use:	NO
Funding:	School District
Latitude:	34.0663
Longitude:	-118.2009
APN:	5211-020-901, 5211-020-902, 5211-020-903, 5211-020-904, 5211-020-905, 5211-021-901
Past Use:	RECREATION SERVICES, SCHOOL - HIGH SCHOOL
Potential COC:	31001
Confirmed COC:	NONE SPECIFIED
Potential Description:	UE
Alias Name:	5211-020-901
Alias Type:	APN
Alias Name:	5211-020-902
Alias Type:	APN
Alias Name:	5211-020-903
Alias Type:	APN
Alias Name:	5211-020-904
Alias Type:	APN
Alias Name:	5211-020-905
Alias Type:	APN
Alias Name:	5211-021-901
Alias Type:	APN
Alias Name:	304468
Alias Type:	Project Code (Site Code)
Alias Name:	60001144
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Tech Memo
Completed Date:	07/31/2009
Comments:	DTSC comments were discussed during the site walk
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	09/08/2009
Comments:	DTSC approved the PEA with a No Further Action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	09/08/2009
Comments:	DTSC prepared a project Cost Recovery Unit close out memorandum
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	08/18/2009

ROOSEVELT HIGH SCHOOL ADDITION (SATELLITE SLC) (Continued) **S108212652**

Comments: Rec'd signed agreement from district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/29/2009
Comments: A Phase I was submitted for background information

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 6.2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Ivy Osornio
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 60001144
Site Code: 304468
Assembly: 51
Senate: 24
Special Program: Not reported
Status: No Further Action
Status Date: 09/08/2009
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.0663
Longitude: -118.2009
APN: 5211-020-901, 5211-020-902, 5211-020-903, 5211-020-904, 5211-020-905, 5211-021-901
Past Use: RECREATION SERVICES, SCHOOL - HIGH SCHOOL
Potential COC: 31001
Confirmed COC: NONE SPECIFIED
Potential Description: UE
Alias Name: 5211-020-901
Alias Type: APN
Alias Name: 5211-020-902
Alias Type: APN
Alias Name: 5211-020-903
Alias Type: APN
Alias Name: 5211-020-904
Alias Type: APN
Alias Name: 5211-020-905
Alias Type: APN
Alias Name: 5211-021-901

ROOSEVELT HIGH SCHOOL ADDITION (SATELLITE SLC) (Continued) **S108212652**

Alias Type: APN
Alias Name: 304468
Alias Type: Project Code (Site Code)
Alias Name: 60001144
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Tech Memo
Completed Date: 07/31/2009
Comments: DTSC comments were discussed during the site walk

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/08/2009
Comments: DTSC approved the PEA with a No Further Action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/08/2009
Comments: DTSC prepared a project Cost Recovery Unit close out memorandum

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/18/2009
Comments: Rec'd signed agreement from district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/29/2009
Comments: A Phase I was submitted for background information

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

132
East
1/2-1
0.860 mi.
4539 ft.

WONG PROPERTY
2716 MEDFORD ST.
LOS ANGELES, CA 90063

SLIC **S106387225**
LA Co. Site Mitigation **N/A**
ENF
ENVIROSTOR

Relative:
Higher

Actual:
360 ft.

SLIC:
Region: STATE
Facility Status: **Open - Verification Monitoring**
Status Date: 05/30/2003
Global Id: SL0603765480

WONG PROPERTY (Continued) **S106387225**

Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.061742
Longitude:	-118.193537
Case Type:	Cleanup Program Site
Case Worker:	ABL
Local Agency:	Not reported
RB Case Number:	1122
File Location:	Regional Board
Potential Media Affected:	Indoor Air, Aquifer used for drinking water supply, Soil, Soil Vapor
Potential Contaminants of Concern:	Other Chlorinated Hydrocarbons, Tetrachloroethylene (PCE), Trichloroethylene (TCE), Gasoline
Site History:	The Site is currently vacant, which consists of a single-story 15,000 square foot warehouse/light industrial building, a 1,000 square foot metal-sided building, and a paved parking lot on a 30,000 square foot parcel of land. The property was occupied from 1995 until 2004 by a clothing manufacturer and an independent auto mechanic. No records are available for hazardous materials used, wastes produced, manufacturing processes, waste handling practices, storage areas, and disposal methods. A permit to install a waste oil underground storage tank (UST) and oil plumbing in the interior of the building was issued in 1952, but no records are available for the UST installation, operation, or removal. No information is available about the former UST or clarifier(s) on-site. Site assessment activities were initiated in 2001, and have been under Regional Board's oversight since June 2003. Findings from the subsurface investigation indicated the presence of chemicals, primarily total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs), in on-site soils and the underlying groundwater. In October 2003, approximately 71 tons of contaminated soils were excavated from two onsite locations. Both soil excavation were excavated to depths of approximately 10 feet below ground surface (bgs). The RWQCB granted a conditional No Further Action (NFA) for soil only on February 19, 2004. Groundwater underlies the Site at approximately 10 feet bgs and has been impacted with VOCs, primarily trichloroethene (TCE), tetrachloroethene (PCE), cis-1,2-dichloroethylene (DCE), trans-1,2-DCE, and TPH-gasoline. No free product or petroleum sheen was found in any of the wells sampled during previous monitoring events. Regional Board directs the property owner to continue conducting groundwater assessment and documenting the efforts in technical reports pursuant to Section 13267 of the California Water Code.

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	Site Assessment
SLIC:	1122
Substance:	PCE, TCE
Staff:	AT

LA Co. Site Mitigation:

Facility ID:	Not reported
Site ID:	SD0010046
Jurisdiction:	County

WONG PROPERTY (Continued) **S106387225**

Case ID: RO0000608
Abated: Yes
Assigned To: Kim Clark
Entered Date: 05/11/2004

ENF:

Region:	4
Facility Id:	642749
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	SLIC
# Of Programs:	1
WDID:	4SLIC1122
Reg Measure Id:	314453
Reg Measure Type:	Unregulated
Region:	4
Order #:	SLIC 1122
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	03/27/2006
Effective Date:	10/15/2004
Expiration/Review Date:	Not reported
Termination Date:	Not reported

WONG PROPERTY (Continued) **S106387225**

WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	314384
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	03/27/2006
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	03/27/2006
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV sent 3/27/06 for 6 overdue groundwater monitoring reports.
Description:	NOV sent 3/27/06 for 6 overdue groundwater monitoring reports.
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

ENVIROSTOR:

Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	LA CNTY FIRE DEPT. (BILLING AND UST), LOS ANGELES COUNTY
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* Greg Holmes
Division Branch:	Cleanup Cypress
Facility ID:	60000145
Site Code:	Not reported
Assembly:	51
Senate:	24
Special Program:	Not reported
Status:	Refer: 1248 Local Agency
Status Date:	07/18/2002
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	34.06169
Longitude:	-118.1934

WONG PROPERTY (Continued) **S106387225**

APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: SL0603765480
Alias Type: GeoTracker Global ID
Alias Name: 60000145
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

V133 **TRUFLEX RUBBER** **CERC-NFRAP** **1000229617**
WNW **1667 N MAIN ST** **RCRA-SQG** **CAD981461403**
1/2-1 **LOS ANGELES, CA 90012** **FINDS**
0.860 mi. **HIST CORTESE**
4542 ft. **Site 1 of 5 in cluster V** **SLIC**
ENVIROSTOR

Relative:
Lower

Actual:
300 ft.

CERC-NFRAP:
Site ID: 0904580
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13053681.00000
Person ID: 9271184.00000

Contact Sequence ID: 13289511.00000
Person ID: 13003854.00000

Contact Sequence ID: 13295106.00000
Person ID: 13003858.00000

Contact Sequence ID: 13300964.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: BISHOP & SPERLING
Alias Address: Not reported
CA

TRUFLEX RUBBER (Continued) **1000229617**

CERCLIS-NFRAP Assessment History:

Action:	PRELIMINARY ASSESSMENT
Date Started:	/ /
Date Completed:	07/07/93
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information
Action:	ARCHIVE SITE
Date Started:	/ /
Date Completed:	07/07/93
Priority Level:	Not reported
Action:	DISCOVERY
Date Started:	/ /
Date Completed:	09/16/92
Priority Level:	Not reported

RCRA-SQG:

Date form received by agency:	03/22/2002
Facility name:	TRUFLEX RUBBER
Facility address:	1667 N MAIN ST LOS ANGELES, CA 90012
EPA ID:	CAD981461403
Mailing address:	TECH INTERNATIONAL 200 E COSHOCTON ST JOHNSTOWN, OH 43031
Contact:	ALBERT DANTZER
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(740) 965-9015
Contact email:	ADANTZER@TECHTIREREPAIR.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	TRUFLEX RUBBER PRODUCTS
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private

TRUFLEX RUBBER (Continued) **1000229617**

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Lamps
Accumulated waste on-site: Unknown
Generated waste on-site: Yes

Historical Generators:
Date form received by agency: 03/22/2002
Facility name: TRUFLEX RUBBER
Classification: Large Quantity Generator

Date form received by agency: 04/14/1986
Facility name: TRUFLEX RUBBER
Site name: TRUFLEX RUBBER CO
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

TRUFLEX RUBBER (Continued) **1000229617**

Waste code: D006
Waste name: CADMIUM

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D018
Waste name: BENZENE

Waste code: D021
Waste name: CHLOROBENZENE

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110002138730

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that

TRUFLEX RUBBER (Continued) **1000229617**

these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	CALSI
Reg Id:	19300234

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	04/24/2002
Global Id:	SL204DC2386
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.067563
Longitude:	-118.225024
Case Type:	Cleanup Program Site
Case Worker:	JA
Local Agency:	Not reported
RB Case Number:	0975
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

ENVIROSTOR:

Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* Sayareh Amirebrahimi
Division Branch:	Cleanup Chatsworth
Facility ID:	19300234
Site Code:	Not reported
Assembly:	51
Senate:	24
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	06/20/1995

TRUFLEX RUBBER (Continued) **1000229617**

Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.06803
Longitude: -118.2266
APN: 5409003018
Past Use: NONE SPECIFIED
Potential COC: 10002, 10003, 10009, 10063, 10097, 10193, 10194, 10195, 20010
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: I T E CIRCUIT BREAKER COMPANY INC.
Alias Type: Alternate Name
Alias Name: TRU-FLEX RUBBER PRODUCTS COMPANY
Alias Type: Alternate Name
Alias Name: 5409003018
Alias Type: APN
Alias Name: CAD9814611903
Alias Type: EPA Identification Number
Alias Name: 19300234
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/30/1993
Comments: The Department received a complaint dated December 29, 1992 relates to alleged unlawful disposal or releases of hazard- ous wastes and hazardous substances, including PCE, TCE, 1,1,1-TCA and toluene at the site and neighboring property. Due to the evidience of on-site contamination, the Dept recommends a PEA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 10/22/1982
Comments: Known as the I T E Circuit Breaker Company, Inc: facility identified from L.A. Chamber of Commerce Directory 1963-1964. Electrical Distribution Equipment. On 05/31/1983, a facility drive-by was conducted. Now Truflex Rubber. Office in front; no waste visible from rear.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

134
East
1/2-1
0.873 mi.
4610 ft.

ACCURATE PLATING CO.
2811 ALCAZAR ST
LOS ANGELES, CA 90033

NPDES **1006932528**
SLIC **N/A**
LA Co. Site Mitigation
ENVIROSTOR
WDS

Relative:
Higher

Actual:
358 ft.

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	4
Regulatory Measure Id:	191083
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19I016105
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/18/2000
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Accurate Plating Co
Discharge Address:	PO Box 33348
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90033

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	04/11/2012
Global Id:	T10000003660
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0603894
Longitude:	-118.193425
Case Type:	Cleanup Program Site
Case Worker:	DY
Local Agency:	Not reported
RB Case Number:	0814A
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LA Co. Site Mitigation:

Facility ID:	Not reported
Site ID:	SD0000378
Jurisdiction:	State
Case ID:	RO0001379
Abated:	No
Assigned To:	Not reported
Entered Date:	10/06/2011

ENVIROSTOR:

Site Type:	Tiered Permit

ACCURATE PLATING CO. (Continued) **1006932528**

Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Facility ID: 71003658
Site Code: Not reported
Assembly: 51
Senate: 24
Special Program: Not reported
Status: Refer: Other Agency
Status Date: Not reported
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.06038
Longitude: -118.1934
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAL000125668
Alias Type: EPA Identification Number
Alias Name: 71003658
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Non-Submittal
Completed Date: 07/05/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CA WDS:
Facility ID: 4 19I016105
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 4
Facility Telephone: 3232688567

ACCURATE PLATING CO. (Continued) **1006932528**

Facility Contact:	Rigo Rodriguez
Agency Name:	ACCURATE PLATING CO.
Agency Address:	Not reported
Agency City,St,Zip:	0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	3471
SIC Code 2:	Not reported
Primary Waste:	Stormwater Runoff
Primary Waste Type:	Inert/Influent or Solid Wastes that do not contain soluble pollutants or organic wastes and have little adverse impact on water quality. Such wastes could cause turbidity and siltation. Uncontaminated soils, rubble and concrete are examples of this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The POTW Does not have an approved pretreatment program. Some POTWs may have local pretreatment programs that have not been approved by the regional board and/or EPA.
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

V135 **SO CAL GAS/ LA MAIN ST MGP** **EDR MGP** **1008407702**
WNW **1630 NORTH MAIN STREET** **N/A**
1/2-1 **LOS ANGELES, CA 90012**
0.876 mi.
4623 ft. **Site 2 of 5 in cluster V**

Relative:
Lower

Actual:
301 ft.

Manufactured Gas Plants:

MGP operated at the site from approximately 1906 to 1919. The MGP operations ceased at the site in 1919 when the Southern California Gas Company acquired the MGP property. In 1922 the Los Angeles City Water and Power acquired the property and dismanttled the gas plant.

V136 **MAIN STREET CENTER** **RCRA-TSDF** **1000102032**
WNW **1630 NORTH MAIN STREET** **CERC-NFRAP** **CAD000633305**
1/2-1 **LOS ANGELES, CA 90012** **CORRACTS**
0.876 mi. **RCRA-LQG**
4623 ft. **Site 3 of 5 in cluster V** **2020 COR ACTION**
US FIN ASSUR

Relative:
Lower

Financial Assurance
HWP

Actual:
301 ft.

RCRA-TSDF:

MAIN STREET CENTER (Continued) **1000102032**

Date form received by agency: 09/28/2012
Facility name: MAIN STREET CENTER
Facility address: 1630 NORTH MAIN STREET
LOS ANGELES, CA 90012
EPA ID: CAD000633305
Mailing address: 111 NORTH HOPE STREET
ROOM 1050
LOS ANGELES, CA 90012
Contact: MARK J SEDLACEK
Contact address: 111 NORTH MAIN STREET ROOM 1050
LOS ANGELES, CA 90012
Contact country: US
Contact telephone: (213) 367-0403
Contact email: MARK.SEDLACEK@LADWP.COM
EPA Region: 09
Land type: Municipal
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: LOS ANGELES DEPT. OF WATER & POWER
Owner/operator address: 111 NORTH HOPE STREET ROOM 1050
LOS ANGELES, CA 90012
Owner/operator country: US
Owner/operator telephone: (213) 367-0403
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1923
Owner/Op end date: Not reported

Owner/operator name: MARK J. SEDLACEK
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1923
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

MAIN STREET CENTER (Continued) **1000102032**

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

Historical Generators:
Date form received by agency: 06/09/2010
Facility name: MAIN STREET CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/28/2008
Facility name: MAIN STREET CENTER
Site name: LADWP MAIN STREET CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/28/2006
Facility name: MAIN STREET CENTER
Site name: LADWP MAIN STREET CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/28/2004
Facility name: MAIN STREET CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/27/2002
Facility name: MAIN STREET CENTER
Site name: MAIN STREET CENTER - LADWP
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: MAIN STREET CENTER
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Facility name: MAIN STREET CENTER
Classification: Large Quantity Generator

MAIN STREET CENTER (Continued) **1000102032**

Date form received by agency: 01/29/1998
Facility name: MAIN STREET CENTER
Site name: LOS ANGELES DEPT OF WATER & POWER
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: MAIN STREET CENTER
Site name: LOS ANGELES DEPT OF WATER & POWER
Classification: Large Quantity Generator

Date form received by agency: 06/04/1996
Facility name: MAIN STREET CENTER
Site name: DEPT OF WATER POWER CITY OF LA
Classification: Large Quantity Generator

Date form received by agency: 03/14/1994
Facility name: MAIN STREET CENTER
Site name: LOS ANGELES DEPARTMENT OF WATER & POWER
Classification: Large Quantity Generator

Date form received by agency: 02/29/1992
Facility name: MAIN STREET CENTER
Site name: GENERAL SERVICES HEADQUARTERS LOS ANGELE
Classification: Large Quantity Generator

Date form received by agency: 04/03/1991
Facility name: MAIN STREET CENTER
Site name: LA DEPT OF WATER & POWER-GENERAL SERVICE
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: MAIN STREET CENTER
Site name: LOS ANGELES DEPT OF WATER & POWER
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: MAIN STREET CENTER
Site name: LOS ANGELES DEPT OF WATER & POWER
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: 122
Waste name: 122

Waste code: 134
Waste name: 134

Waste code: 181
Waste name: 181

Waste code: 212
Waste name: 212

Waste code: 331
Waste name: 331

Waste code: 352

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Waste name: 352

Waste code: 551
Waste name: 551

Waste code: 791
Waste name: 791

Waste code: 792
Waste name: 792

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D005
Waste name: BARIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D010
Waste name: SELENIUM

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

MAIN STREET CENTER (Continued) **1000102032**

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 22436

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS

MAIN STREET CENTER (Continued) **1000102032**

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 7070

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
Amount (Lbs): 2685

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 2685

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 7985

Waste code: D008
Waste name: LEAD
Amount (Lbs): 3565

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 91

Waste code: D010
Waste name: SELENIUM
Amount (Lbs): 2685

Waste code: D011
Waste name: SILVER
Amount (Lbs): 130

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 3750

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 11356

Waste code: D039
Waste name: TETRACHLOROETHYLENE
Amount (Lbs): 11356

Waste code: D040
Waste name: TRICHLOROETHYLENE
Amount (Lbs): 11356

Waste code: F002

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Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 16661

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 13816

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 12106

Corrective Action Summary:

Event date: 04/22/1993
Event: CA049PA

Event date: 04/22/1993
Event: RFA Completed

Event date: 07/12/1993
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.

Event date: 07/12/1993
Event: Stabilization Measures Evaluation,This facility is amenable to stabilization activity based on the status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations.

Event date: 09/12/2012
Event: RFI Report Received

Event date: 09/27/2012
Event: Current Human Exposures under Control, Yes, Current Human Exposures

MAIN STREET CENTER (Continued) **1000102032**

Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 09/27/2012
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: TSD IS-Contingency Plan and Emergency Procedures
Date violation determined: 11/01/2011
Date achieved compliance: 03/30/2012
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 03/30/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Used Oil - Generators
Date violation determined: 11/01/2011
Date achieved compliance: 03/30/2012
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 03/30/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 03/13/2008
Date achieved compliance: 12/16/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/17/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 04/23/2007
Date achieved compliance: 12/16/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/01/2007
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 03/08/2007
Date achieved compliance: 03/20/2007
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/2007
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 05/30/2006
Date achieved compliance: 12/16/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/30/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 05/30/2006
Date achieved compliance: 06/06/2007
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/30/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

MAIN STREET CENTER (Continued) **1000102032**

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/07/2005
Date achieved compliance: 12/13/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/29/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 04/20/2004
Date achieved compliance: 07/14/2005
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 07/14/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 20020
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 04/20/2004
Date achieved compliance: 07/14/2005
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 07/14/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 20000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 04/20/2004
Date achieved compliance: 07/14/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/22/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 04/20/2004
Date achieved compliance: 07/14/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/22/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - Manifest and Recordkeeping
Date violation determined: 04/20/2004
Date achieved compliance: 07/14/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/22/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Tank System Standards
Date violation determined: 01/29/2003
Date achieved compliance: 02/04/2003
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 12/08/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 97000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 01/29/2003
Date achieved compliance: 02/04/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/04/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Tank System Standards
Date violation determined: 01/29/2003
Date achieved compliance: 02/04/2003
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 12/08/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 114807
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Tank System Standards
Date violation determined: 01/29/2003
Date achieved compliance: 02/04/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/04/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Container Use and Management
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 12/23/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 53655
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/20/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/20/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/20/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/20/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 01/28/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 53655
Paid penalty amount: Not reported

Regulation violated: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Area of violation: TSD - Container Use and Management
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/20/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 12/23/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 53655
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Container Use and Management
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 01/28/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 53655
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 02/15/2002
Date achieved compliance: 03/19/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/20/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Tank System Standards

MAIN STREET CENTER (Continued) **1000102032**

Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Tank System Standards
Date violation determined: 12/18/2000
Date achieved compliance: 02/02/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Preparedness and Prevention
Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Chemical, Physical, AND Treatment
Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 72000
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 12/18/2000

MAIN STREET CENTER (Continued) **1000102032**

Date achieved compliance: 02/02/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/18/2000
Date achieved compliance: 02/02/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Chemical, Physical, AND Treatment
Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 72000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Tank System Standards
Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 72000
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001

MAIN STREET CENTER (Continued) **1000102032**

Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Chemical, Physical, AND Treatment
Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Tank System Standards
Date violation determined: 12/18/2000
Date achieved compliance: 11/02/2001
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 72000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date violation determined: 12/18/2000
Date achieved compliance: 02/02/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 12/18/2000
Date achieved compliance: 02/02/2001
Violation lead agency: State

MAIN STREET CENTER (Continued) **1000102032**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/04/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/22/2000
Date achieved compliance: 04/11/2001
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 10/05/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 37000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/22/2000
Date achieved compliance: 04/11/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/06/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/22/2000
Date achieved compliance: 04/11/2001
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/11/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 33000
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Container Use and Management
Date violation determined: 02/22/2000
Date achieved compliance: 03/13/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

MAIN STREET CENTER (Continued) **1000102032**

Enforcement action date: 03/06/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 02/22/2000
Date achieved compliance: 03/13/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/06/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/22/2000
Date achieved compliance: 04/11/2001
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.30-37.C
Area of violation: TSD - General
Date violation determined: 11/04/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 22400
Paid penalty amount: Not reported

Regulation violated: F - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 10/01/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/01/1998

MAIN STREET CENTER (Continued) **1000102032**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 10/01/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 22400
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 10/01/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/01/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/01/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 22400
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 10/01/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 22400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 05/11/1999
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 27400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 09/29/1998
Date achieved compliance: 11/04/1998
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 05/11/1999
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 27400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Preparedness and Prevention
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/01/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 05/11/1999
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

MAIN STREET CENTER (Continued) **1000102032**

Proposed penalty amount: 22400
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Preparedness and Prevention
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 05/11/1999
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 22400
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Preparedness and Prevention
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 05/11/1999
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 27400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 09/29/1998
Date achieved compliance: 05/11/1999
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 05/11/1999
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 22400
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 05/30/1996
Date achieved compliance: 11/22/1996
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 05/22/1996
Date achieved compliance: 06/22/1996
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.50-60
Area of violation: Generators - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Paid penalty amount: Not reported

Regulation violated: F - 262.30-34.C
Area of violation: Generators - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 263
Area of violation: Transporters - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 05/07/1994
Date achieved compliance: 10/19/1994
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Regulation violated: F - 264.170-177.I
Area of violation: TSD - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 05/07/1994
Date achieved compliance: 03/16/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/27/1986
Date achieved compliance: 04/25/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/14/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/30/2012
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/26/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/01/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

MAIN STREET CENTER (Continued) **1000102032**

Area of violation: Used Oil - Generators
Date achieved compliance: 03/30/2012
Evaluation lead agency: EPA

Evaluation date: 11/01/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Contingency Plan and Emergency Procedures
Date achieved compliance: 03/30/2012
Evaluation lead agency: EPA

Evaluation date: 03/25/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/13/2008
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 12/16/2008
Evaluation lead agency: State

Evaluation date: 04/23/2007
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 12/16/2008
Evaluation lead agency: State

Evaluation date: 03/08/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/20/2007
Evaluation lead agency: State

Evaluation date: 09/22/2006
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 05/30/2006
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 12/16/2008
Evaluation lead agency: State

Evaluation date: 05/30/2006
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 06/06/2007
Evaluation lead agency: State

Evaluation date: 05/24/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

MAIN STREET CENTER (Continued) **1000102032**

Evaluation date: 07/14/2005
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/27/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/07/2005
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 12/13/2005
Evaluation lead agency: State

Evaluation date: 04/23/2004
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/20/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 07/14/2005
Evaluation lead agency: State

Evaluation date: 04/20/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - Manifest and Recordkeeping
Date achieved compliance: 07/14/2005
Evaluation lead agency: State

Evaluation date: 04/20/2004
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/20/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 07/14/2005
Evaluation lead agency: State

Evaluation date: 02/14/2003
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/04/2003
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/29/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 02/04/2003
Evaluation lead agency: State

Evaluation date: 01/29/2003
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/29/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Tank System Standards
Date achieved compliance: 02/04/2003
Evaluation lead agency: State

Evaluation date: 02/27/2002
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/15/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date achieved compliance: 03/19/2002
Evaluation lead agency: State

Evaluation date: 02/15/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/19/2002
Evaluation lead agency: State

Evaluation date: 02/15/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 03/19/2002
Evaluation lead agency: State

Evaluation date: 02/15/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Container Use and Management
Date achieved compliance: 03/19/2002
Evaluation lead agency: State

Evaluation date: 02/15/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 03/19/2002
Evaluation lead agency: State

MAIN STREET CENTER (Continued) **1000102032**

Evaluation date: 02/15/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 03/19/2002
Evaluation lead agency: State

Evaluation date: 11/02/2001
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/02/2001
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date achieved compliance: 02/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 02/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 02/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Tank System Standards
Date achieved compliance: 11/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 11/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Chemical, Physical, AND Treatment

MAIN STREET CENTER (Continued) **1000102032**

Date achieved compliance: 11/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Preparedness and Prevention
Date achieved compliance: 11/02/2001
Evaluation lead agency: State

Evaluation date: 12/18/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Tank System Standards
Date achieved compliance: 02/02/2001
Evaluation lead agency: State

Evaluation date: 02/22/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Container Use and Management
Date achieved compliance: 03/13/2000
Evaluation lead agency: State

Evaluation date: 02/22/2000
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/22/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 03/13/2000
Evaluation lead agency: State

Evaluation date: 02/22/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/11/2001
Evaluation lead agency: State

Evaluation date: 09/29/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 11/04/1998
Evaluation lead agency: State

Evaluation date: 09/29/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Manifest/Records/Reporting
Date achieved compliance: 05/11/1999
Evaluation lead agency: State

Evaluation date: 09/29/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Preparedness and Prevention
Date achieved compliance: 05/11/1999
Evaluation lead agency: State

MAIN STREET CENTER (Continued) **1000102032**

Evaluation date: 09/29/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 11/04/1998
Evaluation lead agency: State

Evaluation date: 09/29/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 05/11/1999
Evaluation lead agency: State

Evaluation date: 09/29/1998
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/22/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 06/22/1996
Evaluation lead agency: State

Evaluation date: 05/22/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/22/1996
Evaluation lead agency: State

Evaluation date: 03/30/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Financial Requirements
Date achieved compliance: 10/19/1994
Evaluation lead agency: State

Evaluation date: 03/30/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 03/16/1996
Evaluation lead agency: State

Evaluation date: 03/30/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/16/1996
Evaluation lead agency: State

Evaluation date: 03/30/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/16/1996
Evaluation lead agency: State

Evaluation date: 06/18/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported

MAIN STREET CENTER (Continued) **1000102032**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/27/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 04/25/1986
Evaluation lead agency: State

Evaluation date: 02/27/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CERC-NFRAP:
Site ID: 0904430
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13054603.00000
Person ID: 9271184.00000

Contact Sequence ID: 13289649.00000
Person ID: 13003854.00000

Contact Sequence ID: 13295244.00000
Person ID: 13003858.00000

Contact Sequence ID: 13301102.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: / /
Date Completed: 04/02/92
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 05/28/93
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 05/28/93
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

CORRACTS:

EPA ID: CAD000633305
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19930422

MAIN STREET CENTER (Continued) **1000102032**

Action: CA049PA
NAICS Code(s): 221121
Electric Bulk Power Transmission and Control
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD000633305
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19930422
Action: CA050 - RFA Completed
NAICS Code(s): 221121
Electric Bulk Power Transmission and Control
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD000633305
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19930712
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority
NAICS Code(s): 221121
Electric Bulk Power Transmission and Control
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD000633305
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19930712
Action: CA225YE - Stabilization Measures Evaluation, This facility ,is amenable to stabilization activity based on the, status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations
NAICS Code(s): 221121
Electric Bulk Power Transmission and Control
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD000633305
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20120912
Action: CA190 - RFI Report Received
NAICS Code(s): 221121
Electric Bulk Power Transmission and Control
Original schedule date: 20120930
Schedule end date: Not reported

EPA ID: CAD000633305
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20120927
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 221121

MAIN STREET CENTER (Continued) **1000102032**

Electric Bulk Power Transmission and Control
Original schedule date: 20121027
Schedule end date: Not reported

EPA ID: CAD000633305
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20120927
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 221121
Electric Bulk Power Transmission and Control
Original schedule date: 20121027
Schedule end date: Not reported

2020 COR ACTION:
EPA ID: CAD000633305
Region: 9
Action: Not reported

US FIN ASSUR:
EPA ID: CAD000633305
Provider: U.S. BANK
EPA region: 9
County: LOS ANGELES
Mechanism type: TRUST FUND (FULLY FUNDED)
Mechanism ID: Not reported
Cost estimate: 100337
Face value: 2110000
Effective date: 9/22/2008

EPA ID: CAD000633305
Provider: U.S. BANK
EPA region: 9
County: LOS ANGELES
Mechanism type: TRUST FUND (FULLY FUNDED)
Mechanism ID: Not reported
Cost estimate: 2000000
Face value: 2110000
Effective date: 9/22/2008

CA Financial Assurance 1:
EPA ID Number: CAD000633305
Closure Mechanism: FT
Closure Amount: 94,853
Post Clousure Mechanism: Not reported
Post Clousure Amount: Not reported
Corrective Action Mechanism: Not reported
Corrective Action Amount: Not reported
Sudden Mecahanism Type: FT
Sudden Mecahanism Amount: 2,000,000
Non Sudden Mecahanism Type: Not reported
Non Sudden Mecahanism Amount: Not reported

HWP:

MAIN STREET CENTER (Continued) **1000102032**

EPA Id: CAD000633305
Cleanup Status: UNDERGOING CLOSURE
Latitude: 34.06688
Longitude: -118.2275
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: 530028, 300425
Assembly District: 51
Senate District: 24
Public Information Officer: Not reported

Activities:

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date: 08/19/1988

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 11/29/1982

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PART A & PART B RECEIVED
Actual Date: 12/30/1996

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: Renewal - No Changes - APPLICATION PART B RECEIVED
Actual Date: 02/19/1993

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - FINAL PERMIT
Actual Date: 08/19/1983

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL - WITHDRAWAL REQUEST RECEIVED
Actual Date: 06/09/2000

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - DRAFT PERMIT
Actual Date: 05/06/1983

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating

MAIN STREET CENTER (Continued) **1000102032**

Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 08/19/1983

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 03/21/1983

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)
Actual Date: 05/06/1983

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL - WITHDRAWAL REQUEST ACKNOWLEDGED
Actual Date: 06/30/2000

Closure:
EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: Closure - CLOSURE PLAN RECEIVED
Actual Date: 08/31/2000

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: Closure - 1ST NOTICE OF DEFICIENCY ISSUED
Actual Date: 11/09/2000

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit)
Event Description: Closure - 2ND NOTICE OF DEFICIENCY ISSUED
Actual Date: 11/22/2000

Alias:
EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 530028

EPA Id: CAD000633305
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 300425

V137 **SO CAL GAS/LA MAIN ST MGP** **HIST CORTESE** **S101297113**
WNW **1630 NORTH MAIN STREET** **LUST** **N/A**
1/2-1 **LOS ANGELES, CA 90012** **VCP**
0.876 mi. **ENVIROSTOR**
4623 ft. **Site 4 of 5 in cluster V**

Relative:
Lower

Actual:
301 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900120125

LUST:
Region: STATE
Global Id: T0603700511
Latitude: 34.0663792
Longitude: -118.2279897
Case Type: LUST Cleanup Site
Status: Open - Remediation
Status Date: 01/21/1997
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Worker: Not reported
Local Agency: LOS ANGELES, CITY OF
RB Case Number: Not reported
LOC Case Number: 19490230
File Location: Local Agency
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700511
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Regulatory Activities:
Global Id: T0603700511
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: Not reported
Status: Remedial action (cleanup) Underway
Substance: Hydrocarbons
Substance Quantity: Not reported
Local Case No: 900120125

SO CAL GAS/LA MAIN ST MGP (Continued) **S101297113**

Case Type:	Groundwater	
Abatement Method Used at the Site:		Remove Free Product
Global ID:	T0603700511	
W Global ID:	W0605100649	
Staff:	TOX	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		1/3/1991
Date Leak Record Entered:	2/19/1991	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		4/1/1998
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4835.926976286361946589409 4528
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		1/3/1991
Pollution Characterization Began:		7/6/1992
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		1/21/1997
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	DWP	
RP Address:	P.O. BOX 51111, LOS ANGELES, CA 90051-0100	
Program:	Not reported	
Lat/Long:	34.0663792 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	3/24/98 TRANSFERRED TO DTSC; 4/13/98 1ST QTR 98 GW MON & FP RECOVERY RPT	

VCP:

Facility ID:	19490230
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED

SO CAL GAS/LA MAIN ST MGP (Continued) **S101297113**

Acres:	3
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Rita Kamat
Division Branch:	Cleanup Chatsworth
Site Code:	300450
Assembly:	51
Senate:	24
Special Programs Code:	Voluntary Cleanup Program
Status:	Inactive - Needs Evaluation
Status Date:	07/25/2008
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	34.06694 / -118.2272
APN:	NONE SPECIFIED
Past Use:	HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS, MANUFACTURED GAS PLANT
Potential COC:	10003, 10009, 10064, 10067, 10097, 10196, 10198, 10199, 20009, 20011, 20027, 30160
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL
Alias Name:	ECONOMIC GAS COMPANY
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES DEPARTMENT OF WATER & POWER
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES IV MGP
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES MAIN STREET MGP
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES TOWNE GAS SITE
Alias Type:	Alternate Name
Alias Name:	PEOPLE'S GAS & COKE COMPANY
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIF GAS CO - LA MAIN ST
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS CO. - LA MAIN ST
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS COMPANY
Alias Type:	Alternate Name
Alias Name:	ST. JOHNS STREET MGP
Alias Type:	Alternate Name
Alias Name:	110000609155
Alias Type:	EPA (FRS #)
Alias Name:	110033615666
Alias Type:	EPA (FRS #)
Alias Name:	T0603700511
Alias Type:	GeoTracker Global ID
Alias Name:	300450
Alias Type:	Project Code (Site Code)
Alias Name:	19490230
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE

SO CAL GAS/LA MAIN ST MGP (Continued) **S101297113**

Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/04/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/02/1995
Comments: The Department completed review of the PEA report. Based on the information provided in the PEA, the site does not constitute an immediate threat that would require an expedited response action. However, DTSC recommends furthe action, in that the current asphalt must be maintained and a deed restriction notification be placed on the site. DTSC considers the PEA complete.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/28/1993
Comments: The Department received a notice of intent to initiate a PEA dated September 27, 1993. Manufactured Gas Plant (MGP) was operated at the site from approximately 1906 to 1919??? The MGP operations ceased at the site on 1919? when the Southern California Gas Company acquired the MGP properties. In 1922 Los Angeles City Water and Power acquired the property and dismantled the gas plant. The hazardous wastes found at the former MGP sites includes PAHs, Cyanides, TPHs, BTEX, Sulphides/sulfates, and Metals. Due to the evidence of hazardous wastes in the other MGP sites, the Department recommends a PEA. The Department completed review of the sampling plan. RP is investigating the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 11/27/2004
Comments: DTSC recommended to revise the Sampling Plan and prepare Quality Assurance Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 03/01/2007
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: Voluntary Cleanup

SO CAL GAS/LA MAIN ST MGP (Continued) **S101297113**

Site Type Detailed:	Voluntary Cleanup
Acres:	3
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Rita Kamat
Division Branch:	Cleanup Chatsworth
Facility ID:	19490230
Site Code:	300450
Assembly:	51
Senate:	24
Special Program:	Voluntary Cleanup Program
Status:	Inactive - Needs Evaluation
Status Date:	07/25/2008
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	34.06694
Longitude:	-118.2272
APN:	NONE SPECIFIED
Past Use:	HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS, MANUFACTURED GAS PLANT
Potential COC:	10003, 10009, 10064, 10067, 10097, 10196, 10198, 10199, 20009, 20011, 20027, 30160
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL
Alias Name:	ECONOMIC GAS COMPANY
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES DEPARTMENT OF WATER & POWER
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES IV MGP
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES MAIN STREET MGP
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES TOWNE GAS SITE
Alias Type:	Alternate Name
Alias Name:	PEOPLE'S GAS & COKE COMPANY
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIF GAS CO - LA MAIN ST
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS CO. - LA MAIN ST
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS COMPANY
Alias Type:	Alternate Name
Alias Name:	ST. JOHNS STREET MGP
Alias Type:	Alternate Name
Alias Name:	110000609155
Alias Type:	EPA (FRS #)
Alias Name:	110033615666
Alias Type:	EPA (FRS #)
Alias Name:	T0603700511
Alias Type:	GeoTracker Global ID
Alias Name:	300450
Alias Type:	Project Code (Site Code)
Alias Name:	19490230

SO CAL GAS/LA MAIN ST MGP (Continued) **S101297113**

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/04/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/02/1995
Comments: The Department completed review of the PEA report. Based on the information provided in the PEA, the site does not constitute an immediate threat that would require an expedited response action. However, DTSC recommends furthe action, in that the current asphalt must be maintained and a deed restriction notification be placed on the site. DTSC considers the PEA complete.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/28/1993
Comments: The Department received a notice of intent to initiate a PEA dated September 27, 1993. Manufactured Gas Plant (MGP) was operated at the site from approximately 1906 to 1919??? The MGP operations ceased at the site on 1919? when the Southern California Gas Company acquired the MGP properties. In 1922 Los Angeles City Water and Power acquired the property and dismantled the gas plant. The hazardous wastes found at the former MGP sites includes PAHs, Cyanides, TPHs, BTEX, Sulphides/sulfates, and Metals. Due to the evidence of hazardous wastes in the other MGP sites, the Department recommends a PEA. The Department completed review of the sampling plan. RP is investigating the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 11/27/2004
Comments: DTSC recommended to revise the Sampling Plan and prepare Quality Assurance Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 03/01/2007
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

V138 **LA DEPARTMENT WATER & POWER** **ENVIROSTOR** **S107144525**
WNW **1630 N MAIN ST STE 16** **N/A**
1/2-1 **LOS ANGELES, CA 90012**
0.876 mi.
4623 ft. **Site 5 of 5 in cluster V**

Relative:
Lower

Actual:
301 ft.

ENVIROSTOR:

Site Type:	Corrective Action
Site Type Detailed:	Corrective Action
Acres:	25
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	MBR
Program Manager:	Chand Sultana
Supervisor:	Allan Plaza
Division Branch:	Cleanup Chatsworth
Facility ID:	80001337
Site Code:	530028
Assembly:	51
Senate:	24
Special Program:	Not reported
Status:	Active
Status Date:	06/15/2009
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.06688
Longitude:	-118.2275
APN:	NONE SPECIFIED
Past Use:	EQUIPMENT/INSTRUMENT REPAIR, FUEL - VEHICLE STORAGE/ REFUELING, HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS, MANUFACTURED GAS PLANT, TRANSFORMER REPAIR, UTILITY - ELECTRIC, VEHICLE MAINTENANCE
Potential COC:	30001, 30067, 30108, 30153, 30154, 30013, 30014, 30407, 30515, 30549, 30587, 30018, 40001, 30022
Confirmed COC:	30001,30549,30022,30067,30108,30153,30515,30407,30587,40001,30018, 30154,30013,30014
Potential Description:	OTH, SED, SOIL, SV
Alias Name:	LADWP MAIN ST
Alias Type:	Alternate Name
Alias Name:	CAD000633305
Alias Type:	EPA Identification Number
Alias Name:	300425
Alias Type:	Project Code (Site Code)
Alias Name:	530028
Alias Type:	Project Code (Site Code)
Alias Name:	80001337
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	10/27/2009
Comments:	Letter sent to RP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	RCRA Facility Assessment Report
Completed Date:	04/22/1993
Comments:	Not reported

LA DEPARTMENT WATER & POWER (Continued) **S107144525**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 10/28/1998
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 07/12/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Human Exposure Controlled
Completed Date: 09/27/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Groundwater Migration Controlled
Completed Date: 09/27/2012
Comments: Not reported

Completed Area Name: Building 11
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 07/28/2010
Comments: RFI Workplan approved.

Completed Area Name: SWMU 1 - Former Hazardous Waste Storage Building
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/10/2009
Comments: Final LADWP Workplan for HWSA (SWMU #1) Investigation Workplan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 04/22/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 02/22/2013
Comments: Not reported

Future Area Name: SWMU 1 - Former Hazardous Waste Storage Building
Future Sub Area Name: Not reported
Future Document Type: Interim Measures Implementation Report
Future Due Date: 2014
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: RFI Report
Future Due Date: 2014
Future Area Name: PROJECT WIDE

LA DEPARTMENT WATER & POWER (Continued) **S107144525**

Future Sub Area Name:	Not reported
Future Document Type:	Corrective Measures Study Report
Future Due Date:	2014
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Corrective Measure Implementation Workplan
Future Due Date:	2014
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Remedy Selection and Statement of Basis
Future Due Date:	2014
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Corrective Action Completion Determination
Future Due Date:	2015
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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139 **BAUCHET ST SITE** **FINDS** **1009314270**
West **490 BAUCHET ST** **VCP** **N/A**
1/2-1 **LOS ANGELES, CA 90012** **ENVIROSTOR**
0.911 mi.
4809 ft.

Relative:
Lower

Actual:
292 ft.

FINDS:

Registry ID: 110024433184

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

VCP:

Facility ID:	19490241
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.54
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Chand Sultana
Supervisor:	Allan Plaza
Division Branch:	Cleanup Chatsworth
Site Code:	301002
Assembly:	51
Senate:	24
Special Programs Code:	Voluntary Cleanup Program

BAUCHET ST SITE (Continued) **1009314270**

Status:	Active
Status Date:	06/21/2010
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	34.05975 / -118.2302
APN:	5409-019-009
Past Use:	MANUFACTURED GAS PLANT
Potential COC:	30001, 30003, 30022, 30024, 30025, 30027, 30472, 30550, 30593
Confirmed COC:	30472-NO,30550-NO,30022-NO,30024-NO,30025-NO,30027-NO,30001-NO, 30003-NO,30593-NO
Potential Description:	OTH, SOIL
Alias Name:	ALISO E
Alias Type:	Alternate Name
Alias Name:	ALISO MANUFACTURED GAS PLANT
Alias Type:	Alternate Name
Alias Name:	SO CAL GAS - ALISO E
Alias Type:	Alternate Name
Alias Name:	SO CAL GAS - ALISO E MGP
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS
Alias Type:	Alternate Name
Alias Name:	SOUTHERN CALIFORNIA GAS COMPANY
Alias Type:	Alternate Name
Alias Name:	5409-019-009
Alias Type:	APN
Alias Name:	110033609398
Alias Type:	EPA (FRS #)
Alias Name:	300626
Alias Type:	Project Code (Site Code)
Alias Name:	301002
Alias Type:	Project Code (Site Code)
Alias Name:	19490241
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	11/12/2007
Comments:	DTSC approved the Removal Action Completion Report.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	07/07/2005
Comments:	DTSC approved the Final RAW for Sector E 490 Bauchet Street.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	06/01/2005
Comments:	Remedial Investigation Report approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	01/30/2007
Comments:	Field Work completed.

BAUCHET ST SITE (Continued) **1009314270**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 07/09/2005
Comments: CEQA (Notice of Exemption) approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 01/04/1999
Comments: Transition to Chapter 6.5 - Amendment to the existing Consent Order, No. 96/97-015 signed by the RP.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2013
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Certification
Future Due Date: 2013
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 1.54
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Chand Sultana
Supervisor: Allan Plaza
Division Branch: Cleanup Chatsworth
Facility ID: 19490241
Site Code: 301002
Assembly: 51
Senate: 24
Special Program: Voluntary Cleanup Program
Status: Active
Status Date: 06/21/2010
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.05975
Longitude: -118.2302
APN: 5409-019-009
Past Use: MANUFACTURED GAS PLANT
Potential COC: 30001, 30003, 30022, 30024, 30025, 30027, 30472, 30550, 30593
Confirmed COC: 30472-NO,30550-NO,30022-NO,30024-NO,30025-NO,30027-NO,30001-NO, 30003-NO,30593-NO
Potential Description: OTH, SOIL
Alias Name: ALISO E
Alias Type: Alternate Name

BAUCHET ST SITE (Continued) **1009314270**

Alias Name: ALISO MANUFACTURED GAS PLANT
Alias Type: Alternate Name
Alias Name: SO CAL GAS - ALISO E
Alias Type: Alternate Name
Alias Name: SO CAL GAS - ALISO E MGP
Alias Type: Alternate Name
Alias Name: SOUTHERN CALIFORNIA GAS
Alias Type: Alternate Name
Alias Name: SOUTHERN CALIFORNIA GAS COMPANY
Alias Type: Alternate Name
Alias Name: 5409-019-009
Alias Type: APN
Alias Name: 110033609398
Alias Type: EPA (FRS #)
Alias Name: 300626
Alias Type: Project Code (Site Code)
Alias Name: 301002
Alias Type: Project Code (Site Code)
Alias Name: 19490241
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 11/12/2007
Comments: DTSC approved the Removal Action Completion Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 07/07/2005
Comments: DTSC approved the Final RAW for Sector E 490 Bauchet Street.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 06/01/2005
Comments: Remedial Investigation Report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 01/30/2007
Comments: Field Work completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 07/09/2005
Comments: CEQA (Notice of Exemption) approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 01/04/1999
Comments: Transition to Chapter 6.5 - Amendment to the existing Consent Order, No. 96/97-015 signed by the RP.

BAUCHET ST SITE (Continued) **1009314270**

Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Land Use Restriction
Future Due Date:	2013
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2013
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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140 East 1/2-1 0.926 mi. 4891 ft.

STARLIGHT ORIGINALS, INC.
1601 N. INDIANA STREET
LOS ANGELES, CA 90063

ENVIROSTOR **S109432044**
N/A

Relative: Higher

Actual: 363 ft.

ENVIROSTOR:

Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Chatsworth
Facility ID:	71003249
Site Code:	Not reported
Assembly:	51
Senate:	24
Special Program:	Not reported
Status:	Refer: Other Agency
Status Date:	Not reported
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.06020
Longitude:	-118.1927
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAL000048998
Alias Type:	EPA Identification Number
Alias Name:	71003249
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

STARLIGHT ORIGINALS, INC. (Continued) **S109432044**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

141
East
1/2-1
0.943 mi.
4981 ft.

CHARO - COMMUNITY DEVELOPMENT AGENCY **LA Co. Site Mitigation** **S108195980**
4301 VALLEY BLVD. **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90032

Relative:
Higher

Actual:
375 ft.

LA Co. Site Mitigation:

Facility ID:	Not reported
Site ID:	SD0000319
Jurisdiction:	County
Case ID:	RO0001320
Abated:	Yes
Assigned To:	Kim Clark
Entered Date:	07/22/2010

ENVIROSTOR:

Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	5
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Chand Sultana
Supervisor:	Allan Plaza
Division Branch:	Cleanup Chatsworth
Facility ID:	60000449
Site Code:	301305
Assembly:	51
Senate:	24
Special Program:	EPA - Target Site Investigation
Status:	Inactive - Action Required
Status Date:	08/03/2010
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	EPA Grant
Latitude:	34.06450
Longitude:	-118.1922
APN:	5215014011
Past Use:	MANUFACTURING - OTHER
Potential COC:	30001, 30006, 30007, 30008, 30018, 30023, 30024, 30025
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL
Alias Name:	5215014011
Alias Type:	APN
Alias Name:	301305
Alias Type:	Project Code (Site Code)
Alias Name:	60000449

CHARO - COMMUNITY DEVELOPMENT AGENCY (Continued) **S108195980**

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 12/26/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 04/30/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Work Order
Completed Date: 01/03/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/25/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 03/12/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 12/08/2006
Comments: TSI application.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

W142 **BORTZ OIL COMPANY** **HIST Cal-Sites** **S100833375**
NW **1746 NORTH SPRING STREET** **Cortese** **N/A**
1/2-1 **LOS ANGELES, CA 90012** **DEED**
0.955 mi. **RESPONSE**
5041 ft. **Site 1 of 2 in cluster W** **ENVIROSTOR**

Relative:
Lower

Actual:
310 ft.

Calsite:

Facility ID:	19290289
Region:	3
Region Name:	GLENDALE
Branch:	SA
Branch Name:	SO CAL - GLENDALE
File Name:	Not reported
State Senate District:	08011996
Status:	ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name:	ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency:	DTSC
Lead Agency:	DEPT OF TOXIC SUBSTANCES CONTROL
Facility Type:	RP
Type Name:	RESPONSIBLE PARTY
NPL:	Not Listed
SIC Code:	29
SIC Name:	MANU - PETROLEUM & COAL PRODUCTS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	LPARNASS
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	45
State Senate District Code:	22
Facility ID:	19290289
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	RAO
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04151987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

BORTZ OIL COMPANY (Continued) **S100833375**

For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	AMEND
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07061988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	FDNC
Activity Name:	FINAL DETERMINATION OF NON-COMPLIANCE
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07311990
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	NAUD
Proposed Budget:	0
AWP Completion Date:	Not reported

BORTZ OIL COMPANY (Continued) **S100833375**

Revised Due Date:	Not reported
Comments Date:	10231992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	FRIFS
Activity Name:	FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AWP Code:	NAUD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	01261993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	NAUD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07071993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

BORTZ OIL COMPANY (Continued) **S100833375**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	NEGDE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07071993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	DES
Activity Name:	DESIGN
AWP Code:	NAUD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07081993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0

BORTZ OIL COMPANY (Continued) **S100833375**

Facility ID:	19290289
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	NAUD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07081993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	FRA
Activity Name:	FINAL REMEDIAL ACTION
AWP Code:	NAUD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10281993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08021996
Est Person-Yrs to complete:	0

BORTZ OIL COMPANY (Continued) **S100833375**

Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10311997
Est Person-Yrs to complete:	0
Estimated Size:	S
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported

BORTZ OIL COMPANY (Continued) **S100833375**

Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	CHP65
Activity Name:	AMENDED ORDER/AGREEMENT, CHAPTER 6.5 TRANSITION
AWP Code:	ORDER
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12211998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	06302007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	RA
Activity Name:	REMOVAL ACTION

BORTZ OIL COMPANY (Continued) **S100833375**

AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08292002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	18500
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	X
Removal Action Certification:	N
Activity Comments:	THE SOIL CLEANUP GOALS SPECIFIED IN THE SOIL REMOVAL ACTION WORKPLANHAVE BEEN ATTAINED THROUGH THE IMPLEMENTATION OF THE SOIL VAPOR EXTRACTION SYSTEM. HOWEVER GROUNDWATER STILL NEEDS FURTHER INVESTIGATION.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	NOE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06302000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06302000
Est Person-Yrs to complete:	0

BORTZ OIL COMPANY (Continued) **S100833375**

Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	DEED
Activity Name:	DEED RESTRICTIONS
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08192002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	12302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported

BORTZ OIL COMPANY (Continued) **S100833375**

Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PEAE
Proposed Budget:	0
AWP Completion Date:	07312005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19290289
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	12302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	PO BOX 60368
Alternate City,St,Zip:	LOS ANGELES, CA 90012
Alternate Address:	1746 NORTH SPRING STREET

BORTZ OIL COMPANY (Continued) **S100833375**

Alternate City,St,Zip: LOS ANGELES, CA 90012
Background Info: The Bortz Oil Company (BOC) was a petroleum products blending and packaging facility. The site produced various petroleum products (i.e. kerosene, paint, acetone, methyl ethyl ketone (MEK),lacquer thinners, and denatured alcohol). High levels of hydrocarbons and chlorinated solvents have been identified in the soil, while 1,1-dichloroethane (DCE), vinyl chloride, petroleum hydrocarbons, and benzene have been detected in the groundwater.
On August 9, 1984, a fire broke out in one of the metal and concrete warehouse facilities on the North Spring Street property. Undetermined amounts of chemicals were consumed by the fire and spilled on the ground, which has since percolated into the soil. The Department's inspection in December 1985, and January 1986, revealed that there were numerous uncontrolled chemical spills, leaking valves and drums, and illegal disposal of chemicals at the site.
Since the groundwater is not being used as a drinking water source, the potential impact of the contaminated groundwater is not an immediate concern. The groundwater investigation will be conducted after the Spring Street property is sold. Direct contact with the contaminated soil, inhalation, and dermal absorption are the potential routes of exposure.
On April 14, 1987, the Department issued a Remedial Action Order (RAO) to BOC to develop and implement the Remedial Investigation/Feasibility Study (RI/FS), Remedial Action Plan (RAP) and remediation. On July 6, 1988, the RAO was modified to include additional property (1726 N. Naud Street) owned by (BOC). Although remedial activities have been slowed due to the death of the owner in March 1990 the Department approved the Focused Feasibility Study Report for the Naud Street property. The Probate Court has determined that BOC's assets will be used towards the remediation of the Naud Street Property. On October 23, 1992, the Dept. negotiated a Consent Order with the Executor of the BOC estate.
In August 1996, DTSC completed a removal action on the North Spring Street property. Bortz removed above-ground tanks and structures and near surface piping.
Comments Date: 06302000
Comments: former Bortz Oil site. Bortz will implement a soil vapor
Comments Date: 06302000
Comments: extraction technology to achieve the remedial goals set forth
Comments Date: 06302000
Comments: in the RAW. DTSC has determined and filed a CEQA Notice of
Comments Date: 06302000
Comments: Exemption for the Site.
Comments Date: 06302000
Comments: The Removal Action Workplan (RAW) for the above site was approved
Comments Date: 06302000
Comments: on June 30, 2000. As indicated in the RAW, Soil Vapor
Comments Date: 06302000
Comments: Extraction will be implemented at the area designated as AOPC-2.
Comments Date: 06302000
Comments: Not reported
Comments Date: 07071993

BORTZ OIL COMPANY (Continued) **S100833375**

Comments:	The CEQA documents (negative declaration) for the Bortz Oil
Comments Date:	07071993
Comments:	Company are submitted to the State Clearinghouse. The only
Comments Date:	07071993
Comments:	comment received was from Caltrans who requested that
Comments Date:	07071993
Comments:	transportation be conducted on off-peak hours.
Comments Date:	07081993
Comments:	The Final RAP for the Bortz Oil Company is approved. The
Comments Date:	07081993
Comments:	alternative selected is to excavate and dispose of contamin-
Comments Date:	07081993
Comments:	ated soil. The Final RAP also contains the Remedial Design
Comments Date:	07081993
Comments:	Workplan which was approved concurrent with the adoption of
Comments Date:	07081993
Comments:	the Final RAP.
Comments Date:	07251991
Comments:	Petroleum products blending and packaging facility. During
Comments Date:	07251991
Comments:	production of petroleum products, various hazardous
Comments Date:	07251991
Comments:	substances were used, including mineral spirits & kerosene.
Comments Date:	07251991
Comments:	High levels of hydrocarbons and chlorinated solvents have
Comments Date:	07251991
Comments:	been identified in the soil while 1,1-dichloroethane (DCE),
Comments Date:	07251991
Comments:	vinyl chloride, petroleum hydrocarbons, and benzene have
Comments Date:	07251991
Comments:	been detected in the groundwater.
Comments Date:	08021996
Comments:	DTSC approves the Removal Action Workplan and Neg. Dec. for
Comments Date:	08021996
Comments:	Bortz Oil-Spring Street property. The Removal Action
Comments Date:	08021996
Comments:	involves removal of above-ground tanks and structures.
Comments Date:	08192002
Comments:	A deed restriction to restrict use of the property was recorded
Comments Date:	08192002
Comments:	on August 19, 2002. The deed restriction prohibits sensitive
Comments Date:	08192002
Comments:	uses of the property including, but not limited to residential,
Comments Date:	08192002
Comments:	hospital, public or private school uses for persons under 21
Comments Date:	08192002
Comments:	years of age, and daycare uses for children.
Comments Date:	08192002
Comments:	Not reported
Comments Date:	08292002
Comments:	DTSC certified that the soil cleanup has been completed in
Comments Date:	08292002
Comments:	accordance with the provisions of the approval RAW. A deed
Comments Date:	08292002
Comments:	restriction has been recorded prior to DTSC's issuance of
Comments Date:	08292002
Comments:	certification. This certification is for the soil only.

BORTZ OIL COMPANY (Continued) **S100833375**

Comments Date:	08292002
Comments:	Not reported
Comments Date:	10061999
Comments:	DTSC reviewes the Feasibility Studies (FS) report dated 10/6/99.
Comments Date:	10061999
Comments:	Due to the potential presence of MTBE, a revised Baseline Risk
Comments Date:	10061999
Comments:	Assessment is being considered. Estimated time of approval is
Comments Date:	10061999
Comments:	June 2000.
Comments Date:	10281993
Comments:	The Department of Toxic Substances Control completes
Comments Date:	10281993
Comments:	review of the Bortz Oil Company, Naud Street Property,
Comments Date:	10281993
Comments:	Final Site Closure Report. DTSC determined
Comments Date:	10281993
Comments:	that the removal activities are in accordance with the
Comments Date:	10281993
Comments:	provisions of the Remedial Action Plan.
Comments Date:	10301997
Comments:	Completion of RA. The RA included removal of above-ground tanks
Comments Date:	10301997
Comments:	and structures and rough grading.
Comments Date:	12082004
Comments:	DTSC signed an acceptance of Allowance of Creditors Claim with
Comments Date:	12082004
Comments:	the Bortz Estate in December 8th, 2004. The Estate settled past
Comments Date:	12082004
Comments:	costs.
Comments Date:	12211998
Comments:	Transition to Chapter 6.5. Amendment to the existing Consent
Comments Date:	12211998
Comments:	Order No. 86/87-039RA signed by the RP.
Comments Date:	01071998
Comments:	Bortz conducts a soil gas survey on the North Spring Street
Comments Date:	01071998
Comments:	property. Bortz also samples all the groundwater monitoring
Comments Date:	01071998
Comments:	wells.
Comments Date:	02102003
Comments:	Semi-annual groundwater monitoring begins. ISOC groundwater
Comments Date:	02102003
Comments:	remediation pilot test begins.
Comments Date:	03012000
Comments:	DTSC reviews a draft Soil Removal Action Workplan
Comments Date:	03012000
Comments:	for the North Spring Street property was submitted to DTSC
Comments Date:	03012000
Comments:	for review and approval.
Comments Date:	04042002
Comments:	Soil Vapor extraction was operated from June 2000 to April 2001.
Comments Date:	04042002
Comments:	Soil Vapor confirmation sampling completed on 12/15/2001
Comments Date:	04042002
Comments:	indicate that cleanup goals for the Site have been met.
Comments Date:	04151998

BORTZ OIL COMPANY (Continued) **S100833375**

Comments: Sampling report submitted and accepted by DTSC.
Comments Date: 05131999
Comments: DTSC reviews the Baseline Risk Assessment (BRA) report dated
Comments Date: 05131999
Comments: May 13, 1999. DTSC concurres with the BRA with minor comments.
Comments Date: 06302000
Comments: DTSC approves the Soil Removal Action Workplan (RAW) for the
ID Name: BEP DATABASE PCODE
ID Value: P32059
ID Name: CALSTARS CODE
ID Value: 300017
Alternate Name: BORTZ OIL COMPANY
Special Programs Code: Not reported
Special Programs Name: Not reported

CORTESE:
Region: CORTESE
Envirostor Id: 19290289
Site/Facility Type: STATE RESPONSE
Cleanup Status: ACTIVE - LAND USE RESTRICTIONS
Status Date: 08/01/1996
Site Code: 300017
Latitude: 34.07
Longitude: -118.22527
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: export
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported

DEED:
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: STATE RESPONSE
Status: ACTIVE
Deed Date(s): 08/19/2002

AWP:
AWP Facility ID: 19290289
Region Code: 3
Region: GLENDALE
SMBR Branch Code: SA
SMBR Branch Unit: SO CAL - GLENDALE
Site Name.: Not reported
Current Status Date: 08011996
Current Status: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency Code: DTSC
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL
Facility Type: responsible party
Awp Site Type: RESPONSIBLE PARTY

BORTZ OIL COMPANY (Continued) **S100833375**

NPL:	Not Listed
Tier Of AWP Site:	Not reported
Source Of Funding:	F
Responsible Staff Member:	LPARNASS
Supervisor Responsible:	Not reported
SIC Code:	29
Facility SIC:	MANU - PETROLEUM & COAL PRODUCTS
RWQCB Code:	Not reported
RWQCB Associated With Site:	Not reported
Site Access Controlled:	Not reported
Site Listed HWS List:	Not reported
Hazard Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
# Of Contamination Sources:	2
Lat/Long:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Description Of Entity:	Not reported
State Assembly Distt Code:	45
State Senate District:	22

RESPONSE:

Facility ID:	19290289
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	1.4
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Stephanie Lewis
Supervisor:	Juli Propes
Division Branch:	Cleanup Chatsworth
Site Code:	300017
Site Mgmt. Req.:	DAY, ELD, HOS, SCH, RES
Assembly:	51
Senate:	24
Special Program Status:	Not reported
Status:	Active
Status Date:	08/01/1996
Restricted Use:	YES
Funding:	Responsible Party
Latitude:	34.07
Longitude:	-118.2252
APN:	5409-002-029, 5409002029
Past Use:	DISTRIBUTOR - CHEMICAL, MANUFACTURING - CHEMICALS
Potential COC:	10003, 10009, 10067, 30003, 30016, 30022, 30026, 30027, 30028
Confirmed COC:	30003,30016
Potential Description:	OTH, SOIL
Alias Name:	5409-002-029
Alias Type:	APN
Alias Name:	5409002029
Alias Type:	APN
Alias Name:	110033619172
Alias Type:	EPA (FRS #)
Alias Name:	P32059

BORTZ OIL COMPANY (Continued) **S100833375**

Alias Type: PCode
Alias Name: 300017
Alias Type: Project Code (Site Code)
Alias Name: 19290289
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 07/08/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 07/08/1993
Comments: The Final RAP for the Bortz Oil Company is approved. The alternative selected is to excavate and dispose of contamin- ated soil. The Final RAP also contains the Remedial Design Workplan which was approved concurrent with the adoption of the Final RAP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 01/26/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 11/17/2003
Comments: MTBE and VOC contaminated groundwater to be treated with iSOC technology

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/07/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 01/31/1990
Comments: approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 07/29/2010
Comments: Meeting scheduled for 9/16/2010 with RP and consultant to discuss the off-site contributions to the onsite contamination that exists.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2011

BORTZ OIL COMPANY (Continued) **S100833375**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/18/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 07/06/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 04/15/1987
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 12/08/2004
Comments: DTSC signed an acceptance of Allowance of Creditors Claim with the Bortz Estate in December 8th, 2004. The Estate settled past costs.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 12/21/1998
Comments: Transition to Chapter 6.5. Amendment to the existing Consent Order No. 86/87-039RA signed by the RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 08/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/02/2006
Comments: workplan approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/30/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/29/2002
Comments: DTSC certified that the soil cleanup has been completed in accordance

BORTZ OIL COMPANY (Continued) **S100833375**

with the provisions of the approval RAW. A deed restriction has been recorded prior to DTSC's issuance of certification. This certification is for the soil only.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 10/31/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 08/02/1996
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 10/28/1993
Comments: The Department of Toxic Substances Control completes review of the Bortz Oil Company, Naud Street Property, Final Site Closure Report. DTSC determined that the removal activities are in accordance with the provisions of the Remedial Action Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/19/2002
Comments: A deed restriction to restrict use of the property was recorded on August 19, 2002. The deed restriction prohibits sensitive uses of the property including, but not limited to residential, hospital, public or private school uses for persons under 21 years of age, and daycare uses for children.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/30/2000
Comments: DTSC approves the Soil Removal Action Workplan (RAW) for the former Bortz Oil site. Bortz will implement a soil vapor extraction technology to achieve the remedial goals set forth in the RAW. DTSC has determined and filed a CEQA Notice of Exemption for the Site. The Removal Action Workplan (RAW) for the above site was approved on June 30, 2000. As indicated in the RAW, Soil Vapor Extraction will be implemented at the area designated as AOPC-2.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 08/02/1996
Comments: DTSC approves the Removal Action Workplan and Neg. Dec. for Bortz Oil-Spring Street property. The Removal Action involves removal of above-ground tanks and structures.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

BORTZ OIL COMPANY (Continued) **S100833375**

Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 07/07/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 07/07/1993
Comments: The CEQA documents (negative declaration) for the Bortz Oil Company are submitted to the State Clearinghouse. The only comment received was from Caltrans who requested that transportation be conducted on off-peak hours.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 10/23/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 07/31/1990
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Public Notice
Schedule Due Date: 10/15/2012
Schedule Revised Date: 01/28/2013
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Community Profile
Schedule Due Date: 01/28/2013
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Community Profile
Schedule Due Date: 01/28/2013
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Fact Sheets
Schedule Due Date: 01/28/2013
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: CEQA - Notice of Exemption
Schedule Due Date: 02/23/2013
Schedule Revised Date: Not reported

ENVIROSTOR:
Site Type: State Response

BORTZ OIL COMPANY (Continued) **S100833375**

Site Type Detailed: State Response or NPL
Acres: 1.4
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Stephanie Lewis
Supervisor: Juli Propes
Division Branch: Cleanup Chatsworth
Facility ID: 19290289
Site Code: 300017
Assembly: 51
Senate: 24
Special Program: Not reported
Status: Active
Status Date: 08/01/1996
Restricted Use: YES
Site Mgmt. Req.: DAY, ELD, HOS, SCH, RES
Funding: Responsible Party
Latitude: 34.07
Longitude: -118.2252
APN: 5409-002-029, 5409002029
Past Use: DISTRIBUTOR - CHEMICAL, MANUFACTURING - CHEMICALS
Potential COC: 10003, 10009, 10067, 30003, 30016, 30022, 30026, 30027, 30028
Confirmed COC: 30003,30016
Potential Description: OTH, SOIL
Alias Name: 5409-002-029
Alias Type: APN
Alias Name: 5409002029
Alias Type: APN
Alias Name: 110033619172
Alias Type: EPA (FRS #)
Alias Name: P32059
Alias Type: PCode
Alias Name: 300017
Alias Type: Project Code (Site Code)
Alias Name: 19290289
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 07/08/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 07/08/1993
Comments: The Final RAP for the Bortz Oil Company is approved. The alternative selected is to excavate and dispose of contamin- ated soil. The Final RAP also contains the Remedial Design Workplan which was approved concurrent with the adoption of the Final RAP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 01/26/1993

BORTZ OIL COMPANY (Continued) **S100833375**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 11/17/2003
Comments: MTBE and VOC contaminated groundwater to be treated with iSOC technology

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/07/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 01/31/1990
Comments: approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 07/29/2010
Comments: Meeting scheduled for 9/16/2010 with RP and consultant to discuss the off-site contributions to the onsite contamination that exists.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/18/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 07/06/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 04/15/1987
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Cost Recovery Settlements/Decrees
Completed Date: 12/08/2004
Comments: DTSC signed an acceptance of Allowance of Creditors Claim with the

BORTZ OIL COMPANY (Continued) **S100833375**

Bortz Estate in December 8th, 2004. The Estate settled past costs.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 12/21/1998
Comments: Transition to Chapter 6.5. Amendment to the existing Consent Order No. 86/87-039RA signed by the RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 08/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/02/2006
Comments: workplan approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/30/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/29/2002
Comments: DTSC certified that the soil cleanup has been completed in accordance with the provisions of the approval RAW. A deed restriction has been recorded prior to DTSC's issuance of certification. This certification is for the soil only.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 10/31/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 08/02/1996
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 10/28/1993
Comments: The Department of Toxic Substances Control completes review of the Bortz Oil Company, Naud Street Property, Final Site Closure Report. DTSC determined that the removal activities are in accordance with the provisions of the Remedial Action Plan.

BORTZ OIL COMPANY (Continued) **S100833375**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/19/2002
Comments: A deed restriction to restrict use of the property was recorded on August 19, 2002. The deed restriction prohibits sensitive uses of the property including, but not limited to residential, hospital, public or private school uses for persons under 21 years of age, and daycare uses for children.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/30/2000
Comments: DTSC approves the Soil Removal Action Workplan (RAW) for the former Bortz Oil site. Bortz will implement a soil vapor extraction technology to achieve the remedial goals set forth in the RAW. DTSC has determined and filed a CEQA Notice of Exemption for the Site. The Removal Action Workplan (RAW) for the above site was approved on June 30, 2000. As indicated in the RAW, Soil Vapor Extraction will be implemented at the area designated as AOPC-2.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 08/02/1996
Comments: DTSC approves the Removal Action Workplan and Neg. Dec. for Bortz Oil-Spring Street property. The Removal Action involves removal of above-ground tanks and structures.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 07/07/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 07/07/1993
Comments: The CEQA documents (negative declaration) for the Bortz Oil Company are submitted to the State Clearinghouse. The only comment received was from Caltrans who requested that transportation be conducted on off-peak hours.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 10/23/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 07/31/1990
Comments: Not reported

BORTZ OIL COMPANY (Continued) **S100833375**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Public Notice
Schedule Due Date:	10/15/2012
Schedule Revised Date:	01/28/2013
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Community Profile
Schedule Due Date:	01/28/2013
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Community Profile
Schedule Due Date:	01/28/2013
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Fact Sheets
Schedule Due Date:	01/28/2013
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	CEQA - Notice of Exemption
Schedule Due Date:	02/23/2013
Schedule Revised Date:	Not reported

W143 **BORTZ OIL COMPANY** **CA BOND EXP. PLAN** **S105960450**
NW **1746 NORTH SPRING STREET, P.O BOX 60368** **N/A**
1/2-1 **LOS ANGELES, CA 90060**
0.955 mi.
5041 ft. **Site 2 of 2 in cluster W**

Relative:
Lower

Actual:
310 ft.

CA BOND EXP. PLAN:

Reponsible Party:	DETAILED SITE EXPENDITURE PLAN
Project Revenue Source Company:	Not reported
Project Revenue Source Addr:	Not reported
Project Revenue Source City,St,Zip:	Not reported
Project Revenue Source Desc:	The responsible parties have been found to be in noncompliance with an order issued by the Department. Therefore, it will be necessary to utilize Bond funds to remediate this site. DHS will undertake appropriate cost recovery actions. This has not been identified as a NPL site, nor does it appear, to be a likely NPL candidate in the future. Therefore, it appears unlikely that federal funds are a viable source of revenue for this site.
Site Description:	Bortz Oil was a petroleum products blending and packaging facility. The packaging warehouse was destroyed by fire in 1984. During reconstruction, pervasive subsurface contamination was detected. The site now operates only as a warehouse for storage of chemical products.
Hazardous Waste Desc:	Subsurface exploration has revealed that the soil and ground water are contaminated with acetone, toluene, xylene, benzene, methyl ethyl ketone (MEK), methylene chloride and 1,2-dichloroethane (DCE).
Threat To Public Health & Env:	Major routes of concern for human and animal exposure are soils, surface water and ground water. The Los Angeles River Channel is 100 feet from the site. Contamination of the soil and ground water was documented in January, 1986. The shallow and deeper aquifers are believed to be hydraulically connected. Soil

BORTZ OIL COMPANY (Continued) **S105960450**

gas vapors could pose an explosive threat; no threat has been identified to date.

Site Activity Status: A remedial action order was issued April 13, 1987 directing the RPs to mitigate the site. A remedial investigation work plan was submitted and approved with modifications by DHS. Implementation of the remedial investigation commenced August 10, 1987. Routine monitoring of the ground water monitoring wells and vapor collection system is being conducted. The responsible parties were found in non-compliance with the order on April 28, 1988. Completion of the RI/FS is projected for January, 1990.

144
WSW
1/2-1
0.970 mi.
5124 ft.

SO CAL GAS/ALISO D MGP **EDR MGP** **1008407706**
CESAR CHAVEZ AND LYONS STREET **N/A**
LOS ANGELES, CA 90012

Relative:
Lower

Actual:
289 ft.

Manufactured Gas Plants:

The former Aliso Street manufactured Gas Plant covered approximately 52 acres in downtown Los Angeles. The site is being investigated as 5 sectors and an overall groundwater unit. The "C" sector consists of 16.4 acres south of the Hollywood (101) Freeeway, bisected by Center Street and bounded by Commercial, Ducommun and Jackson Streets. Sector C is further subdivided into Blocks G, K, L, N, O, Q, and R. Contaminants suspected include petroleum hydrocarbons, volatile organic compounds, cyanide,polycyclic aromatic hydrocarbons and heavy metals

Count: 20 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LOS ANGELES	1000179571	LA COMMUNITY BUILDING	7570 MCGROARTY DR	90012	RCRA-SQG,FINDS
WEST LOS ANGELES	1000213970	GENERAL TELEPHONE OF CA	2311 E ANAHEIM BLVD	90012	RCRA-SQG,FINDS,HAZNET
LOS ANGELES	1000287995	SHELL OIL CO/WCD PIPELINES	ORANGE COUNTY PIPELINES	90700	RCRA-SQG,FINDS
LOS ANGELES	1000350147	LA PUMPING PLANT 52	9513 VICKBURG AVE	90012	RCRA-SQG,FINDS
LOS ANGELES	1000350152	LA PUMPING PLANT 56	6350 CENTINELA	90012	RCRA-SQG,FINDS
LOS ANGELES	1000350158	LA PUMPING PLANT 64	6022 HAZELTINE	90012	RCRA-SQG,FINDS
LOS ANGELES	1000350165	LA PUMPING PLANT #22	15266 CABRITO RD		RCRA-SQG,FINDS
LOS ANGELES	1000350181	LA PUMPING PLANT #82	0 SIGSBEE AVE	90012	RCRA-SQG,FINDS
LOS ANGELES	1000350185	LA PUMPING PLANT #86	601 MATSONIA WY		RCRA-SQG,FINDS
LOS ANGELES	1000350188	LA PUMPING PLANT 33	104 CHAUTAQUA	90012	RCRA-SQG,FINDS
LOS ANGELES	1000350192	LA PUMPING PLANT 36	15204 DEPAUW ST	90012	RCRA-SQG,FINDS
LOS ANGELES	1000985012	CALTRANS	RTE 134 BETWEEN 0.5 MI E OF		RCRA-SQG,FINDS
LOS ANGELES	1004676122	CERTAINTEED CORP	1632 N SAN PABLO ST		RCRA-SQG,FINDS
LOS ANGELES	1005441104	CALTRANS 07 4 A 1704	L A RTE 10 K P 33.0 67.6 BETWE	99999	RCRA-SQG,FINDS
LOS ANGELES	1007370174	USC CONSOLIDATED FREIGHTWAYS SITE	1633 37 SAN PABLO ST	90031	RCRA-SQG
LOS ANGELES	1007450676	USC CONSOLIDATED FREIGHTWAYS SITE	1633 37 SAN PABLO ST		FINDS
LOS ANGELES	A100344594		1630 N MAIN ST., BLDG. NO. 10	90012	AST
	M300003096	VULCAN MATERIALS CO.	SUN VALLEY (#002)		MINES
LOS ANGELES	S112887299	CNTY LOS ANGELES USC MEDICAL CENTE	1840 N GRIFFIN AVE	90033	HAZNET
LA CANADA	U001562226	BARLEY FLATS (CAMP 18)	STAR ROUTE	90063	HIST UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 10/09/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/08/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 05/09/2013
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 6

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/14/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/14/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/17/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 29

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 35

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 11/01/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 162

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-5092
Last EDR Contact: 07/03/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/21/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 45

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012
Date Data Arrived at EDR: 08/03/2012
Date Made Active in Reports: 11/05/2012
Number of Days to Update: 94

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 11/07/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 156

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 10/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 14
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/02/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/10/2012
Date Data Arrived at EDR: 12/11/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 9
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 04/26/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 20
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 59

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 04/25/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/11/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 55

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/12/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 55

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 15

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 30

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 04/18/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/04/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 131

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Every 4 Years

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2012
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 114

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/11/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/11/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/2011
Date Data Arrived at EDR: 12/13/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 79

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/13/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/10/2012
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/30/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/12/2013
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of underground control injection wells.

Date of Government Version: 03/05/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/21/2013
Next Scheduled EDR Contact: 12/31/2012
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/2013
Date Data Arrived at EDR: 04/02/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 42
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 07/05/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/11/2012
Date Data Arrived at EDR: 12/12/2012
Date Made Active in Reports: 01/04/2013
Number of Days to Update: 23
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 12/24/2012
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 04/29/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 17
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 14

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 03/06/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/14/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/16/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 29
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/21/2013
Date Data Arrived at EDR: 05/22/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 36

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/03/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/17/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: N/A

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/02/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/03/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Annually

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 04/04/2013
Number of Days to Update: 21

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/16/2012
Date Data Arrived at EDR: 10/17/2012
Date Made Active in Reports: 11/13/2012
Number of Days to Update: 27

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Varies

CALVERAS COUNTY:

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 04/16/2013
Date Data Arrived at EDR: 04/17/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 29

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/04/2013
Date Data Arrived at EDR: 01/14/2013
Date Made Active in Reports: 03/01/2013
Number of Days to Update: 46

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 06/13/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/10/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 34

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/25/2013
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 35

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/31/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/02/2012
Date Made Active in Reports: 06/11/2012
Number of Days to Update: 40

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/26/2012
Date Data Arrived at EDR: 06/27/2012
Date Made Active in Reports: 08/17/2012
Number of Days to Update: 51

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/13/2013
Date Made Active in Reports: 03/21/2013
Number of Days to Update: 36

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 07/08/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 12/28/2012
Date Made Active in Reports: 01/25/2013
Number of Days to Update: 28

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/24/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 23

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/24/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 32

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 04/29/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 18

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 11/26/2012
Date Data Arrived at EDR: 11/28/2012
Date Made Active in Reports: 01/21/2013
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/03/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/14/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/08/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/17/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/12/2013
Number of Days to Update: 28

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/12/2013
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 14

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/23/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 23

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/23/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 22

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 04/11/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/05/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 04/12/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 34

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/05/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/13/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 08/17/2012
Date Data Arrived at EDR: 08/20/2012
Date Made Active in Reports: 10/03/2012
Number of Days to Update: 44

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 11/06/2012
Date Made Active in Reports: 11/30/2012
Number of Days to Update: 24

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 03/25/2013
Date Data Arrived at EDR: 03/25/2013
Date Made Active in Reports: 04/18/2013
Number of Days to Update: 24

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/26/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/10/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/13/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/06/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 19

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/16/2013
Date Data Arrived at EDR: 05/17/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 39

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/13/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 29

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/20/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 47

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/20/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 46

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 04/01/2013
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/02/2013
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/14/2013
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 05/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 05/22/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 34

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/03/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 01/28/2013
Date Data Arrived at EDR: 02/01/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 47

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 46

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 03/25/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 45

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/07/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 05/24/2013
Date Data Arrived at EDR: 05/24/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 34

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 37

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 02/07/2013
Date Made Active in Reports: 03/15/2013
Number of Days to Update: 36

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/23/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/23/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/31/2012
Number of Days to Update: 39

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 09/27/2012
Number of Days to Update: 70

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

LAC USC PHASE I
1200 N STATE STREET
LOS ANGELES, CA 90033

TARGET PROPERTY COORDINATES

Latitude (North):	34.061 - 34° 3' 39.60''
Longitude (West):	118.2114 - 118° 12' 41.04''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	388204.2
UTM Y (Meters):	3769387.0
Elevation:	322 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	34118-A2 LOS ANGELES, CA
Most Recent Revision:	1994

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

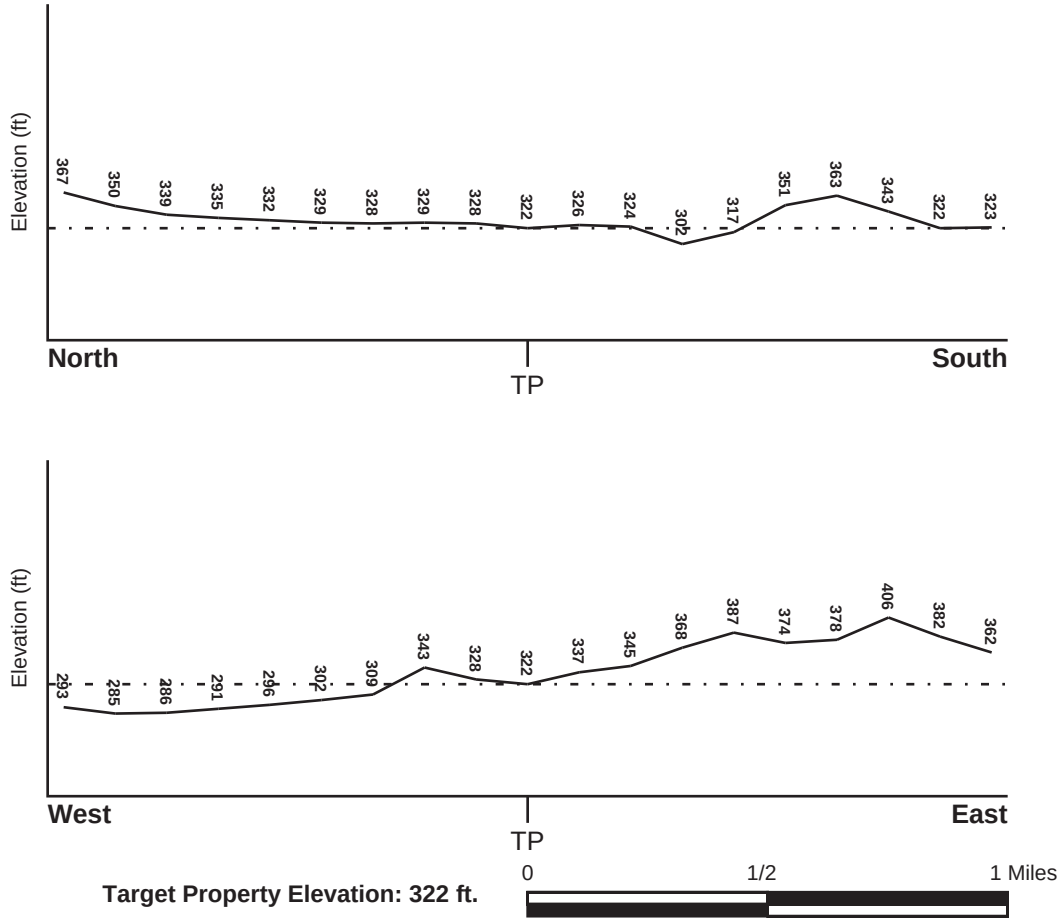
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 322 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
LOS ANGELES	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1 - 2 Miles West
Site Name:	Van Der Horst Corporation Of America
Site EPA ID Number:	CAD020159166
Surficial Aquifer Flow Dir.:	VARIABLE. A FLOW TO THE S AND SE HAS BEEN IDENTIFIED DURING FORMER INVESTIGATIONS. MORE RECENT INVESTIGATIONS IDENTIFIED A FLOW TO THE E.
Measured Depth to Water:	28 feet to 38 feet.
Hydraulic Connection:	Aquifer interconnections exist within 2 miles of the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/8 - 1/4 Mile West	Not Reported

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
3	1/4 - 1/2 Mile NNW	Not Reported
A4	1/2 - 1 Mile SE	Not Reported
A5	1/2 - 1 Mile SE	Not Reported
A6	1/2 - 1 Mile SE	W
B7	1/2 - 1 Mile SSW	SW
B8	1/2 - 1 Mile SSW	Not Reported

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	HAMBRIGHT
Soil Surface Texture:	gravelly - loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 10 inches
Depth to Bedrock Max:	> 20 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	7 inches	gravelly - loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 2.00 Min: 0.60	Max: 7.30 Min: 6.10
2	7 inches	16 inches	very gravelly - loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 6.10
3	16 inches	20 inches	unweathered bedrock	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
silty clay loam
shaly - clay loam
sandy loam
clay
loamy sand
clay loam

Surficial Soil Types: loam
silty clay loam
shaly - clay loam
sandy loam
clay
loamy sand
clay loam

Shallow Soil Types: silty clay

Deeper Soil Types: weathered bedrock
clay loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

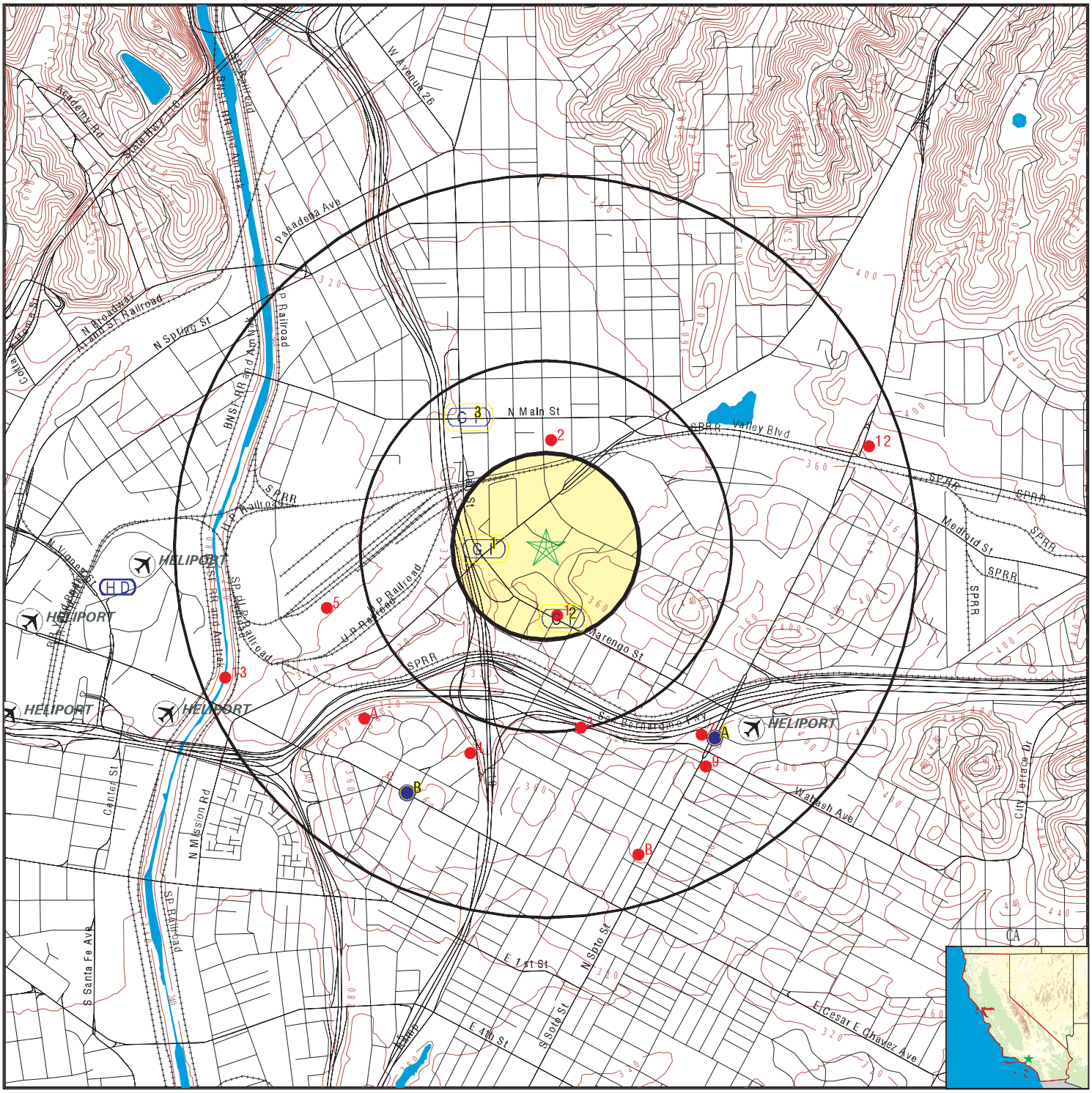
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG9A000031931	1/8 - 1/4 Mile South
2	CAOG9A000032640	1/4 - 1/2 Mile North
3	CAOG9A000031835	1/4 - 1/2 Mile South
4	CAOG9A000031828	1/2 - 1 Mile SSW
5	CAOG9A000031939	1/2 - 1 Mile WSW
A6	CAOG9A000031839	1/2 - 1 Mile SW
7	CAOG9A000031832	1/2 - 1 Mile SE
A8	CAOG9A000031836	1/2 - 1 Mile SW
9	CAOG9A000031827	1/2 - 1 Mile SE
B10	CAOG9A000031678	1/2 - 1 Mile SSE
B11	CAOG9A000031677	1/2 - 1 Mile SSE
12	CAOG9A000032591	1/2 - 1 Mile ENE
13	CAOG9A000031911	1/2 - 1 Mile WSW

PHYSICAL SETTING SOURCE MAP - 3659410.2s



0 1/4 1/2 1 Miles

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Lac Usc Phase I	CLIENT: Kimley Horn & Associates, Inc.
ADDRESS: 1200 N State Street Los Angeles CA 90033	CONTACT: Jennifer Steen
LAT/LONG: 34.061 / 118.2114	INQUIRY #: 3659410.2s DATE: July 09, 2013 5:10 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 **West** **1/8 - 1/4 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330089 Not Reported 38'8" 39'5" Not Reported 05/06/1992	**AQUIFLOW**	**38065**
2 **SSE** **1/8 - 1/4 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330325 Not Reported Not Reported Not Reported 33 10/14/1998	**AQUIFLOW**	**38069**
3 **NNW** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900310225 Not Reported Not Reported Not Reported 35 07/11/1991	**AQUIFLOW**	**69668**
A4 **SE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900570061 Not Reported 8.37 12 Not Reported 08/07/1996	**AQUIFLOW**	**55186**
A5 **SE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330152 Not Reported 25 32 Not Reported 10/23/1990	**AQUIFLOW**	**38063**
A6 **SE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330234 W Not Reported Not Reported 20.1 11/04/1996	**AQUIFLOW**	**69670**
B7 **SSW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330189 SW 25.59 30.09 Not Reported 05/26/1993	**AQUIFLOW**	**38076**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
B8 **SSW** **1/2 - 1 Mile** **Higher**	Site ID:	900330225	**AQUIFLOW**	**38178**
	Groundwater Flow:	Not Reported		
	Shallow Water Depth:	40		
	Deep Water Depth:	50		
	Average Water Depth:	Not Reported		
	Date:	11/19/1997		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
South
1/8 - 1/4 Mile

OIL_GAS **CAOG9A000031931**

Districtnu:	1	Apinumber:	03705846
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	I
Operatorna:	Santa Fe Springs Mutual Oil Syndicate		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	26		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.058305		
Glong:	-118.21087		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	AOG	Site id:	CAOG9A000031931

2
North
1/4 - 1/2 Mile

OIL_GAS **CAOG9A000032640**

Districtnu:	1	Apinumber:	03706322
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	23		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.065157		
Glong:	-118.211153		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Edison Corehole	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000032640

3
South
1/4 - 1/2 Mile

OIL_GAS **CAOG9A000031835**

Districtnu:	1	Apinumber:	03705189
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	I
Operatorna:	C. Bell		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	25		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.05392		
Glong:	-118.209755		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	AOG	Site id:	CAOG9A000031835

4
SSW **OIL_GAS** **CAOG9A000031828**
1/2 - 1 Mile

Districtnu:	1	Apinumber:	03720373
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	26		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.05292		
Glong:	-118.214948		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Seventh Day Adventist Church C	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000031828

5
WSW **OIL_GAS** **CAOG9A000031939**
1/2 - 1 Mile

Districtnu:	1	Apinumber:	03705144
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Atlantic Oil Company		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	26		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.058595		
Glong:	-118.221681		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Atlantic-Sunray L.A. Shops	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000031939

A6
SW
1/2 - 1 Mile

OIL_GAS **CAOG9A000031839**

Districtnu:	1	Apinumber:	03705474
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	B
Operatorna:	Joseph L. Herron		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	26		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.054577		
Glong:	-118.219512		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	AOG	Site id:	CAOG9A000031839

7
SE
1/2 - 1 Mile

OIL_GAS **CAOG9A000031832**

Districtnu:	1	Apinumber:	03721740
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	25		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.05364		
Glong:	-118.20409		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Blanchard	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	POG	Site id:	CAOG9A000031832

A8
SW
1/2 - 1 Mile

OIL_GAS **CAOG9A000031836**

Districtnu:	1	Apinumber:	03706212
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	I
Operatorna:	Ventura Oil syndicate #1		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	26		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.053966		
Glong:	-118.220343		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	AOG	Site id:	CAOG9A000031836

9
SE
1/2 - 1 Mile

OIL_GAS **CAOG9A000031827**

Districtnu:	1	Apinumber:	03720702
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	25		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.052398		
Glong:	-118.20389		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Friend Corehole	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000031827

B10
SSE **OIL_GAS** **CAOG9A000031678**
1/2 - 1 Mile

Districtnu:	1	Apinumber:	03721163
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	26		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.048994		
Glong:	-118.207014		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	BEW-2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000031678

B11
SSE **OIL_GAS** **CAOG9A000031677**
1/2 - 1 Mile

Districtnu:	1	Apinumber:	03721137
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	26		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.048921		
Glong:	-118.207092		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	BEW-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000031677

12
ENE **OIL_GAS** **CAOG9A000032591**
1/2 - 1 Mile

Districtnu:	1	Apinumber:	03700795
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	24		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.064912		
Glong:	-118.196237		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Golden State Core Hole	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000032591

13
WSW **OIL_GAS** **CAOG9A000031911**
1/2 - 1 Mile

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Districtnu:	1	Apinumber:	03706277
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	B
Operatorna:	F. F. Hoard		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	27		
Township:	01S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.055873		
Glong:	-118.22645		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	AOG	Site id:	CAOG9A000031911

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
90033	4	0

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX E

ENCON

QUARTERLYGROUNDWATER MONITORING REPORT
JUNE 12, 2003 THROUGH SEPTEMBER 12, 2003
LOS ANGELES COUNTY – USC MEDICAL CENTER

1200 N. STATE STREET
LOS ANGELES, CALIFORNIA

Prepared for:

California Regional Water Resources Control Board
Los Angeles Region
Attention: Mr. Magdy Baidy
320 West 4th Street Suite 200
Los Angeles, California 90013

Submitted on Behalf of:

Los Angeles – County – USC Medical Center
1200 N. State Street
Los Angeles, California

Prepared by:

ENCON TECHNOLOGIES, INC.
Environmental and Engineering Services
12145 Mora Street Suite #7
Santa Fe Springs, California 90670
Tel (562) 777-2200 Fax (562) 777-2201 Email ENCON@pacbel.net

October 6, 2003

EXECUTIVE SUMMARY

Pursuant to the requirements of the Regional Water Quality Control Board – Los Angeles Region and on behalf of the LA County – USC Medical Center, ENCON Technologies, Inc. performed quarterly groundwater monitoring at 1200 North State Street in the City of Los Angeles, California (Site). Groundwater monitoring activities for the 3rd quarter period of 2003 were performed at Site 4 (ITMW-1 through ITMW-10, ITMW-7 & TGMW-7) and Site 5 (TGMW-6 & ITMW-11) on September 11-12, 2003.

On September 11, 2003, Site 4 and 5 wells were purged using a vacuum truck operated by Island Environmental Services of Pomona, California. Approximately 144-gallons of groundwater were generated during the purging procedures and transported by Island for disposal to Remedy Environmental located in Anaheim, California.

Relative to the June 2003 monitoring episode, groundwater elevations decreased at Site 4 between 0.97 feet (TGMW-7) and 7.16 feet (ITMW-7); with an average decrease of 2.53 feet. Groundwater elevations at Site-4 ranged from a maximum of 333.05 feet above mean sea level (MSL) in well ITMW-4, to a minimum of 324.92 feet MSL in well ITMW-10. A review of this quarter's elevation data for Site-4 indicates that groundwater flows east-northeast at an approximate gradient 0.10 ft/ft. Groundwater elevations at Site-5 decreased this quarter by average of 2.46 feet relative to the June 2003 monitoring event. Based on the limited number of data points at Site-5 (Wells ITMW6 and ITMW-11), it appears that groundwater flows to the north-northwest.

Groundwater samples were analyzed by a state-certified laboratory for total petroleum hydrocarbons in the gasoline range (TPH-g) using EPA Method 8015M. Aromatic compounds benzene, toluene, ethylbenzene, and total xylenes (BTEX) and fuel oxygenates methyl-tertiary-butyl-ether (MtBE), ethyl-tertiary-butyl-ether (EtBE), tertiary-amyl-methyl-ether (TAME), diisopropyl-ether (DIPE), and tertiary-butyl-alcohol (TBA) using EPA Method 8260. In accordance with LARWQCB directives, additional parameters were tested select wells (ITMW-4, ITMW-8, & ITMW-11) for methane, sulfate (EPA Method 375.1), nitrate (352.1), and ferrous iron.

Chemical analysis of groundwater samples collected at Site 4 this quarter indicates that dissolved phase petroleum hydrocarbons in the gasoline range (TPH-g) were detected at concentrations ranging from below detection limits to a maximum of 82,781 µg/L. Benzene was detected at concentrations ranging from below detection limits to a maximum of 7,039 µg/L. Toluene was detected at concentrations ranging from 1 µg/L to 29,147 µg/L. Ethylbenzene was detected at concentrations ranging from below detection levels to 2,900 µg/L. Total xylenes were detected at concentrations ranging from below detection limits 11,914 µg/L. A single detection of MTBE was reported in Site-4 wells (TGMW-7) at a concentration of 17µg/L. DIPE was detected in Site-4 wells at concentrations ranging from 4 µg/L to 1,811 µg/L.

In summary, compared to the June 2003 monitoring event at Site 4:

- TPH-g concentrations increased in wells ITMW-2, ITMW-3 and decreased in all other wells.
- Benzene concentrations increased in well ITMW-3 and decreased in all other wells.
- Toluene concentrations increased in wells ITMW-2 and ITMW-7 and decreased in all other wells.
- Ethylbenzene concentrations increased in well ITMW-2 and decreased in all other Site 4 wells.
- Total xylenes decreased in concentration for all Site 4 wells this quarter.
- MTBE was detected in Site 4 wells ITMW-1 and TGMW-7 at concentrations of 13 µg/L and 14 µg/L, respectively and represents a decrease in concentration.
- DIPE concentrations increased in well ITMW-7 and decreased in all other wells.

Chemical analysis of groundwater samples collected at Site 5 indicate that dissolved phase petroleum hydrocarbons in the gasoline range (TPH-g) and BTEX were not detected this quarter. MTBE was detected in Site-5 wells (ITMW-6 and ITMW-11) at concentrations ranging from 13 to 36 µg/L. Compared to chemical results from the June 2003 monitoring episode (Site 5):

- MTBE increased in concentration in ITMW-6 and decreased in ITMW-11 relative to the previous monitoring event.
- TPH-g and BTEX concentrations remained below detection limits in ITMW-6 and ITMW-11.
- Fuel oxygenates TAME, DIPE, TBA, and ETBE remained below detection limits.
- Ferrous iron, sulfate, nitrate, and methane concentrations decreased in concentration at Site-5 relative to the June 2003 sampling event.

ENCON will perform groundwater monitoring on a quarterly basis at the Site in accordance with LARWQCB requirements.

This report was prepared for the exclusive use of the Los Angeles County – USC Medical Center as it pertains to their site located at 1200 N. State Street in Los Angeles, California. The services described in this report were performed by or under the direct supervision of a California Registered Geologist using the degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar fields. The findings in this report are based on field observations and on analytical results provided by an independent laboratory. Interpretations of the subsurface conditions at the site for the purpose of this investigation are made from a limited number of available data points (i.e., soil borings, monitoring wells, etc.). Subsurface conditions may vary from these data points over time and location. No other warranty, express or implied is made as to the professional conclusions or recommendations contained in this report.

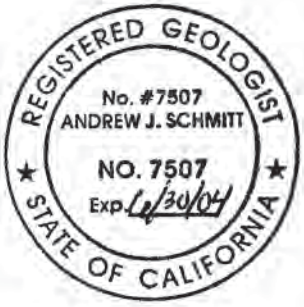
ENCON is pleased to submit this Groundwater Monitoring Report to the Los Angeles County – USC Medical Center. If there are any questions regarding the data or information in this report, please call the undersigned at (562) 777-2200.

Sincerely,
ENCON TECHNOLOGIES, INC.

Joseph Scatoloni, Principal
Senior Engineer and REA II

Under the Professional Supervision and Review of

Andrew Schmitt, ENCON Field Geologist,
California Registered Geologist, No. 7507



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California Regional Water Resources Control Board
Los Angeles Region
320 West 4th Street Suite 200
Los Angeles, California 90013

Attention: Mr. Magdy Baidy

Regards: Well Installation & Quarterly Monitoring Report
LAC-USC Medical Facility
1200 North State Street, Los Angeles, California (Site) File #900330270

Dear Mr. Braidy

ENCON Technologies, Inc. (ENCON) is pleased to present this *Quarterly Monitoring Report* on behalf of the Los Angeles County-USC Medical facility located at 1200 North State Street in the City of Los Angeles, California (Site).

The attached report presents groundwater monitoring results for the 3rd quarter period of 2003. If there are any questions regarding this work plan, please call the undersigned at (562) 777-2200.

Sincerely,
ENCON CORPORATION

G. Joseph Scataloni, Principal
Senior Engineer & REA II

c.c. Mr. John Kelly (Los Angeles – County – USC Medical Center)
Mr. Ron Phelps (Los Angeles – County – USC Medical Center)
ENCON File

1 INTRODUCTION

ENCON Technologies, Inc. (ENCON) was contracted by the Los Angeles County – USC Medical Center (LAC-USC) to conduct quarterly groundwater monitoring at two (2) sites located within their facility. The areas of concern are Site 4, located on the north side of the General Hospital, and Site 5, located on the north side of the former General Storage Area. The site locations are shown on Figure 2. This report documents the procedures and presents the results of this quarter's groundwater monitoring activities. Figures, tables, and appendices are attached.

2 BACKGROUND

2.1 SITE DESCRIPTION

The Los Angeles County – USC Medical Center is located just north of the San Bernardino Freeway and east of the Golden State Freeway in the City of Los Angeles, California (Figure 1). The facility itself consists of numerous buildings and operations bounded by Mission Road on the northwest, Valley Boulevard on the north, Soto Street on the east, and Marengo Street on the south. The ground surface elevation at the site ranges from 319 to 430 feet above mean sea level. The highest elevation is at Hazard Reservoir, located east-southeast from the General Hospital.

2.1.1 Site 4 – North Side of the General Hospital

Site 4 is located on the north side of the General Hospital just southwest of Zonal Street, across from Biggy Street. One 8,000-gallon gasoline UST, one 2,000-gallon gasoline UST, and associated dispenser and piping were formerly located in the area of the Ambulance Garage. In May 1988, the tanks were uncovered and removed by IT Corporation (IT). The 2,000-gallon tank was reportedly badly corroded. Holes were observed near the fill and seams in the tank during excavation. Approximately 32 gallons of gasoline product were observed in the excavation pit after removal. Soil samples collected beneath the tank inverts contained total petroleum hydrocarbons in the gasoline range (TPH-g) ranging from 5,400 mg/kg to 34,000 mg/kg. Chemical results for soil samples collected at the site are summarized in Table 2 in the Tables section of the report.

IT drilled and installed wells MW-1 through MW-7 between December 27 and 30, 1988. Well bore MW-6 was abandoned due to refusal at 12 feet below ground surface (bgs). For clarification purposes, these wells have been renamed ITMW-1, ITMW-2, ITMW-3, ITMW-4, ITMW-5 and ITMW-7. Well construction information is summarized in Table 1 in the Tables section of the report. Well locations are shown on Figures 3, 4 and 5.

Chemical results for soil samples collected during drilling procedures indicate that TPH-g was detected in the 15-foot samples from ITMW-3 and ITMW-4. TPH-g concentrations were 3,800 mg/kg and 20 mg/kg, respectively. BTEX were detected in the 35 foot sample from ITMW-1, and the 15-foot samples from ITMW-3 and ITMW-4. Benzene concentrations ranged from 10 micrograms per kilogram (µg/kg; in ITMW4 at 30 feet) to 56,000 µg/kg (ITMW-3 at 15 feet

bgs). Chemical results for soil samples collected during drilling procedures are summarized in Table 2 (see Appendix).

Groundwater monitoring was first conducted in January 1989 by IT. Groundwater was measured at 15.33 to 15.72 in wells ITMW-1 through ITMW-5, and at 19.04 feet in well ITMW-7. Non-aqueous phase liquid (NAPL), or floating product, was not found in any of the wells. Groundwater was determined to flow to the north. Groundwater samples were collected from all six wells on site and analyzed for TPH-g, BTEX, and total lead. Chemical results indicated TPH-g concentrations ranged from 11 milligrams per liter (mg/L) to 190 mg/l. The highest concentrations were in wells ITMW-1 (190 mg/L), ITMW-3 (140 mg/L) and ITMW-4 (130 mg/L). Benzene concentrations ranged from 740 micrograms per liter (µg/L) to 31,000 µg/L. The highest benzene concentrations were in ITMW-1, ITMW-3 and ITMW-4 (IT, 1989b).

Two 10,000-gallon diesel #2 fuel tanks were installed in 1988 at the west end of the site. In June 1992, Toxguard drilled, sampled and installed well MW-7 adjacent to abandoned well ITMW-6. Groundwater was not encountered during drilling. For report clarity, this well will be renamed as TGMW-7. Well construction details are summarized in Table 1 (see Appendix).

Chemical results for soil samples collected from TGMW-7 indicate TPH-g and BTEX were detected at 15 and 20 feet bgs. TPH-g concentrations were 16.2 and 22.7 mg/kg, respectively. Benzene concentrations were 14,000 and 220,000 µg/kg, respectively. TPH-d was not detected (Toxguard, 1992). However, boring logs for TGMW-7 indicate diesel-fuel odors at these depths.

Chemical results for groundwater samples collected from wells ITMW-1, ITMW-2, ITMW-4, ITMW-5, ITMW-7 and TGMW-7 on June 17, 1992, and on July 24, 1997, indicate TPH-g, TPH-d, and BTEX were detected (Toxguard, 1992; PIC, 1997). PIC indicated NAPL were present in wells ITMW-1, ITMW-2 and ITMW-4. Well ITMW-3 was not gauged or sampled as neither Toxguard or PIC could located the well.

Two (2) 10,000-gallon diesel fuel UST's were removed from the northwest portion of Site 4 in December of 1998. The UST's were excavated in a common pit adjacent to the storage and emergency generator building. Soil sampling conducted by ENCON during the installation of shoring along the perimeter of the tank pit excavation area identified elevated levels of petroleum hydrocarbons. Analysis of soil samples collected from twelve (12) borings advanced in Site 4 identified that maximum levels of TPH-g were reported at concentrations up to 3,504 mg/kg. BTEX were detected at maximum concentrations of 3,363 µg/kg benzene, 152,283 µg/kg toluene, 87,585 µg/kg ethyl-benzene, and 181,587 µg/kg total xylenes.

A soil and groundwater assessment conducted in February 1999 (ENCON) identified that the hydrocarbon plume extends beyond the retaining wall and into the parking lot adjacent to Zonal Avenue (cross gradient). In a letter dated October 31, 2000, the LARWQCB requested that a work plan be submitted to further assess groundwater in the cross gradient and down gradient directions of flow (Site 4). In December of 2000, ENCON submitted a work plan to install additional wells at Site 4 to define the limits of the plume.

2.1.2 Site 5 – North Side of the General Storage

On June 5, 1992, Toxguard drilled and installed well MW-6 in vicinity of a 4,000-gallon gasoline UST as part of a LDP. TPH-g was detected at 10 feet (21 mg/kg) and 25 feet (430 mg/kg) bgs. Benzene concentrations were 22 µg/kg and not detected, respectively. The well location is shown on Figure 3.

California Petro Check conducted a leak test on the 4,000-gallon UST on July 15, 1992. A leak rate of 0.098 gallons per hour was determined. A line test conducted on August 7, 1992 also failed. Toxguard suspected a defective foot valve.

In 1995, Moines Bros (Moines) pulled permits for the removal of USTs at the site. On June 28, 1995, Targhee and Moines removed a 4,000-gallon gasoline tank, dispenser, and associated piping from the trash compaction area just north of the General Storage building. Chemical results indicated 5 mg/kg TPH-g and 8 µg/kg benzene were detected beneath the tank. TPH-g and BTEX were not detected beneath the dispenser. Targhee noted all samples collected beneath the 4,000-gallon tank had hydrocarbon odors.

A soil and groundwater assessment conducted in February 1999 (ENCON) identified that groundwater was not laterally persistent beneath Site 5 and that the plume appeared to be stable and well defined. In December of 2000, ENCON requested that closure to Site 5 be granted and submitted a work plan including the abandonment of well ITMW-6.

2.2 GEOLOGY / HYDROGEOLOGY

The Los Angeles County – USC Medical Center is located in the northern part of the Los Angeles Basin known as the Elysian Park – Repetto Hills Area. Specifically, the site is located on the outcrop of sandstone and siltstone at the southeastern edge of the Elysian Park Hills. The outcrop is surrounded by Quaternary older alluvium consisting of silt, sand, and gravel. Boring logs prepared by the various consultants indicate local site conditions consist of the following:

Site	Depth Range	Composition
1	3-5' 5-12' 12-30' 30-45'	Medium brown Silty Sand Dark brown Silty Clay. Trace gravel from 10 feet. Dark to light brown Clayey Silt, Sandy Silt, Sand and Gravelly Sand. Dark gray coarse-grained Sand. (ALLUVIUM)
4	0-37' 37-40	Fine to coarse-grained Sand and Sandstone. Fossils at 30 feet. Greenish brown Clayey Siltstone. (PUENTE FMN – TPSS)
5	0-17' 17-40'	Sandy Silt, Silt and bedrock fragments. Carbonized root fragments at 15 feet. Greenish gray Silty Sand and light brown coarse-grained sand. (Possible Alluvium to 15 feet, PUENTE FMN – TPSS from 15 feet bgs to 40 feet.)

Bulletin 104 (California Department of Water Resources [CDWR], 1961) indicates the LAC-USC Medical Center is in an area of "non-water bearing" rocks. This term is used for sites where groundwater is either not present or is of limited supply. Groundwater was found at various depths between 15 (ITMW-2) and 35 feet (ITMW-3) below ground surface during drilling procedures. Depth to groundwater has equilibrated at approximately 27.56 feet bgs on the north side of the Steam Plant (Site 1), 15.7 feet bgs in vicinity of the General Hospital; and 20 feet bgs on the north side of the General Storage Area. Groundwater in well ITMW-7 has historically been 3 to 4 feet deeper than the other wells at Site 4. Reasons for this occurrence are unclear at this time.

Groundwater has historically flowed to the north beneath Sites 4 and 5. A groundwater contour map prepared by Dames & Moore in 1994 indicated water flow in all directions from the Hazard Reservoir located at the corner of Zonal and Cummings. This may indicate local groundwater is surficial and originating from the reservoir. Slow recharge of the wells in Site 4, set in the sandstone formation, may indicate groundwater is of very limited supply. This is consistent with the "non-water bearing rock" designation used in Bulletin 104.

3 QUARTERLY GROUNDWATER MONITORING

3.1 GROUNDWATER GAUGING

On September 11, 2003, ENCON personnel gauged wells ITMW-1 through ITMW-5, ITMW-7, TGMW-7 and TGMW-6 using an electronic water-level tape manufactured by Solinst. The presence (or absence) of separate-phase product and thickness was measured using water- and gasoline-sensitive indicator pastes. Gauging procedures are presented in Appendix A. Gauging data were used to construct the Groundwater Contour Maps shown on Figures 2 and 3.

3.2 WELL DEVELOPMENT AND GROUNDWATER SAMPLING

On September 11, 2003, a vacuum truck operated by Island Environmental Services of Long Beach, California, purged wells ITMW-1 through ITMW-11, and TGMW-7 under the direction of an ENCON staff geologist. Temperature, pH, and conductivity were monitored for every well purge volume using a HYDAC Meter. Turbidity measurements were recorded using HANNA Instruments meter. Well purging data sampling procedures are presented Appendix A.

On September 12, 2003, an ENCON staff geologist collected water samples from wells ITMW-1 through ITMW-11, and TGMW-7 after full recovery with respect to the original well volume. Two 40-milliliter (ml) VOA vials were filled with water from each well using new disposable polyethylene bailers. Once collected, the samples were labeled, recorded on a chain-of-custody document, and placed in cold storage until delivered to a state-certified laboratory for analysis. All water samples were handled according to standard EPA chain-of-custody procedures. Well purging and sampling procedures, as well as quality assurance procedures, are presented in Appendix A.

3.3 CHEMICAL ANALYSIS

Groundwater samples were analyzed by a state-certified laboratory for total petroleum hydrocarbons in the gasoline range (TPH-g) using EPA Method 8015M. Aromatic compounds benzene, toluene, ethylbenzene, and total xylenes (BTEX) and fuel oxygenates methyl-tertiary-butyl-ether (MtBE), ethyl-tertiary-butyl-ether (EtBE), tertiary-amyl-methyl-ether (TAME), diisopropyl-ether (DIPE), and tertiary-butyl-alcohol (TBA) using EPA Method 8260. In accordance with LARWQCB directives, additional parameters were tested select wells (ITMW-1, ITMW-4, ITMW-8, & ITMW-11) for methane, sulfate (EPA Method 375.1), nitrate (352.1), and ferrous iron.

3.4 WASTE DISPOSAL

Approximately 188-gallons of groundwater was generated during the purging procedures and transported by Island Environmental Services for disposal to Remedy Environmental located in Anaheim, California. The wells were pumped dry and stepped intermittently during the purging activities. A copy of the certified non-hazardous liquid waste manifest is provided in Appendix D.

4 QUARTERLY GROUNDWATER MONITORING RESULTS

4.1 PHYSICAL RESULTS

4.1.1 Site 4 – North Side of General Hospital

Relative to the June 2003 monitoring episode, groundwater elevations decreased at Site 4 between 0.97 feet (TGMW-7) and 7.16 feet (ITMW-7); with an average decrease of 2.52 feet. Groundwater elevations ranged from a maximum of 333.05 feet above mean sea level (MSL) in well ITMW-4, to a minimum of 324.92 feet MSL in well ITMW-10.

A review of Site-4 elevation data indicates that groundwater flows east-northeast at an approximate gradient 0.10 ft/ft. Current and historical groundwater contour maps for this site indicate a possible groundwater barrier just south of ITMW-7, resulting in different flow regimes on either side of the barrier. South of the divide, groundwater appears to flows in an elliptically radial pattern outward from well ITMW-2. North of the divide, groundwater is typically 2 to 4 feet deeper and appears to flow to the east - northeast.

Non-aqueous phase liquid (NAPL, or free product) was detected this quarter in well ITMW-2 at a thickness of 0.2-inches.

4.1.2 Site 5 – North Side of Former General Storage Area

Groundwater elevations decreased in Site-5 wells by average of 2.46 feet relative to the June 2003 monitoring event. No product was measured on the water table at Site 5 this quarter. Groundwater elevations and depth to water measurements recorded at Site 5 are summarized in the following table (Table 1 – Groundwater Elevation Data).

Table 1:
Summary of Groundwater Elevation Data Sites 4 & 5
September 11, 2003

Well ID	Top of Well Casing (feet aMSL)	Date Measured	Depth to Groundwater (TOC)	Groundwater Elevation (aMSL)
ITMW-1	352.13	9/11/03	20.7	331.43
ITMW-2	352.22	9/11/03	20.12	332.10
ITMW-3	352.14	9/11/03	19.64	332.50
ITMW-4	352.39	9/11/03	19.34	333.05
ITMW-5	352.40	9/11/03	20.38	332.02
ITMW-6	319.09	9/11/03	19.88	299.21
ITMW-7	351.72	9/11/03	22.17	329.55
TGMW-7	352.5	9/11/03	20.75	331.75
ITMW-8	345.86	9/11/03	18.41	327.45
ITMW-9	345.93	9/11/03	19.98	325.95
ITMW-10	344.91	9/11/03	19.99	324.92
ITMW-11	318.62	9/11/03	19.91	298.71

Notes: aMSL = Above Mean Sea Level, TOC = Feet below Top of Casing

4.2 CHEMICAL RESULTS

4.2.1 Site 4 – North Side of General Hospital

Chemical results are summarized in the table below (Table 1) and are presented in Appendix B. A copy of the laboratory report and chain-of-custody documents are included in Appendix C.

TABLE 5:
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS -SITE 4
In Parts Per Million µg/L or ppb
Sampling Date: September 12, 2003

Sample ID	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	ETBE (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	TAME (µg/L)
ITMW1	82,781	7,039	12,202	2,900	11,914	ND	ND	ND	167	ND
ITMW2	40,147	4,221	3,628	1,221	5,401	ND	ND	ND	1,811	ND
ITMW3	37,253	1,776	1,897	2,048	6,939	ND	ND	ND	ND	ND
ITMW4	39,306	2,296	1,373	2,315	7,716	ND	ND	ND	124	ND
ITMW5	5,007	575	18	134	126	ND	ND	ND	241	ND
ITMW7	ND	ND	ND	ND	ND	ND	ND	ND	27	ND
TGMW7	12,224	4,301	246	279	889	ND	17	ND	56	ND
ITMW8	104	ND	ND	ND	ND	ND	ND	ND	5	ND
ITMW9	ND	ND	ND	ND	ND	ND	ND	ND	5	ND
ITMW10	ND	ND	ND	ND	ND	ND	ND	ND	4	ND
Detection Limits	**100**	**1.0**	**1.0**	**1.0**	**1.0**	**2.0**	**2.0**	**10**	**2.0**	**2.0**

Notes: * = Refers to Site 4, ND = Below detection limits, total petroleum hydrocarbons in the gasoline range (TPH-g), benzene (B), toluene (T), ethylbenzene (E), total xylenes (X), methyl-tertiary-butyl-ether (MtBE), ethyl-tertiary-butyl-ether (EtBE), tertiary-amyl-methyl-ether (TAME), diisopropyl-ether (DIPE), tertiary-butyl-alcohol (TBA), mg/L = Milligrams per liter (parts per million) and µg/L = Micrograms per liter (parts per billion).

Analysis of microbial indicators in groundwater samples collected from select Site 4 wells, indicates that methane was present at concentrations ranging from below detection limits to 2,285 µg/L (ITMW4). A single detection of ferrous iron was detected in the sample collected from well ITMW4 at a concentration of 0.4 µg/L. Sulfate was detected in samples collected from ITMW8 at a concentration of 110 µg/L and 700 µg/L, respectively. Nitrate was not detected this quarter. Chemical results for the additional groundwater parameters are summarized for Site 4 in the following table (Table 4 – Summary of Additional Groundwater Parameters) and are included in Appendix C.

TABLE 4:
SUMMARY OF MICROBIAL INDICATORS SITE -4
In Parts Per Billion (µg/L or ppb)
Samples Collected – September 12, 2003

Sample ID	Methane	Ferrous Iron	Sulfate	Nitrate
ITMW4	2,285	0.4	ND	ND
ITMW8	ND	ND	110	ND
Detection Limits	1	5	5	20

Notes: ND = Below detectable concentrations

Compared to chemical results from the June 2003 monitoring event at Site 4:

- TPH-g concentrations increased in wells ITMW-1, TGMW-7, and ITMW-3 and decreased in all other wells.
- Benzene concentrations increased in wells ITMW-2 and TGMW-7 and decreased in all other wells at Site 4.
- Toluene concentrations increased in wells ITMW-1, ITMW-2, and TGMW-7 and decreased in all other wells.
- Ethylbenzene concentrations increased in well TGMW-7 and decreased in all other Site 4 wells.
- Total xylenes increased in concentration in TGMW-7 and decreased in all other Site 4 wells this quarter.
- MTBE was detected in TGMW-7 at a concentrations of 17 µg/L and represents an increase in concentration relative to last quarter.
- DIPE concentrations increased in well ITMW-2, ITMW-5, and ITMW-10 and decreased in all other wells relative to the June 2003 sampling event.
- Ferrous iron, sulfate, and methane concentrations increased in ITMW-4 and decreased in ITMW-8 relative to the June 2003 sampling event.

4.2.2 Site 5 – North Side of Former General Storage Area

Chemical results of groundwater samples are summarized in the table (Table 2) below and are presented in Appendix B. A copy of the laboratory report and chain-of-custody documents are included in Appendix C.

TABLE 5:
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - SITE 5
In Parts Per Billion (µg/L or ppb)
Groundwater Samples Collected – September 12, 2003

Well ID	TPH-g	B	T	E	X	ETBE	MTBE	TBA	DIPE	TAME
ITMW6	ND	ND	ND	ND	ND	ND	36	ND	ND	ND
ITMW11	ND	ND	ND	ND	ND	ND	13	ND	ND	ND
Detection Limits	**100**	**1.0**	**1.0**	**1.0**	**1.0**	**2.0**	**2.0**	**10**	**2.0**	**2.0**

Notes: * = Refers to Site 4, ND = Below detection limits, total petroleum hydrocarbons in the gasoline range (TPH-g), benzene (B), toluene (T), ethylbenzene (E), total xylenes (X), methyl-tertiary-butyl-ether (MTBE), ethyl-tertiary-butyl-ether (ETBE), tertiary-amyl-methyl-ether (TAME), diisopropyl-ether (DIPE), tertiary-butyl-alcohol (TBA), mg/L = Milligrams per liter (parts per million) and µg/L = Micrograms per liter (parts per billion).

Chemical analysis of microbial indicators at Site 5 (ITMW-11) indicates that methane was detected at a concentration of 2.0 µg/L. Sulfate and nitrate were detected at concentrations of 625 µg/L and 2.2 µg/L, respectively. Ferrous iron was not present in the groundwater sample collected from Site 5. Chemical results for the additional groundwater parameters are summarized for Site 4 in the following table (Table 3 – Summary of Additional Groundwater Parameters) and are included in Appendix C.

TABLE 3:
SUMMARY OF MICROBIAL PARAMETERS SITE -5
In Parts Per Billion (µg/L or ppb)
Groundwater Samples Collected – September 12, 2003

Sample ID	Methane	Ferrous Iron	Sulfate	Nitrate
ITMW11	2.0	ND	625	2.2
Detection Limits	1	5	5	20

Notes: ND = Below detectable concentrations

Compared to chemical results from the June 2003 monitoring episode (Site 5):

- MTBE increased in concentration in ITMW-6 and decreased in ITMW-11 relative to the previous monitoring event.
- TPH-g and BTEX concentrations remained below detection limits in ITMW-6 and ITMW-11.
- Fuel oxygenates TAME, DIPE, TBA, and ETBE remained below detection limits.
- Ferrous iron, sulfate, nitrate, and methane concentrations decreased in concentration at Site-5 relative to the June 2003 sampling event.

5 SUMMARY AND DISCUSSION

LA County – USC Medical Center contracted ENCON Technologies to conduct groundwater monitoring at their facility in Los Angeles, California. Monitoring wells ITMW-1 through ITMW-5, ITMW-7 and TGMW-7 (Site 4) and well TGMW-6 (Site 5) were gauged and purged on September 1, 2003 and sampled on September 12, 2003. Approximately 144-gallons of groundwater was generated during the purging procedures and transported by Island Environmental Services for disposal to Remedy Environmental located in Anaheim, California.

Relative to the June 2003 monitoring episode, groundwater elevations decreased at Site 4 between 0.97 feet (TGMW-7) and 7.16 feet (ITMW-7); with an average decrease of 2.53 feet. Groundwater elevations at Site-4 ranged from a maximum of 333.05 feet above mean sea level (MSL) in well ITMW-4, to a minimum of 324.92 feet MSL in well ITMW-10. A review of this quarter's elevation data for Site-4 indicates that groundwater flows east-northeast at an approximate gradient 0.10 ft/ft. Groundwater elevations at Site-5 decreased this quarter by average of 2.46 feet relative to the June 2003 monitoring event. Based on the limited number of data points at Site-5 (Wells ITMW6 and ITMW-11), it appears that groundwater flows to the north-northwest.

Chemical analysis of groundwater samples collected at Site 4 this quarter indicates that dissolved phase petroleum hydrocarbons in the gasoline range (TPH-g) were detected at concentrations ranging from below detection limits to a maximum of 82,781 µg/L. Benzene was detected at concentrations ranging from below detection limits to a maximum of 7,039 µg/L. Toluene was detected at concentrations ranging from 1 µg/L to 29,147 µg/L. Ethylbenzene was detected at concentrations ranging from below detection levels to 2,900 µg/L. Total xylenes were detected at concentrations ranging from below detection limits 11,914 µg/L. A single detection of MTBE was reported in Site-4 wells (TGMW-7) at a concentration of 17µg/L. DIPE was detected in Site-4 wells at concentrations ranging from 4 µg/L to 1,811 µg/L.

Chemical analysis of groundwater samples collected at Site 5 indicate that dissolved phase petroleum hydrocarbons in the gasoline range (TPH-g) and BTEX were not detected this quarter. MTBE was detected in Site-5 wells (ITMW-6 and ITMW-11) at concentrations ranging from 13 to 36 µg/L.

6.0 RECOMMENDATIONS

ENCON will perform groundwater monitoring on a quarterly basis at the Site in accordance with LARWQCB requirements. In addition, on behalf of the LAC-USC medical facility, the directives stated by the LARWQCB in their October 31, 2000 letter will be implemented at the Site in the near future.

REFERENCES

California Department of Water Resources (CDWR), 1961. "Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County": CDWR Bulletin No. 104, Appendix A – Ground Water Geology.

IT Corporation, 1989. "Report of Preliminary Underground Storage Tank Leak Investigation, Los Angeles County – USC Medical Center, 1200 North State Street, Los Angeles, California": Prepared by IT Corporation for Los Angeles County – USC Medical Center, dated February 15, 1989.

IT Corporation, 1989b. "Results of Groundwater Monitoring and Sampling, Los Angeles County – USC Medical Center": Prepared by IT Corporation for Los Angeles Facilities Management Department, dated April 1989.

Petroleum Industry Consultants (PIC), 1997. "Quarterly Groundwater Monitoring Report for LAC-USC Medical Center, 1200 North State Street, Los Angeles, California": Unpublished report prepared by PIC for the LAC-USC Medical Center, dated August 19, 1997.

Toxguard, Inc., 1992. "Interim Report of Findings for the Leak Detection Investigation and Tank Monitoring Program at Los Angeles County – USC Medical Center, 1200 North State Street, Los Angeles, California 90033": Prepared for the LAC Medical Center by Toxguard, Inc. of Irvine, California, dated September 4, 1992.

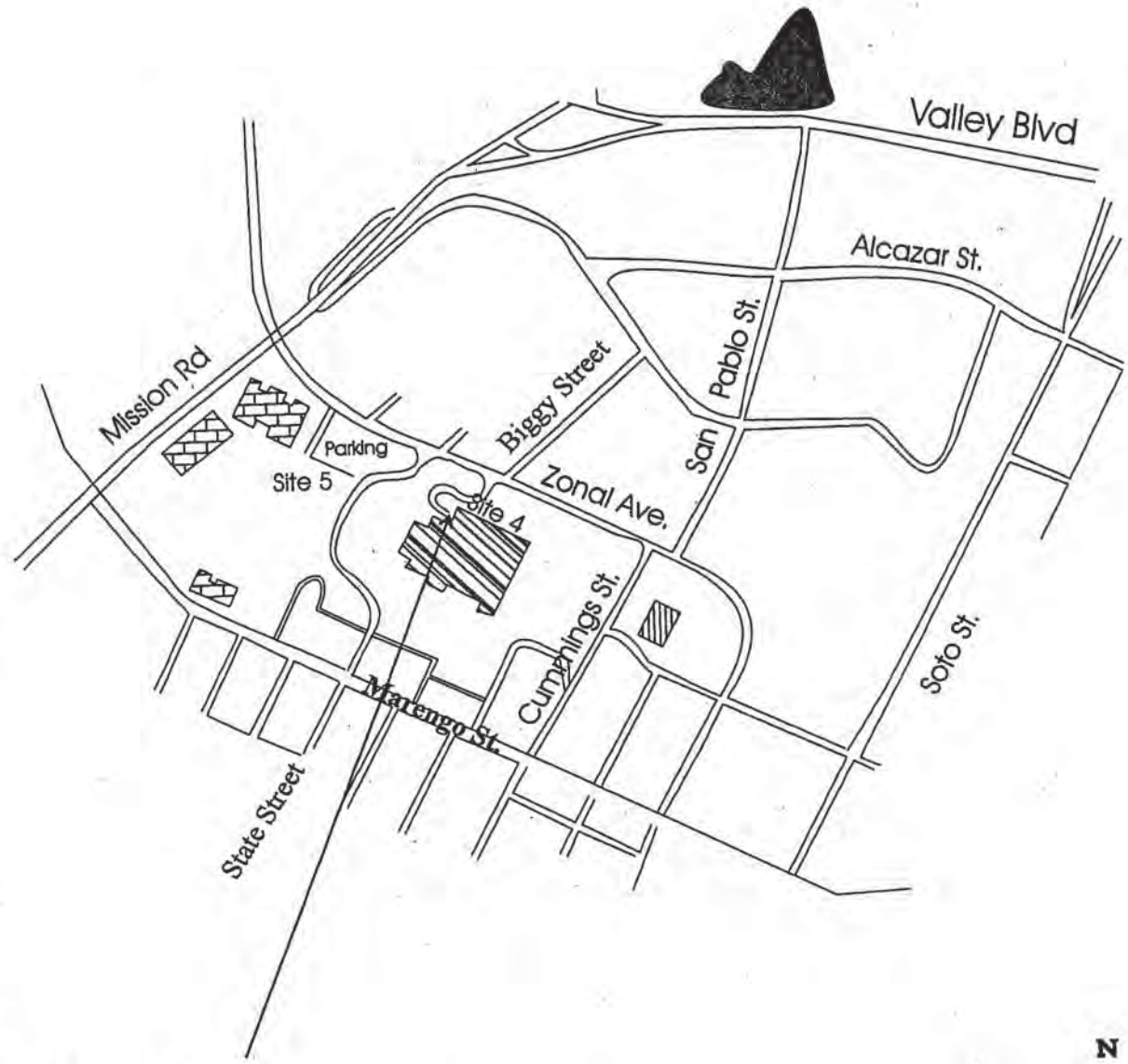
Targhee, Inc., 1995. "Underground Storage Tank Removal and Soil Sampling – USC Medical Center, 1200 N. State Street, Los Angeles, California": Prepared for LAC-USC Medical Center by Targhee, Inc. dated May 31, 1995.

Targhee, Inc., 1995b. "Underground Storage Tank Removal and Soil Sampling – USC Medical Center, 1200 N. State Street, Los Angeles, California": Prepared for LAC-USC Medical Center by Targhee, Inc. dated June 28 1995.

U.S. Geological Survey (USGS), 1966. "Los Angeles – California Quadrangle", topographic series: Published by the USGS. Photorevised in 1981. USGS Scale 1:24000, 1 sheet.

FIGURES

FIGURE 1	SITE LOCATION MAP
FIGURE 2	GROUNDWATER CONTOUR MAP – SITES 4 & 5
FIGURE 3	DISSOLVED HYDROCARBON MAP – SITE 4
FIGURE 4	DISSOLVED HYDROCARBON MAP – SITE 4
FIGURE 5	TPH-GAS CONTOUR MAP – SITE 5
FIGURE 6	BENZENE CONTOUR MAP – SITE 5



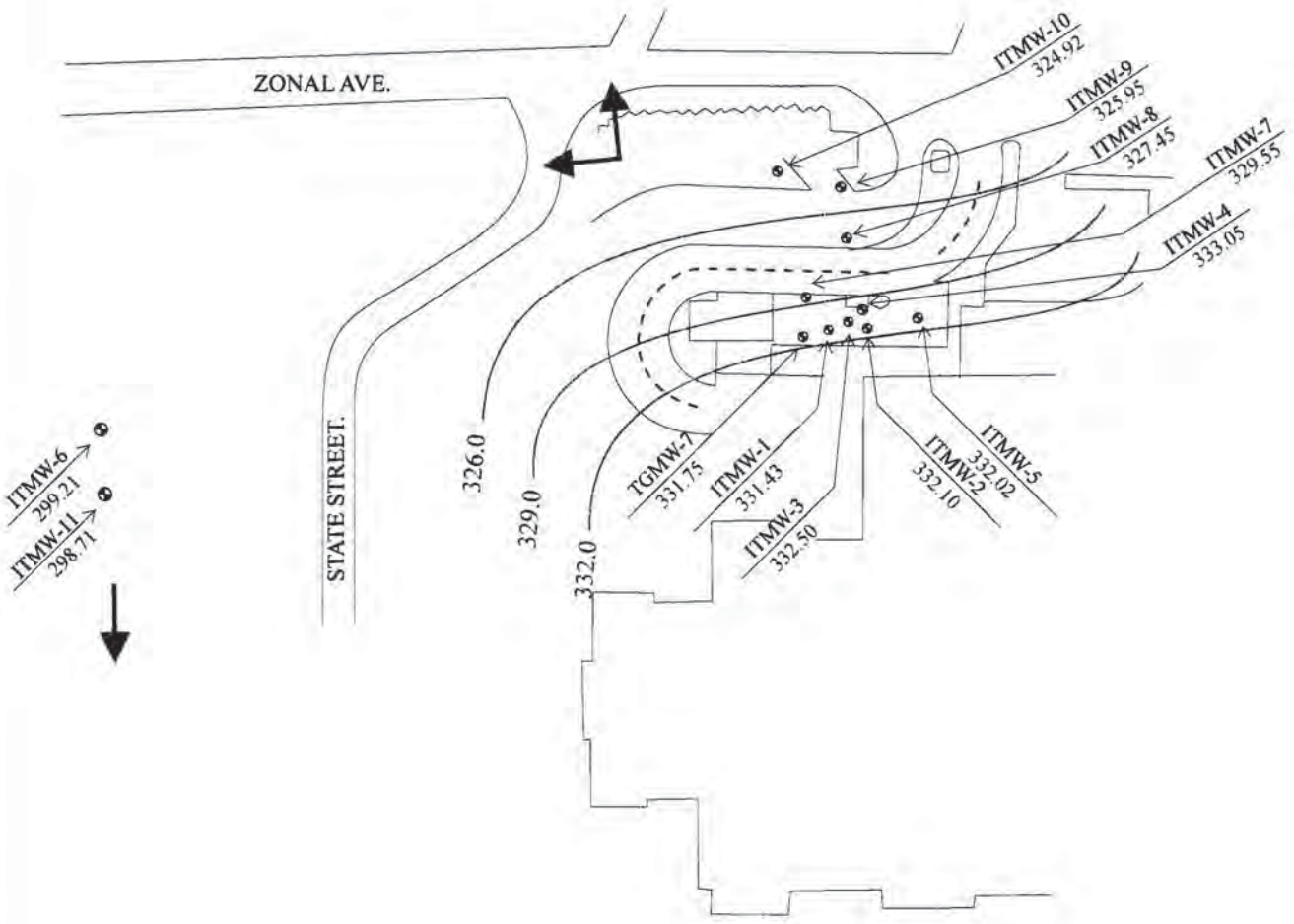
LAC-USC MEDICAL CENTER

ENCON Environmental & Engineering Services

FILE Encon\LAC-USC\LAC-USC.1098

Approximate Scale: 1" = 30 feet

FIGURE 1



LEGEND

WELL #	Groundwater Monitoring Well and Identification
###.##	Groundwater Elevation in Feet Above MSL
→	Groundwater Flow Direction

North

Approximate Scale
(1"=100')

0 100 150

September 11-12, 2003
GROUNDWATER ELEVATION MAP

LAC-USC MEDICAL CENTER

Sites 4 & 5

ENCON Environmental
& Engineering Services

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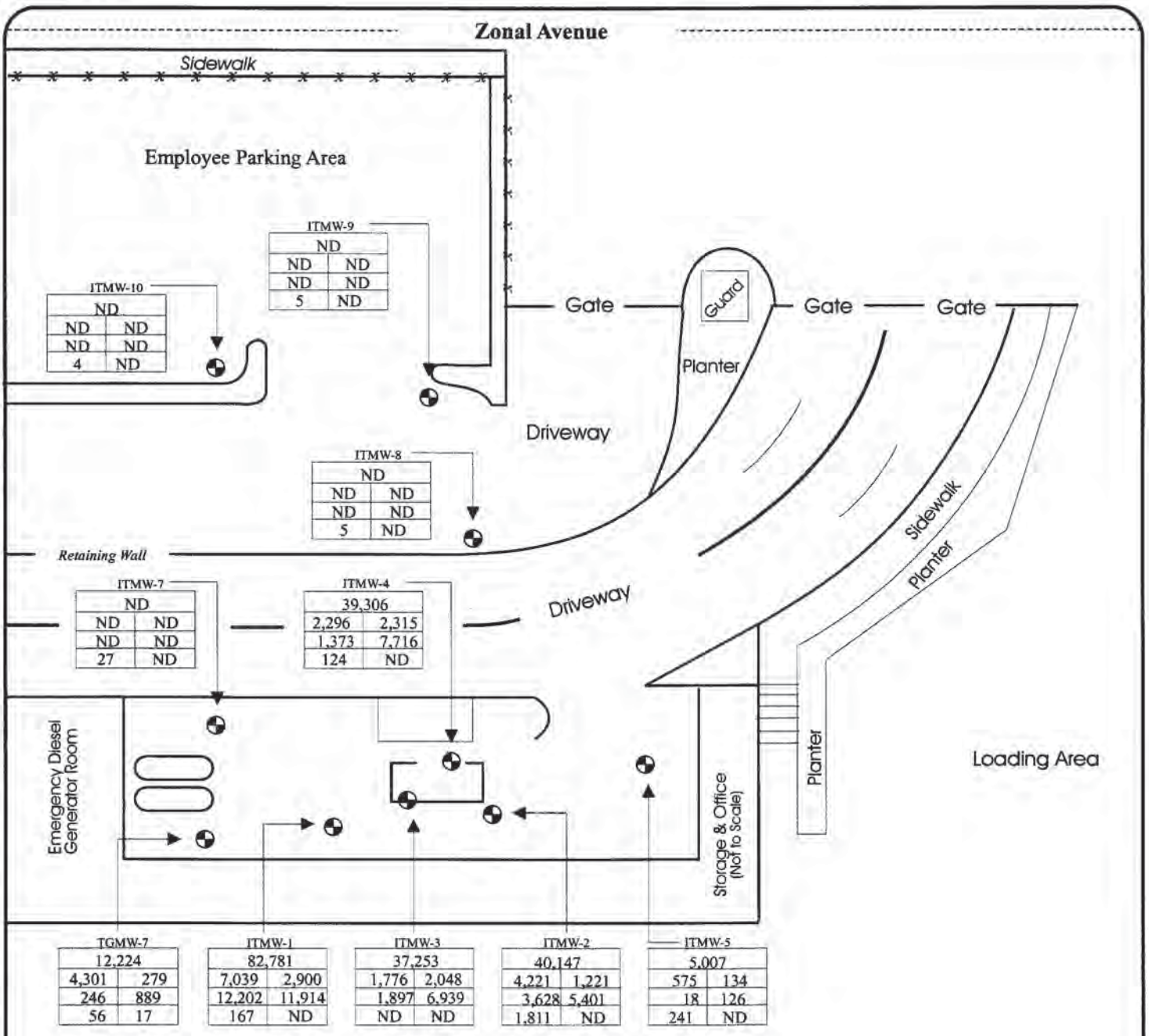
Revised October 6, 2003

FIGURE 2



LEGEND

WELL #

Groundwater Monitoring Well and Identification

TPH-gas	
Benzene	E-Benz
Toluene	Xylenes
DIPE	MtBE

Concentration of TPH-gas, benzene, toluene, ethylbenzene, total xylenes, DIPE, and MTBE in ug/L.

N E W S

Notes: Well Sampled September 12, 2003

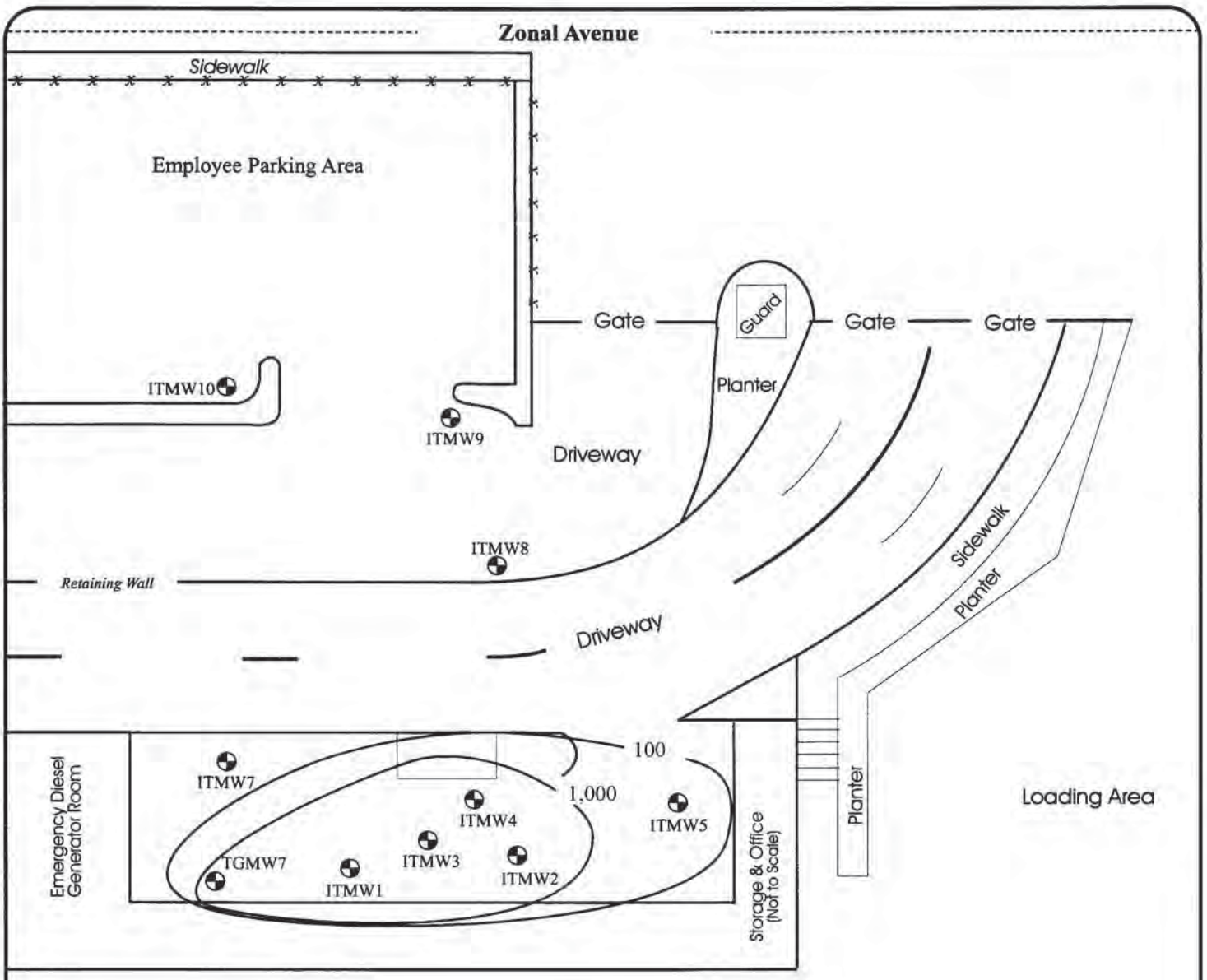
September 12, 2003
DISSOLVED HYDROCARBON DISTRIBUTION MAP

Approximate Scale
(1"=30')

0 15 30 45

ENCON Environmental
& Engineering Services

FIGURE 3



LEGEND

WELL #

Groundwater Monitoring Well and Identification

Approximate line of equal Benzene concentration in ug/L.

N E W S

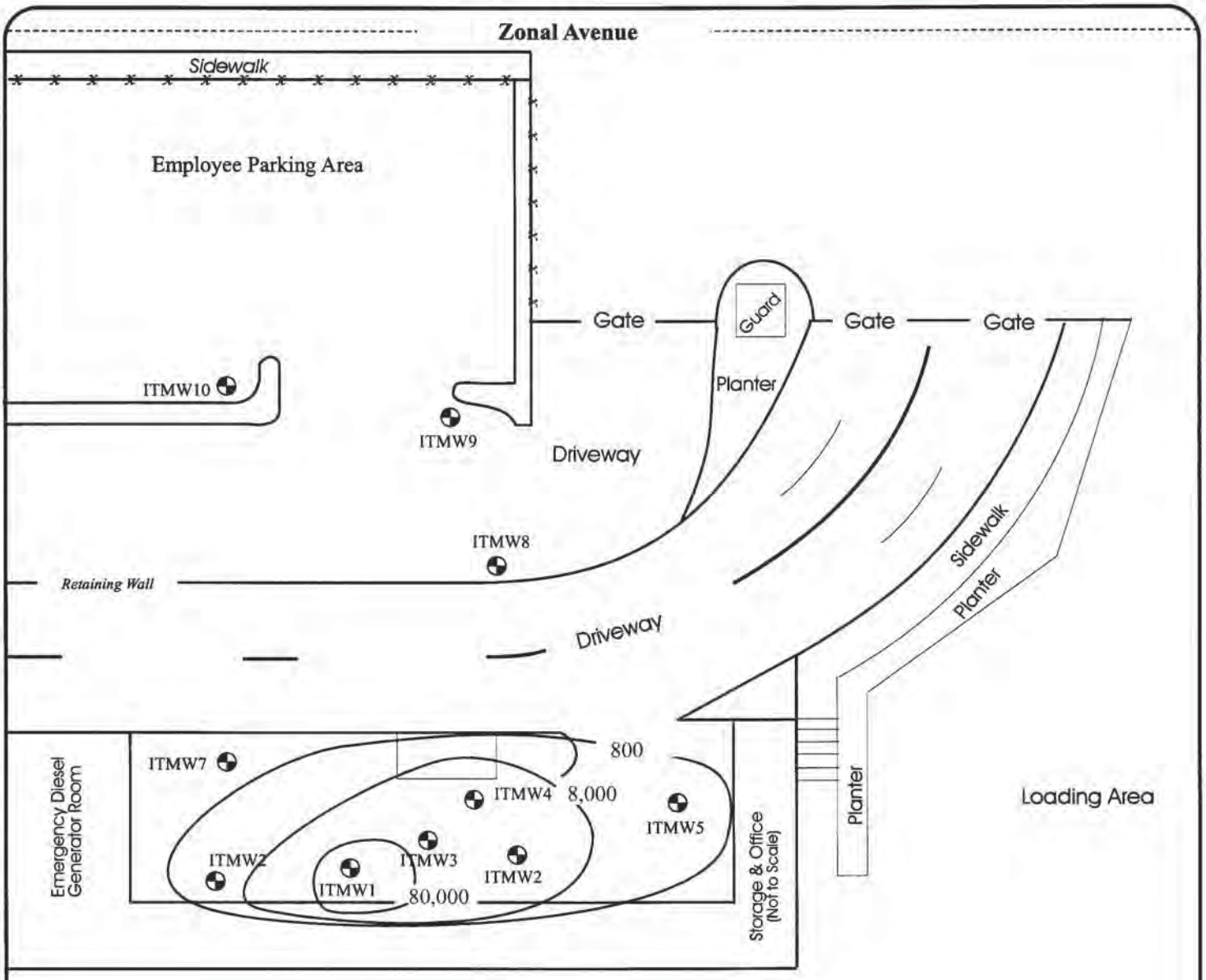
Approximate Scale (1"=30')

0 15 30 45

September 12, 2003
BENZENE CONTOUR MAP
LAC-USC MEDICAL FACILITY
SITE-4 LOCATION MAP

ENCON Environmental & Engineering Services

FIGURE 4



LEGEND

WELL # — Groundwater Monitoring Well and Identification

Approximate line of equal TPH-gas concentration in ug/L.

N E S W

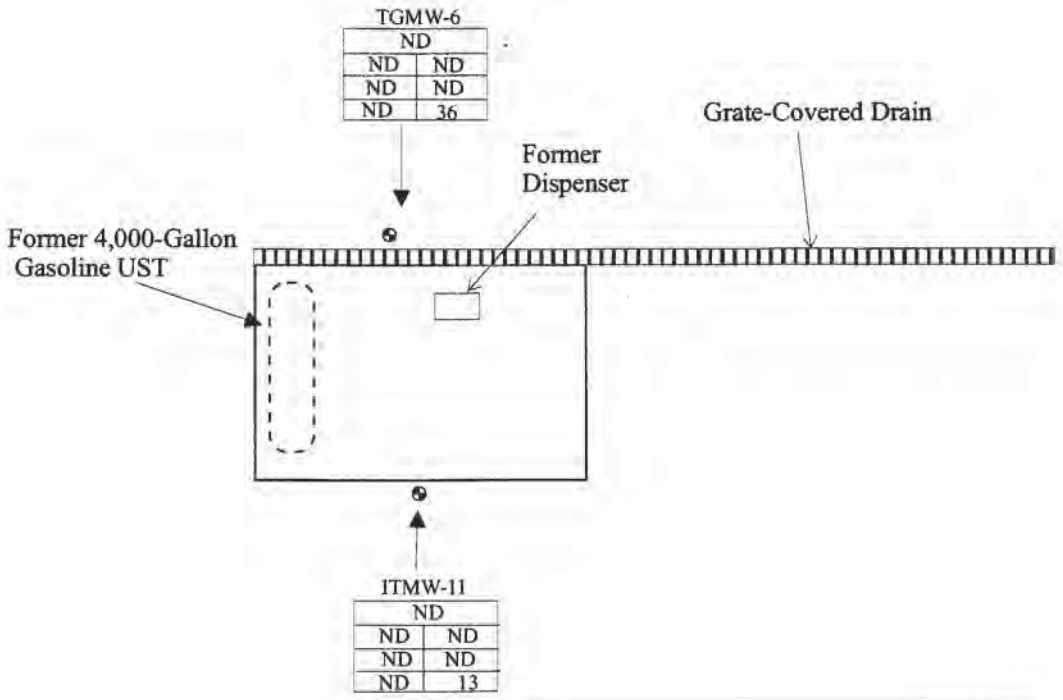
September 12, 2003
TPH-GAS CONTOUR MAP

Approximate Scale (1"=30')

0 15 30 45

ENCON Environmental & Engineering Services

FIGURE 5



WELL # Groundwater Monitoring Well and Identification

TPH-g	
B	E
T	X
MTBE	DIPE

Concentration of TPH-g, benzene, toluene, ethylbenzene, total xylenes, DIPE, and MTBE in micrograms per liter (ug/L).

Septmber 12, 2002
HYDROCARBON DISTRIBUTION MAP

LAC-USC MEDICAL CENTER

Site 5

North

Approximate Scale
(1"=20')

0 20

ENCON Environmental
& Engineering Services

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FIGURE 6

HISTROCIAL GROUNDWATER DATA
(TABLES & GRAPHS)

GRAPH 1	GROUNDWATER ELEVATIONS OVER TIME
GRAPH 2	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME ITMW-1
GRAPH 3	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME ITMW-2
GRAPH 4	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME ITMW-3
GRAPH 5	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME ITMW-4
GRAPH 6	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME ITMW-5
GRAPH 7	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME ITMW-6
GRAPH 8	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME ITMW-7
GRAPH 9	DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME TGMW-7
TABLE 3.	SUMMARY OF GROUNDWATER DATA SITES 4 & 5

TABLE 3 HISTORICAL GROUNDWATER DATA

Site: LAC-USC Medical Center
Site-4 (ITMW1-ITMW10, ITMW7, & TGMW7) and Site 5 (ITMW-6 & ITMW-11)
1200 North State Street
Los Angeles, California

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected GW Elev. (ft MSL)	Change in GW Elev		EPA 8015 TPH-g (ug/l)	EPA 8020 B (ug/l)	T (ug/l)	E-Benz (ug/l)	X (ug/l)	EPA 8260B MTBE (ug/l)	DIPE (ug/l)	TBA (ug/l)	TAME (ug/l)	ETBE (ug/l)	Fe3+ (ug/l)	EPA 352.1 NO4 (ug/l)	EPA 375.1 SO4 (ug/l)	CH4 (ug/l)
ITMW-3																							
ITMW-3	7/24/97	352.14	36.00	17.97	18.05	0.08	334.15		ft	2000	2	75	50	77	NA	NA	NA	NA	NA				
ITMW-3	10/24/97	352.14	35.00	15.68	15.69	0.01	336.46	Rise	2.31 ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
ITMW-3	12/23/97	352.14	35.00	16.43	16.43	0.00	335.72	Decrease	-0.74 ft	38000	10500	709	2110	3840	NA	NA	NA	NA	NA				
ITMW-3	3/18/98	352.14	36.27	13.65	13.65	0.00	338.49	Rise	2.78 ft	163000	13200	28600	4170	24600	NA	NA	NA	NA	NA				
ITMW-3	6/16/98	352.14	36.30	13.64	13.64	0.00	338.50	Rise	0.01 ft	71987	9677	22871	3243.8	14010	NA	NA	NA	NA	NA				
ITMW-3	10/6/98	352.14	36.19	16.01	16.01	0.00	336.13	Decrease	-2.37 ft	159341	15363.7	27050	4768	16373.9	NA	NA	NA	NA	NA				
ITMW-3	3/9/99	352.14	36.29	18.41	18.41	0.00	333.73	Decrease	-2.40 ft	24580	5467.4	909.4	1237.9	1427.6	NA	NA	NA	NA	NA				
ITMW-3	6/30/99	352.14	36.29	17.27	17.27	0.00	334.87	Rise	1.14 ft	34147	5262.1	2021.7	1512.9	4239.3	NA	NA	NA	NA	NA				
ITMW-3	9/23/99	352.14	36.29	17.85	17.85	0.00	334.29	Decrease	-0.58 ft	3439	178.3	69.9	368.9	385.8	NA	NA	NA	NA	NA				
ITMW-3	1/12/00	352.14	36.29	18.18	18.18	0.00	333.96	Decrease	-0.33 ft	28513	7528.4	3731.7	3295.2	5244.2	NA	NA	NA	NA	NA				
ITMW-3	3/14/00	352.14	36.29	13.91	13.91	0.00	338.23	Rise	4.27 ft	100681	8697.8	13322.4	2740.5	12312.2	NA	NA	NA	NA	NA				
ITMW-3	7/5/00	352.14	36.29	14.55	14.55	0.00	337.59	Decrease	-0.64 ft	22669	7,276.10	1,654.40	1,512.40	4,157.80	NA	NA	NA	NA	NA				
ITMW-3	9/27/00	352.14	36.29	18.41	18.41	0.00	333.73	Decrease	-3.86 ft	10,333	3,824.40	443.80	1,169.70	858.10	NA	NA	NA	NA	NA				
ITMW-3	1/10/01	352.14	36.29	14.96	14.96	0.00	337.18	Rise	3.45 ft	12,140	2,837.50	521.70	1,012.50	1,026.50	NA	NA	NA	NA	NA				
ITMW-3	3/22/01	352.14	36.29	14.96	14.96	0.00	337.18	No Change	0.00 ft	48,403	3,803.80	7,766.10	2,923.80	8,725.40	NA	NA	NA	NA	NA				
ITMW-3	6/13/01	352.14	36.34	15.74	14.96	-0.78	336.60	Decrease	-0.58 ft	56,338	4,300.00	5,570.00	2,157.00	6,851.00	ND<2	39	ND<10	ND<2	ND<2				
ITMW-3	8/31/01	352.14	36.34	18.45	18.45	0.00	333.69	Decrease	-2.91 ft	32,576	3,525.00	2,507.00	1,187.00	4,880.00	ND<2	76	ND<10	ND<2	ND<2				
ITMW-3	12/24/01	352.14	36.33	20.45	20.45	0.00	331.69	Decrease	-2.00 ft	25,149	4,776.00	3,053.00	1,455.00	4,379.00	ND<2	332	ND<10	ND<2	ND<2				
ITMW-3	3/21/02	352.14	36.31	21.15	21.15	0.00	330.99	Decrease	-0.70 ft	22,175	2,386.00	5,504.00	1,803.00	5,021.00	ND<2	118	ND<10	ND<2	ND<2				
ITMW-3	6/28/02	352.14	36.31	22.40	22.51	0.11	329.71	Decrease	-1.28 ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				
ITMW-3	9/12/02	352.14		22.61	22.64	0.03	329.52	Decrease	-1.47 ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				
ITMW-3	12/12/02	352.14	36.33	20.29	20.29	0.00	331.85	Rise	2.33 ft	50,056	2,127	4,254	2,971	9,966	ND<2	126	ND<10	ND<2	ND<2				
ITMW-3	6/18/03	352.14	36.30	17.97	17.97	0.00	334.17	Rise	2.32 ft	26,071	1,635	2,861	2,408	10,772	ND<2	49	ND<10	ND<2	ND<2				
ITMW-3	9/12/03	352.14	36.30	19.64	19.64	0.00	332.50	Decrease	-1.67 ft	37,253	1,776	1,897	2,048	6,939	ND<2	ND<2	ND<10	ND<2	ND<2				
ITMW-4																							
ITMW-4	7/24/97	352.39	36.00	17.97	18.05	0.08	334.40		ft														
ITMW-4	10/24/97	352.39	35.00	15.94	15.95	0.01	336.45	Rise	2.05 ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
ITMW-4	12/23/97	352.39	35.00	16.63	16.63	0.00	335.76	Decrease	-0.69 ft	87000	9930	13300	3720	15700	NA	NA	NA	NA	NA				
ITMW-4	3/18/98	352.39	34.13	12.78	12.78	0.00	339.62	Rise	3.86 ft	135000	11400	20200	4580	20700	NA	NA	NA	NA	NA				
ITMW-4	6/16/98	352.39	34.10	14.00	14.00	0.00	338.39	Decrease	-1.23 ft	69232	10468	14479.8	3785.3	12428	NA	NA	NA	NA	NA				
ITMW-4	10/6/98	352.39	34.06	16.31	16.31	0.00	336.08	Decrease	-2.31 ft	108422	11611.6	19321	3601.1	13696.4	NA	NA	NA	NA	NA				
ITMW-4	3/9/99	352.39	34.15	18.30	18.30	0.00	334.09	Decrease	-1.99 ft	36981	6765.3	2770	1782.1	3719.7	NA	NA	NA	NA	NA				
ITMW-4	6/30/99	352.39	34.11	17.49	17.49	0.00	334.90	Rise	0.81 ft	52239	6182.6	5246.6	2790.5	6725.4	NA	NA	NA	NA	NA				
ITMW-4	9/23/99	352.39	34.11	17.79	17.79	0.00	334.60	Decrease	-0.30 ft	60404	8141.6	6330	3765.2	8819.1	NA	NA	NA	NA	NA				
ITMW-4	1/12/00	352.39	34.11	17.79	17.79	0.00	334.60	No Change	0.00 ft	48886	8331.2	9503.1	4308	13292.4	NA	NA	NA	NA	NA				
ITMW-4	3/14/00	352.39	34.11	13.63	13.63	0.00	338.76	Rise	4.16 ft	69655	3317	2934.2	1395.8	3389.6	NA	NA	NA	NA	NA				
ITMW-4	7/5/00	352.39	34.11	14.69	14.69	0.00	337.70	Decrease	-1.06 ft	75,986	11030.6	9,595.00	4,071.50	12,982.10	NA	NA	NA	NA	NA				
ITMW-4	9/27/00	352.39	34.11	18.54	18.54	0.00	333.85	Decrease	-3.85 ft	3,057	6,049.40	9,683.80	3,859.10	11,626.00	NA	NA	NA	NA	NA				
ITMW-4	1/10/01	352.39	34.11	19.35	19.35	0.00	333.04	Decrease	-0.81 ft	20,842	3,409.00	1,940.60	1,711.60	3,890.50	NA	NA	NA	NA	NA				
ITMW-4	3/22/01	352.39	34.11	15.20	15.20	0.00	337.19	Rise	4.15 ft	44,365	4,077.80	4,883.30	2,947.40	7,347.80	NA	NA	NA	NA	NA				
ITMW-4	6/13/01	352.39	34.22	15.91	15.91	0.00	336.48	Decrease	-0.71 ft	56,400	4,107.00	4,849.00	2,228.00	7,007.00	ND<2	199	ND<10	ND<2	ND<2				
ITMW-4	8/31/01	352.39	34.20	18.57	18.57	0.00	333.82	Decrease	-2.66 ft	44,276	3,723.00	4,897.00	2,883.00	7,898.00	ND<2	245	ND<10	ND<2	ND<2				
ITMW-4	12/24/01	352.39	34.18	20.40	20.41	0.01	331.99	Decrease	-1.83 ft	49,995	5,347.00	2,734.00	4,000.00	10,681.00	ND<2	709	ND<10	ND<2	ND<2				
ITMW-4	3/21/02	352.39	34.20	21.13	21.13	0.00	331.26	Decrease	-0.73 ft	16,845	2,478.00	2,338.00	2,161.00	6,138.00	ND<2	260	ND<10	ND<2	ND<2				
ITMW-4	6/28/02	352.39	34.20	22.01	22.41	0.40	330.28	Decrease	-0.98 ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				
ITMW-4	9/12/02	352.39	34.20	22.62	22.62	0.00	329.77	Decrease	-0.51 ft	54,393	3,345	3,489	3,696	11,848	ND<2	220	ND<10	ND<2	ND<2				
ITMW-4	12/12/02	352.39	34.20	20.30	20.53	0.23	332.03	Rise	2.26 ft	180,000	NS	NS	NS	NS	NS	NS	NS	NS	NS				
ITMW-4	6/18/03	352.39	34.20	17.86	17.86	0.00	334.53	Rise	2.50 ft	105,289	2,888	2,318	3,929	12,314	ND<2	155	ND<10	ND<2	ND<2	ND<0.1	0.3	ND<5	371
ITMW-4	9/12/03	352.39	34.20	19.34	19.34	0.00	333.05	Decrease	-1.48 ft	39,306	2,296	1,373	2,315	7,716	ND<2	124	ND<10	ND<2	ND<2	0.4	ND<0.1	110	2,285

TABLE 3 HISTORICAL GROUNDWATER DATA

Site: LAC-USC Medical Center
Site-4 (ITMW1-ITMW10, ITMW7, & TGMW7) and Site 5 (ITMW-6 & ITMW-11)
1200 North State Street
Los Angeles, California

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected GW Elev. (ft MSL)	Change in GW Elev		EPA 8015	EPA 8020				EPA 8260B							EPA 352.1	EPA 375.1	
										TPH-g (ug/l)	B (ug/l)	T (ug/l)	E-Benz (ug/l)	X (ug/l)	MTBE (ug/l)	DIPE (ug/l)	TBA (ug/l)	TAME (ug/l)	ETBE (ug/l)	Fe3+ (ug/l)	NO4 (ug/l)	SO4 (ug/l)	CH4 (ug/l)
ITMW-1																								
ITMW-1	7/24/97	352.125		17.97	17.97	0.00	334.16		ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
ITMW-1	10/24/97	352.125		15.94	15.94	0.00	336.19	Rise	2.03 ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
ITMW-1	12/23/97	352.125		16.74	16.74	0.00	335.39	Decrease	-0.80 ft	188000	22500	35500	3890	22600	NA	NA	NA	NA	NA				
ITMW-1	3/18/98	352.125		12.55	12.55	0.00	339.58	Rise	4.19 ft	109830	19610.1	31832.2	3317.2	16719.2	NA	NA	NA	NA	NA				
ITMW-1	6/16/98	352.125		13.82	13.82	0.00	338.31	Decrease	-1.27 ft	165304	21016.9	25304.8	3621.8	15525.2	NA	NA	NA	NA	NA				
ITMW-1	10/6/98	352.125		16.27	16.27	0.00	335.86	Decrease	-2.45 ft	54835	10778.9	1753.9	1825.1	5675.6	NA	NA	NA	NA	NA				
ITMW-1	3/9/99	352.125		19.20	19.20	0.00	332.93	Decrease	-2.93 ft	130320	17672.7	19172.6	5317.3	16437	NA	NA	NA	NA	NA				
ITMW-1	6/30/99	352.125		17.58	17.58	0.00	334.55	Rise	1.62 ft	130320	17672.7	19172.6	5317.3	16437	NA	NA	NA	NA	NA				
ITMW-1	9/23/99	352.125		17.95	17.95	0.00	334.18	Decrease	-0.37 ft	103813	14195.3	15364	5098.2	15000.1	NA	NA	NA	NA	NA				
ITMW-1	1/12/00	352.125		18.26	18.26	0.00	333.87	Decrease	-0.31 ft	113739	22188.4	34450.4	5964.4	24998.9	NA	NA	NA	NA	NA				
ITMW-1	1/12/00	352.125		18.26	18.26	0.00	333.87	No Change	0.00 ft	113739	22188.4	34450.4	5964.4	24998.9	NA	NA	NA	NA	NA				
ITMW-1	3/14/00	352.125		13.88	13.88	0.00	338.25	Rise	4.38 ft	79007	11550	8525.3	2601.8	8102	NA	NA	NA	NA	NA				
ITMW-1	7/5/00	352.125		14.60	14.60	0.00	337.53	Decrease	-0.72 ft	213,077	58152.8	41111.8	14075.8	39232.6	NA	NA	NA	NA	NA				
ITMW-1	9/27/00	352.125		19.82	19.82	0.00	332.31	Decrease	-5.22 ft	83,654	9,514.00	14473.1	5,661.40	19,896.80	NA	NA	NA	NA	NA				
ITMW-1	1/10/01	352.125		20.01	20.01	0.00	332.12	Decrease	-0.19 ft	75,880	7,757.10	7,169.90	3,761.70	9,792.70	NA	NA	NA	NA	NA				
ITMW-1	3/22/01	352.125		15.24	15.24	0.00	336.89	Rise	4.77 ft	68,151	7,645.00	8,629.30	3,477.80	9,019.80	NA	NA	NA	NA	NA				
ITMW-1	6/13/01	352.125	35.6	16.03	16.03	0.00	336.10	Decrease	-0.79 ft	86,385	6,796.00	6,392.00	2,845.00	6,938.00	ND<2	424	ND<10	ND	ND				
ITMW-1	8/31/01	352.125	35.65	18.85	18.85	0.00	333.28	Decrease	-2.82 ft	62,374	7,894.00	7,322.00	3,530.00	8,621.00	ND<2	364	ND<10	ND	ND				
ITMW-1	12/24/01	352.125	35.65	21.64	21.64	0.00	330.49	Decrease	-2.79 ft	155,434	16,810.00	33,507.00	8,157.00	31,087.00	ND<2	839	ND<10	ND<2	ND<2				
ITMW-1	3/21/02	352.125	35.93	23.16	23.06	-0.10	328.99	Decrease	-1.49 ft	84,457	11,597.00	23,586.00	4,722.00	17,689.00	ND<2	391	ND<10	ND<2	ND<2				
ITMW-1	6/28/02	352.125	35.57	21.31	22.41	1.10	330.53	Rise	1.54 ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				
ITMW-1	9/12/02	352.125		22.00	23.21	1.21	329.81	Decrease	-0.72 ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				
ITMW-1	12/12/02	352.125	35.57	20.40	21.21	0.81	331.51	Rise	1.70 ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				
ITMW-1	3/17/03	352.125	35.5	18.57	18.57	0.00	333.56	Rise	2.04 ft	171,067	9,545	29,147	5,640	28,484	ND<2	225	ND<10	ND<2	ND<2				
ITMW-1	6/18/03	352.125	35.5	18.57	18.57	0.00	333.56	No Change	0.00 ft	50,448	15,730	2,772	19,659	28,484	ND<2	206	ND<10	ND<2	ND<2	2.2	1	9	1,210
ITMW-1	9/12/03	352.125	35.5	20.70	20.70	0.00	331.43	Decrease	-2.13 ft	82,781	7,039	12,202	2,900	11,914	ND<2	167	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-2																								
ITMW-2	7/24/97	352.22		17.97	18.05	0.08	334.23		ft															
ITMW-2	10/24/97	352.22		15.67	15.68	0.01	336.55	Rise	2.32 ft	18400	1060	2600	682	2360	NA	NA	NA	NA	NA				
ITMW-2	12/23/97	352.22		16.35	16.35	0.00	335.88	Decrease	-0.67 ft	11000	829	1680	521	1820	NA	NA	NA	NA	NA				
ITMW-2	3/18/98	352.22		12.55	12.55	0.00	339.67	Rise	3.80 ft	16000	909	2120	640	2220	NA	NA	NA	NA	NA				
ITMW-2	6/16/98	352.22		13.70	13.70	0.00	338.52	Decrease	-1.15 ft	7319	872.9	1158.2	540.9	1245.8	NA	NA	NA	NA	NA				
ITMW-2	10/6/98	352.22		16.10	16.10	0.00	336.12	Decrease	-2.40 ft	96042	9441.6	9400.5	4544.9	10159.4	NA	NA	NA	NA	NA				
ITMW-2	3/9/99	352.22		18.19	18.19	0.00	334.03	Decrease	-2.09 ft	3632	289.9	377.6	196.8	341.4	NA	NA	NA	NA	NA				
ITMW-2	6/30/99	352.22		17.50	17.50	0.00	334.72	Rise	0.69 ft	2805	148.2	73.8	2.6	334.6	NA	NA	NA	NA	NA				
ITMW-2	9/23/99	352.22		17.88	17.88	0.00	334.34	Decrease	-0.38 ft	3440	210.8	243.4	172	333.8	NA	NA	NA	NA	NA				
ITMW-2	1/12/00	352.22		17.88	17.88	0.00	334.34	No Change	0.00 ft	8379	908.6	1781.6	883.6	1931.7	NA	NA	NA	NA	NA				
ITMW-2	3/14/00	352.22		14.28	14.28	0.00	337.94	Rise	3.60 ft	9025	879.9	805	448.1	1115.5	NA	NA	NA	NA	NA				
ITMW-2	7/5/00	352.22		14.45	14.45	0.00	337.77	Decrease	-0.17 ft	3,050	ND<1	ND<1	ND<1	834.1	NA	NA	NA	NA	NA				
ITMW-2	9/27/00	352.22		18.55	18.55	0.00	333.67	Decrease	-4.10 ft	3,133	287.6	293.8	22.7	375.7	NA	NA	NA	NA	NA				
ITMW-2	1/10/01	352.22		19.31	19.31	0.00	332.91	Decrease	-0.76 ft	21,137	622.4	1,268.10	928.4	1,654.30	NA	NA	NA	NA	NA				
ITMW-2	3/22/01	352.22		15.03	15.03	0.00	337.19	Rise	4.28 ft	8,873	1,116.80	959.20	471.7	1,097.40	NA	NA	NA	NA	NA				
ITMW-2	6/13/01	352.22	34.3	15.93	15.93	0.00	336.29	Decrease	-0.90 ft	13,556	792.00	690.00	404	849.00	ND<2	819	ND<10	ND<2	ND<2				
ITMW-2	8/31/01	352.22	34.32	19.85	19.85	0.00	332.37	Decrease	-3.92 ft	9,406	977.00	517.00	163	1,026.00	ND<2	1,622	ND<10	ND<2	ND<2				
ITMW-2	12/24/01	352.22	34.3	21.80	21.80	0.00	330.42	Decrease	-1.95 ft	10,529	883.00	813.00	630	1,524.00	ND<2	1,369	ND<10	ND<2	ND<2				
ITMW-2	3/21/02	352.22	34.3	22.13	22.13	0.00	330.09	Decrease	-0.33 ft	20,764	1,504.00	1,768.00	1,405	3,653.00	ND<2	1,425	ND<10	ND<2	ND<2				
ITMW-2	6/28/02	352.22	34.3	22.35	22.35	0.00	329.87	Decrease	-0.22 ft	76,162	8,976.00	11,218.00	3,602	14,051.00	ND<2	4,021	ND<10	ND<2	ND<2				
ITMW-2	9/12/02	352.22	34.3	22.41	22.41	0.00	329.81	Decrease	-0.06 ft	56,573	4,952.00	4,351.00	3,500	10,278.00	ND<2	2,758	ND<10	ND<2	ND<2				
ITMW-2	12/12/02	352.22	34.3	20.61	20.61	0.00	331.61	Rise	1.80 ft	58,528	3,538.00	2,664.00	1,073	10,830.00	ND<2	3,294	ND<10	ND<2	ND<2				
ITMW-2	6/18/03	352.22	34.3	18.32	18.32	0.00	333.90	Rise	2.29 ft	41,242	2,247.00	1,484.00	2,421	10,247.00	ND<2	1,342	ND<10	ND<2	ND<2				
ITMW-2	9/12/03	352.22	34.3	20.12	20.12	0.00	332.10	Decrease	-1.80 ft	40,147	4,221.00	3,628.00	1,221	5,401.00	ND<2	1,811	ND<10	ND<2	ND<2				

TABLE 3 HISTORICAL GROUNDWATER DATA

Site: LAC-USC Medical Center
Site-4 (ITMW1-ITMW10, ITMW7, & TGMW7) and Site 5 (ITMW-6 & ITMW-11)
1200 North State Street
Los Angeles, California

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected GW Elev. (ft MSL)	Change in GW Elev		EPA 8015	EPA 8020				EPA 8260B							EPA 352.1	EPA 375.1	
										TPH-g (ug/l)	B (ug/l)	T (ug/l)	E-Benz (ug/l)	X (ug/l)	MTBE (ug/l)	DIPE (ug/l)	TBA (ug/l)	TAME (ug/l)	ETBE (ug/l)	Fe3+ (ug/l)	NO4 (ug/l)	SO4 (ug/l)	CH4 (ug/l)
ITMW-5																								
ITMW-5	7/24/97	352.395	36.00	17.97	18.05	0.08	334.41		ft	11000	740	940	840	3120	NA	NA	NA	NA	NA					
ITMW-5	10/24/97	352.395	35.00	15.93	15.93	0.00	336.47	Rise	2.06 ft	50000	358	259	618	1560	NA	NA	NA	NA	NA					
ITMW-5	12/23/97	352.395	35.00	16.77	16.77	0.00	335.63	Decrease	-0.84 ft	6300	201	145	437	1040	NA	NA	NA	NA	NA					
ITMW-5	3/18/98	352.395	35.20	12.91	12.91	0.00	339.49	Rise	3.85 ft	10400	818	357	833	1790	NA	NA	NA	NA	NA					
ITMW-5	6/16/98	352.395	35.20	14.08	14.08	0.00	338.32	Decrease	-1.17 ft	3618	275.3	130.1	397.2	906.1	NA	NA	NA	NA	NA					
ITMW-5	10/6/98	352.395	35.12	16.44	16.44	0.00	335.96	Decrease	-2.36 ft	16426	1845.9	896	98.9	2262	NA	NA	NA	NA	NA					
ITMW-5	3/9/99	352.395	35.19	18.82	18.82	0.00	333.58	Decrease	-2.38 ft	5219	203.7	98.2	252.1	463.7	NA	NA	NA	NA	NA					
ITMW-5	6/30/99	352.395	35.19	17.55	17.55	0.00	334.85	Rise	1.27 ft	6744	293.9	140.5	357.9	569.9	NA	NA	NA	NA	NA					
ITMW-5	9/23/99	352.395	35.19	17.96	17.96	0.00	334.44	Decrease	-0.41 ft	4420	268.3	88.3	449.1	431.6	NA	NA	NA	NA	NA					
ITMW-5	1/12/00	352.395	35.19	18.33	18.33	0.00	334.07	Decrease	-0.37 ft	17249	634.6	395.2	1612.6	3078.3	NA	NA	NA	NA	NA					
ITMW-5	3/14/00	352.395	35.19	14.51	14.51	0.00	337.89	Rise	3.82 ft	1486	56.9	29.9	93.3	162.9	NA	NA	NA	NA	NA					
ITMW-5	7/5/00	352.395	35.19	14.60	14.60	0.00	337.80	Decrease	-0.09 ft	332	ND<1	ND<1	ND<1	17.1	NA	NA	NA	NA	NA					
ITMW-5	9/27/00	352.395	35.19	19.16	19.16	0.00	333.24	Decrease	-4.56 ft	43,972	763.1	831.8	5,705.80	12,612.30	NA	NA	NA	NA	NA					
ITMW-5	1/10/01	352.395	35.19	20.09	20.09	0.00	332.31	Decrease	-0.93 ft	20,565	278.1	254.6	1,560.30	2,284.80	NA	NA	NA	NA	NA					
ITMW-5	3/22/01	352.395	35.19	15.70	15.70	0.00	336.70	Rise	4.39 ft	1,800	140.2	26.3	187.00	182.50	NA	NA	NA	NA	NA					
ITMW-5	6/13/01	352.395	35.25	16.45	16.45	0.00	335.95	Decrease	-0.75 ft	4,659	586	83	269.00	420.00	ND<2	448	ND<10	ND<2	ND<2					
ITMW-5	8/31/01	352.395	35.25	19.04	19.04	0.00	333.36	Decrease	-2.59 ft	3,181	180	25	160.00	159.00	ND<2	607	ND<10	ND<2	ND<2					
ITMW-5	12/24/01	352.395	35.25	20.93	20.93	0.00	331.47	Decrease	-1.89 ft	8,158	124	42	541.00	594.00	ND<2	289	ND<10	ND<2	ND<2					
ITMW-5	3/21/02	352.395	35.25	21.42	21.42	0.00	330.98	Decrease	-0.49 ft	1,008	126	10	56.00	52.00	ND<2	241	ND<10	ND<2	ND<2					
ITMW-5	6/28/02	352.395	35.25	22.44	22.44	0.00	329.96	Decrease	-1.02 ft	2,981	334	125	203.00	215.00	ND<2	815	ND<10	ND<2	ND<2					
ITMW-5	9/12/02	352.395	35.25	22.46	22.46	0.00	329.94	Decrease	-0.02 ft	4,391	355	19	110.00	70.00	ND<2	873	ND<10	ND<2	ND<2					
ITMW-5	12/12/02	352.395	35.25	20.81	20.81	0.00	331.59	Rise	1.65 ft	29,552	1,290	138	1,641.00	1,161.00	ND<2	465	ND<10	ND<2	ND<2					
ITMW-5	6/18/03	352.395	35.20	18.11	18.11	0.00	334.29	Rise	2.70 ft	9,409	714	58	903.00	411.00	ND<2	221	ND<10	ND<2	ND<2					
ITMW-5	9/12/03	352.395	35.20	20.38	20.38	0.00	332.02	Decrease	-2.27 ft	5,007	575	18	134.00	126.00	ND<2	241	ND<10	ND<2	ND<2					
ITMW-6																								
ITMW-6	7/24/97	319.085	40.00	20.06	20.06	0.00	299.03		ft	340.00	3.40	3.30	7.90	11.00	120.00	NA	NA	NA	NA					
ITMW-6	10/24/97	319.085	38.00	20.23	20.23	0.00	298.86	Decrease	-0.17 ft	11900	229	89.7	213	432	753	NA	NA	NA	NA					
ITMW-6	12/23/97	319.085	38.00	20.00	20.00	0.00	299.09	Rise	0.23 ft	470	4	3	14	16	430	NA	NA	NA	NA					
ITMW-6	3/18/98	319.085	40.00	17.18	17.18	0.00	301.91	Rise	2.82 ft	91	ND<1	1.6	8.9	9.8	69.2	NA	NA	NA	NA					
ITMW-6	6/16/98	319.085	38.80	16.19	16.19	0.00	302.90	Rise	0.99 ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	NA	NA	NA	NA					
ITMW-6	10/6/98	319.085	38.80	18.17	18.17	0.00	300.92	Decrease	-1.98 ft	ND<100	ND<1	ND<1	ND<1	ND<1	23	NA	NA	NA	NA					
ITMW-6	3/9/99	319.085	38.81	19.57	19.57	0.00	299.52	Decrease	-1.40 ft	ND<100	ND<1	ND<1	ND<1	ND<1	42	NA	NA	NA	NA					
ITMW-6	6/30/99	319.085	38.83	19.68	19.68	0.00	299.41	Decrease	-0.11 ft	ND<100	ND<1	ND<1	2.2	ND<1	38	NA	NA	NA	NA					
ITMW-6	9/23/99	319.085	38.83	19.99	19.99	0.00	299.10	Decrease	-0.31 ft	ND<100	ND<1	ND<1	1.1	1.1	38	NA	NA	NA	NA					
ITMW-6	1/12/00	319.085	38.83	20.01	20.01	0.00	299.08	Decrease	-0.02 ft	325	124.2	9.5	38.7	37.2	294	NA	NA	NA	NA					
ITMW-6	3/14/00	319.085	38.83	18.42	18.42	0.00	300.67	Rise	1.59 ft	357	7.8	ND	15.5	7.9	210	NA	NA	NA	NA					
ITMW-6	7/5/00	319.085	38.83	18.89	18.89	0.00	300.20	Decrease	-0.47 ft	ND<100	ND<1	ND<1	ND<1	ND<1	20	NA	NA	NA	NA					
ITMW-6	9/27/00	319.085	38.83	19.81	19.81	0.00	299.28	Decrease	-0.92 ft	ND<100	1.6	4	2.4	0.6	19	NA	NA	NA	NA					
ITMW-6	1/10/01	319.085	38.83	19.90	19.90	0.00	299.19	Decrease	-0.09 ft	100	60.7	1.7	7.2	1.5	28	NA	NA	NA	NA					
ITMW-6	3/22/01	319.085	38.83	17.20	17.20	0.00	301.89	Rise	2.70 ft	150	2.5	ND	12.1	6.7	131	NA	NA	NA	NA					
ITMW-6	6/13/01	319.085	38.81	18.21	18.21	0.00	300.88	Decrease	-1.01 ft	ND<100	8	ND	3	2	12	NA	ND<10	ND<2	ND<2					
ITMW-6	8/31/01	319.085	38.60	18.85	18.85	0.00	300.24	Decrease	-0.64 ft	ND<100	2	4	2	10	25	ND<2	ND<10	ND<2	ND<2					
ITMW-6	12/24/01	319.085	38.60	20.40	20.40	0.00	298.69	Decrease	-1.55 ft	ND<100	ND<1	ND<1	ND<1	ND<1	36	ND<2	ND<10	ND<2	ND<2					
ITMW-6	3/21/02	319.085	38.60	21.37	21.37	0.00	297.72	Decrease	-0.97 ft	261	3	1	1	3	276	ND<2	ND<10	ND<2	ND<2					
ITMW-6	6/28/02	319.085	38.60	21.77	21.77	0.00	297.32	Decrease	-0.40 ft	454	17	4	53	18	372	ND<2	ND<10	ND<2	ND<2					
ITMW-6	9/12/02	319.085	38.60	21.94	21.94	0.00	297.15	Decrease	-0.17 ft	101	2	3	5	13	61	ND<2	ND<10	ND<2	ND<2					
ITMW-6	12/12/02	319.085	38.60	19.84	19.84	0.00	299.25	Rise	2.10 ft	102	2	ND<1	ND<1	ND<1	100	ND<2	ND<10	ND<2	ND<2					
ITMW-6	6/18/03	319.085	38.90	18.01	18.01	0.00	301.08	Rise	1.83 ft	ND<100	ND<1	ND<1	ND<1	ND<1	33	ND<2	ND<10	ND<2	ND<2					
ITMW-6	9/12/03	319.085	38.90	19.88	19.88	0.00	299.21	Decrease	-1.87 ft	ND<100	ND<1	ND<1	ND<1	ND<1	36	ND<2	ND<10	ND<2	ND<2					

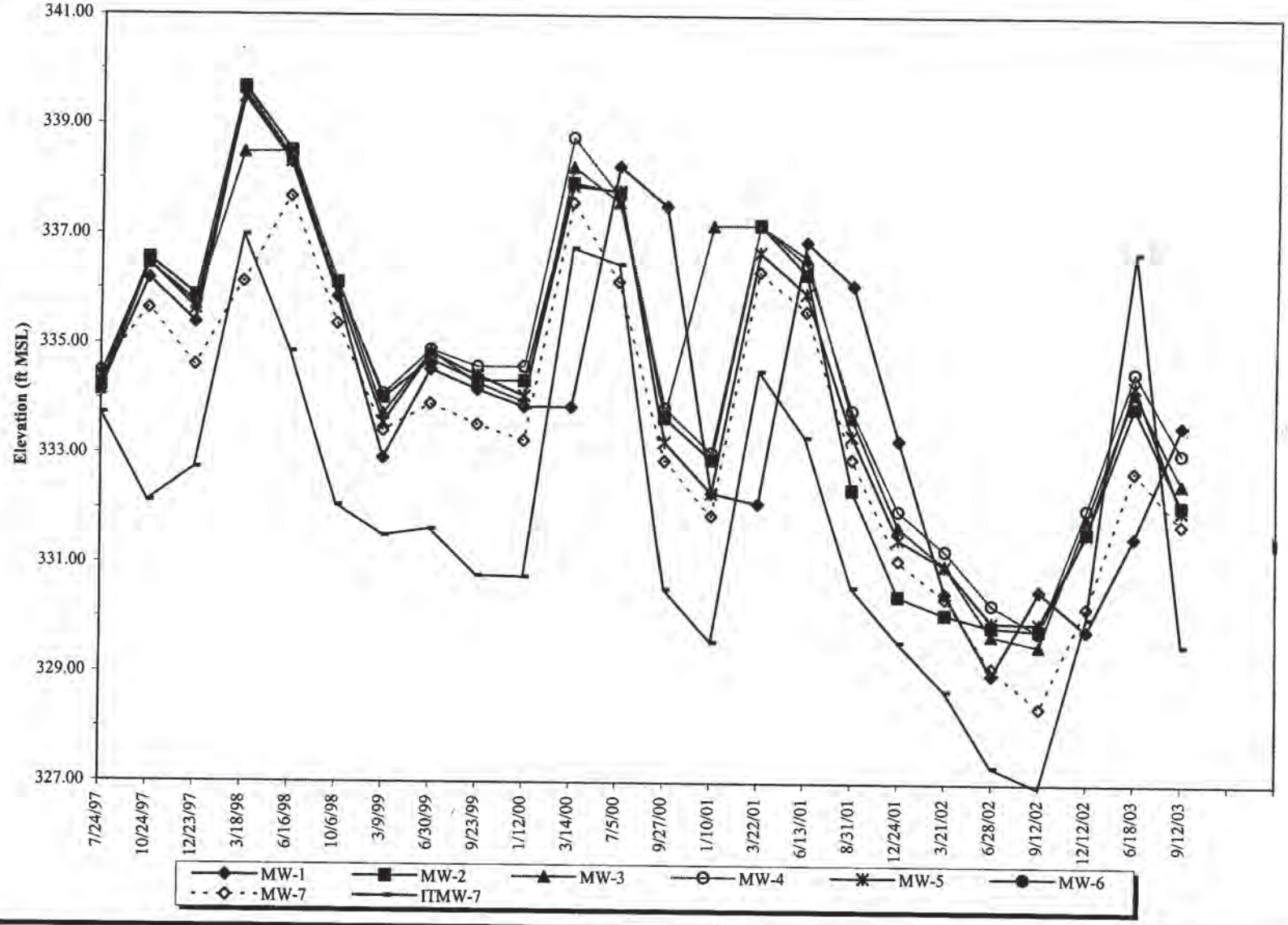
TABLE 3 HISTORICAL GROUNDWATER DATA

Site: LAC-USC Medical Center
Site-4 (ITMW1-ITMW10, ITMW7, & TGMW7) and Site 5 (ITMW-6 & ITMW-11)
1200 North State Street
Los Angeles, California

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected GW Elev. (ft MSL)	Change in GW Elev		EPA 8015 TPH-g (ug/l)	EPA 8020 B (ug/l)	T (ug/l)	E-Benz (ug/l)	X (ug/l)	EPA 8260B MTBE (ug/l)	DIPE (ug/l)	TBA (ug/l)	TAME (ug/l)	ETBE (ug/l)	Fe2+ (ug/l)	EPA 352.1 NO4 (ug/l)	EPA 375.1 SO4 (ug/l)	CH4 (ug/l)
ITMW-7																							
ITMW-7	7/24/97	351.715	36.00	17.97	18.05	0.08	333.73		ft	190.00	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	10/24/97	351.715	36.00	19.59	19.59	0.00	332.13	Decrease	-1.60 ft	403.00	3.20	ND<1	4.60	6.80	NA	NA	NA	NA	NA				
ITMW-7	12/23/97	351.715	36.00	18.98	18.98	0.00	332.74	Rise	0.61 ft	550.00	21.00	ND	13.00	6.00	NA	NA	NA	NA	NA				
ITMW-7	3/18/98	351.715	33.87	14.73	14.73	0.00	336.99	Rise	4.25 ft	524.00	14.30	4.30	6.10	13.70	NA	NA	NA	NA	NA				
ITMW-7	6/16/98	351.715	33.91	16.85	16.85	0.00	334.87	Decrease	-2.12 ft	ND<100	6.90	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	10/6/98	351.715	33.75	19.65	19.65	0.00	332.07	Decrease	-2.80 ft	207.00	3.10	6.20	1.10	5.80	NA	NA	NA	NA	NA				
ITMW-7	3/9/99	351.715	33.90	20.21	20.21	0.00	331.51	Decrease	-0.56 ft	ND<100	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	6/30/99	351.715	33.91	20.09	20.09	0.00	331.63	Rise	0.12 ft	ND<100	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	9/23/99	351.715	33.91	20.94	20.94	0.00	330.78	Decrease	-0.85 ft	148.00	6.80	0.40	0.4	0.50	NA	NA	NA	NA	NA				
ITMW-7	1/12/00	351.715	33.91	20.96	20.96	0.00	330.76	Decrease	-0.02 ft	ND<100	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	3/14/00	351.715	33.91	14.96	14.96	0.00	336.76	Rise	6.00 ft	204.00	5.20	ND	0.7	ND	NA	NA	NA	NA	NA				
ITMW-7	7/5/00	351.715	33.91	15.25	15.25	0.00	336.47	Decrease	-0.29 ft	ND<10	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	9/27/00	351.715	33.91	21.18	21.18	0.00	330.54	Decrease	-5.93 ft	181.00	0.50	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	1/10/01	351.715	33.91	22.14	22.14	0.00	329.58	Decrease	-0.96 ft	175.00	0.70	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA				
ITMW-7	3/22/01	351.715	33.91	17.18	17.18	0.00	334.54	Rise	4.96 ft	ND	0.50	ND<1	0.70	0.30	NA	NA	NA	NA	NA				
ITMW-7	6/13/01	351.715	33.93	18.39	18.39	0.00	333.33	Decrease	-1.21 ft	12,809.00	3,612.00	140.00	1,047.00	705.00	ND<2	NA	ND<10	ND<2	ND<2				
ITMW-7	8/31/01	351.715	33.84	21.13	21.13	0.00	330.59	Decrease	-2.74 ft	106.00	ND<1	ND<1	ND<1	ND<1	ND<2	63	ND<10	ND<2	ND<2				
ITMW-7	12/24/01	351.715	33.92	22.13	22.13	0.00	329.59	Decrease	-1.00 ft	230.00	4.00	ND<1	1.00	ND<1	ND<2	68	ND<10	ND<2	ND<2				
ITMW-7	3/21/02	351.715	35.63	23.02	23.02	0.00	328.70	Decrease	-0.89 ft	256.00	ND<1	1.00	ND<1	ND<1	ND<2	66	ND<10	ND<2	ND<2				
ITMW-7	6/28/02	351.715	35.63	24.41	24.41	0.00	327.31	Decrease	-1.39 ft	235.00	1	1.00	ND<1	ND<1	2	68	ND<10	ND<2	ND<2				
ITMW-7	9/12/02	351.715	35.63	24.78	24.78	0.00	326.94	Decrease	-0.37 ft	200.00	ND<1	ND<1	ND<1	ND<1	ND<2	60	ND<10	ND<2	ND<2				
ITMW-7	12/12/02	351.715	35.63	21.68	21.68	0.00	330.04	Rise	3.10 ft	348.00	10	ND<1	3	3	ND<2	33	ND<10	ND<2	ND<2				
ITMW-7	6/18/03	351.715	33.97	15.01	15.01	0.00	336.71	Rise	6.67 ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	41	ND<10	ND<2	ND<2				
ITMW-7	9/12/03	351.715	33.97	22.17	22.17	0.00	329.55	Decrease	-7.16 ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	27	ND<10	ND<2	ND<2				
TGMW-7																							
TGMW-7	7/24/97	352.5	36.23	17.97	18.05	0.08	334.51		ft	29000	8980	5660	2060	7330	NA	NA	NA	NA	NA				
TGMW-7	10/24/97	352.5	36.16	16.86	16.87	0.00	335.64	Rise	1.13 ft	97400	14700	1870	3650	10100	NA	NA	NA	NA	NA				
TGMW-7	12/23/97	352.5	36.05	17.89	17.89	0.00	334.62	Decrease	-1.02 ft	39000	13100	673	2090	3380	NA	NA	NA	NA	NA				
TGMW-7	3/18/98	352.5		16.37	16.37	0.00	336.13	Rise	1.51 ft	82400	16400	6790	2360	7280	NA	NA	NA	NA	NA				
TGMW-7	6/16/98	352.5		14.82	14.82	0.00	337.68	Rise	1.55 ft	33206	12874.3	3144.9	1955.2	3223.7	NA	NA	NA	NA	NA				
TGMW-7	10/6/98	352.5	36.47	17.13	17.13	0.00	335.37	Decrease	-2.31 ft	57727	14350.5	1614.4	2823.5	2990.5	NA	NA	NA	NA	NA				
TGMW-7	3/9/99	352.5	35.67	19.08	19.08	0.00	333.42	Decrease	-1.95 ft	9879	4604.1	63.9	384.4	96.4	NA	NA	NA	NA	NA				
TGMW-7	6/30/99	352.5	35.37	18.58	18.58	0.00	333.92	Rise	0.50 ft	43564	10150.3	5243.1	2651.8	5238.5	NA	NA	NA	NA	NA				
TGMW-7	9/23/99	352.5		18.96	18.96	0.00	333.54	Decrease	-0.38 ft	17661	7842.8	289.7	1469.4	705.3	NA	NA	NA	NA	NA				
TGMW-7	1/12/00	352.5	35.90	19.25	19.25	0.00	333.25	Decrease	-0.29 ft	38068	29.721.3	1127.9	3298.6	3463.8	NA	NA	NA	NA	NA				
TGMW-7	3/14/00	352.5	36.20	14.92	14.92	0.00	337.58	Rise	4.33 ft	10866	6051.3	96.9	913.6	146.3	NA	NA	NA	NA	NA				
TGMW-7	7/5/00	352.5	36.20	16.35	16.35	0.00	336.15	Decrease	-1.43 ft	22,392	11665.2	115.6	2,459.90	715.9	NA	NA	NA	NA	NA				
TGMW-7	9/27/00	352.5	36.20	19.61	19.61	0.00	332.89	Decrease	-3.26 ft	14,209	9,108.80	71.9	1,977.40	445.7	NA	NA	NA	NA	NA				
TGMW-7	1/10/01	352.5	36.20	20.61	20.61	0.00	331.89	Decrease	-1.00 ft	11,161	5,862.70	65.7	1,672.60	494.8	NA	NA	NA	NA	NA				
TGMW-7	3/22/01	352.5	36.20	16.16	16.16	0.00	336.34	Rise	4.45 ft	ND	ND	ND	ND	0.7	NA	NA	NA	NA	NA				
TGMW-7	6/13/01	352.5	37.24	16.88	16.88	0.00	335.62	Decrease	-0.72 ft	14,078	3,688	212	1,315	839	ND<2	114	ND<10	ND<2	ND<2				
TGMW-7	8/31/01	352.5	37.23	19.57	19.57	0.00	332.93	Decrease	-2.69 ft	11,235	5,141	165	880	514	ND<2	104	ND<10	ND<2	ND<2				
TGMW-7	12/24/01	352.5	37.27	21.42	21.42	0.00	331.08	Decrease	-1.85 ft	8,712	5,926	62	1,512	233	ND<2	97	ND<10	ND<2	ND<2				
TGMW-7	3/21/02	352.5	37.64	22.11	22.11	0.00	330.39	Decrease	-0.69 ft	5,702	3,548	80	990	182	32	131	ND<10	ND<2	ND<2				
TGMW-7	6/28/02	352.5	37.64	23.38	23.38	0.00	329.12	Decrease	-1.27 ft	314	ND<1	3	7	36	8	37	ND<10	ND<2	ND<2				
TGMW-7	9/12/02	352.5	37.64	24.11	24.11	0.00	328.39	Decrease	-0.73 ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2				
TGMW-7	12/12/02	352.5	37.64	22.27	22.27	0.00	330.23	Rise	1.84 ft	4,742	2,186	28	440	49	22	73	ND<10	ND<2	ND<2				
TGMW-7	6/18/03	352.5	37.50	19.78	19.78	0.00	332.72	Rise	2.49 ft	1,653	321	8	1	109	8	88	ND<10	ND<2	ND<2				
TGMW-7	9/12/03	352.5	37.50	20.75	20.75	0.00	331.75	Decrease	-0.97 ft	12,224	4,301	246	279	889	17	56	ND<10	ND<2	ND<2				
ITMW-8																							
ITMW-8	6/12/03	345.86	36.16	16.86	16.87	0.00	329.00		ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	21	ND<10	ND<2	NA	ND<0.1	0.2	700	17
ITMW-8	9/12/03	345.86	36.16	18.41	18.41	0.00	327.45	Decrease	-1.55 ft	104	ND<1	ND<1	ND<1	ND<1	ND<2	5	ND<10	ND<2	NA	ND<0.1	ND<0.1	110	ND<1
ITMW-9																							
ITMW-9	6/12/03	345.93	36.16	16.86	16.87	0.00	329.07		ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	11	ND<10	ND<2	NA				
ITMW-9	9/12/03	345.93	36.16	19.98	19.98	0.00	325.95	Decrease	-3.12 ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	5	ND<10	ND<2	NA				
ITMW-10																							
ITMW-10	6/12/03	344.91	36.16	16.86	16.87	0.00	328.05		ft	167	ND<1	ND<1	ND<1	ND<1	ND<2	3	ND<10	ND<2	NA				
ITMW-10	9/12/03	344.91	36.16	19.99	19.99	0.00	324.92	Decrease	-3.13 ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	4	ND<10	ND<2	NA				
ITMW-11																							
ITMW-11	6/12/03	318.62	36.16	16.86	16.87	0.00	301.76		ft	ND<100	1	ND<1	ND<1	ND<1	26	ND<2	ND<10	ND<2	NA	ND<0.1	6.8	1,200	2
ITMW-11	9/12/03	318.62	36.16	19.91	19.91	0.00	298.71	Decrease	-3.05 ft	ND<100	ND<1	ND<1	ND<1	ND<1	13	ND<2	ND<10	ND<2	NA	ND<0.1	2.2	625	2

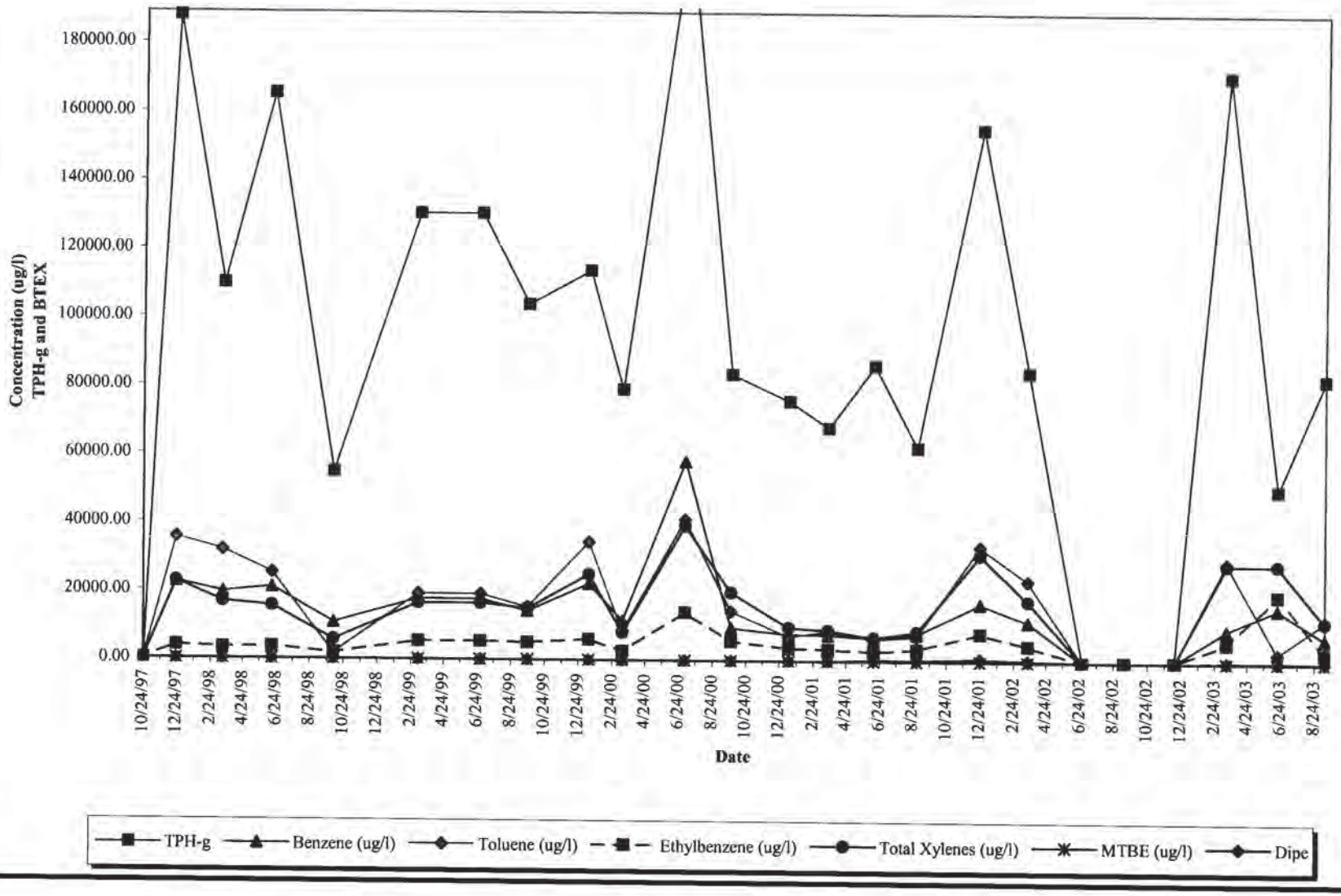
GROUNDWATER ELEVATIONS OVER TIME

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



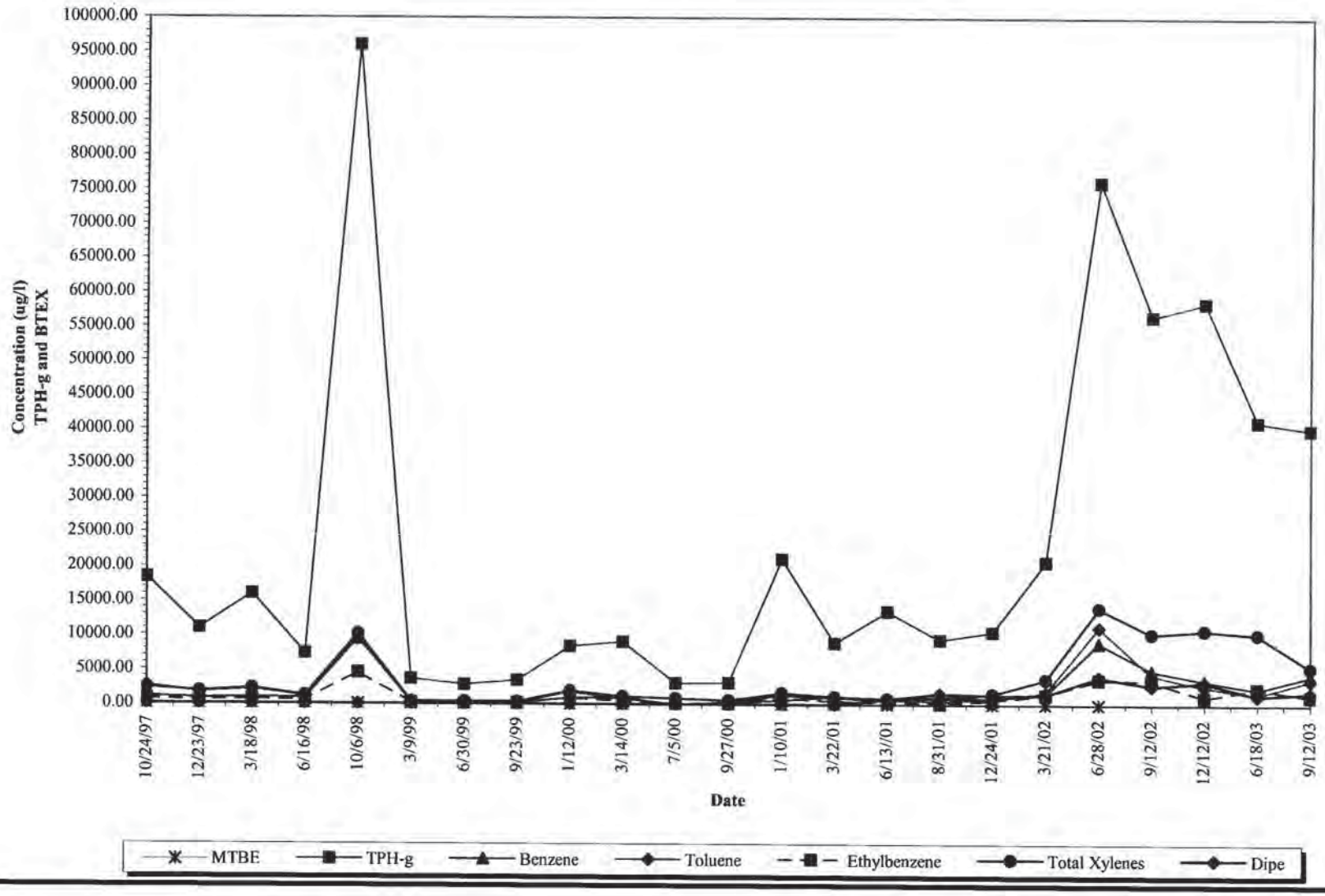
DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME - ITMW-1

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



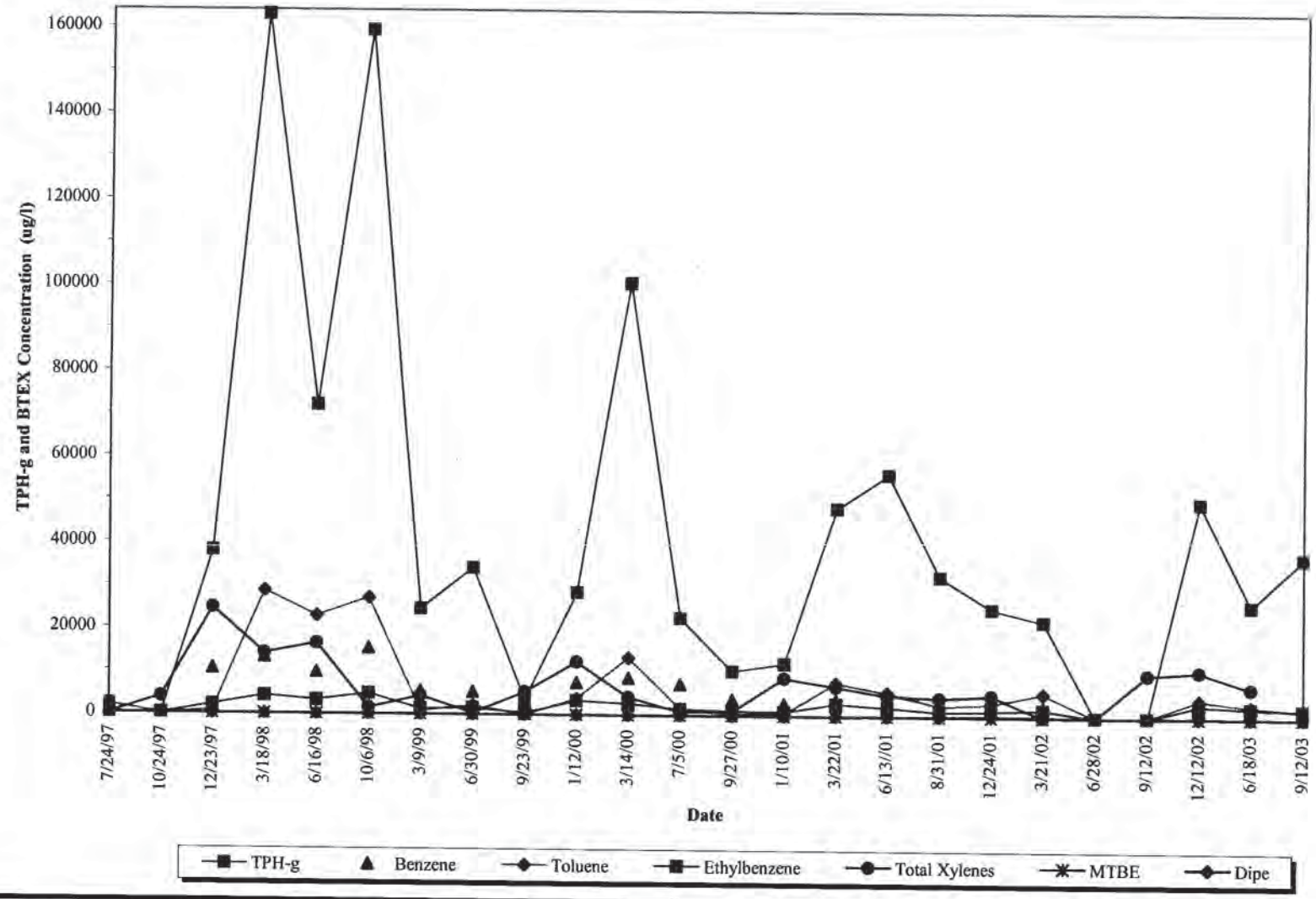
DISSOLVED HYDROCARBON CONCENTRATION OVER TIME - ITMW-2

LAC-USC
1200 North State Street
Los Angeles, California

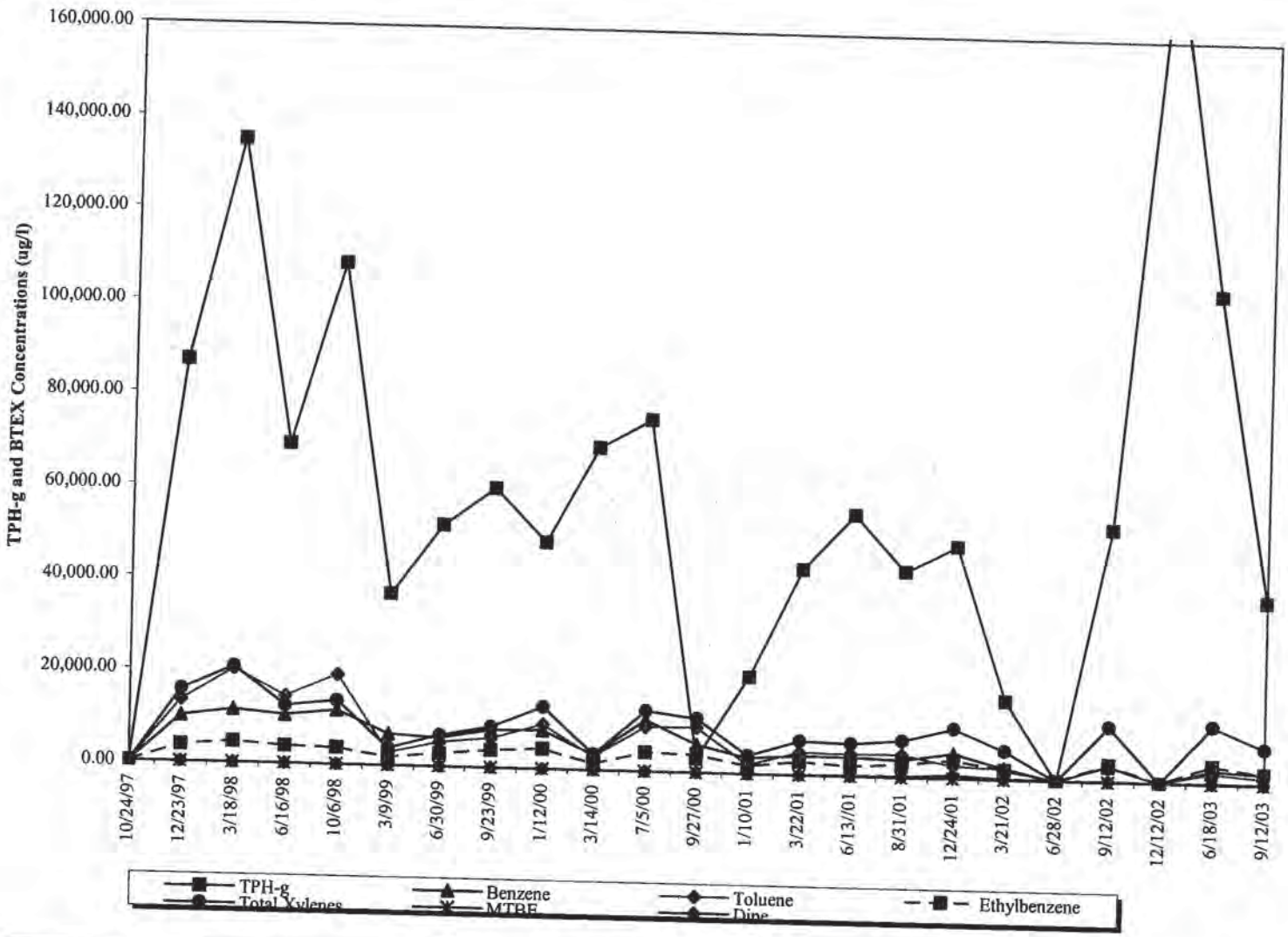


DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME - ITMW-3

LAC-USC
1200 North State Street
Los Angeles, California

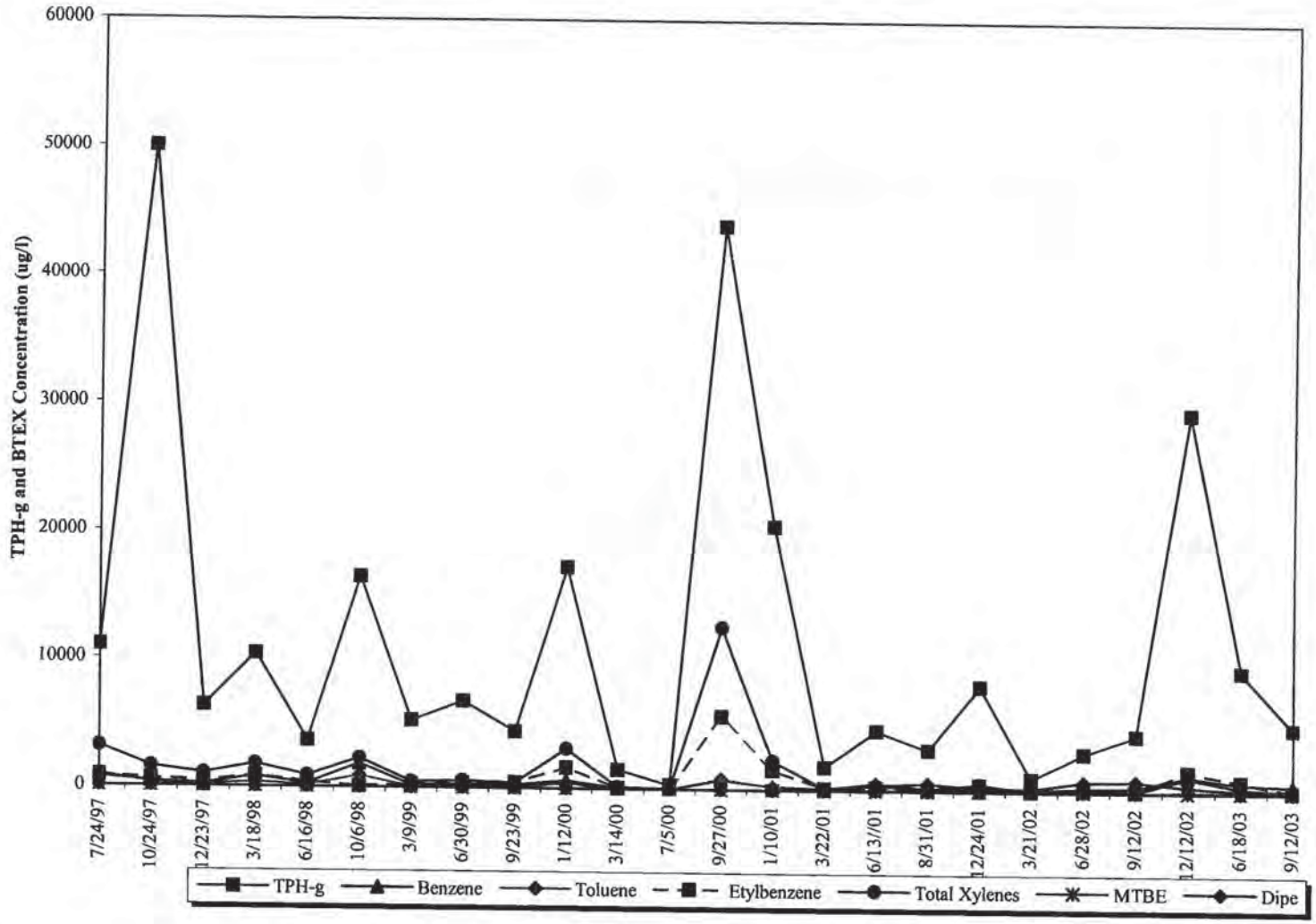


DISSOLVED HYDROCARBONS OVER TIME - ITMW-4
LAC-USC HOSPITAL
1200 North State Street
Los Angles, California

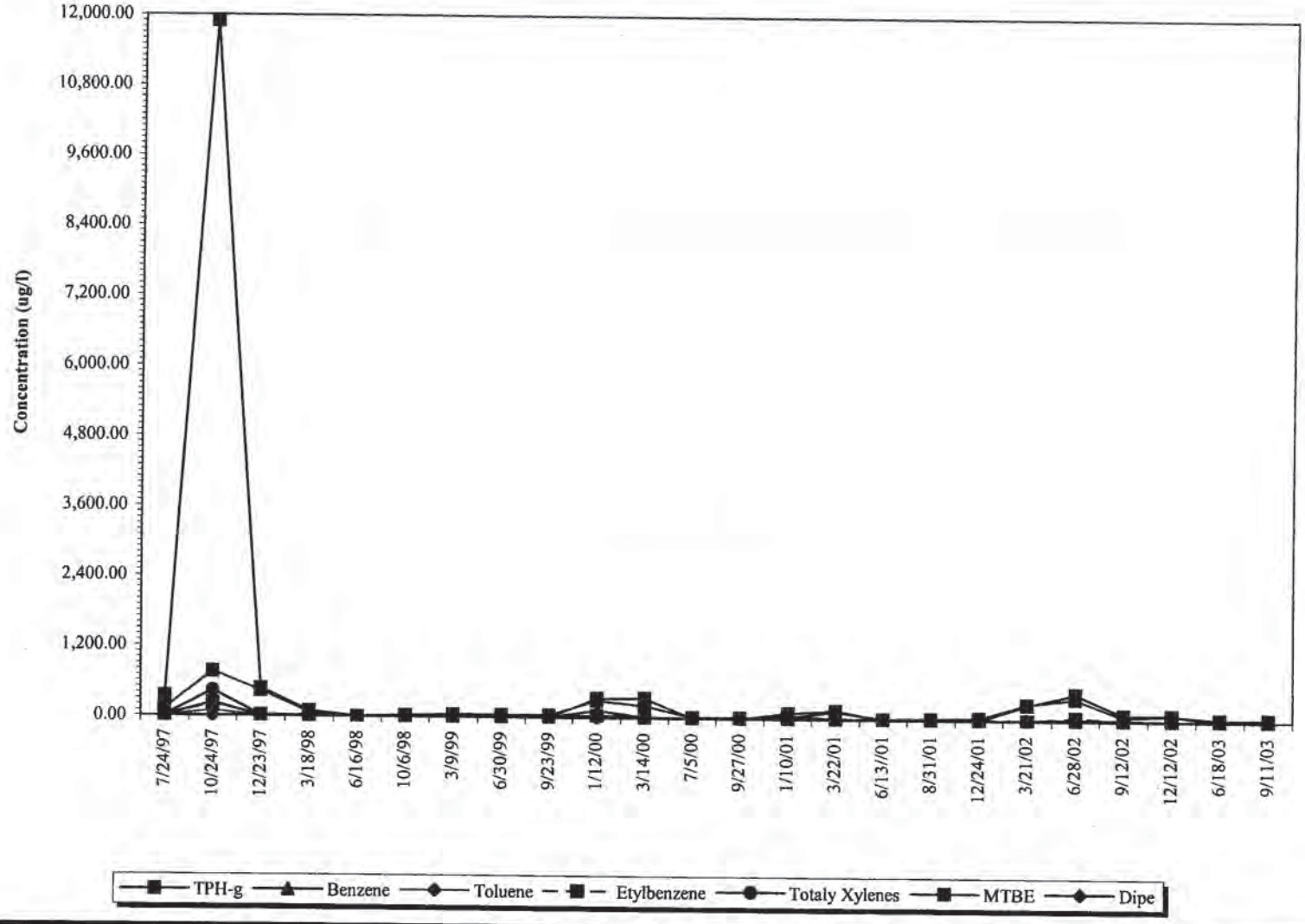


DISSOLVED HYDROCARBONS OVER TIME - MW-5

ARROWHEAD SYRUP SALES
17108 Edwards Street
Cerritos, CA

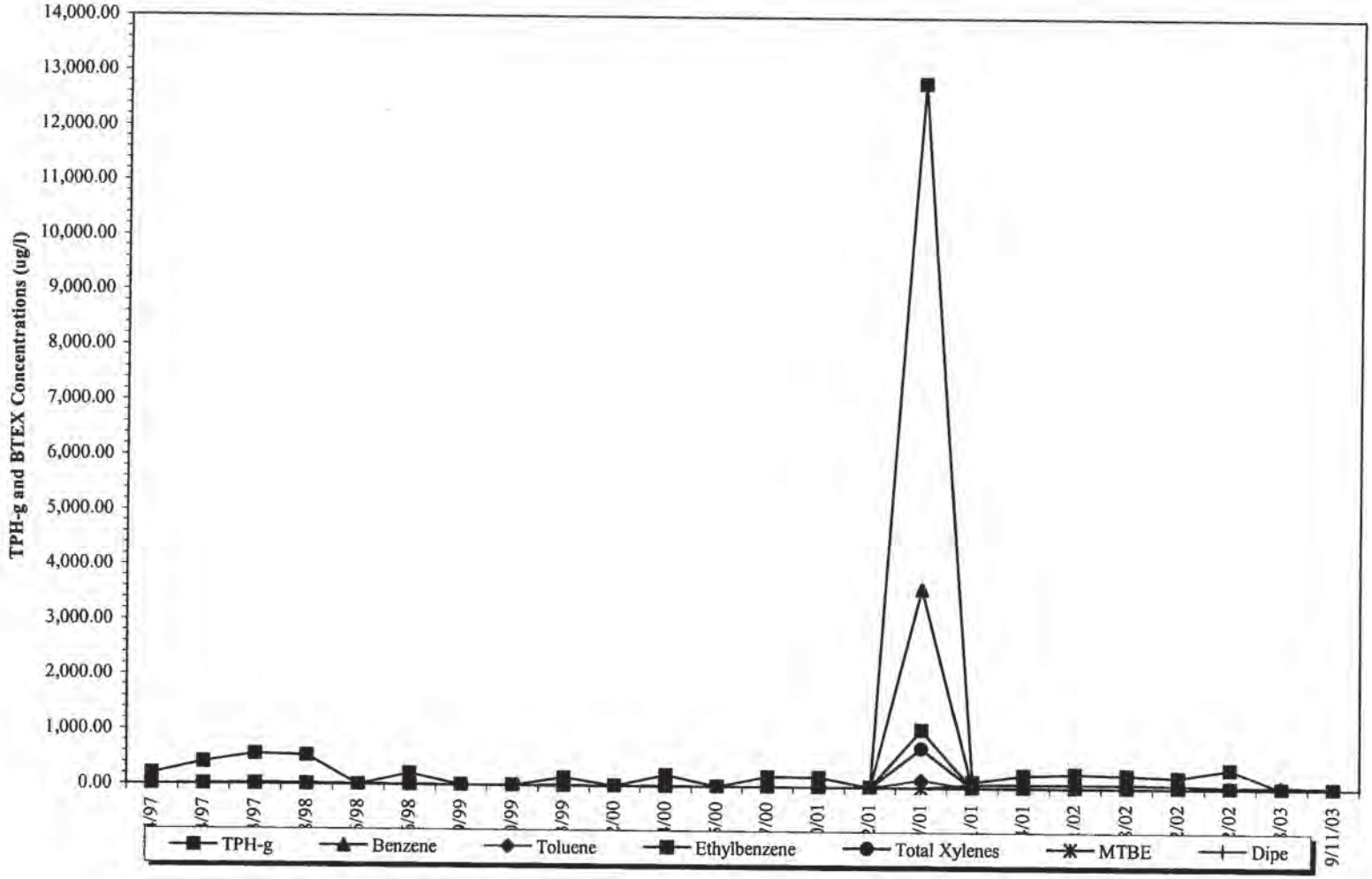


DISSOLVED HYDROCARBONS OVER TIME - ITMW-6
USC-LAC HOSPITAL
1200 North State Street
Los Angeles, California



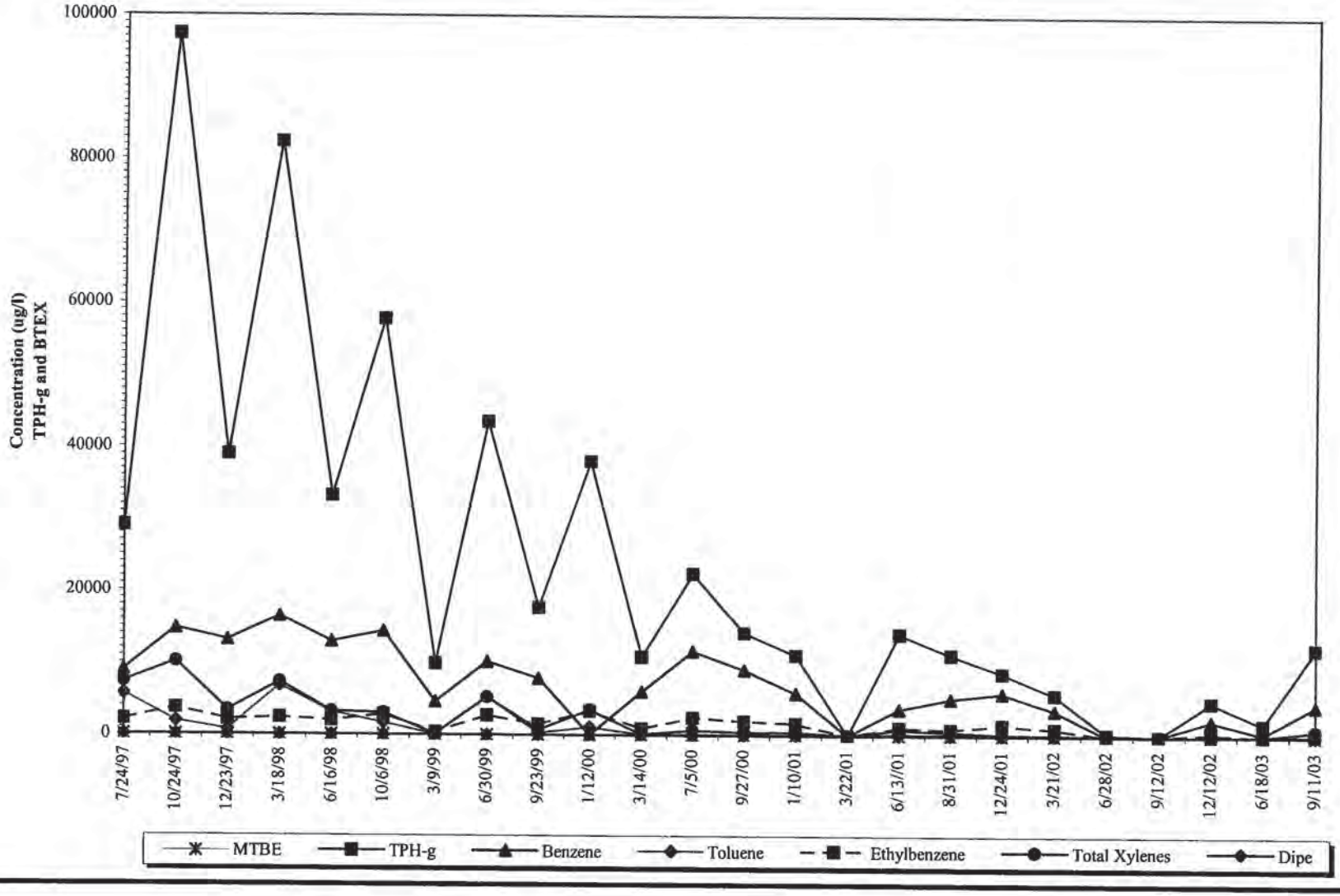
DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME - ITMW-7

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



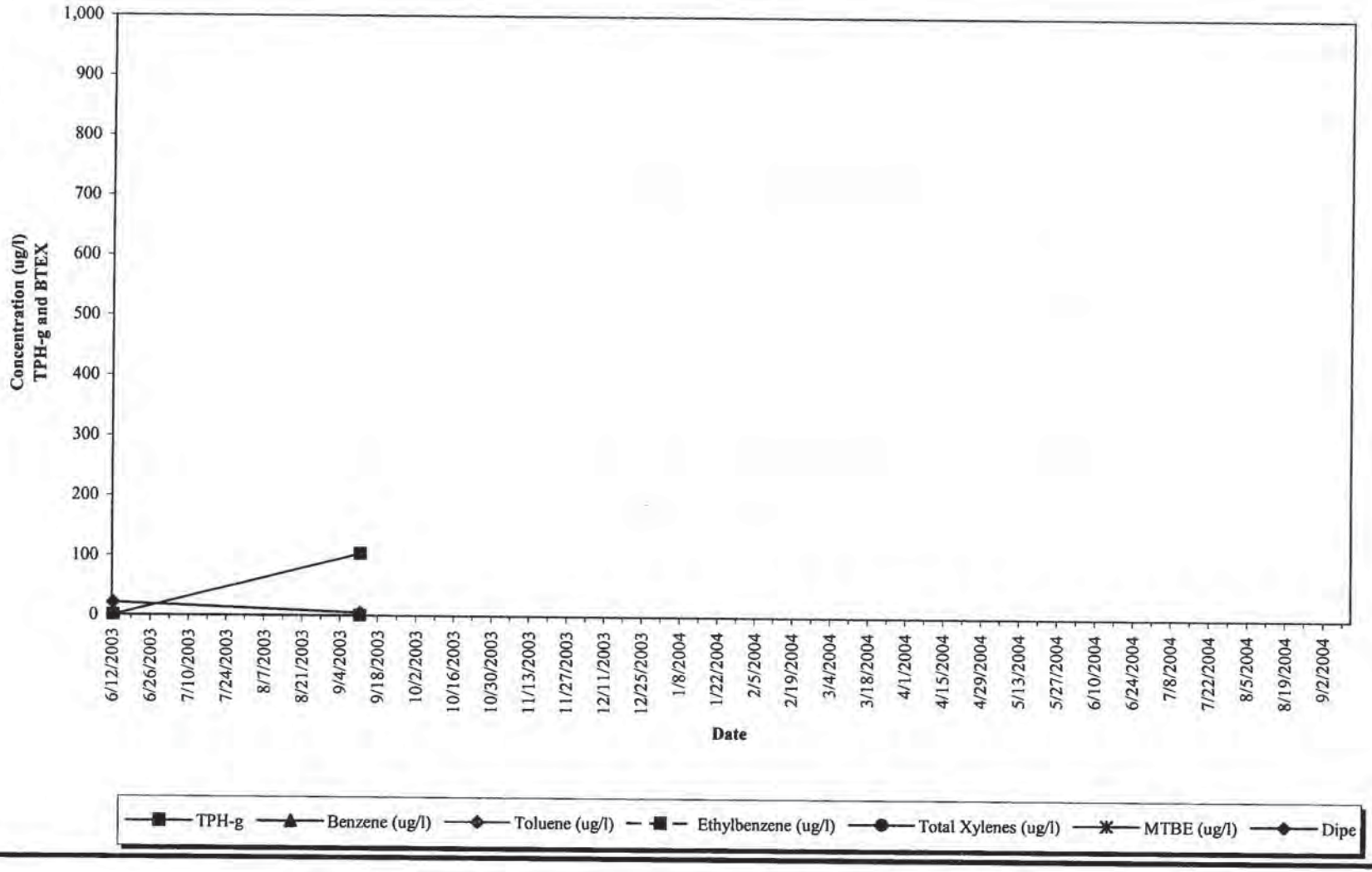
DISSOLVED HYDROCARBON CONCENTRATION OVER TIME - TGMW-7

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



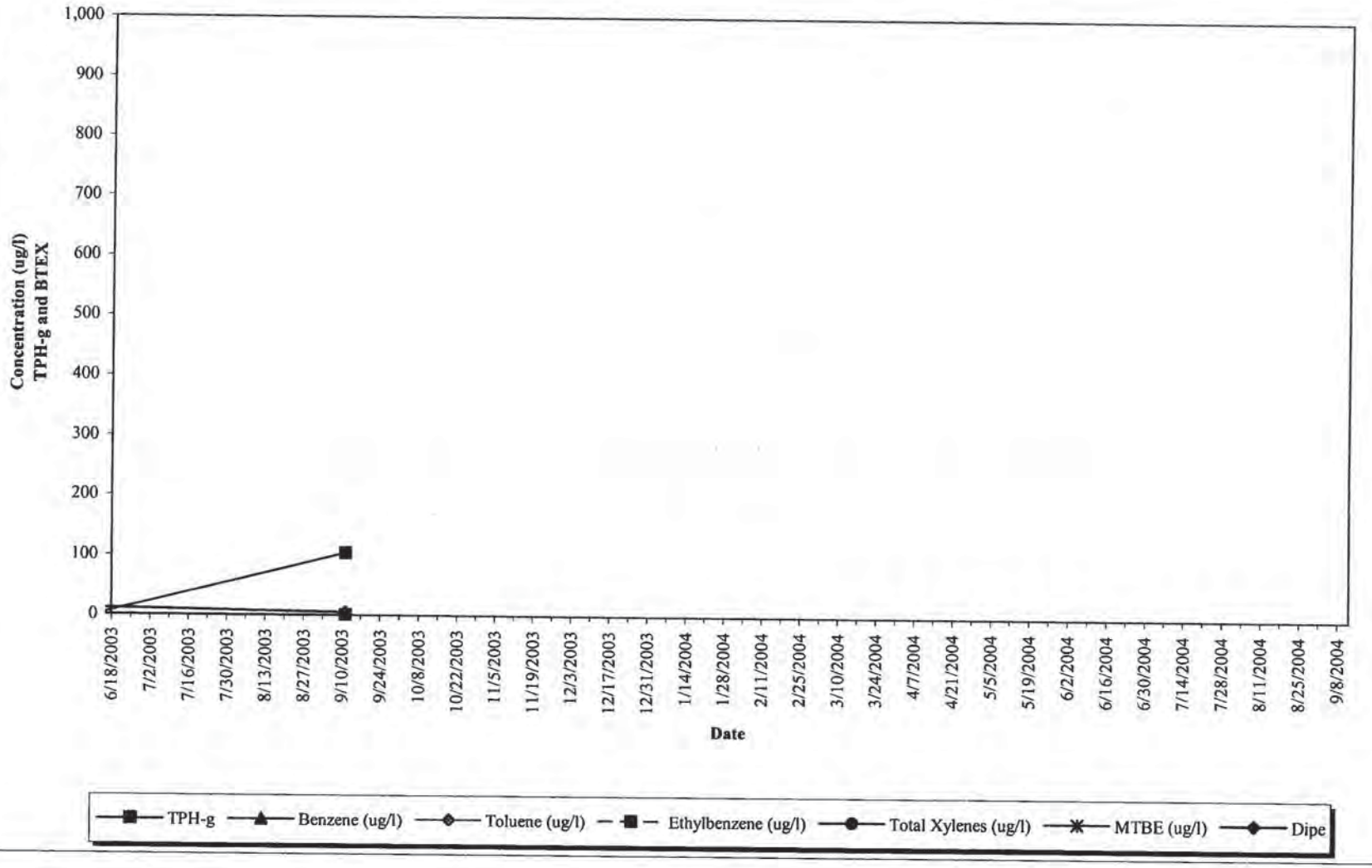
DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME - ITMW-8

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



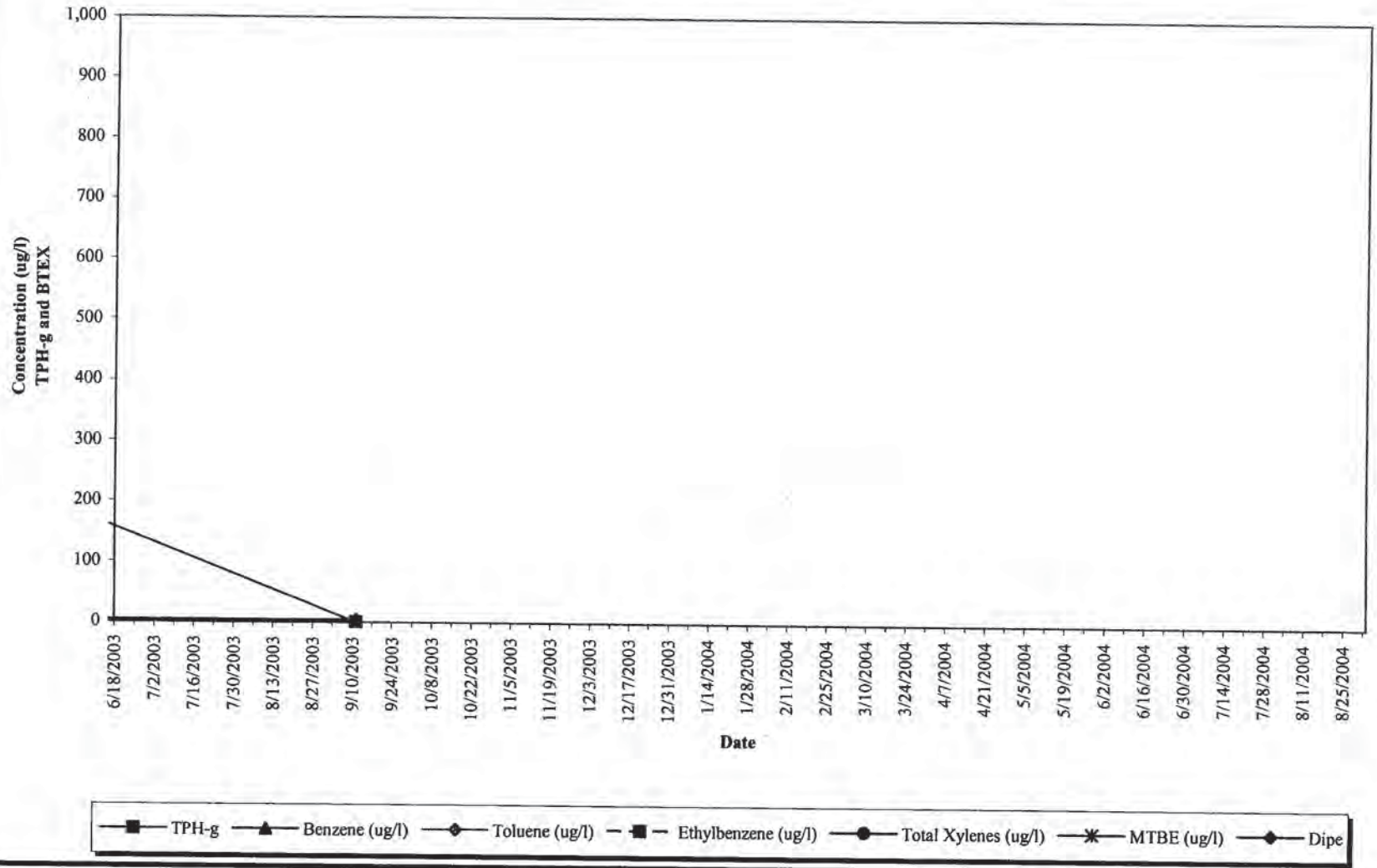
DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME - ITMW-9

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



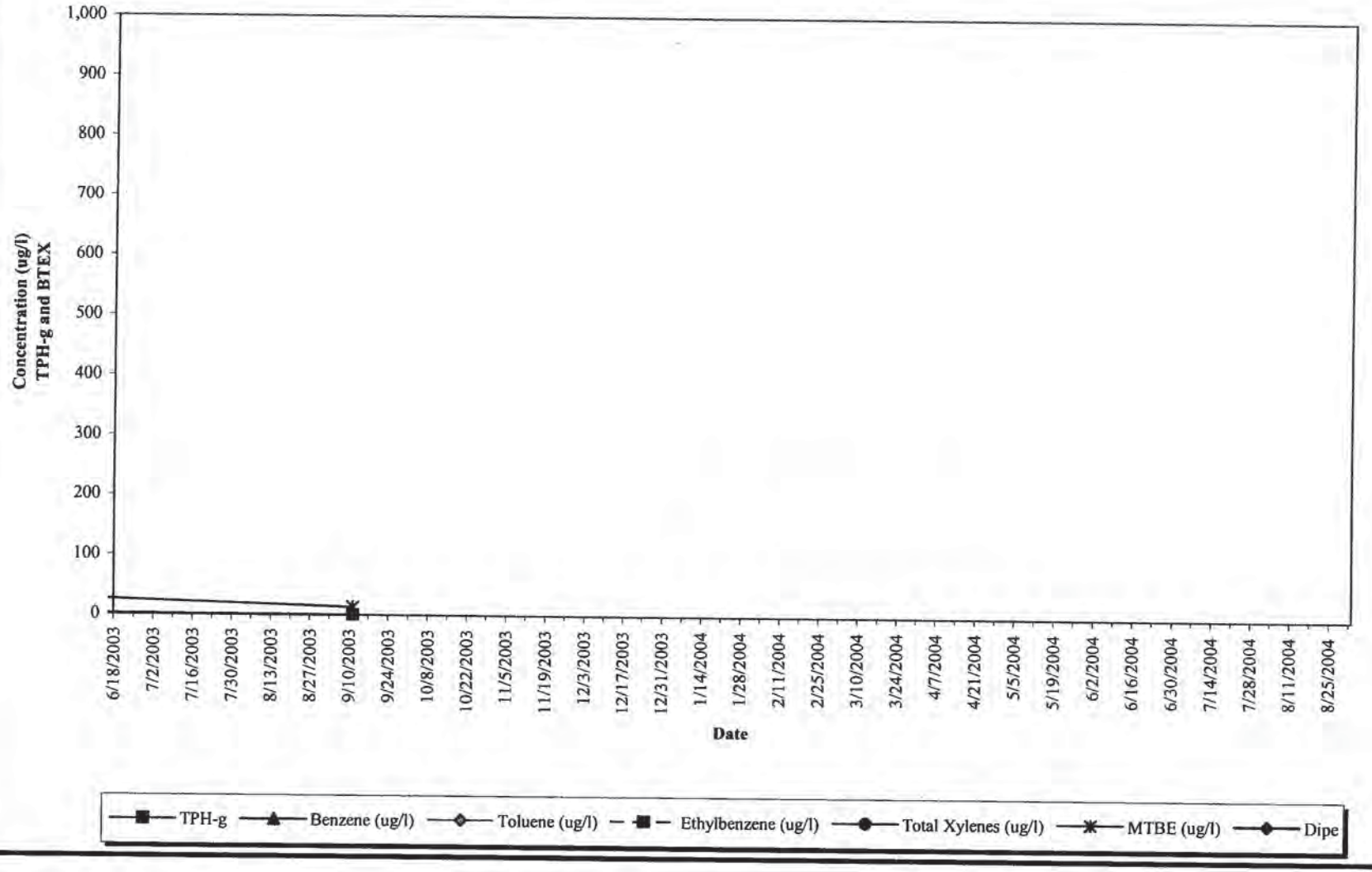
DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME - ITMW-10

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



DISSOLVED HYDROCARBON CONCENTRATIONS OVER TIME - ITMW-11

LAC-USC HOSPITAL
1200 North State Street
Los Angeles, California



APPENDIX A

Field Procedures
Data

GROUNDWATER PURGING AND SAMPLING PROCEDURES

Before purging, each well was measured for depth of well, depth to water, and separate phase-hydrocarbon thickness (if present). Groundwater depths were measured using an electronic water-level tape calibrated to one hundredth of a foot. Gasoline and water-detecting paste was placed on the side of the probe to determine the presence of separate-phase product, and measure its thickness, if present. The water-level tape was washed in non-phosphate soap and double-rinsed in distilled water between wells.

Prior to sampling, each well was redeveloped, to remove fine-grained sediments trapped at the bottom of, and adjacent to the wells. Well development and purging was conducted by lowering a dedicated stinger pipe, connected to a vacuum truck, slowly to the bottom of the well Water with suspended fine-grained sediments were removed from the well by the vacuum and entrained water.

Purging was conducted in conjunction with well development. The wells were purged of water until either dry or until changes in temperature readings were within 1°F, conductivity readings were within 10%, and pH readings were within 0.1 pH units. Turbidity was measured after the last casing volume. Upon completion of purging procedures, the wells were allowed to recover for a minimum of two hours or until water levels recovered to 80% of the original level.

Water samples were obtained using disposable polyethylene bailers equipped with a bottom emptying device. The samples were placed in 40 ml VOA vials with Teflon septa. Samples were labeled, recorded on a chain-of-custody document, and placed in cold storage to reduce the potential for volatilization. Dedicated PVC stinger tubes were used for each well. In addition, all purging and sampling procedures were conducted in order of increasing historical benzene concentrations.

Water samples were transported to a certified analytical laboratory, under chain-of custody protocol for chemical analysis.

APPENDIX B

Groundwater Data

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name LAC-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. LTMW-1	Depth to Oil: 35.58
Casing Material: PVC	Depth to Water: 20.7
Diameter: 4in	Product Thickness: 0.01
Well Head Condition: ✓	Total Well Depth: 35.57
Well Box Condition: ✓	Total Head: 14.87
Purge Method: Vac	Purge Volume 9.16(3X)=28.9
Depth to water after 80% recovery: 22.19 act:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1341	6	24.9	1219	8.45	153	
1348	10	23.5	1169	8.37	311	
1352	13	22.4	1185	8.35	121	

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name LA-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. ETMW2	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 20.12
Diameter: 4"	Product Thickness: .2
Well Head Condition: ✓	Total Well Depth: 34.2
Well Box Condition: ✓	Total Head: 14.08
Purge Method: VOC.	Purge Volume 9.1 (3x) = 27.5
Depth to water after 80% recovery: 21.53 actual	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1442	2	23.7	1512	7.79	19.37	
1446	5	23.3	1995	7.41	18.80	

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name CAC-USL	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. FTMW3	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 19.64
Diameter: 4"	Product Thickness: NA
Well Head Condition: ✓	Total Well Depth: 36.3
Well Box Condition: ✓	Total Head: 16.66
Purge Method: Vac	Purge Volume 10.8(3x) 32.5
Depth to water after 80% recovery: 21.31 act.	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1351	1	23.1	1287	8.44	178	
1411	10	23.2	1206	8.41	121	
1415	15	22.6	1232	8.44	69	

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name LAC-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. PZ ITMW4	Depth to Oil: ~~19.36~~
Casing Material: ~~PVC~~ PVC	Depth to Water: 19.34
Diameter: 4"	Product Thickness: 0.02
Well Head Condition: ✓	Total Well Depth: 34.1
Well Box Condition: ✓	Total Head: 14.76
Purge Method: VAC.	Purge Volume 9.6(3)=28.8
Depth to water after 80% recovery: 20.82 est:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1429	3	24.8	1228	8.06	92	
1432	5	24.6	1185	8.30	34.5	
1435	10	23.3	1200	8.44	12.03	
1439	16	22.5	1201	8.49	24.7	dry/stop

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name LAC-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. ITMW5	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 20.38
Diameter: 4"	Product Thickness: NA
Well Head Condition: ✓	Total Well Depth: 35.2
Well Box Condition: ✓	Total Head: 14.82
Purge Method: vac	Purge Volume 9.63(3x)=28.9
Depth to water after 80% recovery: 21.86 act.	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1455	2	252	2778	8.23	27.08	
1501	28	24.0	2830	8.26	35.25	
1507	16	23.9	2963	8.33	17.16	dry

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name CIAe-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. ITMW6	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 19.88
Diameter: 2"	Product Thickness: NA
Well Head Condition: ✓	Total Well Depth:
Well Box Condition: ✓	Total Head:
Purge Method: Vac	Purge Volume
Depth to water after 80% recovery:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-10-03

Project Name LAC-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. TGMW7	Depth to Oil: NA
Casing Material:	Depth to Water: 20.75
Diameter:	Product Thickness: NA
Well Head Condition:	Total Well Depth: 37.18
Well Box Condition:	Total Head: 16.43
Purge Method:	Purge Volume
Depth to water after 80% recovery:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1257	1	26.6	1205	8.63	254	
1310	06	25.4	1068	8.56	367	
1320	10	24.7	1070	8.46		stop

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-1-07

Project Name LACUSC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. LTMW7	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 22.17
Diameter: 4"	Product Thickness: NA
Well Head Condition: V	Total Well Depth: 33.9
Well Box Condition: V	Total Head: 11.73
Purge Method: Vac.	Purge Volume 3.8(3x)= 22.9
Depth to water after 80% recovery: 23.34 est.	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1210	5	31.6	1102	8.38	183	
1215	6	26.9	1220	8.56	192	
	12					dry

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name CAL-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. ETMW8	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 18.41
Diameter: 2"	Product Thickness: NA
Well Head Condition: ✓	Total Well Depth:
Well Box Condition: ✓	Total Head:
Purge Method: VAC	Purge Volume
Depth to water after 80% recovery:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1554	2	25.4	14996	8.30	121	
1601	4	24.4	1214	8.44	142	
1608	10	22.0	1637	8.41	130.	

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name CAC-USL	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. ITMW9	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 19.98
Diameter: 2"	Product Thickness: NA
Well Head Condition: ✓	Total Well Depth:
Well Box Condition: ✓	Total Head:
Purge Method: Vac.	Purge Volume
Depth to water after 80% recovery:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1540	0	25.1	2536	8.47	15.9	
1542	3	23.8	2562	8.39	10.1	
1544	6	23.1	2395	8.43		dry

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name LAC-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. ITMW 10	Depth to Oil: NA
Casing Material: PVC	Depth to Water: 13.99
Diameter: 2"	Product Thickness: NA
Well Head Condition: ✓	Total Well Depth:
Well Box Condition: ✓	Total Head:
Purge Method: V&C.	Purge Volume
Depth to water after 80% recovery:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks
1526	1	25.8	2426	8.44	10.1	
1529	3	24.6	2388	8.50	9.5	
1532	10	23.8	2366	8.48	12.0	

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

ENCON TECHNOLOGIES, INC.

MONITORING WELL SAMPLING FORM	Date: 9-11-03

Project Name LAC-USC	Client	Job No.
Address	Contact/Phone	
City/State	Technician Gauging Sampling:	

Note: All measurements from top of casing

Well Location:

WELL NO. ITMW-11	Depth to Oil: NA
Casing Material: 2"	Depth to Water: 19.91
Diameter: PVC	Product Thickness: NA
Well Head Condition: ✓	Total Well Depth:
Well Box Condition: ✓	Total Head:
Purge Method: Vac	Purge Volume
Depth to water after 80% recovery:	
Purge Vol. Conv. Factors: 2"=0.16; 3"=0.36; 4"=0.65; 6"=1.5 gal/ft.	

Time	Vol. Purged	Temp. (°F)	Cond (uS/cm)	pH	Turb (NTU)	Remarks

Sample Information

Time	Sample ID	Temp. (°F)	PH	Cond (uS/cm)	Turb (NTU)	Comments

Additional Comments

APPENDIX C

Laboratory Report
and
Chain-of-Custody

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

INVOICE

BILL TO: Accounts Payable
ENCON Environmental
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Invoice No.: 37187
Date: 10/06/03
Project Name: LAC-USC

C & E ID	DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
30912I	TPH-Gas	12	$35	$420
EDF Format	EPA 8260(BTEX/Oxygenates)	12	$65	$780
	Sulfate	3	$30	$90
	Nitrate	3	$30	$90
	Ferrous Iron	3	$30	$90
	Methane	3	$60	$180
			Total:	$1,650

TERMS: NET 30 DAYS. PAST DUE BALANCES ARE SUBJECT TO A 1.5% PER MONTH SERVICE CHARGE

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 562 921-8123, Fax: 562 921-7974

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

October 06, 2003

Certificate No.: 2268

Mr. Joe Scatoloni
ENCON Environmental
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: LAC-USC

Dear Mr. Scatoloni:

Enclosed please find the report for the sample(s) received by Chemical & Environmental Laboratories and analyzed as indicated in the chain-of-custody attached.

We appreciate the opportunity to service the needs of your company. Please call me at (562) 921-8123 if you have any questions.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 562 921-8123, Fax: 562 921-7974

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- M8015(Gasoline) ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/17/03
Date Reported: 09/22/03

SAMPLE INFORMATION			RESULT
C&E ID	Sample ID	DF	(ug/L or ppb)
30912I-1	ITMW-1	50	82781
30912I-2	ITMW-2	10	40147
30912I-3	ITMW-3	50	37253
30912I-4	ITMW-4	50	39306
30912I-5	ITMW-5	10	5007
30912I-6	ITMW-6	1	ND
30912I-7	ITMW-7	1	ND
30912I-8	ITMW-8	1	104
30912I-9	TGMW-7	20	12224
30912I-10	ITMW-9	1	ND
30912I-11	ITMW-10	1	ND
30912I-12	ITMW-11	1	ND
Detection Limit:			100

ND = Not detected at the indicated detection limit.
DF = Dilution Factor
Reporting Limit = DF x Detection Limit

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/17/03
Date Reported: 09/22/03

C&E ID		30912I-1	30912I-2	30912I-3	30912I-4	30912I-5
SAMPLE ID		ITMW-1	ITMW-2	ITMW-3	ITMW-4	ITMW-5
DF		50	10	50	50	10
COMPOUND	Detection Limit (ug/L)	RESULT (ug/L or ppb)				
Ethyl Tertiary Butyl Ether	2	ND	ND	ND	ND	ND
Tertiary Amyl Methyl Ether	2	ND	ND	ND	ND	ND
Diisopropyl Ether	2	167	1811	ND	124	241
Tertiary Butyl Alcohol	10	ND	ND	ND	ND	ND
MTBE	2	ND	ND	ND	ND	ND
Benzene	1	7039	4221	1776	2296	575
Toluene	1	12202	3628	1897	1373	18
Ethylbenzene	1	2900	1221	2048	2315	134
Xylenes	1	11914	5401	6939	7716	126

ND = Not detected at the indicated detection limit.
DF = Dilution Factor
Reporting Limit = DF x Detection Limit

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/17/03
Date Reported: 09/22/03

C&E ID		30912I-6	30912I-7	30912I-8	30912I-9	30912I-10
SAMPLE ID		ITMW-6	ITMW-7	ITMW-8	TGMW-7	ITMW-9
DF		1	1	1	20	1
COMPOUND	Detection Limit (ug/L)	RESULT (ug/L or ppb)				
Ethyl Tertiary Butyl Ether	2	ND	ND	ND	ND	ND
Tertiary Amyl Methyl Ether	2	ND	ND	ND	ND	ND
Diisopropyl Ether	2	ND	27	5	56	5
Tertiary Butyl Alcohol	10	ND	ND	ND	ND	ND
MTBE	2	36	ND	ND	17	ND
Benzene	1	ND	ND	ND	4301	ND
Toluene	1	ND	ND	ND	246	ND
Ethylbenzene	1	ND	ND	ND	279	ND
Xylenes	1	ND	ND	ND	889	ND

ND = Not detected at the indicated detection limit.
DF = Dilution Factor
Reporting Limit = DF x Detection Limit

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/17/03
Date Reported: 09/22/03

C&E ID		30912I-11	30912I-12			
SAMPLE ID		ITMW-10	ITMW-11			
DF		1	1			
COMPOUND	Detection Limit (ug/L)	RESULT (ug/L or ppb)				
Ethyl Tertiary Butyl Ether	2	ND	ND			
Tertiary Amyl Methyl Ether	2	ND	ND			
Diisopropyl Ether	2	4	ND			
Tertiary Butyl Alcohol	10	ND	ND			
MTBE	2	ND	13			
Benzene	1	ND	ND			
Toluene	1	ND	ND			
Ethylbenzene	1	ND	ND			
Xylenes	1	ND	ND			

ND = Not detected at the indicated detection limit.
DF = Dilution Factor
Reporting Limit = DF x Detection Limit

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 375.1(Sulfate) ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/19/03
Date Reported: 09/22/03

SAMPLE IDENTIFICATION		RESULT
C&E ID	Sample ID	(mg/L or ppm)
30912I-4	ITMW-4	ND
30912I-8	ITMW-8	110
30912I-12	ITMW-11	625
Detection Limit:		5

ND = Not detected at the indicated detection limit.

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 352.1(Nitrate) ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/19/03
Date Reported: 09/22/03

SAMPLE IDENTIFICATION		RESULT
C&E ID	Sample ID	(mg/L or ppm)
30912I-4	ITMW-4	ND
30912I-8	ITMW-8	ND
30912I-12	ITMW-11	2.2
Detection Limit:		0.1

ND = Not detected at the indicated detection limit.

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- Methane ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/18/03
Date Reported: 09/22/03

SAMPLE IDENTIFICATION		RESULT
C&E ID	Sample ID	(ug/L or ppb)
30912I-4	ITMW-4	2285
30912I-8	ITMW-8	ND
30912I-12	ITMW-11	ND
Detection Limit:		1

ND = Not detected at the indicated detection limit.

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- Ferrous Iron ---

Client Name: ENCON
Project Manager: Joe Scatoloni
Project Name: LAC-USC
Sample Matrix: Water

Date Sampled: 09/12/03
Date Analyzed: 09/15/03
Date Reported: 09/22/03

SAMPLE IDENTIFICATION		RESULT
C&E ID	Sample ID	(mg/L or ppm)
30912I-4	ITMW-4	0.4
30912I-8	ITMW-8	ND
30912I-12	ITMW-11	ND
Detection Limit:		0.1

ND = Not detected at the indicated detection limit.

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CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

Spike/Spike Duplicate

--- EPA 8260B ---

Date Performed: 09/17/03
QC Batch #: B/O30917

Unit: ug/L

ANALYTE	SPK CONC	MS	MS %	MSD	MSD %	RPD	ACP %MS	ACP RPD
DIPE	40	34.01	85	35.08	88	3.1	80-120	20
ETBE	40	32.02	80	33.59	84	4.8	80-120	20
Benzene	40	35.20	88	36.98	92	4.9	80-120	20
Toluene	40	35.29	88	37.30	93	5.5	80-120	20
Ethylbenzene	40	33.65	84	34.91	87	3.7	80-120	20
Xylenes	40	33.60	84	34.74	87	3.3	80-120	20

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CHAIN OF CUSTODY RECORD

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: (562) 921-8123 Fax: (562) 921-7974

C&E LAB ID: 30912.I

Company Name: Enron Technologies Inc
Project Manager: Scatoloni
Project No./Name: LAC-USC
Tel: 562 777 2200 Fax: " " 2201
Site Address: 1200 North State St. Los Angeles, CA
Sampled By: A. Schmitt

Page 1 of 1

Sample Conditions: __ Chilled __ Seals Intact

Turn Around Time Desired: (Normal) / Same Day / 24hr / 48hr

	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	~~8270C SVOC~~ Sulfate	~~8010B LEAD~~ Ferrous Iron	Methane	Nitrate
1	ITMW-1	9/12/03	0710	water	(3) 40ML VOA											
2	ITMW-2		0717		"											
3	ITMW-3		0724		"											
4	ITMW-4		0736		(1) 1L Amber (3) 40ML VOA											
5	ITMW-5		0741		(3) 40ML VOA											
6	ITMW-6		0850		"											
7	ITMW-7		0749		"											
8	ITMW-8		0813		(1) 1L Amber (3) 40ML VOA											
9	T6MW-7		0756		(3) 40ML VOA											
10	ITMW-9		0819		"											
11	ITMW-10		0829		"											
12	ITMW-11	"	0901	"	(1) 1L Amber (3) 40ML VOA											

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) (Yes) No
Andy Schmitt	9/12/03 1700		9-12-03 500pm	EDF Global ID No.: T0603700846
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

APPENDIX D

Non-Hazardous Liquid
Waste Manifest Form

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: . . . . . | Manifest Document No.: 3 5 0 6 2 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address
USC MEDICAL CENTER
1200 N. STATE ST.
LOS ANGELES, CA 90033
4. Generator's Phone (562) 982-0273

5. Transporter 1 Company Name: ISLAND ENVIRONMENTAL SERVICES
6. US EPA ID Number: C A R 0 0 0 0 5 3 4 0 5
A. Transporter's Phone: (909) 598-4449

7. Transporter 2 Company Name:
8. US EPA ID Number: . . . . . .
B. Transporter's Phone:

9. Designated Facility Name and Site Address
REMEDY ENVIRONMENTAL
3200 E. FRONTERA ST.
ANAHEIM, CA 92806
10. US EPA ID Number: C A L 0 0 0 2 0 0 5 0 0
C. Facility's Phone: (714) 630-2307

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE, LIQUID	0 0 1	T T	0 0 1 4 4	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
11A) WELL WATER. APP#

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
WEAR APPROPRIATE PROTECTIVE GEAR. 24 HR. PHONE 909-598-4449
CLIENT: ENCON
BILL TO: ISLAND ENVIRONMENTAL
W.O.#035062

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: ~~Tom R~~ Andy Schmitt | Signature: [signature] SCO | Month 09 Day 11 Year 03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: JUAN RIVERA | Signature: [signature] | Month 09 Day 11 Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Month . Day . Year .

FACILITY

19. Discrepancy Indication Space
After treatment
SOIL05 = 1 y. OIL = NONE P.H. level = 7

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jorge Hernandez | Signature: [signature] | Month 09 Day 11 Year 03

ORIGINAL - RETURN TO GENERATOR

ENCON

Environmental, Engineering & Construction Services

INVOICE NO. LAC/USC #1013 - 5388

Date: October 13, 2003

P. O. No.: (P. O. #Q18789 - 30025),
Dated 9/03/03

RE: Test and Report Groundwater Monitoring Well Testing
for the 3rd Period, June 12, 2003 through September 12, 2003

Site: LAC/USC Medical Center
1200 N. State Street, Room 518
Los Angeles, California 90033
Attention: John Kelly/Ron Phelps (323) 226-3034

Project: **Third Quarter Groundwater Monitoring Sampling and Analysis For the June 12, 2003 Through Sept. 12, 2003 Period.** Conduct Groundwater Sampling and Analysis for the RWQCB Quarterly Groundwater Monitoring Well Gauging, Sampling and Analysis Annual Program. Prepare Ground Water Data Results and Contour Maps For Site 4 and Site 5 per the Work Plan. Submit Analytical Data by Electronic Reporting to the State RWQCB

Deliverables: Completed the ground water sampling and analysis for Site 4 and Site 5 on Sept 11, 2003. A Groundwater Monitoring Report has been prepared and one (1) copy was FedExpress to the Los Angeles RWQCB, Magdy Braidy - Project Control Engineer, and one (1) copy to the LAC/USC Medical Center, Facilities Department, for internal distribution. Submitted Analytical Data by Hard copy and Electronic Reporting to the State RWQCB Attention: Ron Phelps, Facilities Engineer, Room 518.

Contracted Charges:

Quarterly Monitoring Project Charges to Include:	
12 Groundwater Analyses for Oxygenated Compounds as Directed by the State RWQCB Agency, Los Angeles Region	$ 4,813
Electronic Reporting to State	$ 180
Total Charges For GW Monitoring	**$ 4,993**

Payment: Please remit payment within 30 days of this invoice date.

Job Complete, John Kelly 10-16-03

12145 Mora Drive, Suite 7 • Santa Fe Springs, California 90670 • Tel: 562/777-2200 • Fax: 562/777-2201

ASTECH
ENVIRONMENTAL SERVICES, INC.
Environmental Management & Consulting Services

FIRST EVENT 2012 SEMI-ANNUAL GROUNDWATER MONITORING REPORT SITE – 4 LOS ANGELES COUNTY – USC MEDICAL CENTER

1200 NORTH STATE STREET, LOS ANGELES, CALIFORNIA

RWQCB ID. NO. File #900330270

Prepared for:

California Regional Water Resources Control Board - Region 4 - Los Angeles
Attention: Mr. Magdy Baidy
320 West 4th Street Suite 200
Los Angeles, California 90013

Submitted on Behalf of:

Los Angeles – County – USC Medical Center
1200 N. State Street
Los Angeles, California

July 13, 2012

ASTECH
ENVIRONMENTAL SERVICES, INC.
Environmental Management & Consulting Services

FIRST EVENT 2012 SEMI-ANNUAL GROUNDWATER MONITORING REPORT SITE – 4 LOS ANGELES COUNTY – USC MEDICAL CENTER

1200 NORTH STATE STREET, LOS ANGELES, CALIFORNIA

RWQCB ID. NO. File #900330270

Prepared for:

California Regional Water Resources Control Board - Region 4 - Los Angeles
Attention: Mr. Magdy Baidy
320 West 4th Street Suite 200
Los Angeles, California 90013

Submitted on Behalf of:

Los Angeles – County – USC Medical Center
1200 N. State Street
Los Angeles, California

July 13, 2012

Andrew Schmitt, Project Manager
California Registered Geologist, No. 7507

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FIGURES

FIGURE 1 SITE LOCATION MAP
FIGURE 2 GROUNDWATER CONTOUR MAP – SITE 4
FIGURE 3 DISSOLVED HYDROCARBON MAP – SITE 4
FIGURE 4 BENZENE CONTOUR MAP – SITE 4
FIGURE 5 TPH-GAS CONTOUR MAP – SITE 4

APPENDICES

APPENDIX A. FIELD PROCEDURES AND DATA
APPENDIX B. LABORATORY REPORT AND CHAIN-OF-CUSTODY
APPENDIX C. MANIFEST

1.0 INTRODUCTION

This report documents the results of semi-annual groundwater sampling activities performed at Site – 4 of the Los Angeles County – USC Medical Center (LAC-USC) on May 30, 2012.

1.1 Site Description

The Los Angeles County – USC Medical Center is located just north of the San Bernardino Freeway and east of the Golden State Freeway in the City of Los Angeles, California (Figure 1). The facility itself consists of numerous buildings and operations bounded by Mission Road on the northwest, Valley Boulevard on the north, Soto Street on the east, and Marengo Street on the south. The ground surface elevation at the site ranges from 319 to 430 feet above mean sea level. The highest elevation is at Hazard Reservoir, located east-southeast from the General Hospital.

Site 4 – North Side of the General Hospital

In May 1988, one (1) 2,000-gallon capacity and one (1) 8,000-gallon capacity gasoline underground storage tanks (USTs) were removed from the ambulance garage located along the north side of the General Hospital building just southwest of the Zonal Street and Biggy Street intersection (Figure 2 – Site 4 Location Map). The 2,000-gallon UST was reportedly badly corroded and holes were observed near the fill and seams in the tank during excavation. Approximately 32 gallons of gasoline product were observed in the excavation pit after removal. Soil samples collected beneath the tank inverts contained total petroleum hydrocarbons in the gasoline range (TPH-g) ranging from 5,400 mg/kg to 34,000 mg/kg.

In late December 1988, IT Corporation drilled and installed wells MW-1 through MW-7 located near the present day emergency diesel generators. Well bore MW-6 was abandoned due to refusal at 12 feet below ground surface (bgs). Chemical results for soil samples collected during drilling procedures indicate that TPH-g was detected in the 15-foot samples from ITMW-3 and ITMW-4. TPH-g concentrations were 3,800 mg/kg and 20 mg/kg, respectively. BTEX were detected in the 35 foot sample from ITMW-1, and the 15-foot samples from ITMW-3 and ITMW-4. Benzene concentrations ranged from 10 micrograms per kilogram (µg/kg; in ITMW4 at 30 feet) to 56,000 µg/kg (ITMW-3 at 15 feet bgs).

Two 10,000-gallon capacity diesel fuel (Diesel #2) USTs were installed at the west end of the site. In June 1992, Toxguard drilled, sampled and installed well TGMW-7 adjacent to abandoned well ITMW-6. Groundwater was not encountered during drilling. Chemical results for soil samples collected from TGMW-7 indicate TPH-g and BTEX were detected at 15 and 20 feet bgs. TPH-g concentrations were 16.2 and 22.7 mg/kg, respectively. Benzene concentrations were 14,000 and 220,000 µg/kg, respectively.

Groundwater monitoring was first conducted at Site 4 in January 1989 by IT and included a total of seven wells (ITMW-1 through ITMW-7 & TGMW-7). In October 2000, the LARWQCB

requested that additional wells be installed down-gradient of Site -4 in order to further characterize the limits of the plume. In June 2003, ENCON Technologies Corporation installed three additional wells (ITMW-8 through ITMW-12) at Site 4 in the employee parking area just off Zonal Avenue.

Site 5 – North Side of the General Storage

In June 1992, Toxguard drilled and installed well MW-6 in vicinity of a 4,000-gallon gasoline UST along the north side of the general storage building (Site 5). TPH-g was detected at 10 feet (21 mg/kg) and 25 feet (430 mg/kg) bgs. Benzene concentrations were 22 µg/kg and not detected, respectively. Subsequently, in July 1992, a tank integrity test was performed and a leak rate of 0.098 gallons per hour was identified. A line test conducted in August 1992 also failed. Toxguard suspected a defective foot valve.

In June 1995, Targhee and Moines removed the 4,000-gallon gasoline tank, dispenser, and associated piping from Site. Chemical results indicated 5 mg/kg TPH-g and 8 µg/kg benzene were detected beneath the tank. TPH-g and BTEX were not detected beneath the dispenser. Targhee noted all samples collected beneath the 4,000-gallon tank had hydrocarbon odors.

A soil and groundwater assessment conducted in February 1999 (ENCON) identified that groundwater was not laterally persistent beneath Site 5 and that the plume appeared to be stable and well defined. However, pursuant to LARWQCB directives, ENCON Technologies advanced two borings in June 2003 at Site 5. Groundwater was encountered only in the boring drilled near the former tank pit which was converted to monitoring Well ITMW-11. The other boring was abandoned due to a dry hole and ENCON concluded that groundwater was most likely limited to the backfill materials emplaced during the UST removal activities.

In December 2005, AESI submitted a closure work plan to the LARWQCB for termination of sampling activities at Site – 5. Pursuant to the 60-day Rule and the priority status (Priority D) assigned to the Site by the LARWQCB, AESI has suspended groundwater monitoring activities at Site -5.

2.0 GEOLOGY / HYDROGEOLOGY

The Los Angeles County – USC Medical Center is located in the northern part of the Los Angeles Basin known as the Elysian Park – Repetto Hills Area. Specifically, the site is located on the outcrop of sandstone and siltstone at the southeastern edge of the Elysian Park Hills. The outcrop is surrounded by Quaternary older alluvium consisting of silt, sand, and gravel.

Bulletin 104 (California Department of Water Resources [CDWR], 1961) indicates the LAC-USC Medical Center is in an area of "non-water bearing" rocks. This term is used for sites where groundwater is either not present or is of limited supply. Groundwater was found at various depths during drilling but has generally equilibrated at approximately 27.56 feet bgs on the north side of the Steam Plant (Site 1), 15.7 feet bgs in vicinity of the General Hospital; and 20 feet bgs on the north side of the General Storage Area. Groundwater in well ITMW-7 has historically been 3 to 4 feet deeper than the other wells at Site 4. Reasons for this occurrence are unclear at this time.

Groundwater has historically flowed to the north beneath Sites 4 and 5. A groundwater contour map prepared by Dames & Moore in 1994 indicated water flow in all directions from the Hazard Reservoir located at the corner of Zonal and Cummings. This may indicate local groundwater is surficial and originating from the reservoir. Slow recharge of the wells in Site 4, set in the sandstone formation, may indicate groundwater is of very limited supply. This is consistent with the "non-water bearing rock" designation used in Bulletin 104. Current and historical groundwater contour maps for this site indicate a possible groundwater barrier just south of ITMW-7, resulting in different flow regimes on either side of the barrier. South of the divide, groundwater appears to flows in an elliptically radial pattern outward from well ITMW-2. North of the divide, groundwater is typically 2 to 4 feet deeper and appears to flow to the east - northeast.

3.0 SEMI-ANNUAL GROUNDWATER MONITORING

3.1 GROUNDWATER LEVEL GAUGING

AESI personnel gauged wells ITMW-1 through ITMW-11 and TGMW-7 using an electronic water-level tape manufactured by Solinst. The presence of separate-phase product and thickness was measured using an inter-phase probe. Gauging procedures are presented in Appendix A. Gauging data were used to construct the Groundwater Contour Maps shown on Figures 2 and 3.

3.2 PURGING AND SAMPLING

A vacuum truck operated by Able Environmental Services of Huntington Beach, California was used to purge the wells this quarter. Approximately 90-gallons of water was generated during this quarter's sampling event and immediately transported for disposal. Temperature, pH, conductivity, and turbidity were monitored for each of the casing volumes removed during the purging activities using a HANNA Instruments meter. Well purging and sampling procedures are presented as Appendix A.

Water quality samples were collected after 90% recovery with respect to the original well volume. Two 40-milliliter (ml) VOA vials were filled with water from each well using new disposable polyethylene bailers. Once collected, the samples were labeled, recorded on a chain-of-custody document, and placed in cold storage until delivered to a state-certified laboratory for analysis. All water samples were handled according to standard EPA chain-of-custody procedures. Well purging and sampling procedures, as well as quality assurance procedures, are presented in Appendix A.

3.3 CHEMICAL ANALYSIS

Groundwater samples were analyzed by a state-certified laboratory (ELAP #2268) for total petroleum hydrocarbons in the gasoline range (TPH-g) using EPA Method 8015M. Aromatic compounds benzene, toluene, ethylbenzene, and total xylenes (BTEX) and fuel oxygenates methyl-tertiary-butyl-ether (MtBE), ethyl-tertiary-butyl-ether (EtBE), tertiary-amyl-methyl-ether (TAME), diisopropyl-ether (DIPE), and tertiary-butyl-alcohol (TBA) using EPA Method 8260.

3.4 PURGE WATER

Approximately 90-gallons of groundwater were generated during the purging procedures and transported for disposal as Non-Hazardous Waste Liquid to Lakeland Processing Company located in Santa Fe Springs, California.

REFERENCES

California Department of Water Resources (CDWR), 1961. "Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County": CDWR Bulletin No. 104, Appendix A – Ground Water Geology.

IT Corporation, 1989. "Report of Preliminary Underground Storage Tank Leak Investigation, Los Angeles County – USC Medical Center, 1200 North State Street, Los Angeles, California": Prepared by IT Corporation for Los Angeles County – USC Medical Center, dated February 15, 1989.

IT Corporation, 1989b. "Results of Groundwater Monitoring and Sampling, Los Angeles County – USC Medical Center": Prepared by IT Corporation for Los Angeles Facilities Management Department, dated April 1989.

Petroleum Industry Consultants (PIC), 1997. "Quarterly Groundwater Monitoring Report for LAC-USC Medical Center, 1200 North State Street, Los Angeles, California": Unpublished report prepared by PIC for the LAC-USC Medical Center, dated August 19, 1997.

Toxguard, Inc., 1992. "Interim Report of Findings for the Leak Detection Investigation and Tank Monitoring Program at Los Angeles County – USC Medical Center, 1200 North State Street, Los Angeles, California 90033": Prepared for the LAC Medical Center by Toxguard, Inc. of Irvine, California, dated September 4, 1992.

Targhee, Inc., 1995. "Underground Storage Tank Removal and Soil Sampling – USC Medical Center, 1200 N. State Street, Los Angeles, California": Prepared for LAC-USC Medical Center by Targhee, Inc. dated May 31, 1995.

Targhee, Inc., 1995b. "Underground Storage Tank Removal and Soil Sampling – USC Medical Center, 1200 N. State Street, Los Angeles, California": Prepared for LAC-USC Medical Center by Targhee, Inc. dated June 28 1995.

U.S. Geological Survey (USGS), 1966. "Los Angeles – California Quadrangle", topographic series: Published by the USGS. Photorevised in 1981. USGS Scale 1:24000, 1 sheet.

TABLE 1: SUMMARY OF GROUNDWATER DATA

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (in)	Corrected GW Elev. (ft MSL)	Change in GW Elev			EPA 8015	EPA 8020					EPA 8260B						EPA 352.1	EPA 375.1		
											TPH-g	B	T	E-Benz	X	MTBE	DIPE	TBA	TAME	ETBE	Fe3+	NO4	SO4	CH4
											(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
ITMW-1																										
ITMW-1	7/24/97	352.125		17.97	17.97	0.00	334.16			ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
ITMW-1	10/24/97	352.125		15.94	15.94	0.00	336.19	Rise	2.03	ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
ITMW-1	12/23/97	352.125		16.74	16.74	0.00	335.39	Decrease	-0.80	ft	188,000	22,500.0	35,500.0	3,890.0	22,600.0	NA	NA	NA	NA	NA					
ITMW-1	3/18/98	352.125		12.55	12.55	0.00	339.58	Rise	4.19	ft	109,830	19,610.1	31,832.2	3,317.2	16,719.2	NA	NA	NA	NA	NA					
ITMW-1	6/16/98	352.125		13.82	13.82	0.00	338.31	Decrease	-1.27	ft	165,304	21,016.9	25,304.8	3,621.8	15,525.2	NA	NA	NA	NA	NA					
ITMW-1	10/6/98	352.125		16.27	16.27	0.00	335.86	Decrease	-2.45	ft	54,835	10,778.9	1,753.9	1,825.1	5,675.6	NA	NA	NA	NA	NA					
ITMW-1	3/9/99	352.125		19.20	19.20	0.00	332.93	Decrease	-2.93	ft	130,320	17,672.7	19,172.6	5,317.3	16,437.0	NA	NA	NA	NA	NA					
ITMW-1	6/30/99	352.125		17.58	17.58	0.00	334.55	Rise	1.62	ft	130,320	17,672.7	19,172.6	5,317.3	16,437.0	NA	NA	NA	NA	NA					
ITMW-1	9/23/99	352.125		17.95	17.95	0.00	334.18	Decrease	-0.37	ft	103,813	14,195.3	15,364.0	5,098.2	15,000.1	NA	NA	NA	NA	NA					
ITMW-1	1/12/00	352.125		18.26	18.26	0.00	333.87	Decrease	-0.31	ft	113,739	22,188.4	34,450.4	5,964.4	24,998.9	NA	NA	NA	NA	NA					
ITMW-1	3/14/00	352.125		13.88	13.88	0.00	338.25	Rise	4.38	ft	79,007	11,550.0	8,525.3	2,601.8	8,102.0	NA	NA	NA	NA	NA					
ITMW-1	7/5/00	352.125		14.60	14.60	0.00	337.53	Decrease	-0.72	ft	213,077	58,152.8	41,111.8	14,075.8	39,232.6	NA	NA	NA	NA	NA					
ITMW-1	9/27/00	352.125		19.82	19.82	0.00	332.31	Decrease	-5.22	ft	83,654	9,514.0	14,473.1	5,661.4	19,896.8	NA	NA	NA	NA	NA					
ITMW-1	3/22/01	352.125		15.24	15.24	0.00	336.89	Rise	4.58	ft	68,151	7,645.0	8,629.3	3,477.8	9,019.8	NA	NA	NA	NA	NA					
ITMW-1	6/13/01	352.125	35.6	16.03	16.03	0.00	336.10	Decrease	-0.79	ft	86,385	6,796.0	6,392.0	2,845.0	6,938.0	ND<2	424.0	ND<10	ND	ND					
ITMW-1	8/31/01	352.125	35.65	18.85	18.85	0.00	333.28	Decrease	-2.82	ft	62,374	7,894.0	7,322.0	3,530.0	8,621.0	ND<2	364.0	ND<10	ND	ND					
ITMW-1	12/24/01	352.125	35.65	21.64	21.64	0.00	330.49	Decrease	-2.79	ft	155,434	16,810.0	33,507.0	8,157.0	31,087.0	ND<2	839.0	ND<10	ND<2	ND<2					
ITMW-1	3/21/02	352.125	35.93	23.16	23.06	-0.10	328.99	Decrease	-1.49	ft	84,457	11,597.0	23,586.0	4,722.0	17,689.0	ND<2	391.0	ND<10	ND<2	ND<2					
ITMW-1	6/28/02	352.125	35.57	21.31	22.41	1.10	330.53	Rise	1.54	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-1	9/12/02	352.125		22.00	23.21	1.21	329.81	Decrease	-0.72	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-1	12/12/02	352.125	35.57	20.40	21.21	0.81	331.51	Rise	1.70	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-1	3/17/03	352.125	35.5	18.57	18.57	0.00	333.56	Rise	2.04	ft	171,067	9,545.0	29,147.0	5,640.0	28,484.0	ND<2	225.0	ND<10	ND<2	ND<2					
ITMW-1	6/18/03	352.125	35.5	18.57	18.57	0.00	333.56	No Change	0.00	ft	50,448	15,730.0	2,772.0	19,659.0	28,484.0	ND<2	206.0	ND<10	ND<2	ND<2	2.2	1	9	1,210
ITMW-1	9/12/03	352.125	35.5	20.70	20.70	0.00	331.43	Decrease	-2.13	ft	82,781	7,039.0	12,202.0	2,900.0	11,914.0	ND<2	167.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	12/17/03	352.125	35.5	21.68	21.63	-0.05	330.46	Decrease	-0.97	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-1	3/12/04	352.125	35.5	18.95	18.95	0.00	333.18	Rise	2.72	ft	57,091	4,849.0	9,431.0	3,048.0	11,305.0	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	7/1/04	352.125	35.5	21.23	21.23	0.00	330.90	Decrease	-2.28	ft	107,151	7,646.0	11,954.0	4,636.0	20,996.0	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	9/22/04	352.125	35.5	23.99	23.01	-0.98	328.39	Decrease	-2.51	ft	51,168	1,632.0	704.0	3,172.0	5,251.0	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	1/6/05	352.125	35.5	23.99	23.01	-0.98	328.39	No Change	0.00	ft	107,638	5,402.0	8,903.0	4,679.0	15,380.0	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	4/4/05	352.125	35.5	13.55	13.55	0.00	338.58	Rise	10.19	ft	97,453	5,147.0	7,644.0	2,475.0	15,552.0	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	3/10/06	352.125	35.5	18.23	18.23	0.00	333.90	Decrease	-4.68	ft	66,731	3,554.2	3,382.8	2,370.8	14,693.3	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	9/6/06	352.125	35.5	11.60	11.60	0.00	340.53	Rise	6.63	ft	117,476	5,399.5	3,938.7	948.1	16,188.2	ND<2	167.2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	12/21/06	352.125	35.5	17.31	17.31	0.00	334.82	Decrease	-5.71	ft	21,018	3,061.9	172.3	703.5	2,657.9	ND<2	1,519.3	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	3/12/07	352.125	35.5	18.80	18.80	0.00	333.33	Decrease	-1.49	ft	74,886	3,340.9	3,437.1	565.1	13,909.1	ND<2	89.5	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	6/25/07	352.125	35.5	19.89	19.89	0.00	332.24	Decrease	-1.09	ft	25,096	1,910.4	617.2	284.1	5,750.4	ND<2	127.3	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	9/12/07	352.125	35.5	22.09	22.04	-0.05	330.05	Decrease	-2.19	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-1	12/12/07	352.125	35.5	21.04	21.04	0.00	331.09	Rise	1.04	ft	186,826	8,323.6	7,432.6	7,872.7	33,579.0	ND<2	211.5	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-1	7/11/08	352.125	35.5	21.01	21.25	0.24	331.05	Decrease	-0.03	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-1	9/17/08	352.125	35.5	19.55	19.55	0.00	332.58	Rise	1.52	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-1	1/7/09	352.125	35.5	18.85	18.85	0.00	333.28	Rise	0.70	ft	36,148	1,828.6	715.7	2,243.3	11,760.2	ND<1	160.0	ND<200	ND<20	ND<20	NS	NS	NS	NS
ITMW-1	3/31/09	352.125	35.5	17.22	17.22	0.00	334.91	Rise	1.63	ft	16,478	135.1	61.3	399.7	2,036.2	ND<1	44.1	ND<50	ND<5	ND<5	NS	NS	NS	NS
ITMW-1	6/9/09	352.125	35.5	18.20	18.20	0.00	333.93	Decrease	-0.98	ft	7,537	64.1	13.2	4.9	1,110.9	ND<1	23.1	ND<50	ND<5	ND<5	NS	NS	NS	NS
ITMW-1	7/1/10	352.125	35.5	19.04	19.04	0.00	333.09	Decrease	-0.84	ft	68,001	369.1	186.4	290.8	5,107.7	ND<1	168.4	ND<50	ND<5	ND<5	NS	NS	NS	NS
ITMW-1	1/12/11	352.125	35.5	17.23	17.23	0.00	334.90	Rise	1.81	ft	142,000	1,940.0	1,730.0	6,070.0	28,300.0	ND<1	44.1	ND<50	ND<5	ND<5	NS	NS	NS	NS
ITMW-1	12/23/11	352.125	35.5	20.20	20.20	0.00	331.93	Decrease	-2.97	ft	22,522	742.1	74.4	1,051.8	2,598.5	ND<1	106.6	ND<50	ND<5	ND<5	NS	NS	NS	NS
ITMW-1	5/30/12	352.125	35.5	20.68	20.68	0.00	331.45	Decrease	-0.48	ft	239,416	1,528.9	472.1	7,886.9	27,711.0	ND<1	68.8	ND<50	ND<5	ND<5	NS	NS	NS	NS
ITMW-2																										
ITMW-2	7/24/97	352.22		17.97	18.05	0.08	334.23			ft																
ITMW-2	10/24/97	352.22		15.67	15.68	0.01	336.55	Rise	2.32	ft	18,400	1,060.0	2,600.0	682.0	2,360.0	NA	NA	NA	NA	NA					
ITMW-2	12/23/97	352.22		16.35	16.35	0.00	335.88	Decrease	-0.67	ft	11,000	829.0	1,680.0	521.0	1,820.0	NA	NA	NA	NA	NA					
ITMW-2	3/18/98	352.22		12.55	12.55	0.00	339.67	Rise	3.80	ft	16,000	909.0	2,120.0	640.0	2,220.0	NA	NA	NA	NA	NA					
ITMW-2	6/16/98	352.22		13.70	13.70	0.00	338.52	Decrease	-1.15	ft	7,319	872.9	1,158.2	540.9	1,245.8	NA	NA	NA	NA	NA					
ITMW-2	10/6/98	352.22		16.10	16.10	0.00	336.12	Decrease	-2.40	ft	96,042	9,441.6	9,400.5	4,544.9	10,159.4	NA	NA	NA	NA	NA					
ITMW-2	3/9/99	352.22		18.19	18.19	0.00	334.03	Decrease	-2.09	ft	3,632	289.9	377.6	196.8	341.4	NA	NA	NA	NA	NA					
ITMW-2	6/30/99	352.22		17.50	17.50	0.00	334.72	Rise	0.69	ft	2,805	148.2	73.8	2.6	334.6	NA	NA	NA	NA	NA					
ITMW-2	9/23/99	352.22		17.88	17.88	0.00	334.34	Decrease	-0.38	ft	3,440	210.8	243.4	172.0	333.8	NA	NA	NA	NA	NA					
ITMW-2	1/12/00	352.22		17.88	17.88	0.00	334.34	No Change	0.00	ft	8,379	908.6	1,781.6	883.6	1,931.7	NA	NA	NA	NA	NA					
ITMW-2	3/14/00	352.22		14.28	14.28	0.00	337.94	Rise	3.60	ft	9,025	879.9	805.0	448.1	1,115.5	NA	NA	NA	NA	NA					
ITMW-2	7/5/00	352.22		14.45	14.45	0.00	337.77	Decrease	-0.17	ft	3,050	ND<1	ND<1	ND<1	834.1	NA	NA	NA	NA	NA					
ITMW-2	9/27/00	352.22		18.55	18.55	0.00	333.67	Decrease	-4.10	ft	3,133	287.6	293.8	22.7	575.7	NA	NA	NA	NA	NA					
ITMW-2	1/10/01	352.22		19.31	19.31	0.00	332.91	Decrease	-0.76	ft	21,137	622.4	1,268.1	928.4	1,654.3	NA	NA	NA	NA	NA					
ITMW-2	3/22/01	352.22		15.03	15.03	0.00	337.19	Rise	4.28	ft	8,873	1,116.8	959.2	471.7	1,097.4	NA	NA	NA	NA	NA					
ITMW-2	6/13//01	352.22	34.3	15.93	15.93	0.00	336.29	Decrease	-0.90	ft	13,556	792.0	690.0	404.0	849.0	ND<2	819.0	ND<10	ND<2	ND<2					
ITMW-2	8/31/01	352.22	34.32	19.85	19.85	0.00	332.37	Decrease	-3.92	ft	9,406	977.0	517.0	163.0	1,026.0	ND<2	1,622.0	ND<10	ND<2	ND<2					
ITMW-2	12/24/01	352.22	34.3	21.80	21.80	0.00	330.42	Decrease	-1.95	ft	10,529	883.0	813.0	630.0	1,524.0	ND<2	1,369.0	ND<10	ND<2	ND<2					
ITMW-2	3/21/02	352.22	34.3	22.13	22.13	0.00	330.09	Decrease	-0.33	ft	20,764	1,504.0	1,768.0	1,405.0	3,653.0	ND<2	1,425.0	ND<10	ND<2	ND<2					
ITMW-2	6/28/02	352.22	34.3	22.35	22.35	0.00	329.87	Decrease	-0.22	ft	76,162	8,976.0	11,218.0	3,602.0	14,051.0	ND<2	4,021.0	ND<10	ND<2	ND<2					
ITMW-2	9/12/02	352.22	34.3	22.41	22.41	0.00	329.81	Decrease	-0.06	ft	56,573	4,952.0	4,351.0	3,500.0	10,278.0	ND<2	2,758.0	ND<10	ND<2	ND<2					
ITMW-2	12/12/02	352.22	34.3	20.61	20.61	0.00	331.61	Rise	1.80	ft	58,528	3,538.0	2,664.0	1,073.0	10,830.0	ND<2	3,294.0	ND<10	ND<2	ND<2					
ITMW-2	6/18/03	352.22	34.3	18.32	18.32	0.00	333.90	Rise	2.29	ft	41,242	2,247.0	1,484.0	2,421.0	10,247.0	ND<2	1,342.0	ND<10	ND<2	ND<2					
ITMW-2	9/12/03	352.22	34.3	20.12	20.12	0.00	332.10	Decrease	-1.80	ft	40,147	4,221.0	3,628.0	1,221.0	5,401.0	ND<2	1,811.0	ND<10	ND<2	ND<2					
ITMW-2	12/17/03	352.22	34.3	21.82	21.69	-0.13	330.43	Decrease	-1.67	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-2	3/12/04	352.22	34.3	18.87	18.87	0.00	333.35	Rise	2.92	ft	45,694	8,022.0	6,765.0	1,830.0	6,713.0	ND<2	3,043.0	ND<10	ND<2	ND<2					
ITMW-2	7/1/04	352.22	34.3	21.12	21.52	0.40	331.00	Decrease	-2.35	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-2	9/22/04	352.22	34.3	22.44	22.46	0.02	329.77	Decrease	-1.22	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-2	1/6/05	352.22	34.3	22.44	22.46	0.02	329.77	No Change	0.00	ft	31,313	1,532.0	1,203.0	1,298.0	3,435.0	ND<2	559.0	ND<10	ND<2	ND<2					
ITMW-2	4/4/05	352.22	34.3	13.93	13.93	0.00	338.29	Rise	8.52	ft	28,301	1,581.0	749.0	1,043.0	2,624.0	ND<2	846.0	ND<10	ND<2	ND<2					
ITMW-2	3/10/06	352.22	34.3	17.85	17.85	0.00	334.37	Decrease	-3.92	ft	28,611	2,836.0	668.7	1,315.3	3,335.1	ND<2	2,541.4	ND<10	ND<2	ND<2					
ITMW-2	9/6/06	352.22	34.3	10.25	10.25	0.00	341.97	Rise	7.60	ft	37,870	3,297.0	183.2	810.4	2,482.2	ND<2	2,319.8	ND<10	ND<2	ND<2					
ITMW-2	12/21/06	352.22	34.3	17.03	17.03	0.00	335.19	Decrease	-6.78	ft	25,777	1,938.5	774.2	325.5	6,784.1	ND<2	ND<20	ND<10	ND<2	ND<2					
ITMW-2	3/12/07	352.22	34.3	18.69	18.69	0.00	333.53	Decrease	-1.66	ft	19,726	2,599.3	297.3	466.7	1,761.1	ND<2	1,121.6	ND<10	ND<2	ND<2					
ITMW-2	6/25/07	352.22	34.3	19.63	19.63	0.00	332.59	Decrease	-0.94	ft	15,295	3,177.4	273.9	143.1	777.0	ND<2	2,337.5	ND<10	ND<2	ND<2					
ITMW-2	9/12/07	352.22	34.3	21.81	21.71	-0.10	330.44	Decrease	-2.15	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-2	12/12/07	352.22	34.3	20.60	20.60	0.00	331.62	Rise	1.18	ft	80,333	2,737.4	327.4	4,776.8	10,240.3	ND<2	51.4	ND<10	ND<2	ND<2					
ITMW-2	7/11/08	352.22	34.3	20.89	20.89	0.00	331.33	Decrease	-0.29	ft	37,344	6,194.8	1,026.4	1,357.0	5,919.5	ND<2	2,591.5	ND<10	ND<2	ND<2					
ITMW-2	9/17/08	352.22	34.3	19.51	19.57	0.06	332.69	Rise	1.36	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					
ITMW-2	1/7/09	352.22	34.3	18.50	18.50	0.00	333.72	Rise	1.03	ft	10,435	937.7	109.2	765.3	954.1	ND<20	760.9	ND<200	ND<20	ND<20					
ITMW-2	3/31/09	352.22	34.3	17.40	17.40	0.00	334.82	Rise	1.10	ft	274	5.4	ND<5	5.2	16.3	ND<1	15.5	ND<10	ND<1	ND<1					
ITMW-2	6/9/09	352.22	34.3	18.18	18.18	0.00	334.04	Decrease	-0.78	ft	4,931	356.9	20.9	115.3	265.0	ND<1	328.8	ND<10	ND<1	ND<1					
ITMW-2	7/1/10	352.22	34.3	18.75	18.75	0.00	333.47	Decrease	-0.57	ft	9,127	607.4	21.6	95.8	133.7	ND<1	941.6	ND<10	ND<1	ND<1					
ITMW-2	1/12/11	352.22	34.3	16.75	16.75	0.00	335.47	Rise	2.00	ft	80,800	7,310.0	4,400.0	2,820.0	14,600.0	ND<1	15.5	ND<10	ND<1	ND<1					
ITMW-2	12/23/11	352.22	34.3	20.43	20.43	0.00	331.79	Decrease	-3.68	ft	3,087	688.2	4.3	51.8	44.2	ND<1	993.0	ND<10	ND<1	ND<1					
ITMW-2	5/30/12	352.22	34.3	20.27	20.31	0.04	331.94	Rise	0.15	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					

TABLE 1: SUMMARY OF GROUNDWATER DATA

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (in)	Corrected GW Elev. (ft MSL)	Change in GW Elev			EPA 8015	EPA 8020					EPA 8260B						EPA 352.1	EPA 375.1		
											TPH-g	B	T	E-Benz	X	MTBE	DIPE	TBA	TAME	ETBE	Fe3+	NO4	SO4	CH4
											(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
ITMW-3																										
ITMW-3	7/24/97	352.14	36.00	17.97	18.05	0.08	334.15			ft	2,000	2.0	75.0	50.0	??	NA	NA	NA	NA	NA						
ITMW-3	10/24/97	352.14	35.00	15.68	15.69	0.01	336.46	Rise	2.31	ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
ITMW-3	12/23/97	352.14	35.00	16.43	16.43	0.00	335.72	Decrease	-0.74	ft	38,000	10,500.0	709.0	2,110.0	3,840.0	NA	NA	NA	NA	NA						
ITMW-3	3/18/98	352.14	36.27	13.65	13.65	0.00	338.49	Rise	2.78	ft	163,000	13,200.0	28,600.0	4,170.0	24,600.0	NA	NA	NA	NA	NA						
ITMW-3	6/16/98	352.14	36.30	13.64	13.64	0.00	338.50	Rise	0.01	ft	71,987	9,677.0	22,871.0	3,243.8	14,010.0	NA	NA	NA	NA	NA						
ITMW-3	10/6/98	352.14	36.19	16.01	16.01	0.00	336.13	Decrease	-2.37	ft	159,341	15,363.7	27,050.0	4,768.0	16,373.9	NA	NA	NA	NA	NA						
ITMW-3	3/9/99	352.14	36.29	18.41	18.41	0.00	333.73	Decrease	-2.40	ft	24,580	5,467.4	909.4	1,237.9	1,427.6	NA	NA	NA	NA	NA						
ITMW-3	6/30/99	352.14	36.29	17.27	17.27	0.00	334.87	Rise	1.14	ft	34,147	5,262.1	2,021.7	1,512.9	4,239.3	NA	NA	NA	NA	NA						
ITMW-3	9/23/99	352.14	36.29	17.85	17.85	0.00	334.29	Decrease	-0.58	ft	3,439	178.3	69.9	368.9	385.8	NA	NA	NA	NA	NA						
ITMW-3	1/12/00	352.14	36.29	18.18	18.18	0.00	333.96	Decrease	-0.33	ft	28,513	7,528.4	3,731.7	3,295.2	5,244.2	NA	NA	NA	NA	NA						
ITMW-3	3/14/00	352.14	36.29	13.91	13.91	0.00	338.23	Rise	4.27	ft	100,681	8,697.8	13,322.4	2,740.5	12,312.2	NA	NA	NA	NA	NA						
ITMW-3	7/5/00	352.14	36.29	14.55	14.55	0.00	337.59	Decrease	-0.64	ft	22,669	7,276.1	1,634.4	1,512.4	4,157.8	NA	NA	NA	NA	NA						
ITMW-3	9/27/00	352.14	36.29	18.41	18.41	0.00	333.73	Decrease	-3.86	ft	10,333	3,824.4	443.8	1,169.7	858.1	NA	NA	NA	NA	NA						
ITMW-3	1/10/01	352.14	36.29	14.96	14.96	0.00	337.18	Rise	3.45	ft	12,140	2,837.5	521.7	1,012.5	1,026.5	NA	NA	NA	NA	NA						
ITMW-3	3/22/01	352.14	36.29	14.96	14.96	0.00	337.18	No Change	0.00	ft	48,403	3,803.8	7,766.1	2,923.8	8,725.4	NA	NA	NA	NA	NA						
ITMW-3	6/13//01	352.14	36.34	15.74	14.96	-0.78	336.60	Decrease	-0.58	ft	56,338	4,300.0	5,570.0	2,157.0	6,851.0	ND<2	39.0	ND<10	ND<2	ND<2						
ITMW-3	8/31/01	352.14	36.34	18.45	18.45	0.00	333.69	Decrease	-2.91	ft	32,576	3,525.0	2,507.0	1,187.0	4,880.0	ND<2	76.0	ND<10	ND<2	ND<2						
ITMW-3	12/24/01	352.14	36.33	20.45	20.45	0.00	331.69	Decrease	-2.00	ft	25,149	4,776.0	3,053.0	1,455.0	4,379.0	ND<2	332.0	ND<10	ND<2	ND<2						
ITMW-3	3/21/02	352.14	36.31	21.15	21.15	0.00	330.99	Decrease	-0.70	ft	22,175	2,386.0	5,504.0	1,803.0	5,021.0	ND<2	118.0	ND<10	ND<2	ND<2						
ITMW-3	6/28/02	352.14	36.31	22.40	22.51	0.11	329.71	Decrease	-1.28	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-3	9/12/02	352.14		22.61	22.64	0.03	329.52	Decrease	-1.47	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-3	12/12/02	352.14	36.33	20.29	20.29	0.00	331.85	Rise	2.33	ft	50,056	2,127.0	4,254.0	2,971.0	9,966.0	ND<2	126.0	ND<10	ND<2	ND<2						
ITMW-3	6/18/03	352.14	36.30	17.97	17.97	0.00	334.17	Rise	2.32	ft	26,071	1,635.0	2,861.0	2,408.0	10,772.0	ND<2	49.0	ND<10	ND<2	ND<2						
ITMW-3	9/12/03	352.14	36.30	19.64	19.64	0.00	332.50	Decrease	-1.67	ft	37,253	1,776.0	1,897.0	2,048.0	6,939.0	ND<2	ND<2	ND<10	ND<2	ND<2						
ITMW-3	12/17/03	352.14	36.30	20.91	20.91	0.00	331.23	Decrease	-1.27	ft	107,894	2,731.0	4,034.0	3,402.0	11,277.0	ND<2	34.0	ND<10	ND<2	ND<2						
ITMW-3	3/12/04	352.14	36.30	18.39	18.39	0.00	333.75	Rise	2.52	ft	27,999	887.0	754.0	1,521.0	6,057.0	ND<2	ND<2	ND<10	ND<2	ND<2						
ITMW-3	7/1/04	352.14	36.30	20.31	20.31	0.00	331.83	Decrease	-1.92	ft	51,268	1,396.0	1,286.0	2,357.0	6,185.0	ND<2	ND<2	ND<10	ND<2	ND<2						
ITMW-3	9/22/04	352.14	36.30	22.30	22.34	0.04	329.83	Decrease	-2.00	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-3	1/6/05	352.14	36.30	22.30	22.34	0.04	329.83	No Change	0.00	ft	41,946	723.0	620.0	1,442.0	3,028.0	ND<2	147.0	ND<10	ND<2	ND<2						
ITMW-3	4/4/05	352.14	36.30	13.20	13.20	0.00	338.94	Rise	9.11	ft	57,773	1,903.0	4,116.0	1,599.0	9,083.0	ND<2	ND<2	ND<10	ND<2	ND<2						
ITMW-3	3/10/06	352.14	36.30	17.67	17.67	0.00	334.47	Decrease	-4.47	ft	34,187	1,088.8	337.6	1,786.2	6,567.6	ND<2	ND<2	ND<10	ND<2	ND<2						
ITMW-3	9/6/06	352.14	36.30	11.18	11.18	0.00	340.96	Rise	6.49	ft	65,289	2,551.7	2,009.6	634.3	8,565.8	ND<2	74.8	ND<10	ND<2	ND<2						
ITMW-3	12/21/06	352.14	36.30	17.03	17.03	0.00	335.11	Decrease	-5.85	ft	66,096	7,842.8	7,307.1	559.4	17,942.0	ND<2	232.6	ND<10	ND<2	ND<2						
ITMW-3	3/12/07	352.14	36.30	18.46	18.46	0.00	333.68	Decrease	-1.43	ft	41,449	1,140.6	47.4	848.1	6,982.8	ND<2	ND<50	ND<10	ND<2	ND<2						
ITMW-3	6/25/07	352.14	36.30	19.54	19.54	0.00	332.60	Decrease	-1.08	ft	47,723	1,537.8	119.8	1,970.3	5,981.5	ND<2	ND<50	ND<10	ND<2	ND<2						
ITMW-3	9/12/07	352.14	36.30	21.65	21.65	0.00	330.49	Decrease	-2.11	ft	26,774	1,320.6	104.4	2,067.7	3,402.9	ND<2	ND<50	ND<10	ND<2	ND<2						
ITMW-3	12/12/07	352.14	36.30	20.47	20.47	0.00	331.67	Rise	1.18	ft	87,103	5,675.6	2,164.0	1,320.8	5,346.9	ND<2	2,666.7	ND<10	ND<2	ND<2						
ITMW-3	7/11/08	352.14	36.30	20.71	20.71	0.00	331.43	Decrease	-0.24	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-3	9/17/08	352.14	36.30	19.50	19.50	0.00	332.64	Rise	1.21	ft	83,026	7,206.7	931.2	920.8	7,501.2	ND<50	3,399.8	ND<500	ND<50	ND<50						
ITMW-3	1/7/09	352.14	36.30	18.47	18.47	0.00	333.67	Rise	1.03	ft	28,481	645.4	31.7	1,162.6	1,360.5	ND<10	53.8	ND<100	ND<10	ND<10						
ITMW-3	3/31/09	352.14	36.30	17.75	17.75	0.00	334.39	Rise	0.72	ft	292	1.1	ND<0.5	4.4	12.0	ND<1	ND<1	ND<10	ND<1	ND<1						
ITMW-3	6/9/09	352.14	36.30	18.09	18.09	0.00	334.05	Decrease	-0.34	ft	958	6.9	ND<0.5	ND<0.5	5.5	ND<1	1.1	ND<10	ND<1	ND<1						
ITMW-3	7/1/10	352.14	36.30	18.15	18.15	0.00	333.99	Decrease	-0.06	ft	10,123	224.0	1.4	2.3	671.3	ND<1	65.0	ND<10	ND<1	ND<1						
ITMW-3	1/12/11	352.14	36.30	16.66	16.66	0.00	335.48	Rise	1.49	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-3	12/23/11	352.14	36.30	20.63	20.63	0.00	331.51	Decrease	-3.97	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-3	5/30/12	352.14	36.30	20.25	20.25	0.00	331.89	Rise	0.38	ft	23,132	288	19	179	171	ND<10	29	ND<10	ND<10	ND<10						
ITMW-4																										
ITMW-4	7/24/97	352.39	36.00	17.97	18.05	0.08	334.40			ft																
ITMW-4	10/24/97	352.39	35.00	15.94	15.95	0.01	336.45	Rise	2.05	ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
ITMW-4	12/23/97	352.39	35.00	16.63	16.63	0.00	335.76	Decrease	-0.69	ft	87,000	9,930.0	13,300.0	3,720.0	15,700.0	NA	NA	NA	NA	NA						
ITMW-4	3/18/98	352.39	34.13	12.78	12.78	0.00	339.62	Rise	3.86	ft	135,000	11,400.0	20,200.0	4,580.0	20,700.0	NA	NA	NA	NA	NA						
ITMW-4	6/16/98	352.39	34.10	14.00	14.00	0.00	338.39	Decrease	-1.23	ft	69,232	10,468.0	14,479.8	3,785.3	12,428.0	NA	NA	NA	NA	NA						
ITMW-4	10/6/98	352.39	34.06	16.31	16.31	0.00	336.08	Decrease	-2.31	ft	108,422	11,611.6	19,321.0	3,601.1	13,696.4	NA	NA	NA	NA	NA						
ITMW-4	3/9/99	352.39	34.15	18.30	18.30	0.00	334.09	Decrease	-1.99	ft	36,981	6,765.3	2,770.0	1,782.1	3,719.7	NA	NA	NA	NA	NA						
ITMW-4	6/30/99	352.39	34.11	17.49	17.49	0.00	334.90	Rise	0.81	ft	52,239	6,182.6	5,246.6	2,790.5	6,725.4	NA	NA	NA	NA	NA						
ITMW-4	9/23/99	352.39	34.11	17.79	17.79	0.00	334.60	Decrease	-0.30	ft	60,404	8,141.6	6,330.0	3,765.2	8,819.1	NA	NA	NA	NA	NA						
ITMW-4	1/12/00	352.39	34.11	17.79	17.79	0.00	334.60	No Change	0.00	ft	48,886	8,331.2	9,503.1	4,308.0	13,292.4	NA	NA	NA	NA	NA						
ITMW-4	3/14/00	352.39	34.11	13.63	13.63	0.00	338.76	Rise	4.16	ft	69,655	3,317.0	2,934.2	1,395.8	3,389.6	NA	NA	NA	NA	NA						
ITMW-4	7/5/00	352.39	34.11	14.69	14.69	0.00	337.70	Decrease	-1.06	ft	75,986	11,030.6	9,595.0	4,071.5	12,982.1	NA	NA	NA	NA	NA						
ITMW-4	9/27/00	352.39	34.11	18.54	18.54	0.00	333.85	Decrease	-3.85	ft	3,057	6,049.4	9,683.8	3,859.1	11,626.0	NA	NA	NA	NA	NA						
ITMW-4	1/10/01	352.39	34.11	19.35	19.35	0.00	333.04	Decrease	-0.81	ft	20,842	3,409.0	1,940.6	1,711.6	3,890.5	NA	NA	NA	NA	NA						
ITMW-4	3/22/01	352.39	34.11	15.20	15.20	0.00	337.19	Rise	4.15	ft	44,365	4,077.8	4,883.3	2,947.4	7,347.8	NA	NA	NA	NA	NA						
ITMW-4	6/13//01	352.39	34.22	15.91	15.91	0.00	336.48	Decrease	-0.71	ft	56,400	4,107.0	4,849.0	2,228.0	7,007.0	ND<2	199.0	ND<10	ND<2	ND<2						
ITMW-4	8/31/01	352.39	34.20	18.57	18.57	0.00	333.82	Decrease	-2.66	ft	44,276	3,723.0	4,897.0	2,883.0	7,898.0	ND<2	245.0	ND<10	ND<2	ND<2						
ITMW-4	12/24/01	352.39	34.18	20.40	20.41	0.01	331.99	Decrease	-1.83	ft	49,995	5,347.0	2,734.0	4,000.0	10,681.0	ND<2	709.0	ND<10	ND<2	ND<2						
ITMW-4	3/21/02	352.39	34.20	21.13	21.13	0.00	331.26	Decrease	-0.73	ft	16,845	2,478.0	2,338.0	2,161.0	6,138.0	ND<2	260.0	ND<10	ND<2	ND<2						
ITMW-4	6/28/02	352.39	34.20	22.01	22.41	0.40	330.28	Decrease	-0.98	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-4	9/12/02	352.39	34.20	22.62	22.62	0.00	329.77	Decrease	-0.51	ft	54,393	3,345.0	3,489.0	3,696.0	11,848.0	ND<2	220.0	ND<10	ND<2	ND<2						
ITMW-4	12/12/02	352.39	34.20	20.30	20.53	0.23	332.03	Rise	2.26	ft	180,000	NS	NS	NS	NS	NS	NS	NS	NS	NS						
ITMW-4	6/18/03	352.39	34.20	17.86	17.86	0.00	334.53	Rise	2.50	ft	105,289	2,888.0	2,318.0	3,929.0	12,314.0	ND<2	155.0	ND<10	ND<2	ND<2	ND<0.1	0.3	ND<5	371
ITMW-4	9/12/03	352.39	34.20	19.34	19.34	0.00	333.05	Decrease	-1.48	ft	39,306	2,296.0	1,373.0	2,315.0	7,716.0	ND<2	124.0	ND<10	ND<2	ND<2	0.4	ND<0.1	110	2,285
ITMW-4	12/17/03	352.39	34.20	21.29	20.88	-0.41	331.21	Decrease	-1.84	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.4	ND<0.1	110	2,285
ITMW-4	3/12/04	352.39	34.20	18.40	18.40	0.00	333.99	Rise	2.78	ft	39,449	2,203.0	1,878.0	2,010.0	8,734.0	ND<2	194.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	7/1/04	352.39	34.20	21.15	21.45	0.30	331.16	Decrease	-2.83	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-4	9/22/04	352.39	34.20	22.61	22.64	0.03	329.77	Decrease	-1.39	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-4	1/6/05	352.39	34.20	22.61	22.64	0.03	329.77	No Change	0.00	ft	78,762	1,713.0	788.0	3,169.0	7,995.0	ND<2	167.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	4/4/05	352.39	34.20	13.45	13.45	0.00	338.94	Rise	9.17	ft	51,796	1,863.0	719.0	2,718.0	8,600.0	ND<2	146.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	1/6/05	352.39	34.20	9.65	9.65	0.00	342.74	Rise	3.80	ft	78,762	1,713.0	788.0	3,169.0	7,995.0	ND<2	167.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	4/4/05	352.39	34.20	13.45	13.45	0.00	338.94	Decrease	-3.80	ft	51,796	1,863.0	719.0	2,718.0	8,600.0	ND<2	146.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	3/10/06	352.39	34.20	17.73	17.73	0.00	334.66	Decrease	-4.28	ft	43,090	1,772.3	618.9	2,655.0	7,347.1	ND<2	242.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	9/9/06	352.39	34.20	9.65	9.65	0.00	342.74	Rise	8.08	ft	70,652	1,728.0	522.6	1,283.8	8,688.9	ND<2	103.6	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	21/21/06	352.39	34.20	17.33	17.33	0.00	335.06	Decrease	-7.68	ft	40,478	2,492.6	1,184.3	1,575.9	11,478.7	ND<2	95.6	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	3/12/07	352.39	34.20	18.78	18.78	0.00	333.61	Decrease	-1.45	ft	20,682	973.5	235.7	183.3	2,039.0	ND<2	ND<50	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	6/25/07	352.39	34.20	19.45	19.50	0.05	332.93	Decrease	-0.68	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-4	9/12/07	352.39	34.20	21.94	21.54	-0.40	330.55	Decrease	-2.37	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-4	12/12/07	352.39	34.20	20.54	20.48	-0.06	331.87	Rise	1.31	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-4	7/11/08	352.39	34.20	20.81	20.81	0.00	331.58	Decrease	-0.29	ft	59,872	1,654.9	190.6	955.2	6,207.9	ND<2	124.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-4	9/17/08	352.39	34.20	19.67	19.67	0.00	332.72	Rise	1.14	ft	59,755	1,320.5	130.2	383.2	6,214.6	ND<20	ND<20	ND<10	ND<20	ND<20	NS	NS	NS	NS
ITMW-4	1/7/09	352.39	34.20	18.40	18.40	0.00	333.99	Rise	1.27	ft	28,347	1,168.0	71.2	3,019.1	4,863.9	ND<50	173.2	ND<500	ND<50	ND<50	NS	NS	NS	NS
ITMW-4	3/31/09	352.39	34.20	17.60	17.60	0.00	334.79	Rise	0.80	ft	1,872	6.7	0.6	22.2	63.0	ND<1	2.5	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-4	6/9/09	352.39	34.20	18.31	18.31	0.00	334.08	Decrease	-0.71	ft	8,506	65.7	5.5	89.8	370.2	ND<1	12.0	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-4	7/1/10	352.39	34.20	18.90	18.90	0.00	333.49	Decrease	-0.59	ft	119,929	1,437.7	101.9	1,569.7	9,495.9	ND<1	134.5	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-4	1/12/11	352.39	34.20	16.67	16.67	0.00	335.72	Rise	2.23	ft	38,000	1,310.0	99.8	2,380.0	9,040.0	ND<1	73.5	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-4	12/23/11	352.39	34.20	20.51	20.51	0.00	331.88	Decrease	-3.84	ft	9,407	607.8	17.1	763.2	355.7	ND<1	87.1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-4	5/30/12	352.39	34.20	20.46	20.46	0.00	331.93	Rise	0.05	ft	64,219	1,575.2	57.2	2,018.5	1,013.3	ND<1	87.1	ND<10	ND<1	ND<1	NS	NS	NS	NS

TABLE 1: SUMMARY OF GROUNDWATER DATA

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (in)	Corrected GW Elev. (ft MSL)	Change in GW Elev			EPA 8015	EPA 8020					EPA 8260B						EPA 352.1		EPA 375.1		
											TPH-g (ug/l)	B (ug/l)	T (ug/l)	E-Benz (ug/l)	X (ug/l)	MTBE (ug/l)	DIPE (ug/l)	TBA (ug/l)	TAME (ug/l)	ETBE (ug/l)	Fe3+ (ug/l)		NO4 (ug/l)	SO4 (ug/l)		CH4 (ug/l)
ITMW-5																											
ITMW-5	7/24/97	352.395	36.00	17.97	18.05	0.08	334.41			ft	11,000	740.0	940.0	840.0	3,120.0	NA	NA	NA	NA	NA							
ITMW-5	10/24/97	352.395	35.00	15.93	15.93	0.00	336.47	Rise	2.06	ft	50,000	358.0	259.0	618.0	1,560.0	NA	NA	NA	NA	NA							
ITMW-5	12/23/97	352.395	35.00	16.77	16.77	0.00	335.63	Decrease	-0.84	ft	6,300	201.0	145.0	437.0	1,040.0	NA	NA	NA	NA	NA							
ITMW-5	3/18/98	352.395	35.20	12.91	12.91	0.00	339.49	Rise	3.85	ft	10,400	818.0	357.0	833.0	1,790.0	NA	NA	NA	NA	NA							
ITMW-5	6/16/98	352.395	35.20	14.08	14.08	0.00	338.32	Decrease	-1.17	ft	3,618	275.3	130.1	397.2	906.1	NA	NA	NA	NA	NA							
ITMW-5	10/6/98	352.395	35.12	16.44	16.44	0.00	335.96	Decrease	-2.36	ft	16,426	1,845.9	896.0	98.9	2,262.0	NA	NA	NA	NA	NA							
ITMW-5	3/9/99	352.395	35.19	18.82	18.82	0.00	333.58	Decrease	-2.38	ft	5,219	203.7	98.2	252.1	463.7	NA	NA	NA	NA	NA							
ITMW-5	6/30/99	352.395	35.19	17.55	17.55	0.00	334.85	Rise	1.27	ft	6,744	293.9	140.5	357.9	569.9	NA	NA	NA	NA	NA							
ITMW-5	9/23/99	352.395	35.19	17.96	17.96	0.00	334.44	Decrease	-0.41	ft	4,420	268.3	88.3	449.1	431.6	NA	NA	NA	NA	NA							
ITMW-5	1/12/00	352.395	35.19	18.33	18.33	0.00	334.07	Decrease	-0.37	ft	17,249	634.6	395.2	1,612.6	3,078.3	NA	NA	NA	NA	NA							
ITMW-5	3/14/00	352.395	35.19	14.51	14.51	0.00	337.89	Rise	3.82	ft	1,486	56.9	29.9	93.3	162.9	NA	NA	NA	NA	NA							
ITMW-5	7/5/00	352.395	35.19	14.60	14.60	0.00	337.80	Decrease	-0.09	ft	332	ND<1	ND<1	ND<1	17.1	NA	NA	NA	NA	NA							
ITMW-5	9/27/00	352.395	35.19	19.16	19.16	0.00	333.24	Decrease	-4.56	ft	43,972	763.1	831.8	5,705.8	12,612.3	NA	NA	NA	NA	NA							
ITMW-5	1/10/01	352.395	35.19	20.09	20.09	0.00	332.31	Decrease	-0.93	ft	20,565	278.1	254.6	1,560.3	2,284.8	NA	NA	NA	NA	NA							
ITMW-5	3/22/01	352.395	35.19	15.70	15.70	0.00	336.70	Rise	4.39	ft	1,800	140.2	26.3	187.0	182.5	NA	NA	NA	NA	NA							
ITMW-5	6/13//01	352.395	35.25	16.45	16.45	0.00	335.95	Decrease	-0.75	ft	4,659	586.0	83.0	269.0	420.0	ND<2	448.0	ND<10	ND<2	ND<2							
ITMW-5	8/31/01	352.395	35.25	19.04	19.04	0.00	333.36	Decrease	-2.59	ft	3,181	180.0	25.0	160.0	159.0	ND<2	607.0	ND<10	ND<2	ND<2							
ITMW-5	12/24/01	352.395	35.25	20.93	20.93	0.00	331.47	Decrease	-1.89	ft	8,158	124.0	42.0	541.0	594.0	ND<2	289.0	ND<10	ND<2	ND<2							
ITMW-5	3/21/02	352.395	35.25	21.42	21.42	0.00	330.98	Decrease	-0.49	ft	1,008	126.0	10.0	56.0	52.0	ND<2	241.0	ND<10	ND<2	ND<2							
ITMW-5	6/28/02	352.395	35.25	22.44	22.44	0.00	329.96	Decrease	-1.02	ft	2,981	334.0	125.0	203.0	215.0	ND<2	815.0	ND<10	ND<2	ND<2							
ITMW-5	9/12/02	352.395	35.25	22.46	22.46	0.00	329.94	Decrease	-0.02	ft	4,391	355.0	19.0	110.0	70.0	ND<2	873.0	ND<10	ND<2	ND<2							
ITMW-5	12/12/02	352.395	35.25	20.81	20.81	0.00	331.59	Rise	1.65	ft	29,552	1,290.0	138.0	1,641.0	1,161.0	ND<2	465.0	ND<10	ND<2	ND<2							
ITMW-5	6/18/03	352.395	35.20	18.11	18.11	0.00	334.29	Rise	2.70	ft	9,409	714.0	58.0	903.0	411.0	ND<2	221.0	ND<10	ND<2	ND<2							
ITMW-5	9/12/03	352.395	35.20	20.38	20.38	0.00	332.02	Decrease	-2.27	ft	5,007	575.0	18.0	134.0	126.0	ND<2	241.0	ND<10	ND<2	ND<2							
ITMW-5	12/17/03	352.395	35.20	22.04	22.04	0.00	330.36	Decrease	-1.66	ft	3,096	78.0	6.0	48.0	24.0	ND<2	428.0	ND<10	ND<2	ND<2		0.8	ND<0.1		1197	200.39
ITMW-5	3/12/04	352.395	35.20	19.71	19.71	0.00	332.69	Rise	2.33	ft	19,901	2,720.0	260.0	1,169.0	758.0	ND<2	764.0	ND<10	ND<2	ND<2	ND<.1		1.2		351	173
ITMW-5	7/1/04	352.395	35.20	21.37	21.37	0.00	331.03	Decrease	-1.66	ft	23,299	3,449.0	36.0	1,345.0	183.0	ND<2	1,181.0	ND<10	ND<2	ND<2		1.9	1.4		131	1,002
ITMW-5	9/22/04	352.395	35.20	22.63	22.63	0.00	329.77	Decrease	-1.26	ft	5,104	317.0	27.0	29.0	75.0	ND<2	594.0	ND<10	ND<2	ND<2		1.2	1		1,300	214
ITMW-5	1/6/05	352.395	35.20	22.63	22.63	0.00	329.77	No Change	0.00	ft	7,028	228.0	24.0	193.0	109.0	ND<2	ND<2	ND<10	ND<2	ND<2	ND<.1		1.8		2,010	230
ITMW-5	4/4/05	352.395	35.20	13.19	13.19	0.00	339.21	Rise	9.44	ft	4,491	803.0	18.0	206.0	32.0	ND<2	370.0	ND<10	ND<2	ND<2		1.1	2.8		1,524	676
ITMW-5	3/10/06	352.395	35.20	18.05	18.05	0.00	334.35	Decrease	-4.86	ft	16,910	2,236.2	141.2	1,521.4	867.5	ND<2	631.2	ND<10	ND<2	ND<2		1.1	2.8		1,524	676
ITMW-5	9/6/06	352.395	35.20	10.92	10.92	0.00	341.48	Rise	7.13	ft	39,559	3,532.6	109.2	1,936.2	457.0	ND<2	880.8	ND<10	ND<2	ND<2	ND<.1		1.8		2,010	230
ITMW-5	12/21/06	352.395	35.20	17.40	17.40	0.00	335.00	Decrease	-6.48	ft	15,288	3,448.1	155.1	1,226.2	1,100.9	ND<2	458.1	ND<10	ND<2	ND<2		1.1	2.8		1,524	676
ITMW-5	3/12/07	352.395	35.20	19.04	19.04	0.00	333.36	Decrease	-1.64	ft	26,289	5,078.6	127.3	1,118.2	990.7	ND<2	516.5	ND<10	ND<2	ND<2	NS		NS		NS	
ITMW-5	6/25/07	352.395	35.20	20.10	20.10	0.00	332.30	Decrease	-1.06	ft	13,747	818.0	15.6	103.1	150.6	ND<2	932.2	ND<10	ND<2	ND<2	NS		NS		NS	
ITMW-5	9/12/07	352.395	35.20	21.91	21.91	0.00	330.49	Decrease	-1.81	ft	4,331	617.1	14.6	35.6	33.4	ND<2	484.9	ND<10	ND<2	ND<2	NS		NS		NS	
ITMW-5	7/11/08	352.395	35.20	22.01	22.01	0.00	330.39	Decrease	-0.10	ft	25,331	1,127.4	9.2	8.6	72.1	ND<2	914.7	ND<10	ND<2	ND<2	NS		NS		NS	
ITMW-5	9/17/08	352.395	35.20	19.83	19.83	0.00	332.57	Rise	2.18	ft	23,491	4,874.5	91.7	220.8	200.4	ND<10	956.1	ND<100	ND<10	ND<10	NS		NS		NS	
ITMW-5	1/7/09	352.395	35.20	18.80	18.80	0.00	333.60	Rise	1.03	ft	943	179.9	2.1	6.9	6.1	ND<1	124.7	ND<10	ND<1	ND<1	NS		NS		NS	
ITMW-5	3/31/09	352.395	35.20	17.82	17.82	0.00	334.58	Rise	0.98	ft	ND<100	2.8	ND<0.5	1.3	3.2	ND<1	1.1	ND<10	ND<1	ND<1	NS		NS		NS	
ITMW-5	6/9/09	352.395	35.20	18.69	18.69	0.00	333.71	Decrease	-0.87	ft	122.0	9.5	ND<0.5	ND<0.5	2.5	ND<1	9.8	ND<10	ND<1	ND<1	NS		NS		NS	
ITMW-5	7/1/10	352.395	35.20	18.39	18.39	0.00	334.01	Rise	0.30	ft	363.0	3.4	ND<0.5	1.5	3.8	ND<1	66.0	ND<10	ND<1	ND<1	NS		NS		NS	
ITMW-5	1/12/11	352.395	35.20	17.55	17.55	0.00	334.85	Rise	0.84	ft	4,810.0	1,240.0	27.7	106.0	95.3	ND<1	215.0	ND<10	ND<1	ND<1	NS		NS		NS	
ITMW-5	12/23/11	352.395	35.20	23.02	23.02	0.00	329.38	Decrease	-5.47	ft	164.0	7.9	ND<0.5	ND<0.5	ND<0.5	ND<1	129.6	ND<10	ND<1	ND<1	NS		NS		NS	
ITMW-5	5/30/12	352.395	35.20	20.55	20.55	0.00	331.85	Rise	2.47	ft	118.0	27.6	ND<0.5	ND<0.5	ND<0.5	ND<1	57.1	ND<10	ND<1	ND<1	NS		NS		NS	
ITMW-6																											
ITMW-6	7/24/97	319.085	40.00	20.06	20.06	0.00	299.03			ft	340	3.4	3.3	7.9	11.0	120.0	NA	NA	NA	NA							
ITMW-6	10/24/97	319.085	38.00	20.23	20.23	0.00	298.86	Decrease	-0.17	ft	11,900	229.0	89.7	213.0	432.0	753.0	NA	NA	NA	NA							
ITMW-6	12/23/97	319.085	38.00	20.00	20.00	0.00	299.09	Rise	0.23	ft	470	4.0	3.0	14.0	16.0	430.0	NA	NA	NA	NA							
ITMW-6	3/18/98	319.085	40.00	17.18	17.18	0.00	301.91	Rise	2.82	ft	91	ND<1	1.6	8.9	9.8	69.2	NA	NA	NA	NA							
ITMW-6	6/16/98	319.085	38.80	16.19	16.19	0.00	302.90	Rise	0.99	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	NA	NA	NA	NA							
ITMW-6	10/6/98	319.085	38.80	18.17	18.17	0.00	300.92	Decrease	-1.98	ft	ND<100	ND<1	ND<1	ND<1	ND<1	23.0	NA	NA	NA	NA							
ITMW-6	3/9/99	319.085	38.81	19.57	19.57	0.00	299.52	Decrease	-1.40	ft	ND<100	ND<1	ND<1	ND<1	ND<1	42.0	NA	NA	NA	NA							
ITMW-6	6/30/99	319.085	38.83	19.68	19.68	0.00	299.41	Decrease	-0.11	ft	ND<100	ND<1	ND<1	2.2	ND<1	38.0	NA	NA	NA	NA							
ITMW-6	9/23/99	319.085	38.83	19.99	19.99	0.00	299.10	Decrease	-0.31	ft	ND<100	ND<1	ND<1	1.1	1.1	38.0	NA	NA	NA	NA							
ITMW-6	1/12/00	319.085	38.83	20.01	20.01	0.00	299.08	Decrease	-0.02	ft	325	124.2	9.5	38.7	37.2	294.0	NA	NA	NA	NA							
ITMW-6	3/14/00	319.085	38.83	18.42	18.42	0.00	300.67	Rise	1.59	ft	337	7.8	ND	15.5	7.9	210.0	NA	NA	NA	NA							
ITMW-6	7/5/00	319.085	38.83	18.89	18.89	0.00	300.20	Decrease	-0.47	ft	ND<100	ND<1	ND<1	ND<1	ND<1	20.0	NA	NA	NA	NA							
ITMW-6	9/27/00	319.085	38.83	19.81	19.81	0.00	299.28	Decrease	-0.92	ft	ND<100	1.6	4.0	2.4	0.6	19.0	NA	NA	NA	NA							
ITMW-6	1/10/01	319.085	38.83	19.90	19.90	0.00	299.19	Decrease	-0.09	ft	100	60.7	1.7	7.2	1.5	28.0	NA	NA	NA	NA							
ITMW-6	3/22/01	319.085	38.83	17.20	17.20	0.00	301.89	Rise	2.70	ft	150	2.5	ND	12.1	6.7	131.0	NA	NA	NA	NA							
ITMW-6	6/13//01	319.085	38.81	18.21	18.21	0.00	300.88	Decrease	-1.01	ft	ND<100	8.0	ND	3.0	2.0	12.0	NA	ND<10	ND<2	ND<2							
ITMW-6	8/31/01	319.085	38.60	18.85	18.85	0.00	300.24	Decrease	-0.64	ft	ND<100	2.0	4.0	2.0	10.0	25.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	12/24/01	319.085	38.60	20.40	20.40	0.00	298.69	Decrease	-1.55	ft	ND<100	ND<1	ND<1	ND<1	ND<1	36.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	3/21/02	319.085	38.60	21.37	21.37	0.00	297.72	Decrease	-0.97	ft	261	3.0	1.0	1.0	3.0	276.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	6/28/02	319.085	38.60	21.77	21.77	0.00	297.32	Decrease	-0.40	ft	454	17.0	4.0	53.0	18.0	372.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	9/12/02	319.085	38.60	21.94	21.94	0.00	297.15	Decrease	-0.17	ft	101	2.0	3.0	5.0	13.0	61.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	12/12/02	319.085	38.60	19.84	19.84	0.00	299.25	Rise	2.10	ft	102	2.0	ND<1	ND<1	ND<1	100.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	6/18/03	319.085	38.90	18.01	18.01	0.00	301.08	Rise	1.83	ft	ND<100	ND<1	ND<1	ND<1	ND<1	33.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	9/12/03	319.085	38.90	19.88	19.88	0.00	299.21	Decrease	-1.87	ft	ND<100	ND<1	ND<1	ND<1	ND<1	36.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	12/17/03	319.085	38.90	19.66	19.66	0.00	299.43	Decrease	0.22	ft	ND<100	ND<1	ND<1	ND<1	ND<1	45.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	3/12/04	319.085	38.90	19.43	19.43	0.00	299.66	Rise	0.23	ft	ND<100	ND<1	ND<1	ND<1	ND<1	32.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	7/1/04	319.085	38.90	20.16	20.16	0.00	298.93	Decrease	-0.73	ft	ND<100	ND<1	ND<1	ND<1	ND<1	81.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	9/22/04	319.085	38.90	21.45	21.45	0.00	297.64	Decrease	-1.29	ft	ND<100	ND<1	ND<1	ND<1	ND<1	78.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	1/6/05	319.085	38.90	21.45	21.45	0.00	297.64	Decrease	0.00	ft	4,979	182.0	217.0	130.0	341.0	341.0	ND<2	ND<10	ND<2	ND<2							
ITMW-6	9/17/08	319.085	38.90	15.50	15.50	0.00	303.59	Rise	5.95	ft	ND<100	4.0	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2							

TABLE 1: SUMMARY OF GROUNDWATER DATA

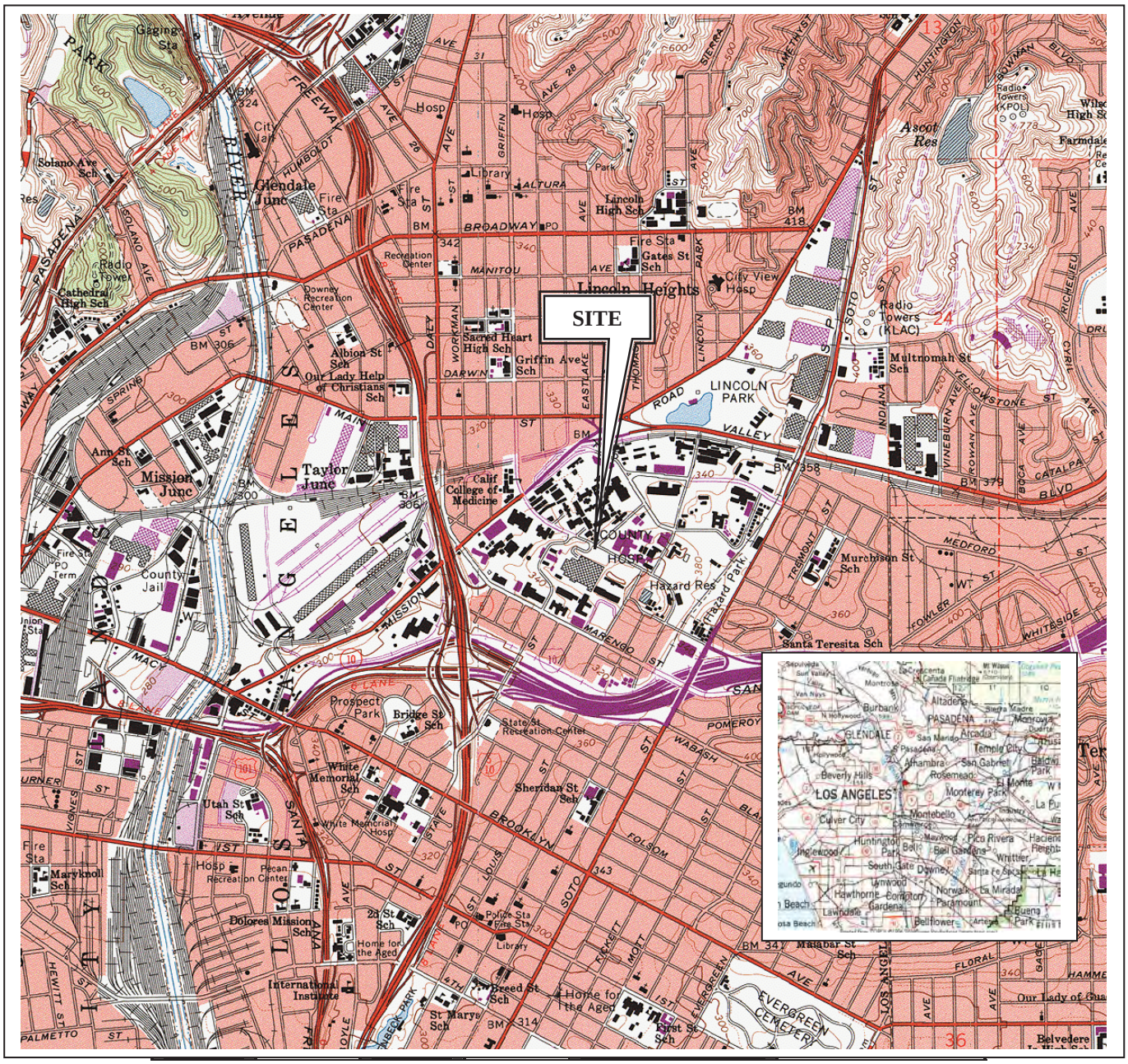
Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (in)	Corrected GW Elev. (ft MSL)	Change in GW Elev			EPA 8015	EPA 8020					EPA 8260B						EPA 352.1	EPA 375.1		
											TPH-g	B	T	E-Benz	X	MTBE	DIPE	TBA	TAME	ETBE	Fe3+	NO4	SO4	CH4
											(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
ITMW-7																										
ITMW-7	7/24/97	351.715	36.00	17.97	18.05	0.08	333.73			ft	190	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	10/24/97	351.715	36.00	19.59	19.59	0.00	332.13	Decrease	-1.60	ft	403	3.2	ND<1	4.6	6.8	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	12/23/97	351.715	36.00	18.98	18.98	0.00	332.74	Rise	0.61	ft	550	21.0	ND	13.0	6.0	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	3/18/98	351.715	33.87	14.73	14.73	0.00	336.99	Rise	4.25	ft	524	14.3	4.3	6.1	13.7	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	6/16/98	351.715	33.91	16.85	16.85	0.00	334.87	Decrease	-2.12	ft	ND<100	6.9	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	10/6/98	351.715	33.75	19.65	19.65	0.00	332.07	Decrease	-2.80	ft	207	3.1	6.2	1.1	5.8	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	3/9/99	351.715	33.90	20.21	20.21	0.00	331.51	Decrease	-0.56	ft	ND<100	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	6/30/99	351.715	33.91	20.09	20.09	0.00	331.63	Rise	0.12	ft	ND<100	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	9/23/99	351.715	33.91	20.94	20.94	0.00	330.78	Decrease	-0.85	ft	148	6.8	0.4	0.4	0.5	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	1/12/00	351.715	33.91	20.96	20.96	0.00	330.76	Decrease	-0.02	ft	ND<100	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	3/14/00	351.715	33.91	14.96	14.96	0.00	336.76	Rise	6.00	ft	204	5.2	ND	0.7	ND	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	7/5/00	351.715	33.91	15.25	15.25	0.00	336.47	Decrease	-0.29	ft	ND<10	ND<1	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	9/27/00	351.715	33.91	21.18	21.18	0.00	330.54	Decrease	-5.93	ft	181	0.5	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	1/10/01	351.715	33.91	22.14	22.14	0.00	329.58	Decrease	-0.96	ft	175	0.7	ND<1	ND<1	ND<1	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	3/22/01	351.715	33.91	17.18	17.18	0.00	334.54	Rise	4.96	ft	ND	0.5	ND<1	0.7	0.5	NA	NA	NA	NA	NA	NS	NS	NS	NS
ITMW-7	6/13//01	351.715	33.93	18.39	18.39	0.00	333.33	Decrease	-1.21	ft	12,809	3,612.0	140.0	1,047.0	705.0	ND<2	NA	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	8/31/01	351.715	33.84	21.13	21.13	0.00	330.59	Decrease	-2.74	ft	106	ND<1	ND<1	ND<1	ND<1	ND<2	63.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	12/24/01	351.715	33.92	22.13	22.13	0.00	329.59	Decrease	-1.00	ft	230	4.0	ND<1	1.0	ND<1	ND<2	68.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	3/21/02	351.715	35.63	23.02	23.02	0.00	328.70	Decrease	-0.89	ft	256	ND<1	1.0	ND<1	ND<1	ND<2	66.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	6/28/02	351.715	35.63	24.41	24.41	0.00	327.31	Decrease	-1.39	ft	235	1.0	1.0	ND<1	ND<1	2.0	68.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	9/12/02	351.715	35.63	24.78	24.78	0.00	326.94	Decrease	-0.37	ft	200	ND<1	ND<1	ND<1	ND<1	ND<2	60.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	12/12/02	351.715	35.63	21.68	21.68	0.00	330.04	Rise	3.10	ft	348	10.0	ND<1	3.0	3.0	ND<2	33.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	6/18/03	351.715	33.97	15.01	15.01	0.00	336.71	Rise	6.67	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	41.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	9/12/03	351.715	33.97	22.17	22.17	0.00	329.55	Decrease	-7.16	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	27.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	12/17/03	351.715	33.97	22.99	22.99	0.00	328.73	Decrease	-0.82	ft	1,079	ND<1	ND<1	ND<1	ND<1	ND<2	11.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	3/12/04	351.715	33.97	18.40	18.40	0.00	333.32	Rise	4.59	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	7/1/04	351.715	33.97	23.36	23.36	0.00	328.36	Decrease	-4.96	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	9/22/04	351.715	33.97	24.59	24.59	0.00	327.13	Decrease	-1.23	ft	240	ND<1	ND<1	ND<1	ND<1	ND<2	45.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	1/6/05	351.715	33.97	24.59	24.59	0.00	327.13	No Change	0.00	ft	200	ND<1	ND<1	ND<1	ND<1	8.0	32.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	4/4/05	351.715	33.97	15.22	15.22	0.00	336.50	Rise	9.37	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	29.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	3/10/06	351.715	33.97	18.22	18.22	0.00	333.50	Decrease	-3.00	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	9/9/06	351.715	33.97	16.65	16.65	0.00	335.07	Rise	1.57	ft	200	ND<1	ND<1	ND<1	ND<1	ND<2	32.5	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	12/21/06	351.715	33.97	20.09	20.09	0.00	331.63	Decrease	-3.44	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	3/12/07	351.715	33.97	19.96	19.96	0.00	331.76	Rise	0.13	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	6/25/07	351.715	33.97	21.10	21.10	0.00	330.62	Decrease	-1.14	ft	248	ND<1	ND<1	ND<1	ND<1	ND<2	3.4	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	9/12/07	351.715	33.97	24.11	24.11	0.00	327.61	Decrease	-3.01	ft	274	1.0	ND<1	ND<1	ND<1	ND<2	4.7	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	12/12/07	351.715	33.97	22.45	22.45	0.00	329.27	Rise	1.66	ft	271	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	7/11/08	351.715	33.97	22.61	22.61	0.00	329.11	Decrease	-0.16	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-7	9/17/08	351.715	33.97	21.41	21.41	0.00	330.31	Rise	1.20	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-7	1/7/09	351.715	33.97	19.78	19.78	0.00	331.94	Rise	1.63	ft	290	1.5	0.5	0.9	7.6	ND<1	2.6	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-7	3/31/09	351.715	33.97	19.40	19.40	0.00	332.32	Rise	0.38	ft	ND<100	ND<0.5	0.6	0.9	3.5	ND<1	3.4	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-7	6/9/09	351.715	33.97	20.35	20.35	0.00	331.37	Decrease	-0.95	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-7	7/1/10	351.715	33.97	19.37	19.37	0.00	332.35	Rise	0.98	ft	102.0	3.0	ND<0.5	ND<0.5	2.2	ND<1	26.3	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-7	1/12/11	351.715	33.97	17.41	17.41	0.00	334.31	Rise	1.96	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-7	12/23/11	351.715	33.97	20.68	20.68	0.00	331.04	Decrease	-3.27	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	48.6	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-7	5/30/12	351.715	23.65	23.65	23.65	0.00	328.07	Decrease	-2.97	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	43.0	ND<10	ND<1	ND<1	NS	NS	NS	NS
TGMW-7																										
TGMW-7	7/24/97	352.5	36.23	17.97	18.05	0.08	334.51			ft	29,000	8,980.0	5,660.0	2,060.0	7,330.0	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	10/24/97	352.5	36.16	16.86	16.87	0.00	335.64	Rise	1.13	ft	97,400	14,700.0	1,870.0	3,650.0	10,100.0	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	12/23/97	352.5	36.05	17.89	17.89	0.00	334.62	Decrease	-1.02	ft	39,000	13,100.0	673.0	2,090.0	3,380.0	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	3/18/98	352.5		16.37	16.37	0.00	336.13	Rise	1.51	ft	82,400	16,400.0	6,790.0	2,360.0	7,280.0	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	6/16/98	352.5		14.82	14.82	0.00	337.68	Rise	1.55	ft	33,206	12,874.3	3,144.9	1,955.2	3,223.7	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	10/6/98	352.5	36.47	17.13	17.13	0.00	335.37	Decrease	-2.31	ft	57,727	14,350.5	1,614.4	2,823.5	2,990.5	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	3/9/99	352.5	35.67	19.08	19.08	0.00	333.42	Decrease	-1.95	ft	9,879	4,604.1	63.9	384.4	96.4	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	6/30/99	352.5	35.37	18.58	18.58	0.00	333.92	Rise	0.50	ft	43,564	10,150.3	5,243.1	2,651.8	5,238.5	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	9/23/99	352.5		18.96	18.96	0.00	333.54	Decrease	-0.38	ft	17,661	7,842.8	289.7	1,469.4	705.3	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	1/12/00	352.5	35.90	19.25	19.25	0.00	333.25	Decrease	-0.29	ft	38,068	29.721.3	1,127.9	3,298.6	3,463.8	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	3/14/00	352.5	36.20	14.92	14.92	0.00	337.58	Rise	4.33	ft	10,866	6,051.3	96.9	913.6	146.3	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	7/5/00	352.5	36.20	16.35	16.35	0.00	336.15	Decrease	-1.43	ft	22,392	11,665.2	115.6	2,459.9	715.9	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	9/27/00	352.5	36.20	19.61	19.61	0.00	332.89	Decrease	-3.26	ft	14,209	9,108.8	71.9	1,977.4	445.7	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	1/10/01	352.5	36.20	20.61	20.61	0.00	331.89	Decrease	-1.00	ft	11,161	5,862.7	65.7	1,672.6	494.8	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	3/22/01	352.5	36.20	16.16	16.16	0.00	336.34	Rise	4.45	ft	ND	ND	ND	ND	0.7	NA	NA	NA	NA	NA	NS	NS	NS	NS
TGMW-7	6/13//01	352.5	37.24	16.88	16.88	0.00	335.62	Decrease	-0.72	ft	14,078	3,688.0	212.0	1,115.0	839.0	ND<2	114.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	8/31/01	352.5	37.23	19.57	19.57	0.00	332.93	Decrease	-2.69	ft	11,235	5,141.0	165.0	880.0	514.0	ND<2	104.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	12/24/01	352.5	37.27	21.42	21.42	0.00	331.08	Decrease	-1.85	ft	8,712	5,926.0	62.0	1,512.0	233.0	ND<2	97.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	3/21/02	352.5	37.64	22.11	22.11	0.00	330.39	Decrease	-0.69	ft	5,702	3,548.0	80.0	990.0	182.0	32.0	131.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	6/28/02	352.5	37.64	23.38	23.38	0.00	329.12	Decrease	-1.27	ft	314	ND<1	3.0	7.0	36.0	8.0	37.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	9/12/02	352.5	37.64	24.11	24.11	0.00	328.39	Decrease	-0.73	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	12/12/02	352.5	37.64	22.27	22.27	0.00	330.23	Rise	1.84	ft	4,742	2,186.0	28.0	440.0	49.0	22.0	73.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	6/18/03	352.5	37.50	19.78	19.78	0.00	332.72	Rise	2.49	ft	1,653	321.0	8.0	1.0	109.0	8.0	88.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	9/12/03	352.5	37.50	20.75	20.75	0.00	331.75	Decrease	-0.97	ft	12,224	4,301.0	246.0	279.0	889.0	17.0	56.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	12/17/03	352.5	37.50	22.10	22.10	0.00	330.40	Decrease	-1.35	ft	5,959	1,504.0	75.0	183.0	271.0	20.0	44.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	3/12/04	352.5	37.50	19.75	19.75	0.00	332.75	Rise	2.35	ft	ND<1	372.0	ND<1	22.0	24.0	ND<2	59.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	7/1/04	352.5	37.50	22.09	22.09	0.00	330.41	Decrease	-2.34	ft	2,009	533.0	23.0	56.0	14.0	ND<2	110.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	9/22/04	352.5	37.50	23.97	23.97	0.00	328.53	Decrease	-1.88	ft	4,513	1,172.0	15.0	2.0	71.0	94.0	47.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	1/6/05	352.5	37.50	23.97	23.97	0.00	328.53	No Change	0.00	ft	254	16.0	ND<1	ND<1	ND<1	11.0	144.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	4/4/05	352.5	37.50	14.60	14.60	0.00	337.90	Rise	9.37	ft	2,518	960.0	149.0	146.0	246.0	ND<2	175.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	3/10/06	352.5	37.50	18.05	18.05	0.00	334.45	Decrease	-3.45	ft	2,518	960.0	149.0	146.0	246.0	ND<2	175.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	9/9/06	352.5	37.50	13.22	13.22	0.00	339.28	Rise	4.83	ft	28,244	2,726.2	258.6	847.5	2,349.9	11.0	36.1	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	12/21/06	352.5	37.50	18.05	18.05	0.00	334.45	Decrease	-4.83	ft	13,698	3,552.8	77.9	268.8	2,322.4	ND<2	30.9	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	3/12/07	352.5	37.50	19.59	19.59	0.00	332.91	Decrease	-1.54	ft	7,981	1,043.2	7.3	ND<5	554.7	ND<2	23.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	6/25/07	352.5	37.50	22.45	22.45	0.00	330.05	Decrease	-2.86	ft	4,388	931.7	10.5	4.5	115.9	ND<2	24.8	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	9/12/07	352.5	37.50	23.81	23.81	0.00	328.69	Decrease	-1.36	ft	3,128	52.1	2.0	3.8	56.5	ND<2	29.9	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	12/12/07	352.5	37.50	22.04	22.04	0.00	330.46	Rise	1.77	ft	3,008	637.6	11.2	5.1	35.7	ND<2	24.5	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	7/11/08	352.5	37.50	22.10	22.10	0.00	330.40	Decrease	-0.06	ft	1,239	52.1	3.4	72.2	89.4	ND<2	6.6	ND<10	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	9/17/08	352.5	37.50	20.25	20.25	0.00	332.25	Rise	1.85	ft	1,842	285.1	3.4	ND<1	33.2	ND<2	15.7	ND<20	ND<2	ND<2	NS	NS	NS	NS
TGMW-7	1/7/09	352.5	37.50	19.65	19.65	0.00	332.85	Rise	0.60	ft	3,112	665.9	5.2	10.8	32.2	ND<1	32.8	ND<10	ND<1	ND<1	NS	NS	NS	NS
TGMW-7	3/31/09	352.5	37.50	18.60	18.60	0.00	333.90	Rise	1.05	ft	261	35.4	1.1	1.4	6.9	ND<1	1.9	ND<10	ND<1	ND<1	NS	NS	NS	NS
TGMW-7	6/9/09	352.5	37.50	19.29	19.29	0.00	333.21	Decrease	-0.69	ft	280	32.2	ND<0.5	0.9	6.2	ND<1	2.0	ND<10	ND<1	ND<1	NS	NS	NS	NS
TGMW-7	7/1/10	352.5	37.50	19.05	19.05	0.00	333.45	Rise	0.24	ft	12,013.0	1,226.7	26.3	24.8	467.2	ND<1	29.0	ND<10	ND<1	ND<1	NS	NS	NS	NS
TGMW-7	1/12/11	352.5	37.50	18.60	18.60	0.00	333.90	Rise	0.45	ft	NS	NS	NS	NS	NS	NS	NS	ND<10	ND<1	ND<1	NS	NS	NS	NS

TABLE 1: SUMMARY OF GROUNDWATER DATA

Well No.	Sample Date	Well Elev. (ft MSL)	Well Depth (ft)	Depth to Liquid (ft)	Depth to Water (ft)	Product Thickness (in)	Corrected GW Elev. (ft MSL)	Change in GW Elev		EPA 8015	EPA 8020					EPA 8260B						EPA 352.1	EPA 375.1		
										TPH-g (ug/l)	B (ug/l)	T (ug/l)	E-Benz (ug/l)	X (ug/l)	MTBE (ug/l)	DIPE (ug/l)	TBA (ug/l)	TAME (ug/l)	ETBE (ug/l)	Fe3+ (ug/l)	NO4 (ug/l)	SO4 (ug/l)	CH4 (ug/l)
ITMW-8																									
ITMW-8	6/12/03	345.86	36.16	16.86	16.87	0.00	329.00			ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	21.0	ND<10	ND<2	ND<2	ND<0.1	0.2	700	17
ITMW-8	9/12/03	345.86	36.16	18.41	18.41	0.00	327.45	Decrease	-1.55	ft	104	ND<1	ND<1	ND<1	ND<1	ND<2	5.0	ND<10	ND<2	ND<2	ND<0.1	ND<0.1	110	ND<1
ITMW-8	12/17/03	345.86	36.16	19.03	19.03	0.00	326.83	Decrease	-0.62	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	ND<0.1	ND<0.1	88	23.4
ITMW-8	3/12/04	345.86	36.16	16.58	16.58	0.00	329.28	Rise	2.45	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	7/1/04	345.86	36.16	20.71	20.71	0.00	325.15	Decrease	-4.13	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	9/22/04	345.86	36.16	20.79	20.79	0.00	325.07	Decrease	-0.08	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	1/6/05	345.86	36.16	20.79	20.79	0.00	325.07	No Change	0.00	ft	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ITMW-8	4/4/05	345.86	36.16	12.65	12.65	0.00	333.21	Rise	8.14	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	3/10/06	345.86	36.16	15.94	15.94	0.00	329.92	Decrease	-3.29	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	9/9/06	345.86	36.16	12.16	12.16	0.00	333.70	Rise	3.78	ft	630	2.3	ND<1	ND<1	ND<1	ND<2	2.1	NS	NS	NS	NS	NS	NS	NS
ITMW-8	12/21/06	345.86	36.16	16.53	16.53	0.00	329.33	Decrease	-4.37	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	3/12/07	345.86	36.16	17.15	17.15	0.00	328.71	Decrease	-0.62	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	6/25/07	345.86	36.16	18.56	18.56	0.00	327.30	Decrease	-1.41	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	9/12/07	345.86	36.16	19.28	19.28	0.00	326.58	Decrease	-0.72	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	12/12/07	345.86	36.16	18.31	18.31	0.00	327.55	Rise	0.97	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	7/11/08	345.86	36.16	18.57	18.57	0.00	327.29	Decrease	-0.26	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	9/17/08	345.86	36.16	18.02	18.02	0.00	327.84	Rise	0.55	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-8	1/7/09	345.86	36.16	16.75	16.75	0.00	329.11	Rise	1.27	ft	596	3.1	ND<0.5	139.5	0.9	ND<1	8.0	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-8	3/31/09	345.86	36.16	15.20	15.20	0.00	330.66	Rise	1.55	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-8	6/9/09	345.86	36.16	16.76	16.76	0.00	329.10	Decrease	-1.56	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-8	7/1/10	345.86	36.16	15.29	15.29	0.00	330.57	Rise	1.47	ft	1,204	2.9	ND<0.5	14.6	1.8	ND<1	2.7	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-8	1/12/11	345.86	36.16	14.48	14.48	0.00	331.38	Rise	0.81	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-8	12/23/11	345.86	36.16	18.57	18.57	0.00	327.29	Decrease	-4.09	ft	237	ND<0.5	ND<0.5	2.2	1.0	ND<1	2.6	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-8	5/30/12	345.86	36.16	18.91	18.91	0.00	326.95	Decrease	-0.34	ft	ND<100	ND<0.5	ND<0.5	2.2	1.0	ND<1	2.3	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-9																									
ITMW-9	6/12/03	345.93	36.16	16.86	16.87	0.00	329.07			ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	11.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	9/12/03	345.93	36.16	19.98	19.98	0.00	325.95	Decrease	-3.12	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	5.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	12/17/03	345.93	36.16	20.66	20.66	0.00	325.27	Decrease	-0.68	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	3/12/04	345.93	36.16	18.59	18.59	0.00	327.34	Rise	2.07	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	7/1/04	345.93	36.16	20.31	20.31	0.00	325.62	Decrease	-1.72	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	9/22/04	345.93	36.16	21.00	21.00	0.00	324.93	Decrease	-0.69	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	1/6/05	345.93	36.16	21.00	21.00	0.00	324.93	No Change	0.00	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	12.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	4/4/05	345.93	36.16	14.93	14.93	0.00	331.00	Rise	6.07	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	11.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	3/10/06	345.93	36.16	18.34	18.34	0.00	327.59	Decrease	-3.41	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	11.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	9/9/06	345.93	36.16	15.46	15.46	0.00	330.47	Rise	2.88	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	12/21/06	345.93	36.16	18.14	18.14	0.00	327.79	Decrease	-2.68	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	3/12/07	345.93	36.16	18.85	18.85	0.00	327.08	Decrease	-0.71	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	6/25/07	345.93	36.16	20.22	20.22	0.00	325.71	Decrease	-1.37	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	9/12/07	345.93	36.16	20.86	20.86	0.00	325.07	Decrease	-0.64	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	12/12/07	345.93	36.16	19.74	19.74	0.00	326.19	Rise	1.12	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	7/11/08	345.93	36.16	19.91	19.91	0.00	326.02	Decrease	-0.17	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	9/17/08	345.93	36.16	19.41	19.41	0.00	326.52	Rise	0.50	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-9	1/7/09	345.93	36.16	17.80	17.80	0.00	328.13	Rise	1.61	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-9	3/31/09	345.93	36.16	17.15	17.15	0.00	328.78	Rise	0.65	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-9	6/9/09	345.93	36.16	17.87	17.87	0.00	328.06	Decrease	-0.72	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-9	7/1/10	345.93	36.16	17.26	17.26	0.00	328.67	Rise	0.61	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-9	1/12/11	345.93	36.16	17.37	17.37	0.00	328.56	Decrease	-0.11	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-9	12/23/11	345.93	36.16	19.78	19.78	0.00	326.15	Decrease	-2.41	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-9	5/30/12	345.93	36.16	20.26	20.26	0.00	325.67	Decrease	-0.48	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-10																									
ITMW-10	6/12/03	344.91	36.16	16.86	16.87	0.00	328.05			ft	167	ND<1	ND<1	ND<1	ND<1	ND<2	3.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	9/12/03	344.91	36.16	19.99	19.99	0.00	324.92	Decrease	-3.13	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	4.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	12/17/03	344.91	36.16	20.57	20.57	0.00	324.34	Decrease	-0.58	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	3/12/04	344.91	36.16	19.01	19.01	0.00	325.90	Rise	1.56	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	7/1/04	344.91	36.16	20.37	20.37	0.00	324.54	Decrease	-1.36	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	9/22/04	344.91	36.16	20.97	20.97	0.00	323.94	Decrease	-0.60	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	1/6/05	344.91	36.16	20.97	20.97	0.00	323.94	No Change	0.00	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	4/4/05	344.91	36.16	14.20	14.20	0.00	330.71	Rise	6.77	ft	1,973	23.0	2.0	282.0	17.0	ND<2	5.0	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	9/9/06	344.91	36.16	16.05	16.05	0.00	328.86	Decrease	-1.85	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	12/21/06	344.91	36.16	17.87	17.87	0.00	327.04	Decrease	-1.82	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	3/12/07	344.91	36.16	18.89	18.89	0.00	326.02	Decrease	-1.02	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	6/25/07	344.91	36.16	20.45	20.45	0.00	324.46	Decrease	-1.56	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	9/12/07	344.91	36.16	20.61	20.61	0.00	324.30	Decrease	-0.16	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	12/12/07	344.91	36.16	19.66	19.66	0.00	325.25	Rise	0.95	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	7/11/08	344.91	36.16	19.87	19.87	0.00	325.04	Decrease	-0.21	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	9/17/08	344.91	36.16	19.35	19.35	0.00	325.56	Rise	0.52	ft	ND<100	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-10	1/7/09	344.91	36.16	17.96	17.96	0.00	326.95	Rise	1.39	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-10	3/31/09	344.91	36.16	16.95	16.95	0.00	327.96	Rise	1.01	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-10	6/9/09	344.91	36.16	17.86	17.86	0.00	327.05	Decrease	-0.91	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-10	7/1/10	344.91	36.16	20.94	20.94	0.00	323.97	Decrease	-3.08	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-10	1/12/11	344.91	36.16	17.17	17.17	0.00	327.74	Rise	3.77	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-10	12/23/11	344.91	36.16	19.65	19.65	0.00	325.26	Decrease	-2.48	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-10	5/30/12	344.91	36.16	20.04	20.04	0.00	324.87	Decrease	-0.39	ft	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<1	ND<10	ND<1	ND<1	NS	NS	NS	NS
ITMW-11																									
ITMW-11	6/12/03	318.62	36.16	16.86	16.87	0.00	301.76			ft	ND<100	1.0	ND<1	ND<1	ND<1	26.0	ND<2	ND<10	ND<2	ND<2	ND<0.1	6.8	1,200	2
ITMW-11	9/12/03	318.62	36.16	19.91	19.91	0.00	298.71	Decrease	-3.05	ft	ND<100	ND<1	ND<1	ND<1	ND<1	13.0	ND<2	ND<10	ND<2	ND<2	ND<0.1	2.2	625	2
ITMW-11	12/17/03	318.62	36.16	19.41	19.41	0.00	299.21	Rise	0.50	ft	ND<100	ND<1	ND<1	ND<1	ND<1	30.0	ND<2	ND<10	ND<2	ND<2	ND<0.1	11.8	1,177	3.76
ITMW-11	3/12/04	319.1	36.16	19.73	19.73	0.00	299.37	Rise	0.16	ft	ND<100	ND<1	ND<1	ND<1	ND<1	33.0	ND<2	ND<10	ND<2	ND<2	NS	NS	NS	NS
ITMW-11	7/1/04	319.1	36.16	20.83	20.83	0.00	298.27	Decrease	-1.10	ft	ND<100	ND<1	ND<1	ND<1	ND<1	21.0	ND<2	ND<10	ND<2	ND<2	ND<0.1	20.4	810	1
ITMW-11	9/22/04	319.1	36.16	21.54	21.54	0.00	297.56	Decrease	-0.71	ft	ND<100	ND<1	ND<1	ND<1	ND<1	62.0	ND<2	ND<10	ND<2	ND<2	ND<0.1	8.8	1,350	ND<1
ITMW-11	1/6/05	319.1	36.16	21.54	21.54	0.00	297.56	No Change	0.00	ft	4,640	426.0	696.0	130.0	270.0	108.0	ND<2	ND<10	ND<2	ND<2	ND<0.1	3.4	838	341
ITMW-11	4/4/05	319.1	36.16	17.28	17.28	0.00	301.82	Rise	4.26	ft	178	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<10	ND<2	ND<2	ND<0.1	48.5	1,162	47

FIGURES

FIGURE 1 SITE LOCATION MAP
FIGURE 2 GROUNDWATER CONTOUR MAP
FIGURE 3 HYDROCARBON DISTRIBUTION MAP
FIGURE 4 BENZENE CONTOUR MAP
FIGURE 5 TPH CONTOUR MAP



0 1 2 mi

0 2,000 4,000 6,000ft

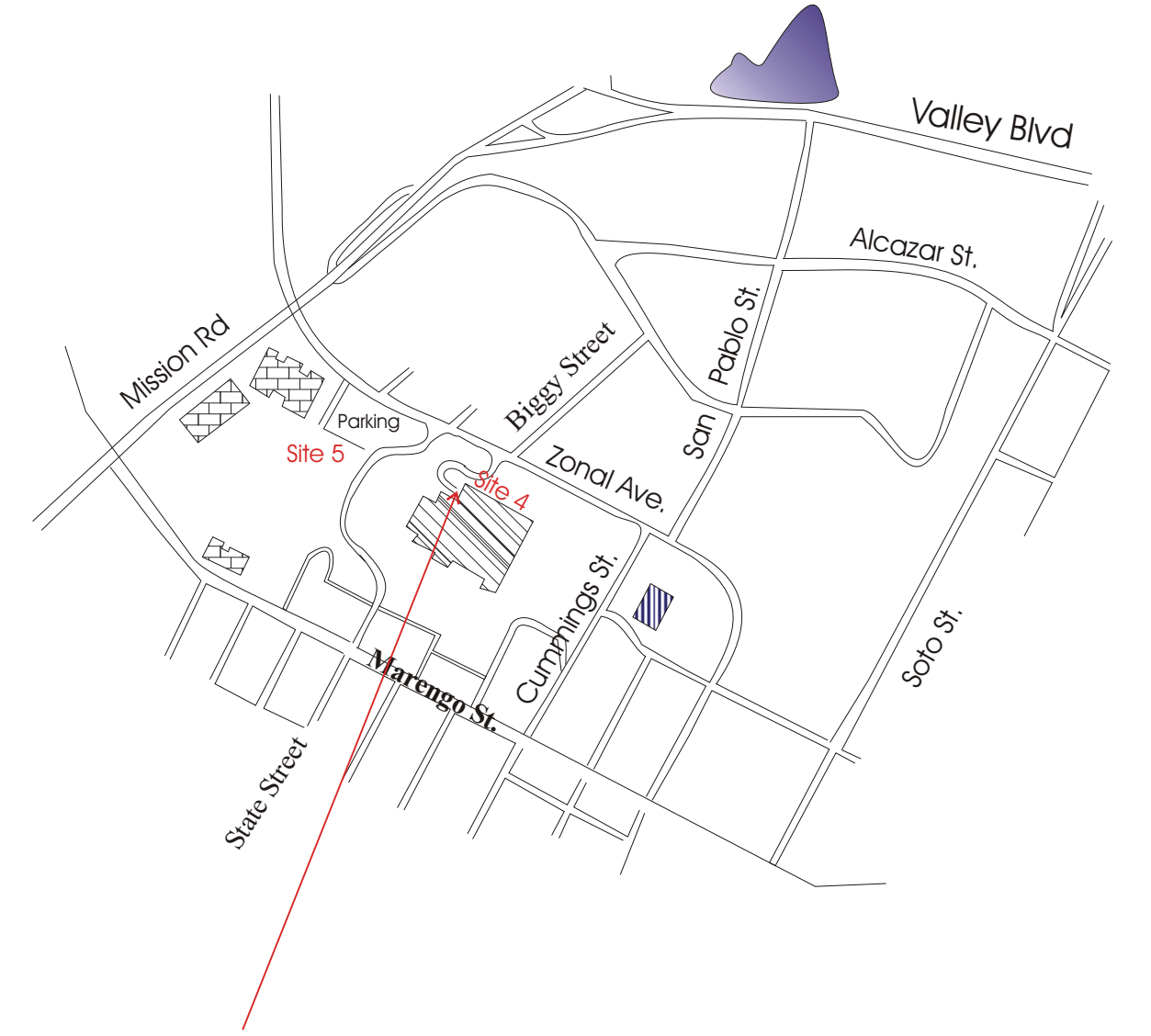
Source: USGS, 1966
Los Angeles - Quadrangle
7.5-minute (topographic) series
Scale: 1" = 2,000 ft (1:24,000)

N

ASTECH
Environmental Services, Inc.

SITE LOCATION MAP
LAC-USC Medical Center
1200 North State Street
Los Angeles, California

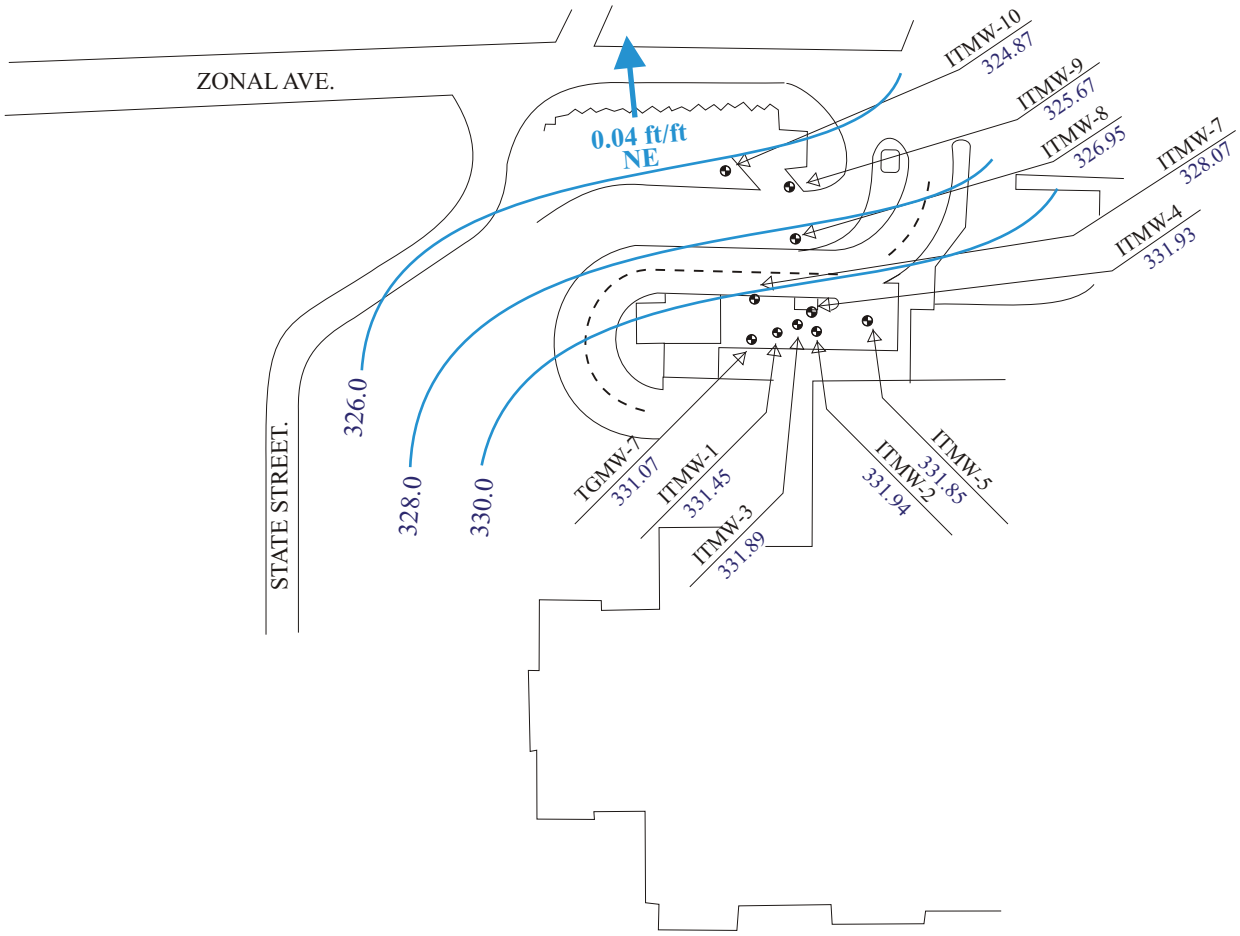
Figure 1a



VICINITY MAP
LAC-USC Medical Center
1200 State Street
Los Angeles, CA

FIGURE
1b

ASTECH
Environmental Services, Inc.



LEGEND

WELL #	Groundwater Monitoring Well and Identification
###.##	Groundwater Elevation in Feet Above MSL
→	Groundwater Flow Direction

N E W S

FIRST EVENT 2012 SEMI-ANNUAL MONITORING GROUNDWATER ELEVATION MAP

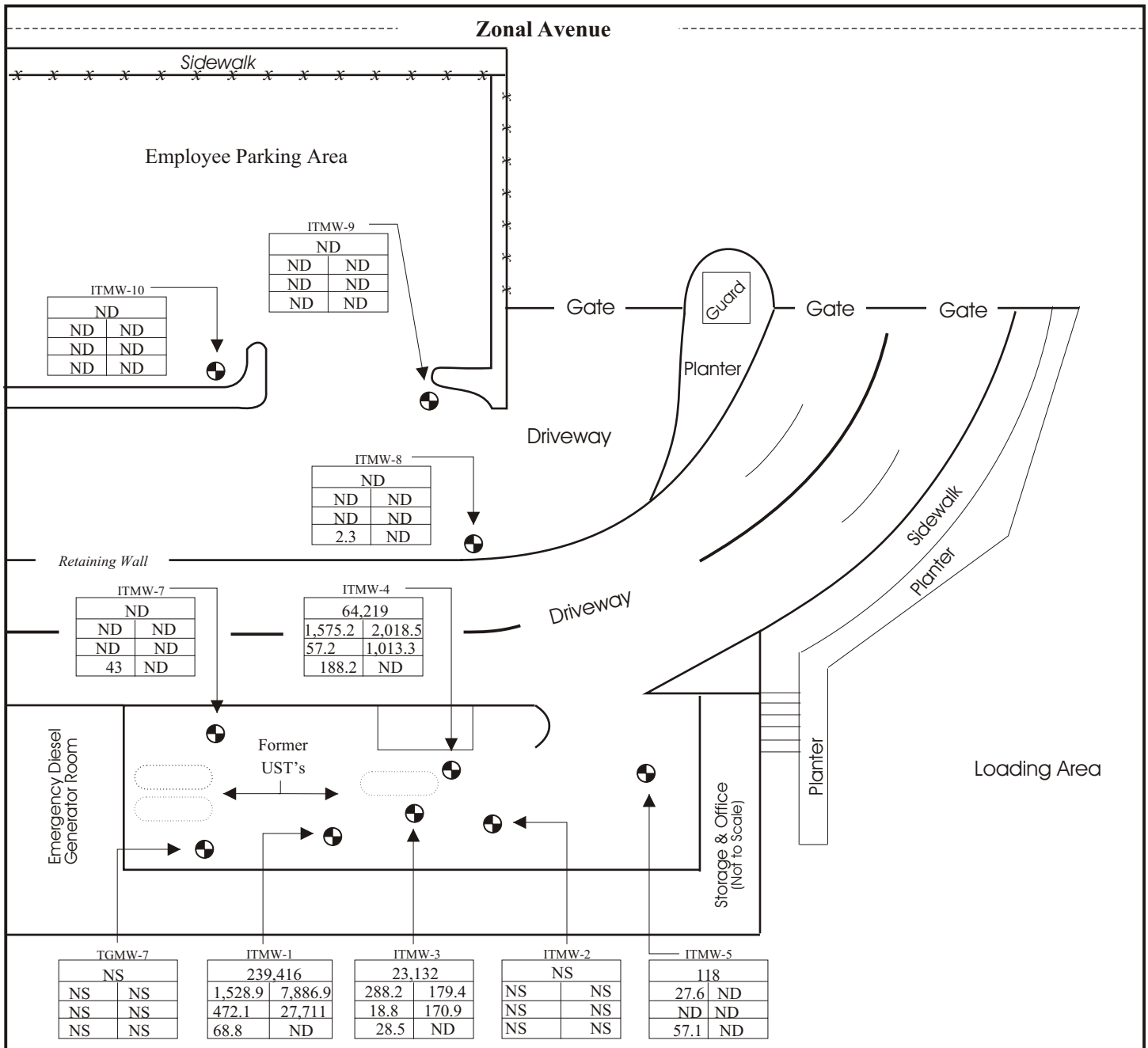
SITE-4
LAC-USC MEDICAL CENTER

Approximate Scale
(1"=100')

0 50 100 150

ASTECH
Environmental Services, Inc.

FIGURE 2



FIRST EVENT 2012 SEMI-ANNUAL MONITORING HYDROCARBON DISTRIBUTION MAP

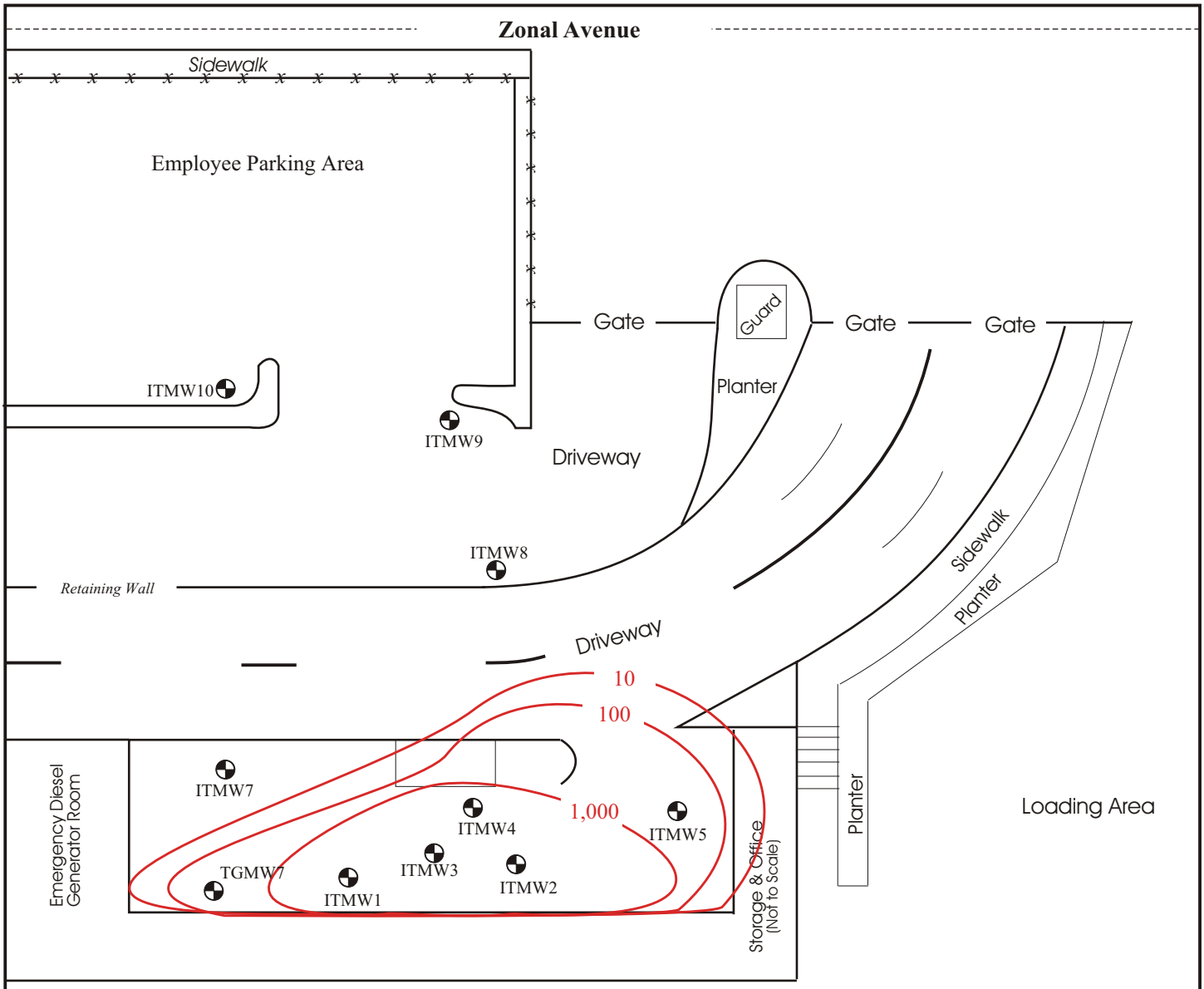
SITE-4
LAC-USC MEDICAL CENTER

Approximate Scale
(1"=30')

0 15 30 45

ASTECH
Environmental Services, Inc.

FIGURE 3



LEGEND

WELL #

Groundwater Monitoring Well ID.

Approximate line of equal benzene concentration in ug/L.

N E W S

FIRST EVENT 2012 SEMI ANNUAL MONITORING BENZENE CONTOUR MAP

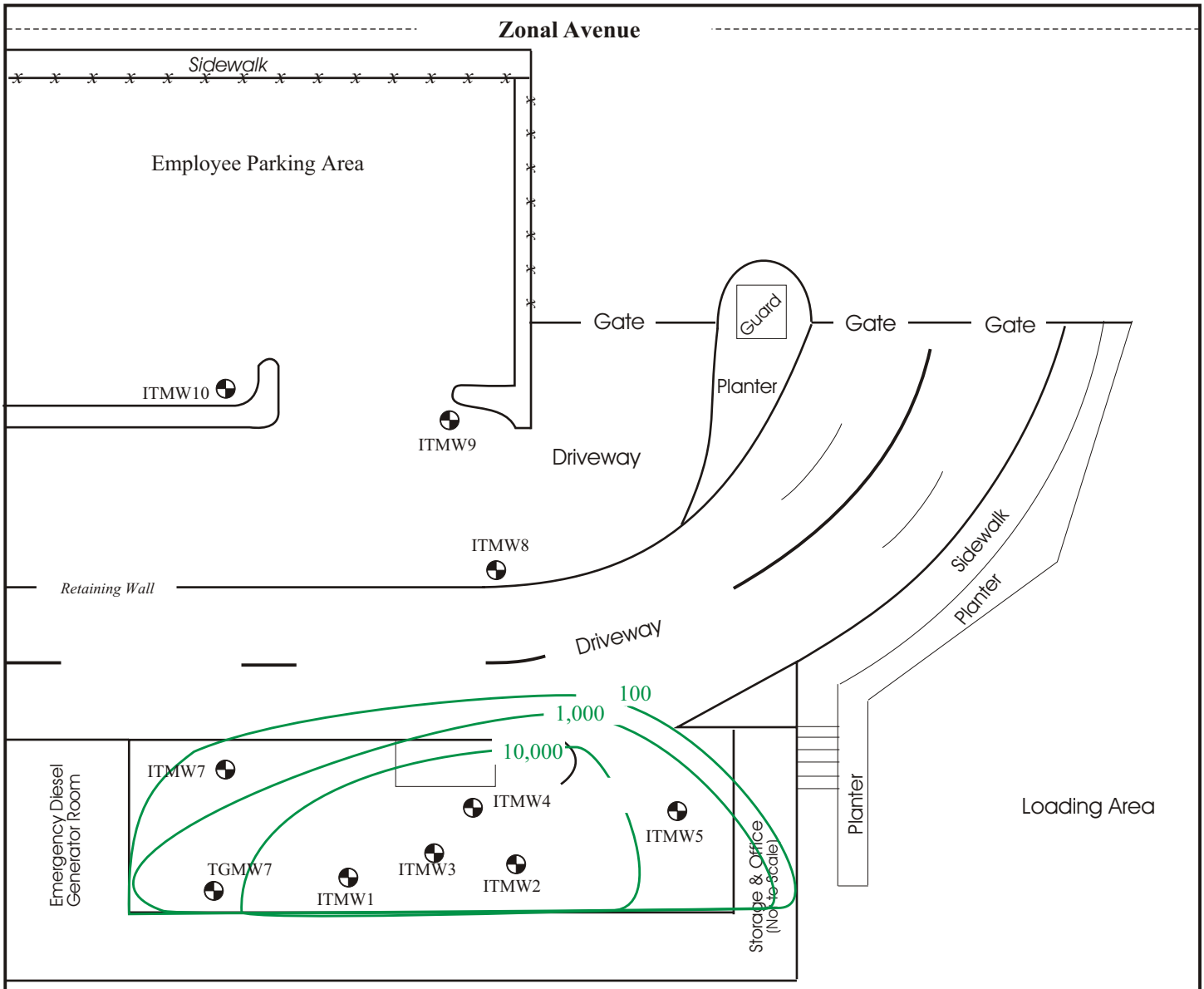
SITE-4
LAC-USC MEDICAL CENTER

Approximate Scale
(1"=30')

0 15 30 45

ASTECH
Environmental Services, Inc.

FIGURE 4



LEGEND

WELL # — Groundwater Monitoring Well ID.

Approximate line of equal TPH-gas concentration in ug/L.

N E W S

FIRST EVENT 2012 SEMI-ANNUAL MONITORING TPH-GAS CONTOUR MAP

SITE-4
LAC-USC MEDICAL CENTER

Approximate Scale
(1"=30')
0 15 30 45

FIGURE

ASTECH
Environmental Services, Inc.

APPENDIX A

Field
Procedures

GROUNDWATER PURGING AND SAMPLING PROCEDURES

Before purging, each well was measured for depth of well, depth to water, and separate phase-hydrocarbon thickness (if present). Groundwater depths were measured using an electronic water-level tape calibrated to one hundredth of a foot. Gasoline and water-detecting paste was placed on the side of the probe to determine the presence of separate-phase product, and measure its thickness, if present. The water-level tape was washed in non-phosphate soap and double-rinsed in distilled water between wells.

Water samples were obtained using disposable polyethylene bailers equipped with a bottom emptying device. The samples were placed in 40 ml VOA vials with Teflon septa. Samples were labeled, recorded on a chain-of-custody document, and placed in cold storage to reduce the potential for volatilization. Water samples were transported to a certified analytical laboratory, under chain-of custody protocol for chemical analysis.

APPENDIX B

Laboratory Report
&
Chain-of-Custody

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

June 5, 2012 ELAP Certificate No: 2268

Mr. Andy Schmitt
ASTECH Environmental
25742 Calle Ricardo
San Juan Capistrano, CA 92675

Project: LAC-USC
C&E ID: 120530A

Dear Mr. Schmitt,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on May 30, 2012, and analyzed as indicated in the attached chain-of-custody.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please contact me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name:	Astech Environmental	Date Sampled:	05/30/12
Project Manager:	Andy Schmitt	Date Analyzed:	05/31/12
Project Name:	LAC-USC	Date Reported:	06/05/12
Sample Matrix:	Water	Unit Reported:	µg/L or ppb

C&E LAB ID	120530A-1	120530A-2	120530A-3	120530A-4	120530A-5
SAMPLE ID	ITMW-1	ITMW-3	ITMW-4	ITMW-5	ITMW-7
DF	50	10	20	1	1

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	50.0	ND	10.0	ND	20.0	ND	1.0	ND	1.0
Tertiary Amyl Methyl Ether	ND	50.0	ND	10.0	ND	20.0	ND	1.0	ND	1.0
Diisopropyl Ether	68.8	50.0	28.5	10.0	188.2	20.0	57.1	1.0	43.0	1.0
Tertiary Butyl Alcohol	ND	500.0	ND	100.0	ND	200.0	ND	10.0	ND	10.0
MTBE	ND	50.0	ND	10.0	ND	20.0	ND	1.0	ND	1.0
Benzene	1528.9	25.0	288.2	5.0	1575.2	10.0	27.6	0.5	ND	0.5
Toluene	472.1	25.0	18.8	5.0	57.2	10.0	ND	0.5	ND	0.5
Ethylbenzene	7886.9	25.0	179.4	5.0	2018.5	10.0	ND	0.5	ND	0.5
Xylenes	27711.0	25.0	170.9	5.0	1013.3	10.0	ND	0.5	ND	0.5
Gasoline	239416	5000	23132	1000	64219	2000	118	100	ND	100

% Surrogate Recoveries (70-130)	103	108	112	95	101

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.

MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name:	Astech Environmental	Date Sampled:	05/30/12
Project Manager:	Andy Schmitt	Date Analyzed:	05/31/12
Project Name:	LAC-USC	Date Reported:	06/05/12
Sample Matrix:	Water	Unit Reported:	µg/L or ppb

C&E LAB ID	120530A-6	120530A-7	120530A-8		
SAMPLE ID	ITMW-8	ITMW-9	ITMW-10		
DF	1	1	1		

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	1.0	ND	1.0	ND	1.0				
Tertiary Amyl Methyl Ether	ND	1.0	ND	1.0	ND	1.0				
Diisopropyl Ether	2.3	1.0	ND	1.0	ND	1.0				
Tertiary Butyl Alcohol	ND	10.0	ND	10.0	ND	10.0				
MTBE	ND	1.0	ND	1.0	ND	1.0				
Benzene	ND	0.5	ND	0.5	ND	0.5				
Toluene	ND	0.5	ND	0.5	ND	0.5				
Ethylbenzene	ND	0.5	ND	0.5	ND	0.5				
Xylenes	ND	0.5	ND	0.5	ND	0.5				
Gasoline	ND	100	ND	100	ND	100				

% Surrogate Recoveries (70-130)	104	94	92		

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.

MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (BTEX/Oxygenates in Water) ---

I. Laboratory Control Sample

Date Analyzed: 05/31/12
LCS ID: B/O120531LC

ANALYTE	LCS %	ACP %CL
DIPE	95	70-130
ETBE	90	70-130
Benzene	85	70-130
Toluene	83	70-130
Ethylbenzene	90	70-130
Xylenes	93	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 05/31/12
QC Batch #: B/O120531MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	98	98	0	70-130	20
ETBE	90	90	0	70-130	20
Benzene	83	85	2	70-130	20
Toluene	83	83	0	70-130	20
Ethylbenzene	90	90	0	70-130	20
Xylenes	93	93	0	70-130	20

III. Method Blank

Date Analyzed: 05/31/12 Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	85

ND = Not detected at the indicated reporting limit.

CHAIN OF CUSTODY RECORD

C&E LAB ID: 120530A

C & E LABORATORIES, INC.

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: (562) 921-8123 Fax: (562) 921-7974

Company Name: Astech Environmental
Project Manager: Andy Schmitt
Project No./Name: LAC-USC
Tel: 949 338 4557 Fax: 9.521 7707
Site Address: 1200 N. State Street Los Angeles CA
Sampled By: A. Schmitt

Page 1 of 1

Sample Conditions: __ Chilled __ Seals Intact

Turn Around Time Desired: (Normal) / Same Day / 24hr / 48hr

	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
1	ITMW-1	5/30/12	0839	water	(2) VOA	/				/						
2	ITMW-3		0850			/				/						
3	ITMW-4		0917			/				/						
4	ITMW-5		0950			/				/						
5	ITMW-7		0824			/				/						
6	ITMW-8		0739			/				/						
7	ITMW-9		0752			/				/						
8	ITMW-10	5/30/12	0810	water	(2) VOA	/				/						

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) Yes No
Andy Schmitt	5/30/12 1050	Claire Zheng	5/30/12	EDF Global ID No.: T
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

APPENDIX C

Non-Hazardous
Waste Liquid Disposal Manifest

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NON-HAZ
2. Page 1 of: 1
3. Emergency Response Phone: (714) 413-4105
4. Waste Tracking Number: DT-15200

GENERATOR

5. Generator's Name and Mailing Address: LAC/USC Medical Center
1200 N. STATE ST
Los Angeles, Ca 90033
Generator's Phone: (323) 226-3034

Generator's Site Address (if different than mailing address): Same

6. Transporter 1 Company Name: Able Environmental Services
U.S. EPA ID Number: CAR000199349

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Lakeland Processing Co.
12345 Lakeland Dr
Santa Fe Springs, Ca 9060)
Facility's Phone: (562) 944-6111
U.S. EPA ID Number

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	NON-HAZARDOUS WASTE Liquid.	001	TT	90	G
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information
PROFILE#10-3491
C-25324
Wear Protective clothing

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: X Andy Schmidt
Signature: X Andy Schmidt
Month: 5 Day: 30 Year: 12

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Sanchez
Signature: Mike Sanchez
Month: 5 Day: 30 Year: 12

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: BEN CORRAL
Signature: Ben Corral
Month: 6 Day: 1 Year: 12

169-BLS-C 5 11979 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

February 19, 2013

Cantore Family Trust
c/o: Mr. James L. Cantore
Attorney-in-fact
4036 Cranford Circle
San Jose, CA 95124

UNDERGROUND STORAGE TANK PROGRAM – DIRECTIVE TO TAKE CORRECTIVE ACTION IN RESPONSE TO UNAUTHORIZED UNDERGROUND STORAGE TANK RELEASE PURSUANT TO HEALTH AND SAFETY CODE SECTION 25296.10 AND TITLE 23, CHAPTER 16, CALIFORNIA CODE OF REGULATIONS, SECTIONS 2720-2727.
MOZA AUTO REPAIR AND TIRE (D-1 SITE)
1201 NORTH MISSION ROAD, LOS ANGELES, CA (FILE NO. 900330370)

Dear Mr. Cantore:

Pursuant to Health and Safety Code section 25296.10, you are required to take corrective action (i.e., Preliminary Site Assessment, Soil and Water Investigation, Corrective Action Plan Implementation, or Verification Monitoring) to ensure protection of human health, safety and the environment. Corrective action requirements are set forth in California Code of Regulations (CCR), title 23, Chapter 16, sections 2720 through 2727.

We are in receipt of the following reports:

- "Implementation of Soil Vapor Extraction as per Revised Remedial Action Plan" dated February 6 2013 (Request Letter)
- "Groundwater Extraction System Offsite Dissolved-Phase Hydrocarbon Plume Mitigation Program – Second Quarter 2012 Groundwater Skimming and Disposal Report" dated July 7, 2012 (Monitoring Report)
- "Updated Revised Remedial Action Plan Bucket Auger and Augmented VES Implementation Plan and Associated Cost Estimate Report" dated February 9, 2012 (Updated RAP)

These reports were prepared by your consultant, ENCON, in response to our letter dated April 20, 2011. This letter intends to provide Regional Board staff comments upon reviewing these reports.

Site Assessment and Remedial Action Update

The subject site is currently an automotive service station. In March 2002, four gasoline underground storage tanks (USTs) (one 10,000-gallon, one 7,500-gallon, one 6,000-gallon, and one 250-gallon waste oil tank) were removed from the site. The site contains eight groundwater monitoring wells (MW-1 through MW-8). Groundwater monitoring has been performed at the site since 2008. The last monitoring event performed on June 28, 2012 detected TPHg up to 328,165 µg/L, benzene up to 25,029 µg/L, and MTBE up to 1,076 µg/L in groundwater. The

highest concentrations of fuel constituents were detected at MW-2. Free product has been detected in various wells since 2009. No free product was observed during the last monitoring event. The depth to groundwater was about 31 ft below ground surface (bgs). The groundwater flow direction was towards the west.

Four groundwater extraction events have been implemented at the site, and approximately 1,485 gallons of groundwater have been removed from the subsurface.

Updated RAP Approval (Per CCR Title 23, §2726)

Our letter dated April 20, 2011 approved your remedial action plan dated May 15, 2010 in which ENCON proposed to employ targeted bucket auger remedial excavation to remove the contaminated soil beneath the former fuel dispensing area between grade surface and 30 ft bgs.

ENCON in the "Updated RAP" proposed to supplement the May 15, 2010 remedial action plan and include multi-phase extraction method to address the residual contamination in the vadose zone and highly affected saturated zone. However, ENCON in its "Request Letter" indicated that the bucket auger remedial excavation method would require backfilling with pea gravel which would render future construction unsafe and restricted use as per Los Angeles Building and Safety regulations as well as potentially causing break-through soil boring conditions that may de-stabilize the area. Although backfilling the auger holes with concrete would eliminate the safety and break-through risks, it would raise the cost significantly to make this option economically unfeasible.

As such, the "Request Letter" proposed to implement a soil vapor extraction (SVE) pilot test to evaluate the feasibility of removing residual contamination in the soil in the source area with the highest dissolved-phase hydrocarbons concentrations in the vicinity of wells MW-2, MW-3, MW-5, and MW-6. If the SVE pilot test proves effective, it would further be combined with groundwater extraction to target the contamination in the saturated zone. Three SVE wells (SV-1 through SV-3) have been installed to a total depth of 35 feet bgs and screened between 10 to 22 feet bgs (shallow zone) and between 26 and 35 feet bgs (deep zone).

Regional Board staff has reviewed the "Request Letter" and concurs with implementing it with the following conditions:

1. A technical report detailing the results of the pilot test must be submitted to this Regional Board by **April 15, 2013** and must include, at a minimum, the following items:

    - Scaled map showing the location of all wells.
    - Air flow and vacuum readings.
    - Radius of influence for each extraction well.
    - Cross section profiles showing the extraction wells, contaminant plume concentration, and lithologic information.
    - Undiluted influent concentrations and concentrations at each vapor extraction well.
    - Effluent concentrations.
    - Hours of system operation.
    - Analytical test results in µg/L, including QA/QC data.
    - Tabular and graphical summaries of contamination removed versus time.
    - Contamination mass removal rates and cumulative mass remove.
    - Groundwater elevation measurements.
    - Copies of all necessary permits from appropriate agencies.

- Volume of free product and groundwater removed and the disposal facility.
- Supporting calculations, data interpretation, and conclusions.

2. Based on the pilot test results, a final remedial action plan (RAP) must be submitted to this Regional Board. The RAP must evaluate the effectiveness of the pilot test, recommend the most viable remedial alternative for the subject site, and provide an implementation schedule.

Groundwater Monitoring Requirements (Per CCR Title 23, §2725)

To monitor groundwater conditions at the site, semi-annual groundwater monitoring program must be continued and must comply with the following requirements:

1. All wells must be monitored according to the following schedule with the next monitoring report due by **July 15, 2013**.

Reporting Period	Sampling Period	Report Due Date
January – June	April – June	July 15th
July – December	October – December	January 15th

2. Groundwater samples must be analyzed by Cal-LUFT GC/FID or Cal-LUFT GC/MS Method for total petroleum hydrocarbons as gasoline (TPHG), total petroleum hydrocarbons as diesel (TPHD) when diesel is identified at the site; and by EPA Method 8260B for benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, and fuel oxygenate compounds including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA). Ethanol is also required and shall be analyzed by either method above. The analytical detection limits must conform to the Regional Board General Laboratory Testing Requirements (9/06) (http://www.waterboards.ca.gov/losangeles/html/lab_report.html). All respective analytical methods must be certified by the California Environmental Laboratory Accreditation Program (ELAP). All analytical data must be reported by a California-certified laboratory.

3. In addition, each groundwater monitoring report must include the following:
   - A separate summary table containing current concentrations.
   - A summary table containing all historical data for each well with groundwater depth (or elevation) and well screen intervals.
   - A regional map depicting site vicinity business and street, etc.
   - A plan depicting site location, tank and associated system locations, all well locations and groundwater elevations (contour) with flow gradient and direction.
   - An isoconcentration map for TPH(g), benzene, MTBE, and TBA, respectively.
   - A hydrograph superimposing on concentration over time at the most impacted well for TPH(g), benzene and MTBE, and TBA (or at any other wells as warranted).

General Requirements

1. All reports must conform to the "Guidelines for Report Submittals" published by the Los Angeles County Department of Public Works.

2. The Contractor who conduct the environmental work as required in this Order shall, at all times,

comply with all applicable State laws, rules, regulations, and local ordinances specifically, including but not limited to, environmental, procurement and safety laws, rules, regulations, and ordinances. The Contractor shall obtain the services of a Professional Geologist or Engineer, Civil (PG/PE-Civil) to comply with the applicable requirements of the Business and Professions Code, sections 7800 et seq. implementing regulations for geological or engineering analysis and interpretation for this case. All documents prepared for others by the Contractor that reflect or rely upon geological or engineering interpretations by the Contractor shall be signed or stamped by the PG/PE-Civil indicating her/his responsibility for them as required by the Business and Professions Code.

3. Regional Board staff must be notified 15 days before start of any fieldwork.

4. Before fieldwork is started, all necessary permits must be obtained from the appropriate agencies.

If you have any questions on this matter, please call Mr. Arman Toumari at (213) 576-6708 or atoumari@waterboards.ca.gov.

Sincerely,

Yi Lu, Ph.D., P.G.
Chief of Los Angeles River Watershed Unit
Underground Storage Tank Section

cc: Kathy Jundt, SWRCB, Underground Storage Tank Cleanup Fund
Phuong Ly, Water Replenishment District of Southern California
Captain Matthew Gatewood, Los Angeles Fire Department
Dinesh Rao, ENCON

ENCON

SOIL VAPOR EXTRACTION
REMEDIAL TREATMENT EVENT # 1

Project Site:
Moza Automotive Repair and Tire
1201 North Mission Road
Los Angeles, California
(RWQCB File No. 900330370)

Prepared for:
California Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013
Attention: Arman Toumari,
Project Control Specialist

Prepared by:

ENCON Technologies Inc.
12145 Mora Drive, Unit #7
Santa Fe Springs, California 90670
Tel; (562) 777 – 2200 Fax: (562) 777 – 2201
E-mail: encon@encontech.net

April 17, 2013

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Exhibit A	LARWQCB Directive Letter
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Exhibit C	Daily VES Field Sheets
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1.0 INTRODUCTION AND PROJECT OVERVIEW

ENCON Technologies Inc. (ENCON) performed the soil vapor extraction (SVE) treatment at the subject site located at 1201 N. Mission Road, Los Angeles, California (Figure 1) to mitigate soil and groundwater contamination associated with former underground storage tanks (USTs) and the former fuel dispenser. This treatment was completed in accordance with the workplan dated February 6, 2013 and which was approved by the Los Angeles Regional Water Quality Control Board (LARWQCB) on February 19, 2013 (Exhibit A).

ENCON had submitted the original Remedial Action Plan (RAP) dated February 9, 2012, which proposed both soil vapor extraction (SVE) and a large diameter bucket auger excavation as remedial options for the site. The bucket auger excavation option involved backfilling the auger holes with pea gravel, which would have rendered future construction unsafe and imposed restrictive use as per Los Angeles Building and Safety regulations as well as potentially cause break-through soil boring conditions that may have de-stabilized the area. Also, the proposed backfill procedure would have limited the real estate marketability and value of the site greatly. Backfilling the auger holes with concrete would have eliminated the safety and break-through risks, but would have increased the cost significantly to make this option economically unfeasible. Therefore for reasons of safety, cost, and limited property use, SVE was chosen as a preferred remedial option for site remediation instead of the large diameter bucket auger excavation. The letter workplan dated February 6, 2013 explained the implementation of SVE in detail for the site remediation.

The SVE treatment was proposed to evaluate the feasibility of removing residual hydrocarbons in the soil near the source area using the previously installed duel-nested wells SV1, SV2 and SV3. This report presents the objectives, rationale, methods, and testing results of the SVE Treatment Event #1 operated over a 24-day period between March 6, 2013 and March 29, 2013.

In addition, to control the hydrocarbon dissolve-phase migration off the property, ENCON has performed targeted groundwater skimming and removal of highly contaminated groundwater in the smear zone within the source and perimeter groundwater monitoring wells and disposal of extracted groundwater off-site at a permitted waste disposal facility, Crosby & Overton Treatment Facility. A report documenting groundwater extraction and disposal will be submitted separately.

2.0 SITE DESCRIPTION AND UST BACKGROUND

2.1 Site Description

The Site facility is located on the northeast corner of North Mission Road and Sichel Street in a mixed retail and residential portion of Los Angeles, California (Site). The Site property is bordered on the north a commercial building and parking lot, on the east by an approach drive, on the west by Sichel Street, and on the south by North Mission Road. Refer to Figure 1 for the Site Vicinity Map and Figure 2 for the Site Map showing the former UST area and fuel dispenser.

The Site property was developed as an automotive service station and includes an automotive repair and tire repair center. No fuel storage or dispensing has been conducted on the premise since 2002. The Site property is improved with one (1) single-story cinder block structure which is partitioned into an office and 2 service bays with automotive tire storage room.

2.2 UST Description and Removal Activities

The Site formerly maintained and operated four (4) single-wall steel USTs. In accordance with State and Federal UST upgrade requirements, the tanks were removed by ENCON in March 2002. The former fueling system was located in the southwestern portion of the property and included one (1) 10,000-gallon capacity UST, one (1) 7,500-gallon capacity UST, one (1) 6,000-gallon UST, and 250-gallon capacity waste oil UST. The fueling system formerly dispensed regular, unleaded, and premium grade gasoline from a raised concrete dispenser island located along the southern perimeter of the tank pit. The fuel dispensers were removed by unknown parties prior to the UST closure activities performed by ENCON.

Following the removal of the USTs, a total of thirteen (13) soil samples were collected at the request of a Los Angeles County Fire Department Inspector. Eight (8) grab samples (T1A&B through T3A&B) were collected beneath the former USTs at depths ranging from approximately 8 to 18 feet below surface grade (bgs). Three (3) soil samples (D1 through D3) were collected beneath the former fuel dispensers. Three (3) stockpile samples (SP1 through SP3) were collected from soil removed during excavation activities. A maximum concentration of total petroleum hydrocarbons in the gasoline range (TPHg) was detected in the 18-foot sample collected beneath the southern end of the former 7,500-gallon UST (T2B-18) at 4,840.2 mg/kg (parts per million or ppm). Maximum concentrations of BTEX were detected in sample TB2-18 at 1,508 µg/kg (parts per billion or ppb) benzene, 85,466 µg/kg toluene, 112,901 µg/kg ethylbenzene, and 414,720 µg/kg total xylenes. A single detection of MTBE was reported in the 14-foot sample collected beneath the northern end of the former 7,500-gallon UST at 404 µg/kg.

TRPH was detected in the sample collected beneath the former waste-oil (WO1-8) at a concentration of 3,240 mg/kg. BTEX was detected in WO1-8 at concentrations of 75 µg/kg benzene, 6.0 µg/kg toluene, 1,330 µg/kg ethylbenzene, and 24 µg/kg total xylenes.

3.0 HISTORICAL SITE SUBSURFACE SOIL ASSESSMENT INVESTIGATIONS

During the week of November 10, 2008 through November 13, 2008, soil borings B-1 through B-7 were advanced by ENCON. The investigation was divided into two primary areas of subsurface soil testing that included the following: a) the former UST tank and fuel dispenser area involving borings: B-2, B-3, and B-5 and b) upgradient/down gradient of the former UST tank area involving borings: B-1, B-4, B-6 and B-7. Soil borings were drilled to a final depth of 50 feet bgs and samples were collected at approximately 5-foot intervals starting various grades as listed in the approved Work Plan.

Subsurface soils encountered during the investigation consisted predominantly of clays and silty clays with fine grained sands. The clay and silty clayey layers were encountered from just below ground surface to approximately 45 feet bgs through the test area. This continuous interval consisting of highly impermeable material would highly restrict migration of contaminants in soils as well as retain (store) petroleum hydrocarbon contaminants as a potential source of contamination. In addition, the highly impermeable soils will restrict air flow and any vapor extraction in this zone to address the petroleum hydrocarbon source in soils.

Well graded fine materials consisting of well graded sands, silty sand, and clays were encountered to the bottom of the boring. The soil lithology characteristics encountered at the site in this investigation are illustrated in the geologic cross sections in Figures 4 and 5 (cross section locations are presented in Figure 3).

The highest concentrations of petroleum hydrocarbons in the gasoline range were detected in the vicinity of the former fuel dispenser and UST tank area between 10 feet bgs and 25 feet bgs that decreased with depth thereafter, refer to B-3 and B-5 and shown in Figure 4. The former dispenser and tank area appears to be the general release point of gasoline product (TPHg) or source area. The source area concentrations were significantly elevated between grade surface to 25 feet bgs and below 25 feet bgs decreased to relatively low concentrations or below detection limits. All soil samples were found to be non-detect for petroleum hydrocarbons in the diesel range.

3.1 UST Area Petroleum Hydrocarbon Contamination

TPHg was detected at a maximum concentration of 1,736,504 ug/kg at 10 feet bgs in the former UST tank area and 915,050 ug/kg at 10 feet bgs in the former fuel dispenser area. The petroleum hydrocarbon contamination extends to a depth of 25 feet bgs at a maximum 166,936 ug/kg and 144,041 ug/kg, respectively. The TPHg concentrations at 30, 35, 40 and 45 feet bgs were below detection limits although BTEX and MtBE constituents were found at elevated concentrations in this region. In addition, the petroleum hydrocarbon, TPHg, appears to have moved laterally in the 30' to 35' zone affecting the surrounding area, refer to B-1 to the north, B-4 to the south, B-6 the southwest, and B-7 to the east of the source area.

The highest concentrations of fuel additives, BTEX/MtBE, were also detected in the vicinity of the former fuel dispenser and UST tank area that remained elevated with depth to 30 feet bgs in the tank area and to 40 feet bgs in the dispenser area. Benzene, ethylbenzene, xylenes, and MtBE were detected at maximum concentrations in the former tank area, B-3, of 13,357 ug/kg, 24,233 ug/kg, 124 ug/kg, and 744 ug/kg respectively and extending to depths of approximately 30 feet bgs. Benzene, ethylbenzene, xylenes, and MtBE were detected at maximum concentrations in the former dispenser area, B-5, of 11,236 ug/kg, 22,861 ug/kg, 35,168 ug/kg, and 272 ug/kg respectively and extending to depths of approximately 40 feet bgs.

3.2 Petroleum Hydrocarbon Contamination Cross-Gradient Areas

The petroleum hydrocarbon contamination appears to have moved laterally in the 30 to 35 feet bgs zone affecting the cross-gradient areas surrounding the UST tank/dispenser source area, refer to B-1 to the north, B-4 to the south, B-6 the southwest, and B-7 to the east of the source area. The contamination spreading appears to be comprised of mostly of hydrocarbons while the BTEX/oxygenates were low or below detection limits. Also, the 30 to 35 feet bgs zone is most likely the natural capillary fringe zone and/or the top of the water table beneath the subject Site that encourages lateral migration of contaminants and restricts vertical migration of petroleum hydrocarbon contamination.

The maximum contamination found in the surrounding areas between 35 and 40 feet bgs are briefly summarized below and the data suggests that hydrocarbons migrated laterally while the fuel additives and oxygenates remained generally within the source area.

1) **North Gradient Area** - B-1 is located about 40' north of the source area and approximately 20 feet north of the former UST tank area. The maximum TPHg concentration was found at 35 feet bgs at 36,853 ug/kg and decreasing to 408 ug/kg at 40 feet bgs. BTEX constituents were low or below detection limits and MtBE and TAME were slightly elevated at 261 ug/kg and 79 ug/kg, respectively
2) **South Gradient Area** - B-6 is located about 20' south of the source area and approximately 20 feet south of the former dispenser area. The maximum TPHg concentration was found at 35 feet and 40 feet bgs at 33,587 ug/kg and 12,348 ug/kg and decreasing to below detection limit at 40 feet bgs. BTEX and all oxygenate constituents were low or below detection limits a depths greater than 35 feet bgs.
3) **Southeast Gradient Area** - B-4 is located about 30' southeast of the source area and approximately 30 feet southeast of the former dispenser area. The TPHg, BTEX, and all oxygenate constituents were low or below detection limits a depths greater than 30 feet bgs.
4) **Northeast Gradient Area** - B-7 is located about 50' north of the source area and approximately 30 feet northeast of the former UST tank area. The maximum TPHg concentration was found at 35 feet bgs at 12,348 ug/kg and decreasing to below detection limits at 40 feet bgs. BTEX and all oxygenate constituents were low or below detection limits at 35 feet bgs and depths greater than 35 feet bgs.

3.3 Extent of Petroleum Hydrocarbon in Soils

The vertical and lateral extent of TPH, benzene, and oxygenates (MtBE) in soils beneath the Site has been generally characterized although further off-site assessment maybe required in the northwest and southwest directions. The main building is located about 75 feet to the east of the petroleum hydrocarbon source area and is situated upgradient and expected to be minimally affected.

Based on site assessment analytical data, petroleum hydrocarbon concentrations are the highest in the vicinity of the former fuel dispenser and UST tank area that extends vertically to about 30 feet bgs at which depth the contamination extends to the southwest and northeast portions of the Site in the smear zone between 20 feet bgs and 35 feet bgs. The vertical extent of TPH and fuel additives in the source area at the Site has been assessed to extend from near grade surface to approximately the capillary fringe smear zone at 30 feet bgs. The contamination does not appear to extend beneath the groundwater table, >35 feet bgs. The lateral extent of TPH and fuel additives extends in a southwest direction between MW-5 and MW-6 and the contamination has migrated off-site onto Sichel Street.

3.4 Preliminary Site Assessment Subsurface Soil Findings and Conclusions

1) The petroleum hydrocarbon source is located in the vicinity of the former fuel dispenser and UST tank area encompassing an area of approximately 80 feet northeast to southwest and about 40 feet wide or about 3,200 square feet of affected area (AOC).
2) The contamination is comprised of petroleum hydrocarbons in the gasoline range and appears to be confined to the zone between grade surface to approximately 35 feet bgs with the majority of the contamination present between grade surface and 20 to 30 feet bgs. No diesel range petroleum hydrocarbons were detected in any soil samples collected at the Site in this site assessment investigation.
3) The petroleum hydrocarbon contamination, TPHg, has expanded laterally to the southwest about 50 feet and affecting MW-6 off-site well and northeast about 40 feet affecting MW-5 within the saturated zone between 20' and 30' capillary fringe "smear" zone. The fuel additives and oxygenates, however, did not migrate laterally and remained generally within the former dispenser and UST tank source area.
4) The petroleum hydrocarbon concentrations are sufficiently elevated within the petroleum hydrocarbon source area to generate free product if conduits are present or developed in the vicinity of the former fuel dispensers and UST tanks.
5) The petroleum hydrocarbon concentrations below 35 feet are slightly elevated and contamination is relatively low.
6) The soil type between grade surface and approximately 45 feet bgs is predominantly silty clay and low permeable and therefore, the contamination is bound up in the silty clay soil in this region.

4.0 ENVIRONMENTAL SETTING

4.1 Physiographic Area

The Site is located in the northern part of the Los Angeles Basin known as the Elysian Park – Repetto Hills Area. Specifically, the site is located on the southeastern edge of the Elysian Park Hills outcrop. The Coastal Plain of Los Angeles is located in the northwest portion of the Peninsular Range geomorphic province. This province extends southward into Baja, California and consists of a north-northwesterly trending mountain range and associated structural valley. The Coastal Plain is bounded by the Santa Monica Mountains on the north, the Elysian, Repetto, Merced, and Puente Hills to the northeast, the Los Angeles-Orange County line on the southeast, and the Pacific Ocean on the south and west.

4.2 Geology/Hydrogeology

The Site is underlain by Quaternary alluvium consisting of silt and sand from approximately ground surface to 15 feet bgs. Underlying sediments between 15 and 40 feet bgs most likely belong to the Puente Formation of Permian – Triassic age. Boring logs prepared by various consultants indicate that members of the Puente formation in the general vicinity of the Site consist of sand, silty sands, and sandstone. Cemented sandstones and claystones have been reported in borings advanced beyond 40+ feet bgs.

Bulletin 104 (California Department of Water Resources [CDWR], 1961) indicates that the Site is "non-water bearing". This term is used for areas where groundwater is either not present or is of limited supply. However, shallow groundwater is present under the Site. According to data derived from semi-annual monitoring performed at and adjacent to the Site, groundwater occurs in eight (8) wells at depths ranging between 31 and 40 feet bgs. The hydrogeological data for the Site indicate that groundwater flows to the northwest at an approximate gradient of between 0.016 ft/ft.

5.0 REMEDIAL ACTION PROGRAM

5.1 SVE System Description

The SVE system consists of a network of extraction wells, conveyance piping, and a catalytic oxidizer. In August 2011, ENCON installed three (3) dual nested soil vapor extraction wells (SV1, SV2 and SV3) and 2" PVC Schedule 40 conveyance piping to a VES equipment compound for a multi-phase extraction system to mitigate the mass of petroleum hydrocarbon in the former fuel dispenser area (primary release area).

The vapor wells were constructed with 2-inch diameter Schedule 40 PVC casing to a total depth of 35 feet bgs and screened with 0.02-inch slotted casing between 10 and 22 feet bgs (S - shallow zone) and deep zone between 26 and 35 feet bgs (D - deep zone). Blank well casing was used to seal the surface with a locking cap. Filter material consisting of No. 3 sand was placed between the well bore and the well casing from total depth to a depth of approximately 1 foot above the screen interval in each well. The wells were sealed at the ground surface with a traffic-rated well cover placed in concrete.

The estimated targeted area of the dual-phase extraction system was designed to address an affected area with a 70' center axis northeast to southwest between groundwater monitoring well MW-5 to the northeast to MW-6 to the southwest and approximately a 25' wide area. The vapor extraction wells and conveyance piping were installed in this targeted remedial area. Figure 2 illustrates the well locations and conveyance piping layout.

The treatment event was performed using a trailer-mounted electric catalytic oxidizer manufactured by Mako Industries of Anaheim, California. The oxidizer system uses a 20-hp, high vacuum, positive displacement blower to apply vacuum to the well manifold, and vapor destruction is accomplished by heating the incoming vapors with heating elements, and then directing the heated vapors over a specially treated catalyst cell prior to discharging the clean vapor to the atmosphere. The system is capable of producing up to 15 inches of mercury (in. Hg) vacuum and of moving 500 standard cubic feet per minute (scfm) of air. The unit is permitted for various locations for use by the South Coast Air Quality Management District (SCAQMD).

5.2 Remedial Treatment Events Procedure and General Results

Between March 6, 2013 and March 29, 2013, SVE technology was applied using vapor extraction wells SV-1S, SV-1D, SV-2S, SV-2D, SV-3S, and SV-3D at various vacuum pressures and extraction well flow rates for 8 hours per day. Due to recent site improvements during which the well covers were paved over, these well locations can no longer be identified nor accessed. The wells were designated at the manifold as 1A, 1B, 2A, 2B, 3A, and 3B.

The vapor extraction wells were tested under medium to high vacuum settings of 5 in. Hg to 12.5 in. Hg, dilution settings of 20% to 30% open, and an average flow of 379 scfm. The petroleum hydrocarbon production from each day of treatment was recorded using daily vapor sampling and regular monitoring with a photoionization detector (PID). Concentrations of the soil gas through the system inlet (influent), system outlet (effluent), and individual manifolds were

monitored with a calibrated PID meter on an hourly basis. The wells designated as 1A, 2A, 2B, and 3A produced high concentrations of petroleum hydrocarbon vapor with PID readings consistently exceeding 9,999 parts per million (ppm). Refer to Exhibit C for the Daily Soil Vapor Extraction Log that describes the system settings during the treatment event. Vapor samples were collected from the vapor extraction system on a daily basis using a Tedlar bag by an ENCON field technician. The samples were transferred to a State certified laboratory for analysis using proper chain-of-custody forms. (Refer to Exhibit B for analytical reports). The vapor samples were analyzed for petroleum hydrocarbon in the gasoline range, TPHg, and fuel additives, BTEX/Oxygenates, using EPA Method 8260B.

Vapor samples were taken from individual manifolds (1A, 1B, 2A, 2B, 3A, and 3B) on the first and last days of the treatment event: March 6, 2013 and March 29, 2013. Over the 24-day treatment period, TPHg concentrations in vapor samples from the wells identified as 1A, 1B, 2A, 3A, and 3B declined from 88,912.77 µg/L to 27,930.88 µg/L, 13,660.28 µg/L to 2,048.61 µg/L, 83,700.11 µg/L to 26,642.39 µg/L, 85,182.61 µg/L to 28,651.03 µg/L, and 17,862.80 µg/L to 1,872.65 µg/L, respectively. TPHg concentrations slightly increased from 4,284.05 µg/L to 4,637.79 µg/L in vapor samples from the well identified as 2B. The laboratory analytical data are presented in Table 1 and in Exhibit B.

From March 8, 2013 to March 29, 2013, vapor samples were taken from the system inlet as influent samples from all manifolds simultaneously. TPHg concentrations in collective influent vapor samples decreased from 19,927.66 µg/L on March 8, 2013 to 3,408.04 µg/L on March 29, 2013. Similarly, benzene concentrations in the collective influent vapor samples decreased from 295.11 µg/L on March 8, 2013 to 29.68 µg/L on March 29, 2013. Plots of the TPHg and benzene vapor concentrations during this treatment event are illustrated in Charts 1 and 2, respectively. These plots exhibit similar trends with the rapid decrease in contamination occurring from March 8, 2013 to March 20, 2013, followed by more consistent concentrations detected from March 21, 2013 to March 29, 2013.

5.3 Groundwater Extraction

From March 11, 2013 to March 21, 2013, groundwater was manually extracted from wells MW-1 through MW-5. The purging activities were performed by a hand bailer under the assistance of a traffic controller. Groundwater generated during the extraction activities was stored on-site in DOT-approved 17H 55-gallon drums for subsequent disposal. The drums were sealed with water-tight lids, dated, labeled and left on site until March 21, 2013. The extracted groundwater was subsequently transferred into a 350-gallon tote for profiling and off-site disposal. The extracted groundwater was properly manifested (Exhibit D) and transported to Crosby & Overton Wastewater Treatment Facility at 1610 West 17th Street, Long Beach, California for disposal as non-hazardous waste during and immediately after each extraction event.

6.0 TOTAL HYDROCARBON MASS REMOVAL

6.1 Estimated Mass of Petroleum Hydrocarbons in Soils

The mass of petroleum hydrocarbons in subsurface soils within the vicinity of the former fuel dispenser area is estimated to be approximately 3,157.4 pounds (493.3 gallons) and 794.9 pounds (124.2 gallons) extended to the southwest portion of the site, for a total of 3,952.2 pounds (617.5 gallons). This estimate was based on soil data collected during the previous further site assessment subsurface soil investigation at the site using an adjusted impacted dispenser-UST tank area of 650 sq. ft. and depth of petroleum hydrocarbon impacted soil to 33 feet bgs or affected volume of 21,450 cubic feet and extending between the 15 feet bgs and 33 feet bgs zone to the southwest to add an additional 300 sq. ft. or volume of 5,400 cubic feet. This estimate has not been adjusted for the clean backfill material used during the tank removal activities to 15 feet bgs although most of the soil contamination is located in the vicinity of the former dispenser area. The mass estimates represent the majority of the impacted soil present (source area) on the site at this time. For estimating purposes, the petroleum hydrocarbon mass estimate was based on an average TPHg concentration of 1,241 mg/kg using the highest concentrations found in both the shallow and deeper zones.

6.2 Petroleum Hydrocarbon Mass Removal Quantities

The cumulative vapor extraction mass removal of gasoline hydrocarbon product from the beneath the subject site that involved SVE Treatment Event #1 was a total of 1,478.4 pounds (231.0 gallons)—that is approximately 37% of the estimated mass of the hydrocarbon source. Daily TPHg mass removal quantities are exhibited in Table 2.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

1) The SVE system was successfully operated from March 6, 2013 to March 29, 2013 to remove hydrocarbons using dual nested vapor extraction wells SV1, SV2, and SV3.

2) The results of SVE collective influent vapor samples show that TPHg concentrations decreased from 19,927.66 µg/L to 3,408.04 µg/L over a 21-day period.

3) The results of SVE collective influent vapor samples show that benzene concentrations decreased from 295.11 µg/L to 29.68 µg/L over a 21-day period.

4) The mass of petroleum hydrocarbon source in subsurface soils at the subject site was estimated to be 3,952.2 pounds (617.5 gallons). This mass estimate was based on soil data collected during the further site assessment subsurface soil investigation at the site and the estimated affected area and depth. The total calculated vapor extraction gasoline hydrocarbon product mass removed from the beneath the subject site is 231.0 gallons, which represents approximately 37% of the estimated mass of the petroleum hydrocarbon source.

5) For contaminated plume control purposes, targeted groundwater extraction activities were performed from March 11, 2013 to March 21, 2013. A total of 275 gallons of groundwater was hand bailed from wells MW-1 through MW-5 and transported to a off-site wastewater treatment facility for disposal.

6) The laboratory results and the SVE unit operational data indicate that SVE was very effective in removing residual hydrocarbons in the vadose and saturated zones.

7.2 Recommendations

1) Continue operating SVE for multiple 2-week treatment events until concentrations reach asymptotic levels. A second 2-week treatment event will be completed by end of this fiscal year ending June 2013.

2) Expand the SVE program to include monitoring wells for dual-phase extraction in the next fiscal year to mitigate the contaminated groundwater plume from further extending of-site onto Sickel Street and Mission Road.

3) Continue the semi-annual groundwater monitoring and sampling program.

8.0 PROJECT AND REPORT LIMITATIONS

This was prepared on behalf of the Property Owner, James and Doris Cantore (Cantore Family Trust in c/o Mr. James L. Cantore) and submitted to the California RWQCB, Los Angeles Section, Attention: Mr. Arman Toumari as it pertains to the Moza Repair Site located at 1201 N. Mission Road, Los Angeles, California (Site).

The professional services were performed in a manner generally consistent with industry practices at the time the services were provided using that degree of care and skill ordinarily exercised under similar circumstances by other professional geologists and engineers practicing in this field. No other warranty, expressed or implied, is made.

The findings in this report are based on field observations and analytical data provided by an independent laboratory. Interpretations of the subsurface conditions at the site were made from these observations and data as well as limited number of data points from soil borings. Subsurface conditions may vary from these data points.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended for the client use under the scope of work of the project described herein. ENCON is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to the performance of these services. ENCON does not warrant the accuracy of information supplied by others, or the use of segregated portions of this report, or the reliance of this report by a third party.

If there are any questions concerning any portions of this report, please contact Dinesh Rao Senior Project Manager at (562) 777-2200.

Prepared by,
ENCON Technologies Inc.

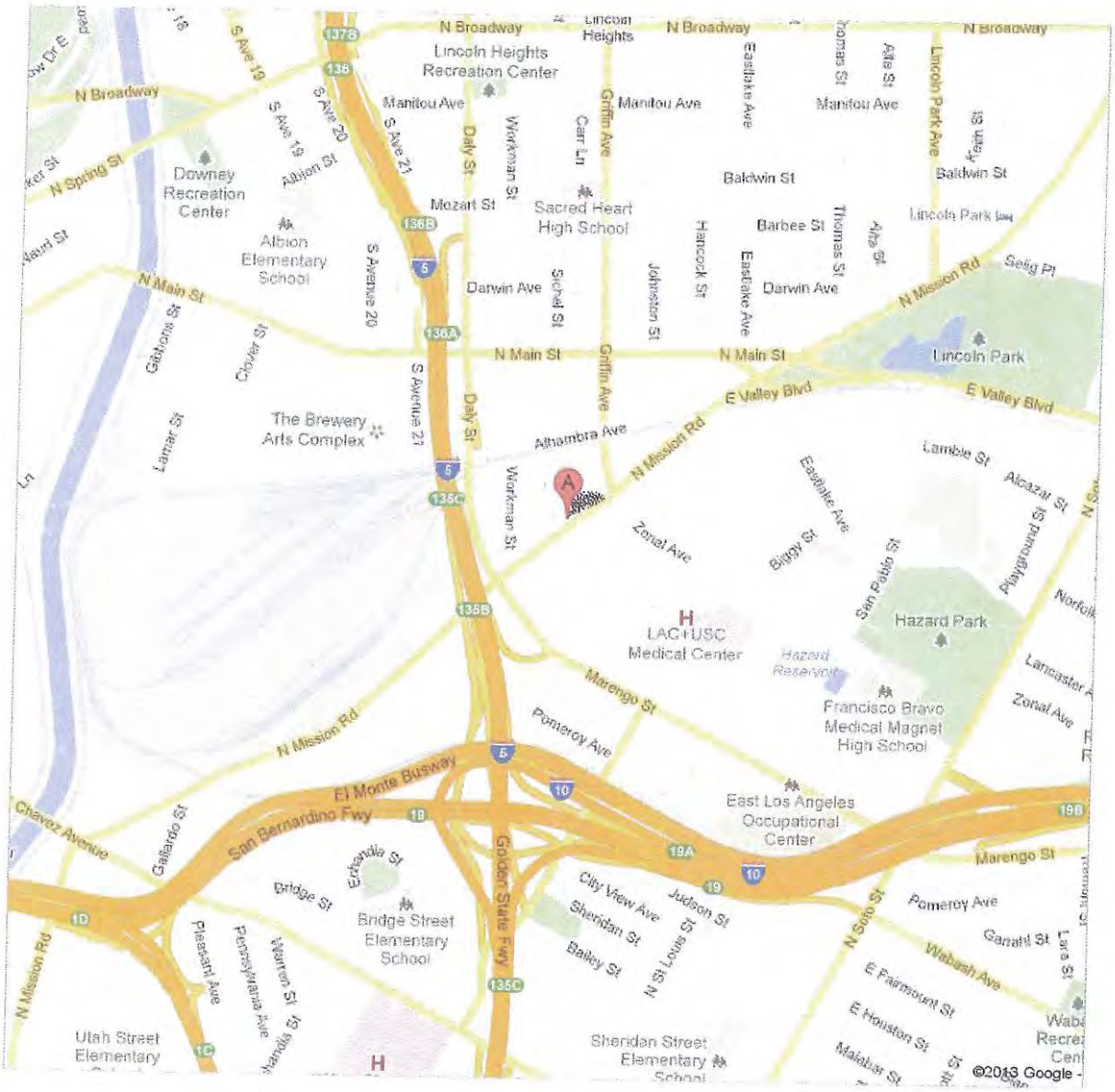
Dinesh Rao, ENCON Manager
Senior Project Manager

REGISTERED GEOLOGIST
PETER OLEH BABIJ
NO. 6679
OF CALIFORNIA

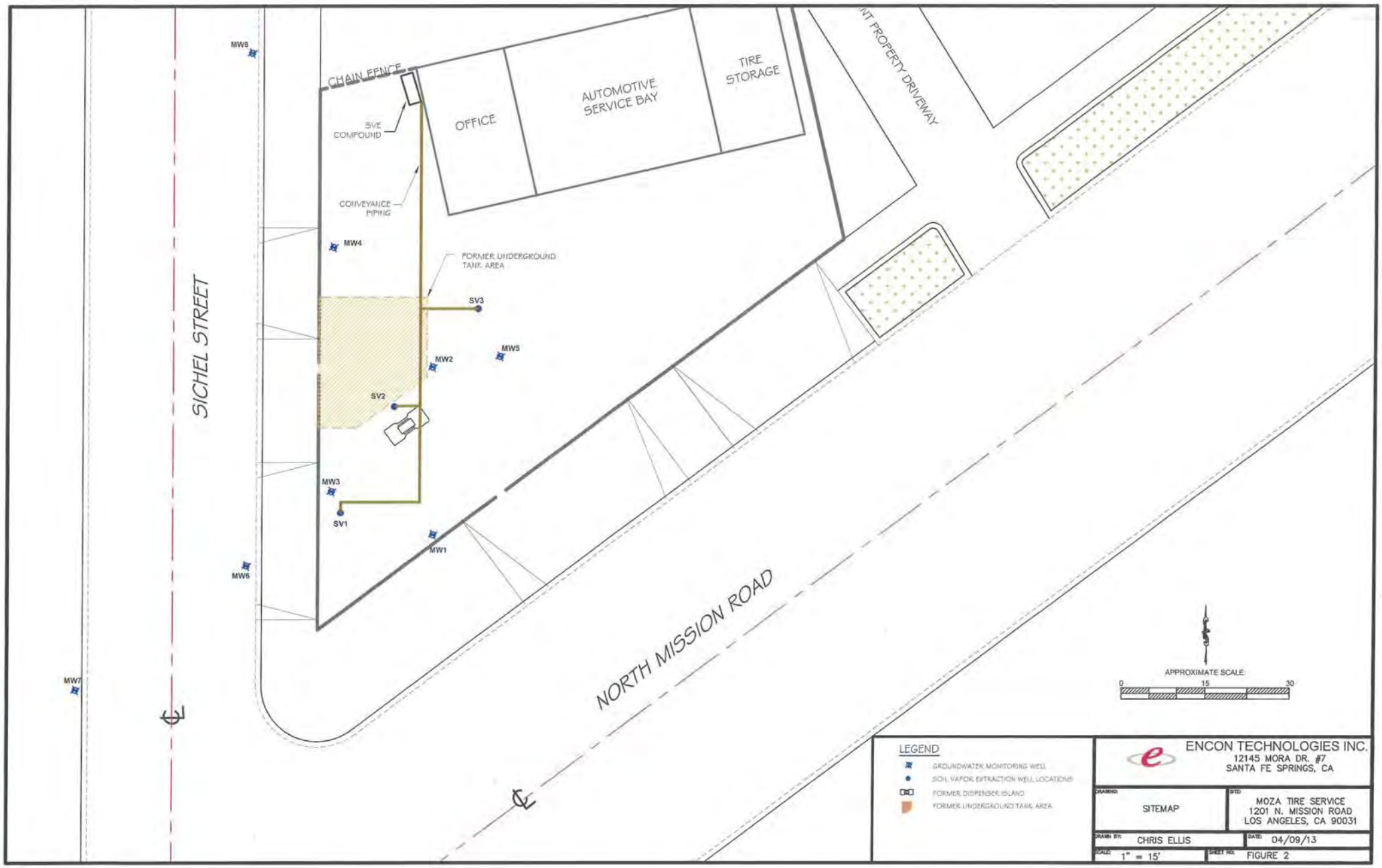
Pete Babij, ENCON Senior Geologist
California Registered Geologist, No. #6679

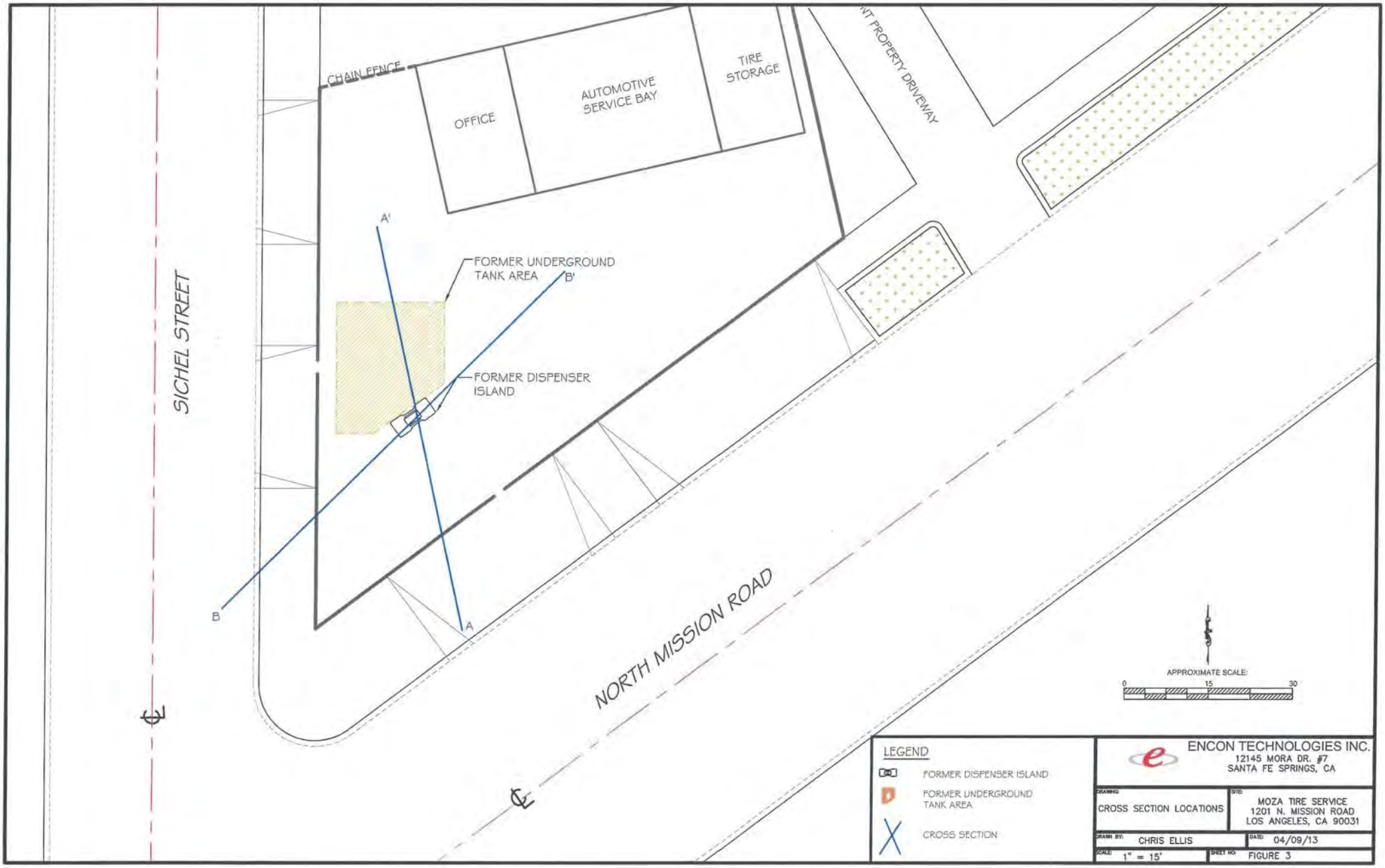
FIGURES

Figure 1	Site Vicinity Map
Figure 2	Site Map
Figure 3	Cross Section Locations
Figure 4	Cross Section AA'
Figure 5	Cross Section BB'



ENCON TECHNOLOGIES INC. 12145 MORA DR. #7 SANTA FE SPRINGS, CA	Site Vicinity Map 1201 N Mission Rd. Los Angeles, CA 90033	FIGURE 1 SCALE: DATE: 04/09/13


MW8
CHAIN FENCE
SVE COMPOUND
CONVEYANCE PIPING
OFFICE
AUTOMOTIVE SERVICE BAY
TIRE STORAGE
NT PROPERTY DRIVEWAY
MW4
FORMER UNDERGROUND TANK AREA
SV3
MW5
MW2
SV2
MW3
SV1
MW1
MW6
MW7
SICHEL STREET
NORTH MISSION ROAD
APPROXIMATE SCALE:
0
15
30
LEGEND
GROUNDWATER MONITORING WELL
SOIL VAPOR EXTRACTION WELL LOCATIONS
FORMER DISPENSER ISLAND
FORMER UNDERGROUND TANK AREA
ENCON TECHNOLOGIES INC.
12145 MORA DR. #7
SANTA FE SPRINGS, CA
DRAWING:
SITEMAP
SITE:
MOZA TIRE SERVICE
1201 N. MISSION ROAD
LOS ANGELES, CA 90031
DRAWN BY:
CHRIS ELLIS
DATE:
04/09/13
SCALE:
1" = 15'
SHEET NO.
FIGURE 2


CHAIN FENCE
OFFICE
AUTOMOTIVE SERVICE BAY
TIRE STORAGE
NT PROPERTY DRIVEWAY
A'
B'
FORMER UNDERGROUND TANK AREA
FORMER DISPENSER ISLAND
B
A
SICHEL STREET
NORTH MISSION ROAD
APPROXIMATE SCALE:
0
15
30
LEGEND
FORMER DISPENSER ISLAND
FORMER UNDERGROUND TANK AREA
CROSS SECTION
ENCON TECHNOLOGIES INC.
12145 MORA DR. #7
SANTA FE SPRINGS, CA
DRAWING:
CROSS SECTION LOCATIONS
SITE:
MOZA TIRE SERVICE
1201 N. MISSION ROAD
LOS ANGELES, CA 90031
DRAWN BY:
CHRIS ELLIS
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04/09/13
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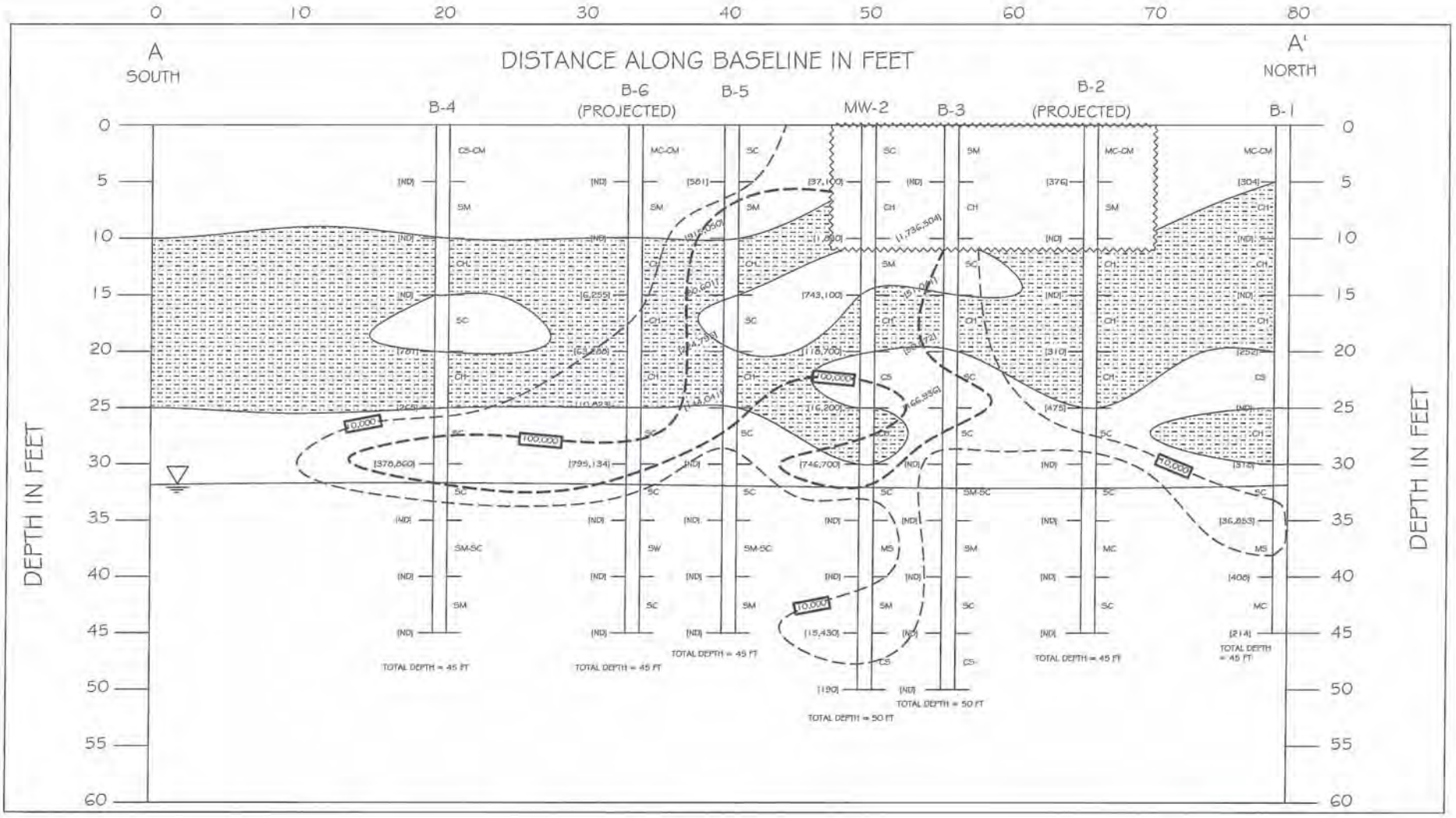
1" = 15'
SHEET NO:
FIGURE 3



LEGEND

(1,2) CONCENTRATION OF TPHg (in ug/kg, ND- not detected above laboratory limit)

100,000 CONTOUR OF TPHg-IMPACTED SOIL

FORMER TANK PIT (FILL)

CL	CLAY (CH)	MC	CLAYEY SILT	MC-CL	CLAYEY SILT TO SILTY CLAY
SM	SILTY SAND	SC-SM	CLAYEY SILTY SAND	MS	SANDY SILT
SC	CLAYEY SAND	CS	SANDY CLAY	SW	WELL-GRADED SAND

ENCON TECHNOLOGIES INC.
12145 MORA DR. #7
SANTA FE SPRINGS, CA

DRAWING: CROSS SECTION AA'

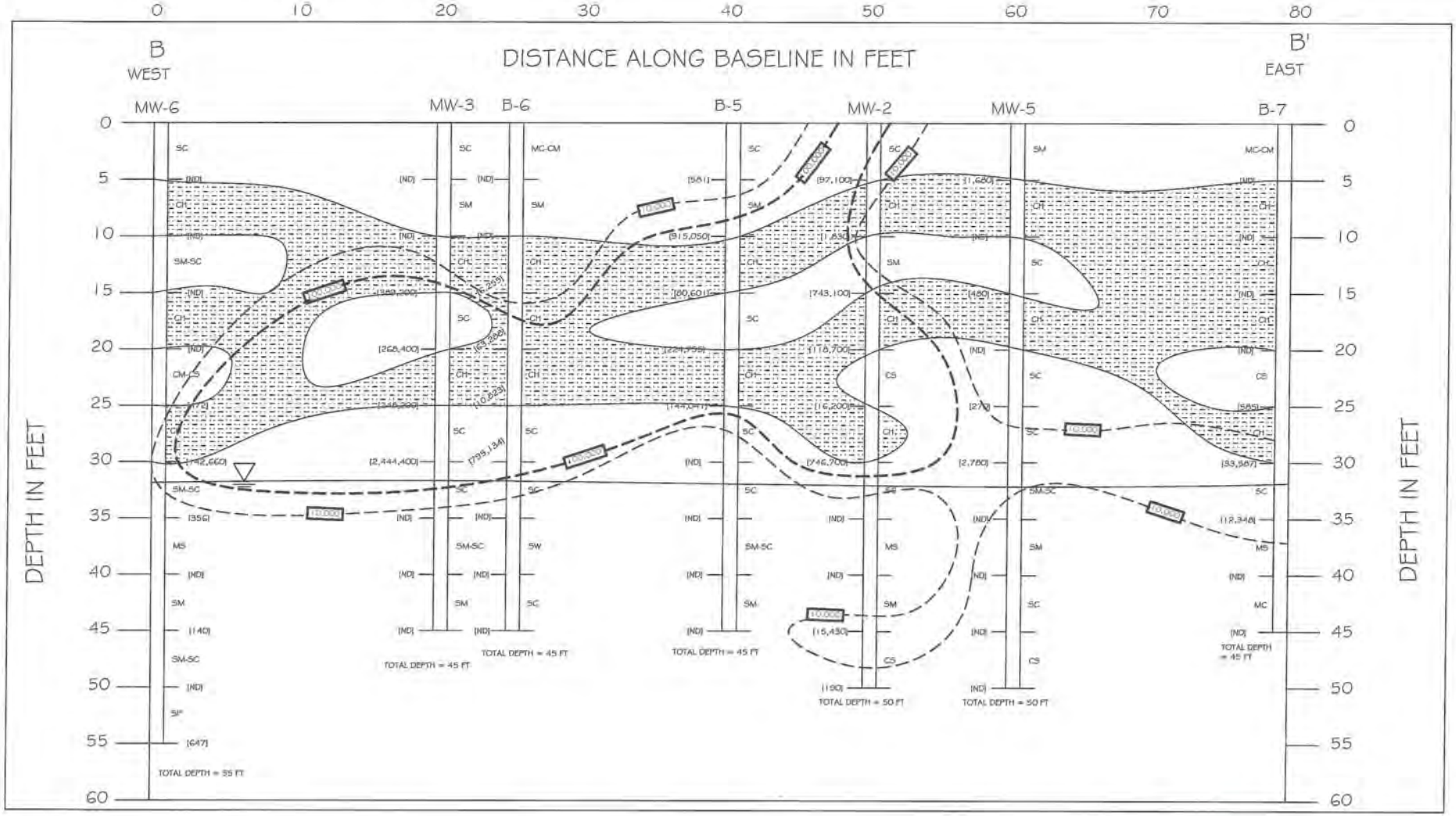
SITE: MOZA TIRE SERVICE
1201 N. MISSION ROAD
LOS ANGELES, CA 90031

DRAWN BY: TIFFANY RIVERA

DATE: 04/09/13

SCALE: SEE DETAIL

SHEET NO.: FIGURE 4



LEGEND

(1.2)	CONCENTRATION OF TPHg (in ug/kg, ND- not detected above laboratory limit)	CLAY (CH)	MC	CLAYEY SILT	MC-CM	CLAYEY SILT TO SILTY CLAY
10,000	CONTOUR OF TPHg-IMPACTED SOIL	SM	SILTY SAND	SM-SC	CLAYEY SILTY SAND	MS	SANDY SILT
	POORLY-GRADED SAND	SC	CLAYEY SAND	CS	SANDY CLAY	SW	WELL-GRADED SAND

ENCON TECHNOLOGIES INC.
12145 MORA DR. #7
SANTA FE SPRINGS, CA

DRAWING: CROSS SECTION BB'	SITE: MOZA TIRE SERVICE 1201 N. MISSION ROAD LOS ANGELES, CA 90031
DRAWN BY: TIFFANY RIVERA	DATE: 04/09/13
SCALE: SEE DETAIL	SHEET NO: FIGURE 5

TABLES

Table 1	Summary of Vapor Sample Results during Treatment Event #1
Table 2	TPHg Mass Removal Quantities

Table 1. Summary of Vapor Sample Results during Treatment Event #1
Moza Automotive Repair and Tire Center
1201 North Mission Road, Los Angeles, CA 90031

Date Sampled	Sample Identification	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
3/6/2013	1A	88,912.77	2,028.36	28.62	433.46	201.21	32.00
3/6/2013	1B	13,660.28	63.60	4.80	200.86	19.05	11.02
3/6/2013	2A	83,700.11	1,082.18	16.68	426.68	96.02	ND
3/6/2013	2B	4,284.05	10.12	3.36	56.54	9.98	ND
3/6/2013	3A	85,182.61	321.10	12.77	274.12	54.25	136.00
3/6/2013	3B	17,862.80	19.62	3.46	57.23	7.23	68.84
3/8/2013	INFLUENT	19,927.66	295.11	7.92	111.66	43.79	34.00
3/12/2013	INFLUENT	16,943.85	222.09	9.02	119.00	49.79	29.13
3/13/2013	INFLUENT (3/13)	12,056.18	155.64	13.88	52.98	23.92	37.55
3/14/2013	INFLUENT (3/14)	9,848.75	122.44	14.16	62.77	29.39	34.48
3/15/2013	INFLUENT (3/15)	7,203.78	75.11	1.90	59.76	26.79	17.01
3/18/2013	INFLUENT (3/18)	10,637.80	108.98	3.81	92.65	43.65	22.20
3/19/2013	INFLUENT (3/19)	6,713.86	66.54	2.07	74.06	39.88	16.33
3/20/2013	INFLUENT (3/20)	4,241.52	43.89	2.23	30.35	16.34	4.73
3/21/2013	INFLUENT (3/21)	4,730.30	49.51	2.16	45.62	27.36	17.16
3/22/2013	INFLUENT (3/22)	3,541.38	30.39	2.12	32.88	21.08	10.71
3/25/2013	INFLUENT	5,073.94	48.22	1.85	44.21	28.60	14.82
3/26/2013	INFLUENT	5,532.19	44.66	1.19	45.13	28.74	14.58
3/27/2013	INFLUENT	3,568.50	25.82	1.26	35.13	23.71	8.61
3/28/2013	INFLUENT (3/28)	3,228.71	24.59	0.90	26.93	19.11	9.43
3/29/2013	INFLUENT (3/29)	3,408.04	29.68	0.99	34.89	25.83	11.38
3/29/2013	1A	27,930.88	275.77	2.77	122.06	42.89	ND
3/29/2013	1B	2,048.61	2.95	0.32	9.22	4.97	ND
3/29/2013	2A	26,642.39	267.38	1.79	183.04	104.53	9.93
3/29/2013	2B	4,637.79	1.71	ND	43.73	22.19	ND
3/29/2013	3A	28,651.03	304.05	2.54	184.18	40.57	100.67
3/29/2013	3B	1,872.65	11.67	0.44	36.57	38.38	24.24

Notes:
ND - not detected above the laboratory reporting limit
TPHg - total petroleum hydrocarbons in the gasoline range
MTBE - methyl tertiary butyl ether
ug/L - micrograms per liter

Table 2. TPHg Mass Removal Quantities
Moza Automotive Repair and Tire Center
1201 North Mission Road, Los Angeles, CA 90031

Date	Operation Time (minutes)	Operation Time (days)	Flow (scfm)	Influent TPHg Concentration (ug/L)	TPHg Removed (pounds)	TPHg Removed (gallons)
3/6/13	195	0.14	379	48,934	221.01	34.53
3/8/2013	420	0.29	374	19,928	191.44	29.91
3/12/2013	490	0.34	374	16,944	189.57	29.62
3/13/2013	490	0.34	379	12,056	136.82	21.38
3/14/2013	480	0.33	379	9,849	109.42	17.10
3/15/2013	485	0.34	379	7,204	80.92	12.64
3/18/2013	490	0.34	379	10,638	120.73	18.86
3/19/2013	495	0.34	379	6,714	76.97	12.03
3/20/2013	495	0.34	379	4,242	48.63	7.60
3/21/2013	480	0.33	379	4,730	52.59	8.22
3/22/2013	495	0.34	378	3,541	40.48	6.33
3/25/2013	330	0.23	374	5,074	38.31	5.99
3/26/2013	480	0.33	376	5,532	61.08	9.54
3/27/2013	495	0.34	376	3,569	40.53	6.33
3/28/2013	495	0.34	376	3,229	36.72	5.74
3/29/2013	420	0.29	379	3,408	33.14	5.18
	Total Product Removed				1,478.36	230.99

Notes:
TPHg: total petroleum hydrocarbons in the gasoline range
scfm: Standard cubic feet per minute
ug/L: Micrograms per liter
TPHg concentration on 3/6/13 is based on average from individual manifolds

CHARTS

Chart 1	Influent TPHg Concentrations during Treatment Event #1
Chart 2	Influent Benzene Concentrations during Treatment Event #1

Chart 1. Influent TPHg Concentrations during Treatment Event #1
Moza Automotive Repair and Tire Center
1201 North Mission Road, Los Angeles, CA 90031

Date	Sample Identification	TPHg Concentration (ug/L)
3/8/2013	INFLUENT	19,927.66
3/12/2013	INFLUENT	16,943.85
3/13/2013	INFLUENT (3/13)	12,056.18
3/14/2013	INFLUENT (3/14)	9,848.75
3/15/2013	INFLUENT (3/15)	7,203.78
3/18/2013	INFLUENT (3/18)	10,637.80
3/19/2013	INFLUENT (3/19)	6,713.86
3/20/2013	INFLUENT (3/20)	4,241.52
3/21/2013	INFLUENT (3/21)	4,730.30
3/22/2013	INFLUENT (3/22)	3,541.38
3/25/2013	INFLUENT	5,073.94
3/26/2013	INFLUENT	5,532.19
3/27/2013	INFLUENT	3,568.50
3/28/2013	INFLUENT (3/28)	3,228.71
3/29/2013	INFLUENT (3/29)	3,408.04

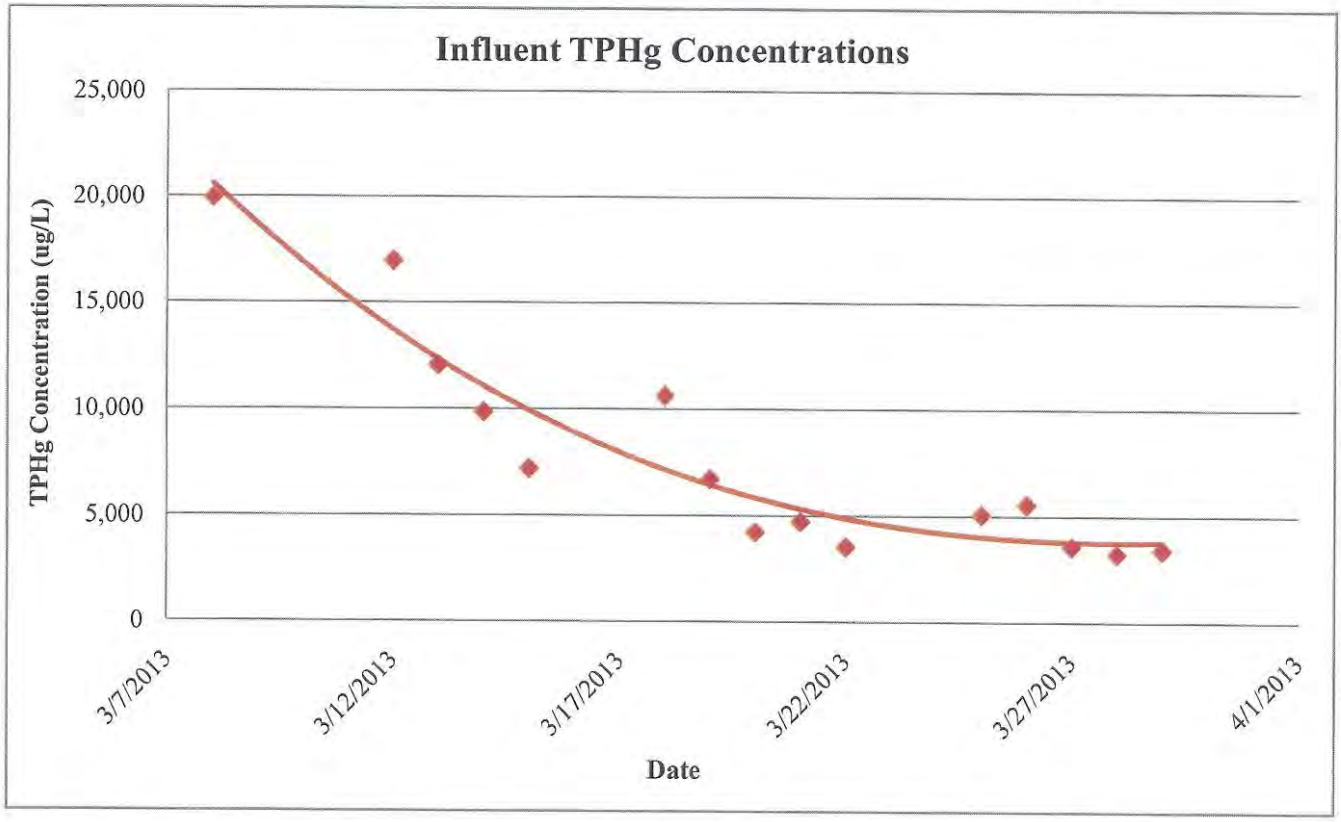


Chart 2. Influent Benzene Concentrations during Treatment Event #1
Moza Automotive Repair and Tire Center
1201 North Mission Road, Los Angeles, CA 90031

Date	Sample Identification	Benzene Concentration (ug/L)
3/8/2013	INFLUENT	295.11
3/12/2013	INFLUENT	222.09
3/13/2013	INFLUENT (3/13)	155.64
3/14/2013	INFLUENT (3/14)	122.44
3/15/2013	INFLUENT (3/15)	75.11
3/18/2013	INFLUENT (3/18)	108.98
3/19/2013	INFLUENT (3/19)	66.54
3/20/2013	INFLUENT (3/20)	43.89
3/21/2013	INFLUENT (3/21)	49.51
3/22/2013	INFLUENT (3/22)	30.39
3/25/2013	INFLUENT	48.22
3/26/2013	INFLUENT	44.66
3/27/2013	INFLUENT	25.82
3/28/2013	INFLUENT (3/28)	24.59
3/29/2013	INFLUENT (3/29)	29.68

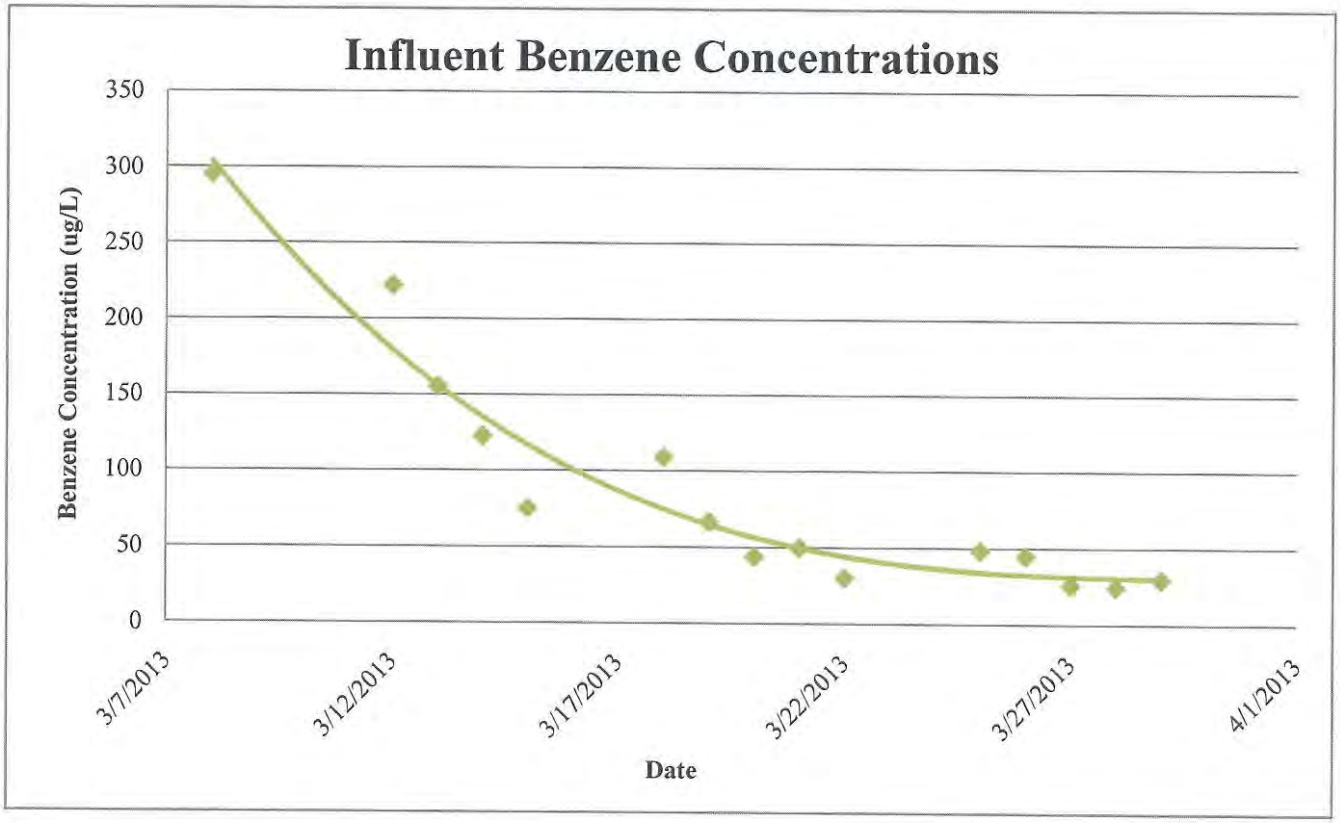


Exhibit A

LARWQCB Directive Letter

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

February 19, 2013

Cantore Family Trust
c/o: Mr. James L. Cantore
Attorney-in-fact
4036 Cranford Circle
San Jose, CA 95124

UNDERGROUND STORAGE TANK PROGRAM – DIRECTIVE TO TAKE CORRECTIVE ACTION IN RESPONSE TO UNAUTHORIZED UNDERGROUND STORAGE TANK RELEASE PURSUANT TO HEALTH AND SAFETY CODE SECTION 25296.10 AND TITLE 23, CHAPTER 16, CALIFORNIA CODE OF REGULATIONS, SECTIONS 2720-2727.
MOZA AUTO REPAIR AND TIRE (D-1 SITE)
1201 NORTH MISSION ROAD, LOS ANGELES, CA (FILE NO. 900330370)

Dear Mr. Cantore:

Pursuant to Health and Safety Code section 25296.10, you are required to take corrective action (i.e., Preliminary Site Assessment, Soil and Water Investigation, Corrective Action Plan Implementation, or Verification Monitoring) to ensure protection of human health, safety and the environment. Corrective action requirements are set forth in California Code of Regulations (CCR), title 23, Chapter 16, sections 2720 through 2727.

We are in receipt of the following reports:

- "Implementation of Soil Vapor Extraction as per Revised Remedial Action Plan" dated February 6 2013 (Request Letter)
- "Groundwater Extraction System Offsite Dissolved-Phase Hydrocarbon Plume Mitigation Program – Second Quarter 2012 Groundwater Skimming and Disposal Report" dated July 7, 2012 (Monitoring Report)
- "Updated Revised Remedial Action Plan Bucket Auger and Augmented VES Implementation Plan and Associated Cost Estimate Report" dated February 9, 2012 (Updated RAP)

These reports were prepared by your consultant, ENCON, in response to our letter dated April 20, 2011. This letter intends to provide Regional Board staff comments upon reviewing these reports.

Site Assessment and Remedial Action Update

The subject site is currently an automotive service station. In March 2002, four gasoline underground storage tanks (USTs) (one 10,000-gallon, one 7,500-gallon, one 6,000-gallon, and one 250-gallon waste oil tank) were removed from the site. The site contains eight groundwater monitoring wells (MW-1 through MW-8). Groundwater monitoring has been performed at the site since 2008. The last monitoring event performed on June 28, 2012 detected TPHg up to 328,165 µg/L, benzene up to 25,029 µg/L, and MTBE up to 1,076 µg/L in groundwater. The

highest concentrations of fuel constituents were detected at MW-2. Free product has been detected in various wells since 2009. No free product was observed during the last monitoring event. The depth to groundwater was about 31 ft below ground surface (bgs). The groundwater flow direction was towards the west.

Four groundwater extraction events have been implemented at the site, and approximately 1,485 gallons of groundwater have been removed from the subsurface.

Updated RAP Approval (Per CCR Title 23, §2726)

Our letter dated April 20, 2011 approved your remedial action plan dated May 15, 2010 in which ENCON proposed to employ targeted bucket auger remedial excavation to remove the contaminated soil beneath the former fuel dispensing area between grade surface and 30 ft bgs.

ENCON in the "Updated RAP" proposed to supplement the May 15, 2010 remedial action plan and include multi-phase extraction method to address the residual contamination in the vadose zone and highly affected saturated zone. However, ENCON in its "Request Letter" indicated that the bucket auger remedial excavation method would require backfilling with pea gravel which would render future construction unsafe and restricted use as per Los Angeles Building and Safety regulations as well as potentially causing break-through soil boring conditions that may de-stabilize the area. Although backfilling the auger holes with concrete would eliminate the safety and break-through risks, it would raise the cost significantly to make this option economically unfeasible.

As such, the "Request Letter" proposed to implement a soil vapor extraction (SVE) pilot test to evaluate the feasibility of removing residual contamination in the soil in the source area with the highest dissolved-phase hydrocarbons concentrations in the vicinity of wells MW-2, MW-3, MW-5, and MW-6. If the SVE pilot test proves effective, it would further be combined with groundwater extraction to target the contamination in the saturated zone. Three SVE wells (SV-1 through SV-3) have been installed to a total depth of 35 feet bgs and screened between 10 to 22 feet bgs (shallow zone) and between 26 and 35 feet bgs (deep zone).

Regional Board staff has reviewed the "Request Letter" and concurs with implementing it with the following conditions:

1. A technical report detailing the results of the pilot test must be submitted to this Regional Board by **April 15, 2013** and must include, at a minimum, the following items:

   - Scaled map showing the location of all wells.
   - Air flow and vacuum readings.
   - Radius of influence for each extraction well.
   - Cross section profiles showing the extraction wells, contaminant plume concentration, and lithologic information.
   - Undiluted influent concentrations and concentrations at each vapor extraction well.
   - Effluent concentrations.
   - Hours of system operation.
   - Analytical test results in µg/L, including QA/QC data.
   - Tabular and graphical summaries of contamination removed versus time.
   - Contamination mass removal rates and cumulative mass remove.
   - Groundwater elevation measurements.
   - Copies of all necessary permits from appropriate agencies.

- Volume of free product and groundwater removed and the disposal facility.
- Supporting calculations, data interpretation, and conclusions.

2. Based on the pilot test results, a final remedial action plan (RAP) must be submitted to this Regional Board. The RAP must evaluate the effectiveness of the pilot test, recommend the most viable remedial alternative for the subject site, and provide an implementation schedule.

Groundwater Monitoring Requirements (Per CCR Title 23, §2725)

To monitor groundwater conditions at the site, semi-annual groundwater monitoring program must be continued and must comply with the following requirements:

1. All wells must be monitored according to the following schedule with the next monitoring report due by **July 15, 2013**.

Reporting Period	Sampling Period	Report Due Date
January – June	April – June	July 15th
July – December	October – December	January 15th

2. Groundwater samples must be analyzed by Cal-LUFT GC/FID or Cal-LUFT GC/MS Method for total petroleum hydrocarbons as gasoline (TPHG), total petroleum hydrocarbons as diesel (TPHD) when diesel is identified at the site; and by EPA Method 8260B for benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, and fuel oxygenate compounds including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA). Ethanol is also required and shall be analyzed by either method above. The analytical detection limits must conform to the Regional Board General Laboratory Testing Requirements (9/06) (http://www.waterboards.ca.gov/losangeles/html/lab_report.html). All respective analytical methods must be certified by the California Environmental Laboratory Accreditation Program (ELAP). All analytical data must be reported by a California-certified laboratory.

3. In addition, each groundwater monitoring report must include the following:
   - A separate summary table containing current concentrations.
   - A summary table containing all historical data for each well with groundwater depth (or elevation) and well screen intervals.
   - A regional map depicting site vicinity business and street, etc.
   - A plan depicting site location, tank and associated system locations, all well locations and groundwater elevations (contour) with flow gradient and direction.
   - An isoconcentration map for TPH(g), benzene, MTBE, and TBA, respectively.
   - A hydrograph superimposing on concentration over time at the most impacted well for TPH(g), benzene and MTBE, and TBA (or at any other wells as warranted).

General Requirements

1. All reports must conform to the "Guidelines for Report Submittals" published by the Los Angeles County Department of Public Works.

2. The Contractor who conduct the environmental work as required in this Order shall, at all times,

comply with all applicable State laws, rules, regulations, and local ordinances specifically, including but not limited to, environmental, procurement and safety laws, rules, regulations, and ordinances. The Contractor shall obtain the services of a Professional Geologist or Engineer, Civil (PG/PE-Civil) to comply with the applicable requirements of the Business and Professions Code, sections 7800 et seq. implementing regulations for geological or engineering analysis and interpretation for this case. All documents prepared for others by the Contractor that reflect or rely upon geological or engineering interpretations by the Contractor shall be signed or stamped by the PG/PE-Civil indicating her/his responsibility for them as required by the Business and Professions Code.

3. Regional Board staff must be notified 15 days before start of any fieldwork.

4. Before fieldwork is started, all necessary permits must be obtained from the appropriate agencies.

If you have any questions on this matter, please call Mr. Arman Toumari at (213) 576-6708 or atoumari@waterboards.ca.gov.

Sincerely,

Yi Liu, Ph.D., P.G.
Chief of Los Angeles River Watershed Unit
Underground Storage Tank Section

cc: Kathy Jundt, SWRCB, Underground Storage Tank Cleanup Fund
Phuong Ly, Water Replenishment District of Southern California
Captain Matthew Gatewood, Los Angeles Fire Department
Dinesh Rao, ENCON

Exhibit B

Laboratory Analytical Reports

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 12, 2013

ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130306C

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 6, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 03/06/13
Date Analyzed: 03/07/13
Date Reported: 03/08/13
Unit Reported: ug/L

C&E LAB ID	130306C-1	130306C-2	130306C-3	130306C-4	130306C-5
SAMPLE ID	1A	1B	2A	2B	3A
DF	5	2	5	2	5

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.25	ND	0.10	ND	0.25	ND	0.10	ND	0.25
Tertiary Amyl Methyl Ether	ND	0.25	ND	0.10	ND	0.25	ND	0.10	ND	0.25
Diisopropyl Ether	ND	0.25	ND	0.10	ND	0.25	ND	0.10	ND	0.25
Tertiary Butyl Alcohol	ND	0.50	ND	0.20	ND	0.50	ND	0.20	ND	0.50
MTBE	32.00	0.25	11.02	0.10	ND	0.25	ND	0.10	136.00	0.25
Benzene	2028.36	0.25	63.30	0.10	1082.18	0.25	10.12	0.10	321.10	0.25
Toluene	28.62	0.25	4.80	0.10	16.68	0.25	3.36	0.10	12.77	0.25
Ethylbenzene	433.46	0.25	200.86	0.10	426.68	0.25	56.54	0.10	274.12	0.25
Xylenes	201.21	0.25	19.05	0.10	96.02	0.25	9.98	0.10	54.25	0.25
Gasoline	88912.77	2.50	13660.28	1.00	83700.11	2.50	4284.05	1.00	85182.61	2.50

% Surrogate Recoveries (70-130)	113	105	110	106	109

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 03/06/13
Date Analyzed: 03/07/13
Date Reported: 03/08/13
Unit Reported: ug/L

C&E LAB ID	130306C-6				
SAMPLE ID	3B				
DF	2				

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.10								
Tertiary Amyl Methyl Ether	ND	0.10								
Diisopropyl Ether	ND	0.10								
Tertiary Butyl Alcohol	ND	0.20								
MTBE	68.84	0.10								
Benzene	19.62	0.10								
Toluene	3.46	0.10								
Ethylbenzene	57.23	0.10								
Xylenes	7.23	0.10								
Gasoline	17862.80	1.00								

% Surrogate Recoveries (70-130)	107				

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/07/13
LCS ID: B/O130307LC

ANALYTE	LCS %	ACP %CL
DIPE	105	70-130
ETBE	90	70-130
Benzene	100	70-130
Toluene	100	70-130
Ethylbenzene	105	70-130
Xylenes	105	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/07/13
QC Batch #: B/O130307MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	108	108	0	70-130	20
ETBE	90	90	0	70-130	20
Benzene	100	98	2	70-130	20
Toluene	100	103	3	70-130	20
Ethylbenzene	105	105	0	70-130	20
Xylenes	103	105	2	70-130	20

III. Method Blank

Date Analyzed: 03/07/13

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	106

ND = Not detected at the indicated reporting limit.

CHAIN OF CUSTODY RECORD

EMICAL & ENVIRONMENTAL LABORATORIES, INC.

· Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

C&E LAB ID: 130308 R

Company Name: Encon
Project Manager: Joe S
roject No./Name: Moza Tire
l: 562) 777-2200 Fax:
Site Address: 1201 N. Mission Rd, Los Angeles, CA
Sampled By: Steve Kirby

Page 1 of 1

Sample Conditions: __ Chilled __ Seals Intact

Turn Around Time Desired: (Normal) / Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
Influent	3-8-13	1000	Air	1 Ltr	X				X						

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) Yes No
	3-8-13 405		3/8/13 1405	EDF Global ID No.: T
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 12, 2013

ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130308B

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 8, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 03/04/13
Date Analyzed: 03/08/13
Date Reported: 03/12/13
Unit Reported: ug/L

C&E LAB ID	130308B				
SAMPLE ID	INFLUENT				
DF	5				

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.25								
Tertiary Amyl Methyl Ether	ND	0.25								
Diisopropyl Ether	ND	0.25								
Tertiary Butyl Alcohol	ND	0.50								
MTBE	34.00	0.25								
Benzene	295.11	0.25								
Toluene	7.92	0.25								
Ethylbenzene	111.66	0.25								
Xylenes	43.79	0.25								
Gasoline	19927.66	2.50								

% Surrogate Recoveries (70-130)	101				

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/08/13
LCS ID: B/O130308LC

ANALYTE	LCS %	ACP %CL
DIPE	105	70-130
ETBE	83	70-130
Benzene	95	70-130
Toluene	98	70-130
Ethylbenzene	103	70-130
Xylenes	103	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/08/13
QC Batch #: B/O130308MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	103	100	3	70-130	20
ETBE	83	85	2	70-130	20
Benzene	93	93	0	70-130	20
Toluene	95	95	0	70-130	20
Ethylbenzene	100	100	0	70-130	20
Xylenes	100	100	0	70-130	20

III. Method Blank

Date Analyzed: 03/08/13

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	104

ND = Not detected at the indicated reporting limit.

13824 Bentley Place, Cerritos, CA 90703 Tel: 562 926-8091, Fax: 562 926-5940

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 18, 2013 ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130312D

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 12, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 03/12/13
Date Analyzed: 03/12/13
Date Reported: 03/13/13
Unit Reported: ug/L

C&E LAB ID	130312D				
SAMPLE ID	INFLUENT				
DF	5				

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.25								
Tertiary Amyl Methyl Ether	ND	0.25								
Diisopropyl Ether	ND	0.25								
Tertiary Butyl Alcohol	ND	0.50								
MTBE	29.13	0.25								
Benzene	222.09	0.25								
Toluene	9.02	0.25								
Ethylbenzene	119.00	0.25								
Xylenes	49.79	0.25								
Gasoline	16943.85	2.50								

% Surrogate Recoveries (70-130)	100				

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/12/13
LCS ID: B/O130312LC

ANALYTE	LCS %	ACP %CL
DIPE	100	70-130
ETBE	90	70-130
Benzene	100	70-130
Toluene	105	70-130
Ethylbenzene	105	70-130
Xylenes	105	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/12/13
QC Batch #: B/O130312MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	100	103	3	70-130	20
ETBE	93	93	0	70-130	20
Benzene	100	103	3	70-130	20
Toluene	103	105	2	70-130	20
Ethylbenzene	105	105	0	70-130	20
Xylenes	105	108	3	70-130	20

III. Method Blank

Date Analyzed: 03/12/13

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	96

ND = Not detected at the indicated reporting limit.

13824 Bentley Place, Cerritos, CA 90703 Tel: 562 926-8091, Fax: 562 926-5940

CHAIN OF CUSTODY RECORD

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

13824 Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

C&E LAB ID: 130312D

Company Name: Encon
Project Manager: Joe G.
Project No./Name: Moza Tire
Tel: 562)777-2200 Fax:

Site Address: 1201 N. Mission Rd Los Angeles, CA.
Sampled By: Steve Kirby

Page 1 of 1

Sample Conditions: __ Chilled __ Seals Intact

Turn Around Time Desired: (Normal) / Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
Influent	3-12-13	1215	Air	1 Ltr Bag	X				X						

Relinquished By: [signature] Date/Time: 3-12-13 @ 1615 Received By: [signature]

Relinquished By: Date/Time: Received By:

Date/Time: 3/12/13 1615

EDF Required: (circle) Yes No

EDF Global ID No.: T

Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 22, 2013 ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130314B

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 14, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 3/13~3/14/13
Date Analyzed: 03/15/13
Date Reported: 03/18/13
Unit Reported: ug/L

C&E LAB ID	130314B-1	130314B-2	130314B-3		
SAMPLE ID	INFLUENT(3/13)	EFFLUENT	INFLUENT(3/14)		
DF	5	1	5		

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.25	ND	0.05	ND	0.25				
Tertiary Amyl Methyl Ether	ND	0.25	ND	0.05	ND	0.25				
Diisopropyl Ether	ND	0.25	ND	0.05	ND	0.25				
Tertiary Butyl Alcohol	ND	0.50	ND	0.10	ND	0.50				
MTBE	37.55	0.25	ND	0.05	34.48	0.25				
Benzene	155.64	0.25	ND	0.05	122.44	0.25				
Toluene	13.88	0.25	ND	0.05	14.16	0.25				
Ethylbenzene	52.98	0.25	ND	0.05	62.77	0.25				
Xylenes	23.92	0.25	ND	0.05	29.39	0.25				
Gasoline	12056.18	2.50	ND	0.50	9848.75	2.50				

% Surrogate Recoveries (70-130)	99	98	98		

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/15/13
LCS ID: B/O130315LC

ANALYTE	LCS %	ACP %CL
DIPE	103	70-130
ETBE	110	70-130
Benzene	88	70-130
Toluene	90	70-130
Ethylbenzene	98	70-130
Xylenes	98	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/15/13
QC Batch #: B/O130315MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	100	98	2	70-130	20
ETBE	110	108	2	70-130	20
Benzene	88	85	3	70-130	20
Toluene	88	88	0	70-130	20
Ethylbenzene	98	95	3	70-130	20
Xylenes	98	95	3	70-130	20

III. Method Blank

Date Analyzed: 03/15/13

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	95

ND = Not detected at the indicated reporting limit.

13824 Bentley Place, Cerritos, CA 90703 Tel: 562 926-8091, Fax: 562 926-5940

CHAIN OF CUSTODY RECORD

EMICAL & ENVIRONMENTAL LABORATORIES, INC.
'4 Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

C&E LAB ID: 130314B

Company Name: Encon
Project Manager: Joe S.
Project No./Name: Moza Tire
el: 562) 777-2200 Fax:

Site Address: 1201 N. Mission Rd
Los Angeles, Ca.
Sampled By: Steve Kirby

Page 1 of 1
Sample Conditions
__ Chilled __ Seals Intact
Turn Around Time Desired
(Normal) / Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
Influent	3-13-13	1030	Air	1Lt Bag	X				X						
Effluent	↓	1025	↓	↓	X				X						
Influent	3-14-13	1300	Air	1Lt Bag	X				X						

Relinquished By: [signature] Date/Time: 3/14/13 @1605 Received By: Date/Time: EDF Required: (circle) Yes No
Relinquished By: Date/Time: Received By: Date/Time: 3/13/13 1605 EDF Global ID No.: T
Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 21, 2013

ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130319C

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 19, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 3/15~3/19/13
Date Analyzed: 03/20/13
Date Reported: 03/21/13
Unit Reported: ug/L

C&E LAB ID	1303219C-1	1303219C-2	1303219C-3		
SAMPLE ID	INFLUENT(3/15)	INFLUENT(3/18)	INFLUENT(3/19)		
DF	1	2	1		

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.05	ND	0.10	ND	0.05				
Tertiary Amyl Methyl Ether	ND	0.05	ND	0.10	ND	0.05				
Diisopropyl Ether	ND	0.05	ND	0.10	ND	0.05				
Tertiary Butyl Alcohol	ND	0.10	ND	0.20	ND	0.10				
MTBE	17.01	0.05	22.20	0.10	16.33	0.05				
Benzene	75.11	0.05	108.98	0.10	66.54	0.05				
Toluene	1.90	0.05	3.81	0.10	2.07	0.05				
Ethylbenzene	59.76	0.05	92.65	0.10	74.06	0.05				
Xylenes	26.79	0.05	43.65	0.10	39.88	0.05				
Gasoline	7203.78	0.50	10637.80	1.00	6713.86	0.50				

% Surrogate Recoveries (70-130)	100	98	97		

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/20/13
LCS ID: B/O130320LC

ANALYTE	LCS %	ACP %CL
DIPE	100	70-130
ETBE	115	70-130
Benzene	85	70-130
Toluene	90	70-130
Ethylbenzene	98	70-130
Xylenes	100	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/20/13
QC Batch #: B/O130320MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	100	103	3	70-130	20
ETBE	118	118	0	70-130	20
Benzene	83	88	6	70-130	20
Toluene	88	115	27	70-130	20
Ethylbenzene	98	100	2	70-130	20
Xylenes	98	100	2	70-130	20

III. Method Blank

Date Analyzed: 03/20/13

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	98

ND = Not detected at the indicated reporting limit.

CHAIN OF CUSTODY RECORD

EMICAL & ENVIRONMENTAL LABORATORIES, INC.
:4 Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

C&E LAB ID: 130319C

Company Name: Encon
Project Manager: Joe S.
Project No./Name: Moza Tire
el: 562) 777-2200 Fax:
Site Address: 1201 N. Mission Rd. Los Angeles, Ca
Sampled By: Steve Kirby

Page 1 of 1
Sample Conditions: __ Chilled __ Seals Intact
Turn Around Time Desired: (Normal) / Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
Influent	3-15-13	1235	Air	1 Liter Bag	X				X						
Influent	3-18-13	0930	Air	1 Liter Bag	X				X						
Influent	3-19-13	1030	Air	1 Liter Bag	X				X						

nquished By: Date/Time: 3-19-13 @ 1405 Received By: Date/Time: 3/19/13 1405 EDF Required: (circle) Yes No
nquished By: Date/Time: Received By: Date/Time: EDF Global ID No.: T
Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 28, 2013

ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130325A

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 25, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 3/20~3/22/13
Date Analyzed: 03/25/13
Date Reported: 03/26/13
Unit Reported: ug/L

C&E LAB ID	130325A-1	130325A-2	130325A-3		
SAMPLE ID	INFLUENT(3/20)	INFLUENT(3/21)	INFLUENT(3/22)		
DF	1	1	1		

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.05	ND	0.05	ND	0.05				
Tertiary Amyl Methyl Ether	ND	0.05	ND	0.05	ND	0.05				
Diisopropyl Ether	ND	0.05	ND	0.05	ND	0.05				
Tertiary Butyl Alcohol	ND	0.10	ND	0.10	ND	0.10				
MTBE	4.73	0.05	17.16	0.05	10.71	0.05				
Benzene	43.89	0.05	49.51	0.05	30.39	0.05				
Toluene	2.23	0.05	2.16	0.05	2.12	0.05				
Ethylbenzene	30.35	0.05	45.62	0.05	32.88	0.05				
Xylenes	16.34	0.05	27.36	0.05	21.08	0.05				
Gasoline	4241.52	0.50	4730.30	0.50	3541.38	0.50				

% Surrogate Recoveries (70-130)	97	100	100		

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/25/13
LCS ID: B/O130325LC

ANALYTE	LCS %	ACP %CL
DIPE	103	70-130
ETBE	105	70-130
Benzene	105	70-130
Toluene	108	70-130
Ethylbenzene	110	70-130
Xylenes	110	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/25/13
QC Batch #: B/O130325MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	98	98	0	70-130	20
ETBE	100	100	0	70-130	20
Benzene	98	95	3	70-130	20
Toluene	98	98	0	70-130	20
Ethylbenzene	100	98	2	70-130	20
Xylenes	100	98	2	70-130	20

III. Method Blank

Date Analyzed: 03/25/13

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	97

ND = Not detected at the indicated reporting limit.

13824 Bentley Place, Cerritos, CA 90703 Tel: 562 926-8091, Fax: 562 926-5940

CHAIN OF CUSTODY RECORD

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: (562) 921-8123 Fax: (562) 921-7974

C&E LAB ID: 130325A

Company Name: Encon Technologies
Site Address: 1201 N. Mission Rd.
Project Manager: Joe Scataloni
Los Angeles, CA
Project No./Name: Moza Tire
Tel: 562-777-2200 Fax: 562-777-2201
Sampled By: Steve Kirby

Page 1 of 1

Sample Conditions: __ Chilled __ Seals Intact

Turn Around Time Desired: (Normal) Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD
Influent	3-20-13	0930	air	1 Liter Tedlar	X				X				
Influent	3-21-13	1130	air	"	X				X				
Influent	3-22-13	1030	air	"	X				X				

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) Yes No
	3/25/13 11:47am		3/25/13 1147	EDF Global ID No.: T
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 28, 2013

ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130325C

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 25, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 03/25/13
Date Analyzed: 03/25/13
Date Reported: 03/26/13
Unit Reported: ug/L

C&E LAB ID	130325C				
SAMPLE ID	INFLUENT				
DF	1				

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.05								
Tertiary Amyl Methyl Ether	ND	0.05								
Diisopropyl Ether	ND	0.05								
Tertiary Butyl Alcohol	ND	0.10								
MTBE	14.82	0.05								
Benzene	48.22	0.05								
Toluene	1.85	0.05								
Ethylbenzene	44.21	0.05								
Xylenes	28.60	0.05								
Gasoline	5073.94	0.50								

% Surrogate Recoveries (70-130)	98				

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/25/13
LCS ID: B/O130325LC

ANALYTE	LCS %	ACP %CL
DIPE	103	70-130
ETBE	105	70-130
Benzene	105	70-130
Toluene	108	70-130
Ethylbenzene	110	70-130
Xylenes	110	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/25/13
QC Batch #: B/O130325MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	98	98	0	70-130	20
ETBE	100	100	0	70-130	20
Benzene	98	95	3	70-130	20
Toluene	98	98	0	70-130	20
Ethylbenzene	100	98	2	70-130	20
Xylenes	100	98	2	70-130	20

III. Method Blank

Date Analyzed: 03/25/13 Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	97

ND = Not detected at the indicated reporting limit.

13824 Bentley Place, Cerritos, CA 90703 Tel: 562 926-8091, Fax: 562 926-5940

CHAIN OF CUSTODY RECORD

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

13824 Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

C&E LAB ID: 130325C

Company Name: Encon
Project Manager: Joe S.
Project No./Name: Moza Tire
Tel: 562) 777-2200 Fax:

Site Address: 1201 N. Mission Rd
Los Angeles, Ca.
Sampled By: Steve Kirby

Page 1 of 1

Sample Conditions
__ Chilled __ Seals Intact

Turn Around Time Desired
(Normal) / Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
Influent	3-25-13	1000	Air	1	X				X						

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) Yes No
	3-25-13 1606		3/25/13 16:00	EDF Global ID No.: T
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

April 1, 2013

ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130327B

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 27, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

13824 Bentley Place, Cerritos, CA 90703 Tel: 562 926-8091, Fax: 562 926-5940

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 03/26/13
Date Analyzed: 03/28/13
Date Reported: 03/29/13
Unit Reported: ug/L

C&E LAB ID	130327B-1	130327B-2			
SAMPLE ID	EFFLUENT	INFLUENT			
DF	1	1			

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.05	ND	0.05						
Tertiary Amyl Methyl Ether	ND	0.05	ND	0.05						
Diisopropyl Ether	ND	0.05	ND	0.05						
Tertiary Butyl Alcohol	ND	0.10	ND	0.10						
MTBE	ND	0.05	14.58	0.05						
Benzene	ND	0.05	44.66	0.05						
Toluene	ND	0.05	1.19	0.05						
Ethylbenzene	ND	0.05	45.13	0.05						
Xylenes	ND	0.05	28.74	0.05						
Gasoline	ND	0.50	5532.19	0.50						

% Surrogate Recoveries (70-130)	95	97			

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/28/13
LCS ID: B/O130328LC

ANALYTE	LCS %	ACP %CL
DIPE	103	70-130
ETBE	103	70-130
Benzene	103	70-130
Toluene	100	70-130
Ethylbenzene	105	70-130
Xylenes	105	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/28/13
QC Batch #: B/O130328MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	100	100	0	70-130	20
ETBE	100	100	0	70-130	20
Benzene	103	100	3	70-130	20
Toluene	100	100	0	70-130	20
Ethylbenzene	103	98	5	70-130	20
Xylenes	103	100	3	70-130	20

III. Method Blank

Date Analyzed: 03/28/13

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	97

ND = Not detected at the indicated reporting limit.

CHAIN OF CUSTODY RECORD

C&E LAB ID: 130378

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

13824 Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

Company Name: Encon Technologies
Project Manager: Joe Scataloni
Project No./Name: Moza Tire
Tel: (562) 777-2200 Fax: (562) 777-2201

Site Address: 1201 N. Mission Rd.
Los Angeles, CA 90033
Sampled By: Steve Kirby

Page 1 of 1
Sample Conditions
__ Chilled __ Seals Intact
Turn Around Time Desired
(Normal) / Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
Effluent	3-26-13	9:15	Air	1/ liter bag	X				X						
Influent	↓	9:17	Air	↓	X				X						

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) Yes No
	3-27-13 C1630		3/27/13 16:30	EDF Global ID No.: T
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

April 1, 2013

ELAP Certificate No: 2268

Mr. Joe Scataloni
ENCON Technologies
12145 Mora Drive, Suite 7
Santa Fe Springs, CA 90670

Project: Moza Tire
C&E ID: 130327C

Dear Mr. Scataloni,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 27, 2013, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 03/27/13
Date Analyzed: 03/28/13
Date Reported: 03/29/13
Unit Reported: ug/L

C&E LAB ID	130327C				
SAMPLE ID	INFLUENT				
DF	1				

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.05								
Tertiary Amyl Methyl Ether	ND	0.05								
Diisopropyl Ether	ND	0.05								
Tertiary Butyl Alcohol	ND	0.10								
MTBE	8.61	0.05								
Benzene	25.82	0.05								
Toluene	1.26	0.05								
Ethylbenzene	35.13	0.05								
Xylenes	23.71	0.05								
Gasoline	3568.50	0.50								

% Surrogate Recoveries (70-130)	98				

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B (Gasoline/BTEX/Oxygenates) ---

I. Laboratory Control Sample

Date Analyzed: 03/28/13
LCS ID: B/O130328LC

ANALYTE	LCS %	ACP %CL
DIPE	103	70-130
ETBE	103	70-130
Benzene	103	70-130
Toluene	100	70-130
Ethylbenzene	105	70-130
Xylenes	105	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Analyzed: 03/28/13
QC Batch #: B/O130328MS

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
DIPE	100	100	0	70-130	20
ETBE	100	100	0	70-130	20
Benzene	103	100	3	70-130	20
Toluene	100	100	0	70-130	20
Ethylbenzene	103	98	5	70-130	20
Xylenes	103	100	3	70-130	20

III. Method Blank

Date Analyzed: 03/28/13 Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Ethyl Tertiary Butyl Ether	1	ND
Tertiary Amyl Methyl Ether	1	ND
Diisopropyl Ether	1	ND
Tertiary Butyl Alcohol	10	ND
MTBE	1	ND
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND

Surrogate Compounds	% Surr. Rec. (70-130)
4-Bromofluorobenzene	97

ND = Not detected at the indicated reporting limit.

CHAIN OF CUSTODY RECORD

C&E LAB ID: 130327C

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

13824 Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

Company Name: Encon Technologies
Project Manager: Joe Scataloni
Project No./Name: Moza Tire
Tel: (562) 777-2200 Fax: (562) 777-2201

Site Address: 1201 N. Mission Rd.
Los Angeles, CA 90033
Sampled By: Steve Kirby

Page 1 of 1

Sample Conditions
__ Chilled __ Seals Intact

Turn Around Time Desired
(Normal) / Same Day / 24hr / 48hr

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD		
Influent	3-27-13	0920	Air	1/ liter bag	X				X						

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) Yes No
	3-27-13 1630		3/27/13 1635	EDF Global ID No.: T
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 3/28~3/29/13
Date Analyzed: 04/02/13
Date Reported: 04/02/13
Unit Reported: ug/L

C&E LAB ID	130401A-1	130401A-2	130401A-3	130401A-4	130401A-5
SAMPLE ID	INFLUENT(3/28)	INFLUENT(3/29)	1A	1B	2A
DF	1	1	2	1	2

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.05	ND	0.05	ND	0.10	ND	0.05	ND	0.10
Tertiary Amyl Methyl Ether	ND	0.05	ND	0.05	ND	0.10	ND	0.05	ND	0.10
Diisopropyl Ether	ND	0.05	ND	0.05	ND	0.10	ND	0.05	ND	0.10
Tertiary Butyl Alcohol	ND	0.10	ND	0.10	ND	0.20	ND	0.10	ND	0.20
MTBE	9.43	0.05	11.38	0.05	ND	0.10	ND	0.05	9.93	0.10
Benzene	24.59	0.05	29.68	0.05	275.77	0.10	2.95	0.05	267.38	0.10
Toluene	0.90	0.05	0.99	0.05	2.77	0.10	0.32	0.05	1.79	0.10
Ethylbenzene	26.93	0.05	34.89	0.05	122.06	0.10	9.22	0.05	183.04	0.10
Xylenes	19.11	0.05	25.83	0.05	42.89	0.10	4.97	0.05	104.53	0.10
Gasoline	3228.71	0.50	3408.04	0.50	27930.88	1.00	2048.61	0.50	26642.39	1.00

% Surrogate Recoveries (70-130)	96	94	91	94	95

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- GC/MS(TPH-g)/EPA 8260B (BTEX/Oxygenates) ---

Client Name: Encon
Project Manager: Joe Scataloni
Project Name: Moza Tire
Sample Matrix: Vapor

Date Sampled: 3/28~3/29/13
Date Analyzed: 04/02/13
Date Reported: 04/02/13
Unit Reported: ug/L

C&E LAB ID	130401A-6	130401A-7	130401A-8		
SAMPLE ID	2B	3A	3B		
DF	1	2	1		

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Ethyl Tertiary Butyl Ether	ND	0.05	ND	0.10	ND	0.05				
Tertiary Amyl Methyl Ether	ND	0.05	ND	0.10	ND	0.05				
Diisopropyl Ether	ND	0.05	ND	0.10	ND	0.05				
Tertiary Butyl Alcohol	ND	0.10	ND	0.20	ND	0.10				
MTBE	ND	0.05	100.67	0.10	24.24	0.05				
Benzene	1.71	0.05	304.05	0.10	11.67	0.05				
Toluene	ND	0.05	2.54	0.10	0.44	0.05				
Ethylbenzene	43.73	0.05	184.18	0.10	36.57	0.05				
Xylenes	22.19	0.05	40.57	0.10	38.38	0.05				
Gasoline	4637.79	0.50	28651.03	1.00	1872.65	0.50				

% Surrogate Recoveries (70-130)	97	94	98		

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHAIN OF CUSTODY RECORD

C&E LAB ID: 130401 A

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.
13824 Bentley Place, Cerritos CA 90703 Tel: (562) 926-8091 Fax: (562) 926-5940

Company Name: Encon Technologies
Project Manager: Joe Scataloni
Project No./Name: Moza Tire
Tel: (562) 777-2200 Fax: (562) 777-2201

Site Address: 1201 N. Mission Rd.
Los Angeles, CA 90033
Sampled By: Steve Kirby

Page 1 of 1
Sample Conditions: __ Chilled __ Seals Intact
Turn Around Time Desired: (Normal) / Same Day / 24hr / 48hr

	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY	8260B VOC	CAM METALS	8270C SVOC	8010B LEAD		
1	Influent	3-28-13	1100	Air	1/ liter bag	X				X						
2	Influent	3-29-13	0955	Air	1/liter bag	X				X						
3	1A		1003			X				X						
4	1B		0957			X				X						
5	2A		1000			X				X						
6	2B		1002			X				X						
7	3A		1004			X				X						
8	3B		0959			X				X						

Relinquished By:	Date/Time:	Received By:	Date/Time:	EDF Required: (circle) Yes No
[signature]	3/29/13 @ 1430	[signature]	4/1/13 14:30	EDF Global ID No.: T
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:

Exhibit C

Daily VES Field Sheets

Encon Technologies
VES Field Sheet

Date: 3-6-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 10:15 Shut Down Time: ~~1330~~ 1130 Dilution 30% open Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1S ? Vac "Hg	1D Vac "Hg	2S Vac "Hg	2D Vac "Hg	3S Vac "Hg	3D Vac "Hg
1115	749	~~855~~	8"	609	10.2	379	6"	-	-	-	-	-
1723	780	~~860~~	10"	9999	0.0	379	7"	7	7	7	7	7
1315	770	855	10"	9999	0.5	379	7"	7"	7"	7"	7"	7"

Notes: @ 1130 All wells online. First hour of run only ran what we think is 1S. Dilution open 30%. Collected samples from all 6 wells.

Well #	PID Read
1A	9999
1B	9999
2A	9615
2B	4946
3A	3886
3B	3662

Encon Technologies
VES Field Sheet

Date: 3-7-13 Encon Tech: S. Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: Y (N)

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0630 Shut Down Time: 1430 Water Extracted: -0- (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	756	929	7"	>9999	0.0	379	8761	2023	>9999	>9999	3764	4880
0830	782	864	7"	167.1	0.0	379	426	104	>9999	5096	103	120
0930	770	850	10"	2595	40.1	379	>9999	974	>9999	>9999	>9999	3156
* 1030	800	856	7"	1.2	25.6	379	—	—	—	—	—	—
1130	805	850	8"	1536	35.8	379	325	450	>9999	694	3264	756
1230	800	843	7"	>9999	62.8	379	>9999	1971	>9999	>9999	>9999	>9999
1330	819	824	7"	>9999	65.4	379	>9999	3303	>9999	>9999	>9999	>9999
1430	816	824	7"	>9999	73.9	379	>9999	3806	>9999	>9999	>9999	>9999

Notes: Dilution open 28%

* At 1030 Low PID Read on Influent. Recalibrated PID and checked Influent again still reads 1.2 ppm. found Blockage in Vaccum pump removed Blockage from pump.

Encon Technologies
VES Field Sheet

Date: 3-8-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0700 Shut Down Time: 1400 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0800	750	830	7"	>9999	31.8	346	<9999	3177	<9999	<9999	<9999	<9999
0900	749	>769	5"	>9999	62.8	379	<9999	2486	<9999	<9999	<9999	<9999
1000	782	809	7"	>9999	57.1	379	<9999	2863	<9999	<9999	<9999	<9999
1100	775	799	7"	<9999	72.3	379	<9999	2731	<9999	<9999	<9999	<9999
1200	772	813	7"	<9999	70.1	379	<9999	4309	<9999	<9999	<9999	<9999
1300	780	821	8"	<9999	109.2	379	<9999	2659	<9999	<9999	<9999	<9999
1400	782	836	8	<9999	110.8	379	<9999	2850	<9999	<9999	<9999	<9999

Notes: 7" Hg at each well at the manifold.

MW-1 32.65
MW-2 32.53 ~ 32.57
MW-3 32.23
MW-5 32.54

Encon Technologies
VES Field Sheet

Date: 3-12-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0630 Shut Down Time: 1440 Water Extracted: 0 (Gal)

	VES System Dilution open 25%						Wells Online 6" HG at manifold					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	702	862	7"	<9999	36.1	379	<9999	3621	<9999	<9999	<9999	<9999
0830	738	829	8"	<9999	84.6	379	<9999	2869	<9999	<9999	<9999	<9999
0930	715	813	8"	<9999	93.5	379	<9999	2393	<9999	<9999	<9999	6023
1030	738	770	10"	<9999	131	336	<9999	1744	<9999	<9999	<9999	4876
1130	700	758	10"	<9999	86.3	379	<9999	1965	<9999	<9999	<9999	3480
1230	776	797	10"	<9999	96.3	379	<9999	1629	<9999	<9999	<9999	4671
1330	747	788	10"	<9999	70.4	379	<9999	1428	<9999	<9999	<9999	3746
1430	783	813	10"	<9999	77.9	379	<9999	1346	<9999	<9999	<9999	3622

Notes: Bailed MW-5 + MW-1. 1 Full Drum left on sit. Collected Influent Sample at 1215.

Encon Technologies
VES Field Sheet

Date: 3-13-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0620 Shut Down Time: 1430 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0720	754	843	7"	<9999	54.4	379	<9999	3885	<9999	<9999	<9999	<9999
0820	781	856	8"	<9999	110	379	<9999	3658	<9999	<9999	<9999	8807
0920	783	827	10"	<9999	118	379	<9999	2587	<9999	<9999	<9999	6858
1020	731	792	10"	<9999	101	379	<9999	1848	<9999	<9999	<9999	6683
1120	751	752	10	<9999	221	379	<9999	1505	<9999	<9999	<9999	6405
1220	759	724	10	9086	144	379	<9999	1417	Offline	Offline	<9999	5012
1320	774	790	10"	<9999	88.2	379	<9999	1206	<9999	<9999	<9999	3642
1420	750	770	10"	<9999	88.5	379	<9999	1100	<9999	<9999	<9999	4150

Notes: 7"Hg at manifold on well # 1A+B, 2A+B, & 3A+B. @ 1025 collected Effluent and Influent Samples. Took 2A+B offline for 1 hour to help reduce Effluent PPM. At 1230 Well 2A+B Back online. Dilution open 2%

Encon Technologies
VES Field Sheet

Date: 3-14-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0630 Shut Down Time: 1430 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	754	820	7"	>9999	21.4	379	>9999	1648	>9999	>9999	>9999	7937
0830	747	853	7"	>9999	47.0	379	>9999	1510	>9999	>9999	>9999	4987
0930	749	834	10"	>9999	340	379	>9999	1915	>9999	>9999	>9999	4528
1030	770	802	10"	>9999	358	379	>9999	1239	>9999	>9999	>9999	3869
1120	755	782	10"	>9999	349	379	>9999	1535	>9999	>9999	>9999	2704
1230	777	786	10"	>9999	45	379	>9999	1187	>9999	>9999	>9999	3367
1330	783	782	9"	>9999	252	378	>9999	1338	>9999	>9999	>9999	3941
1430	780	800	9"	>9999	45.4	378	>9999	1065	>9999	>9999	>9999	3064

Notes: Dilution open 30%

Encon Technologies
VES Field Sheet

Date: 3-15-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0625 Shut Down Time: 1430 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	733	829	7"	>9999	248	379	>9999	1692	>9999	>9999	>9999	3983
0830	752	811	7"	>9999	50.7	379	>9999	1124	>9999	>9999	>9999	4351
0930	741	829	10"	>9999	48.8	379	>9999	1039	>9999	>9999	>9999	4181
1030	754	825	10"	>9999	59.4	379	>9999	826	>9999	>9999	>9999	3681
1130	740	809	10"	>9999	85.1	379	>9999	967	>9999	>9999	>9999	3762
1230	780	909	10"	>9999	47.6	379	>9999	852	>9999	>9999	>9999	4432
1330	776	803	10"	>9999	25.5	379	>9999	1657	>9999	>9999	>9999	2794
1430	774	805	10	>9999	8.5	379	>9999	678	>9999	>9999	>9999	3060

Notes: Dilution open 26% Collected Influent Sample @ 1255

Encon Technologies
VES Field Sheet

Date: 3-18-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0630 Shut Down Time: 1440 Water Extracted: _____ (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	730	825	7"	>9999	101	379	>9999	917	>9999	>9999	>9999	4275
0930	730	829	7"	>9999	45.5	379	>9999	747	>9999	>9999	>9999	3184
0930	784	830	10"	>9999	102	379	>9999	1179	>9999	>9999	>9999	3851
1030	778	825	10"	>9999	80.2	379	>9999	660	>9999	>9999	>9999	3931
1130	738	817	10"	>9999	72.6	379	>9999	635	>9999	>9999	>9999	2745
1230	780	817	10"	>9999	79.4	379	>9999	931	>9999	>9999	>9999	3437
1330	740	809	10"	>9999	28.4	379	>9999	1038	>9999	>9999	>9999	3439
1430	776	809	10"	>9999	38.6	379	>9999	958	>9999	>9999	>9999	3375

Notes: Collected Influent Sample at 0930. Dilution open 25%. 7" Hg at each well on the manifold unable to read Vacuum at wellhead due to will being covered up with concrete.

Encon Technologies
VES Field Sheet

Date: 3-19-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0625 Shut Down Time: 1440 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	773	924	7"	>9999	14.4	379	>9999	902	>9999	>9999	>9999	4147
0830	780	831	8"	>9999	66.7	379	>9999	912	>9999	>9999	>9999	3649
0930	777	830	10"	>9999	30.4	379	>9999	771	>9999	>9999	79999	3744
1030	756	815	10"	>9999	20.6	379	>9999	887	>9999	>9999	>9999	4211
1130	752	928	12"	>9999	12.7	379	>9999	754	>9999	>9999	>9999	3387
1230	740	820	12"	>9999	13.3	379	>9999	710	>9999	>9999	>9999	2429
1330	755	821	12"	>9999	12.6	379	>9999	659	>9999	>9999	>9999	2152
1430	765	820	12"	>9999	0.0	379	>9999	845	>9999	>9999	>9999	3252

Notes: Dilution after 25"Hg. Vacuum at manifold is 26"Hg with 10" Hg at VES. Collected Influent Sample at 1030. Adjusted Vacuum from 10" Hg to 12" Hg Flow is 379 ft3/m. @ 1130

Encon Technologies
VES Field Sheet

Date: 3-20-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0625 Shut Down Time: 1440 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	768	832	10"	3204	0.0	379	>9999	693	>9999	>9999	>9999	3189
0830	770	854	12"	>9999	28.9	379	>9999	—	>9999	>9999	>9999	3180
0930	793	830	12"	4645	26.9	379	>9999	—	>9999	>9999	>9999	3170
1030	770	821	12"	2490	45.8	379	>9999	431	>9999	>9999	>9999	2196
1130	756	814	12"	2808	31.7	379	>9999	545	>9999	>9999	>9999	3173
1230	795	816	12"	5105	58.4	379	>9999	551	>9999	>9999	>9999	3680
1330	786	811	12"	5960	54.6	379	>9999	654	>9999	>9999	>9999	2988
1430	773	810	12"	6091	55.7	379	>9999	683	>9999	>9999	>9999	3037

Notes: Vacuum at manifold is 11" Hg Turned VCO 1B and adjusted Vacuum to 12" Hg Calibrated PID to 50 ppm Hex. 1B Back online @ 1000

Encon Technologies
VES Field Sheet

Date: 3-21-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0630 Shut Down Time: 1430 Water Extracted: ~9 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	755	813	7"	>9999	0.0	379	>9999	769	>9999	>9999	>9999	3082
0830	745	820	9"	6085	9.8	379	>9999	780	>9999	>9999	>9999	2177
0930	784	835	12.5"	9877	36.2	379	>9999	754	>9999	>9999	>9999	2833
1030	776	820	12.5	8751	53.6	379	>9999	1146	>9999	>9999	>9999	2941
1130	780	802	12.0	8433	27.9	379	>9999	861	>9999	>9999	>9999	2816
1230	777	798	12.0	>9999	21.3	379	>9999	915	>9999	>9999	>9999	2508
1330	784	805	12.0	>9999	10.3	379	>9999	1157	>9999	>9999	>9999	3373
1430	790	800	12	>9991	10.9	379	>9999	929	>9999	>9999	>9999	3210

Notes: Dilution ofen 22%. 8"Hg of Vacuum at manifold. Collected Influent Sample at 1130.

Encon Technologies
VES Field Sheet

Date: 3-22-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0620 Shut Down Time: 1435 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0730	730	796	7"	4468	0.0	379	>9999	1365	>9999	>9999	>9999	2874
0830	740	805	8"	7260	18.2	379	>9999	1365	>9999	>9999	>9999	3190
0930	740	805	9"	>9999	12.6	379	>9999	1166	>9999	>9999	>9999	3580
1030	757	809	10"	4286	13.1	370	>9999	1426	>9999	9999	>9999	2974
1130	760	797	10"	3256	10.3	379	>9999	1954	>9999	>9999	>9999	4435
1230	775	795	10"	5488	36.4	379	>9999	977	>9999	>9999	>9999	2487
1330	778	797	10	7836	38.1	379	>9999	980	>9999	>9999	>9999	2431
1430	782	799	10	7841	40.6	379	>9999	946	>9999	>9999	>9999	2412

Notes: Dilution upon 25% Influent Sample collected at 1030. Calibrated PID to 50 ppm Hexane.

Encon Technologies
VES Field Sheet

Date: 3-25-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0700 Shut Down Time: 1230 Water Extracted: _____ (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0800	755	800	7"	9295	9.5	379	>9999	769	>9999	9950	>9999	2584
0900	783	847	10"	9999	19.8	365	>9999	920	>9999	9999	>9999	2979
1000	778	849	12"	4621	48.9	379	>9999	1041	>9999	9987	>9999	3537
1100	754	838	12"	3159	22.5	379	>9999	1017	>9999	>9999	>9999	2173
1200	775	836	12"	2305	17.3	379	>9999	957	>9999	>9999	>9999	2355
1230												

Notes: Dilution Open 20%. Calibrated PID to 50 ppm Hexane. Vacuum at Manifold is 6"Hg and 10"H2O at WEG. PID reads are taken at manifold. Due to well head not at grade to top of well casing. Collected Influent Sample at 1000. Unit Shut down Due to fuel leak on Generator.

Encon Technologies
VES Field Sheet

Date: 3-26-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0615 Shut Down Time: 1430 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0715	785	850	10"	6259	0.0	377	>9999	1057	>9999	>9999	9999	2247
0815	745	846	10"	4414	74.2	379	>9999	1586	>9999	9915	>9999	2386
0915	782	846	10"	4731	0.0	379	>9999	1657	>9999	>9999	>9999	1600
1015	749	835	12"	>9999	19.8	379	>9999	987	>9999	9467	>9999	1364
1115	771	826	12"	>9999	79.5	379	>9999	1203	>9999	>9999	>9999	1421
1215	787	827	12"	9998	33.6	361	>9999	3384	>9999	>9999	>9999	3888
1315	760	810	10"	>9999	49.0	379	>9999	2250	>9999	>9999	>9999	3463
1415	750	778	10"	>9999	49.3	379	>9999	2089	>9999	>9999	>9999	3347

Notes: Dilution open 20%, Vacuum at Manifold is 7" Hg unable to take Vacuum at well head Due to access. Influent & Effluent samples collected at 0915 Influent 0917. PID was calibrated to 50 ppm Hexane.

Encon Technologies
VES Field Sheet

Date: 3-27-13 Encom Techt: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0615 Shut Down Time: 1430 Water Extracted: ~~0~~ (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0715	750	798	9"	>9999	0.0	379	>9999	3999	>9999	>9999	>9999	7093
0815	784	936	10"	>9999	36.0	379	>9999	2916	>9999	>9999	>9999	3107
0915	757	828	10"	4231	62.8	379	9998	3620	>9999	>9999	>9999	4712
1015	761	786	10"	8013	42.1	379	>9999	3338	>9999	9999	>9999	3450
1115	792	814	10"	9216	113	373	>9999	4266	>9999	>9999	>9999	4559
1215	792	409	10"	9899	24.1	374	>9999	4923	>9999	>9999	>9999	4075
1315	763	805	10	>9999	99.1	372	>9999	3960	>9999	>9999	>9999	2356
1415	783	803	10	>9999	72.6	371	>9999	3540	>9999	>9999	>9999	2461

Notes: Diluvion open 20%, calibrated PID to 50ppm Hex. Collected Influent Sample at 0930.

Encon Technologies
VES Field Sheet

Date: 3-28-13 Encon Tech: Steve Kirby

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0600 Shut Down Time: 1415 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0700	786	810	9"	>9999	12.6	374	>9999	2634	>9999	>9999	>9999	4760
0800	757	834	10"	2395	15.7	379	>9999	4460	>9999	>9999	>9999	2892
0900	790	840	12"	>9999	1.5	379	>9999	1983	>9999	>9999	>9999	1959
1000	757	820	12"	>9999	82.2	379	>9999	2391	>9999	9986	>9999	2540
1100	760	814	12"	>9999	33.5	379	>9999	3006	>9999	>9999	>9999	3530
1200	745	811	12"	>9999	22.6	365	>9999	2997	>9999	>9999	>9999	2233
1300	756	791	10"	>9999	21.1	379	>9999	2946	>9999	>9999	>9999	1263
1400	760	798	10"	>9999	26.3	374	>9999	2013	>9999	>9999	>9999	2241

Notes: Dilution over 70%. Calibrated PID to Same Values. Influent Sample Collected at 1100.

Encon Technologies
VES Field Sheet

Date: 3-29-13 Encon Tech: Steve K.

Site Name: Moza Tire

Site Address: 1201 N. Mission Rd. Los Angeles, Ca Influent Samples Collected: (Y) / N

System : 500MakoCat MIM292 Dual phase: _____ Single Phase: X

Start Up Time: 0600 Shut Down Time: 1300 Water Extracted: 0 (Gal)

	VES System						Wells Online					
Time	Temp In (F)	Temp Out (F)	Inlet Vac "Hg	Influent (PPM)	Effluent (PPM)	Flow ft3/m	1A PPM	1B PPM	2A PPM	2B PPM	3A PPM	3B PPM
0700	766	830	10"	>9999	56.1	378	>9999	3620	>9999	>9999	>9999	2993
0800	779	940	10"	>9999	0.0	379	>9999	3086	>9999	>9999	>9999	2491
0900	780	836	10"	>9999	13.0	379	>9999	3264	9187	>9999	>9999	2993
1000	751	820	10"	7651	52.4	379	>9999	4825	>9999	>9999	>9999	4043
1100	791	782	10"	>9999	58.3	379	>9999	4984	>9999	>9999	>9999	3809
1200	754	780	10"	>9999	62.1	379	>9999	4633	>9999	>9999	>9999	3821
1300	758	781	10"	>9999	62.5	379	>9999	4821	>9999	>9999	>9999	3429

Notes: Dilution open 20%. Maintance done while system was Running. Covered motor, Blowers & Vacuum inlet Valve and Dilution Valve. Collected influent Sample @ 0955. Also Collected Samples from each well 6 in total.

Exhibit D

Non-Hazardous Waste Manifest

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			13-10126

GENERATOR

5. Generator's Name and Mailing Address
James Cantore
~~Various Locations~~

Generator's Site Address (if different than mailing address)
1201 N Mission Road
Los Angeles, CA 90033

Generator's Phone:

6. Transporter 1 Company Name
ENCON Technologies, Inc.

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Crosby & Overton
1610 West 17th Street, Long Beach, CA 90813

U.S. EPA ID Number

Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Haz Liquid	1	Tote	275 G	G	
2.	Profile # 88819					
3.						
4.						

13. Special Handling Instructions and Additional Information
D78828 L#18964

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name
~~Various Locations~~ James Cantore

Signature
agent

Month 3 Day 21 Year 13

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name
ENCON Technologies, Inc.

Signature

Month Day Year

Transporter 2 Printed/Typed Name
Nathan Lambert

Signature

Month 3 Day 21 Year 13

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

4135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Reileza

Signature

Month 03 Day 21 Year 13

APPENDIX F

Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Inquiry Number: 3659410.4
July 09, 2013

EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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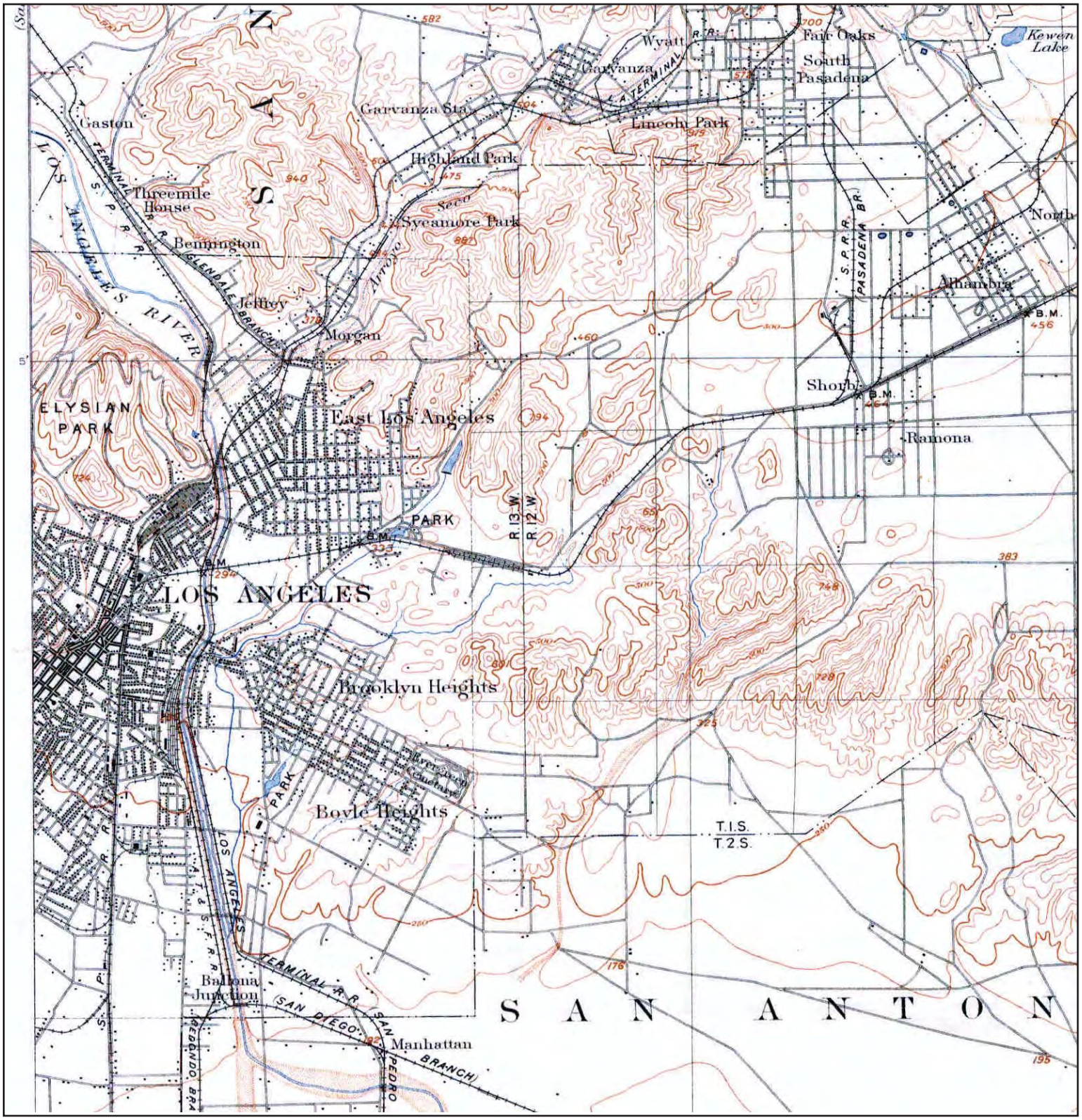
Historical Topographic Map

N	TARGET QUAD			
	NAME:	PASADENA	SITE NAME:	Lac Usc Phase I
	MAP YEAR:	1896	ADDRESS:	1200 N State Street
				Los Angeles, CA 90033
	SERIES:	15	LAT/LONG:	34.061 / -118.2114
	SCALE:	1:62500		

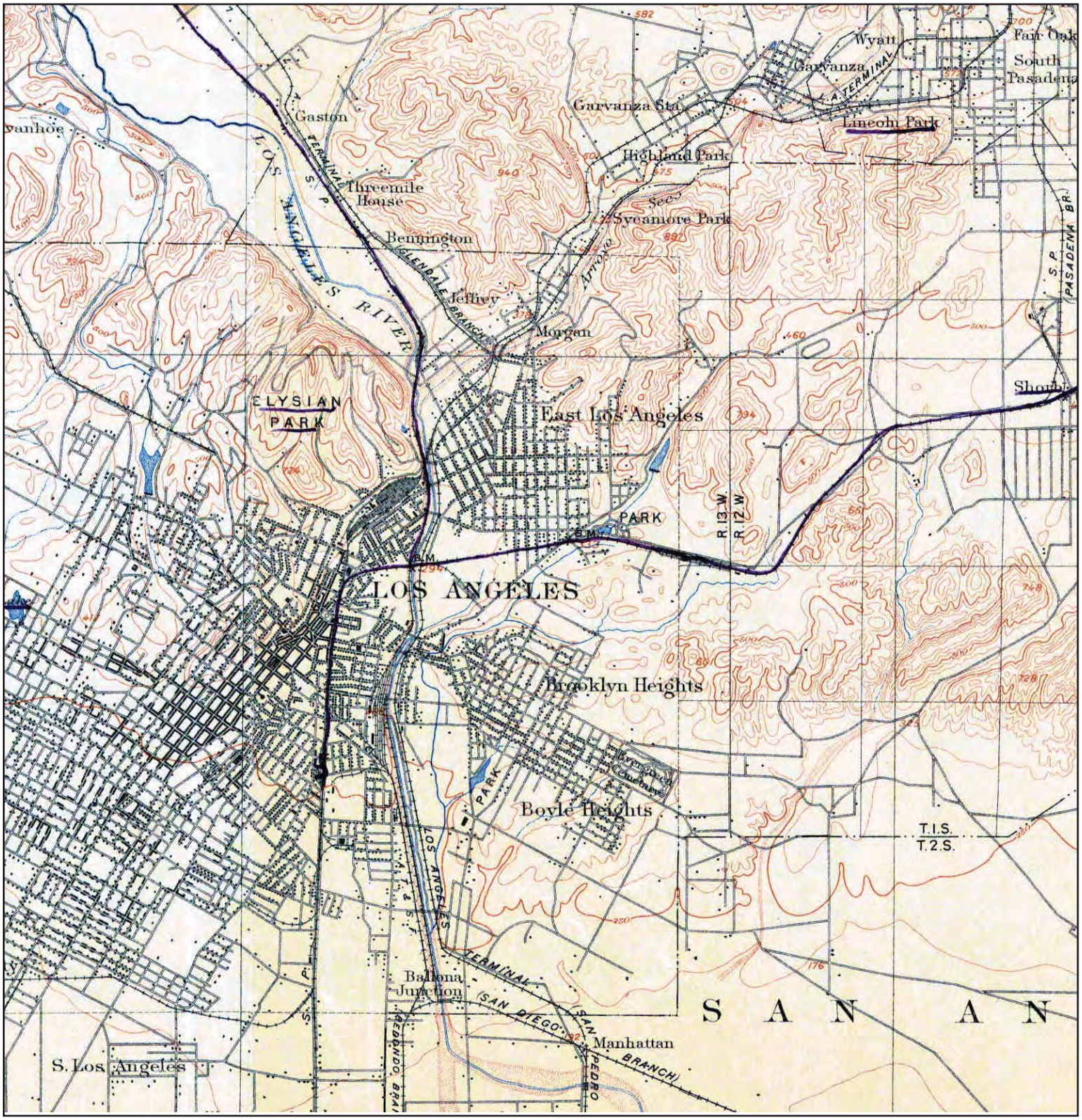
CLIENT:	Kimley Horn & Associates, Inc.
CONTACT:	Jennifer Steen
INQUIRY#:	3659410.4
RESEARCH DATE:	07/09/2013

Historical Topographic Map



N	TARGET QUAD NAME: PASADENA MAP YEAR: 1900 SERIES: 15 SCALE: 1:62500	SITE NAME: Lac Usc Phase I ADDRESS: 1200 N State Street Los Angeles, CA 90033 LAT/LONG: 34.061 / -118.2114	CLIENT: Kimley Horn & Associates, Inc. CONTACT: Jennifer Steen INQUIRY#: 3659410.4 RESEARCH DATE: 07/09/2013

Historical Topographic Map

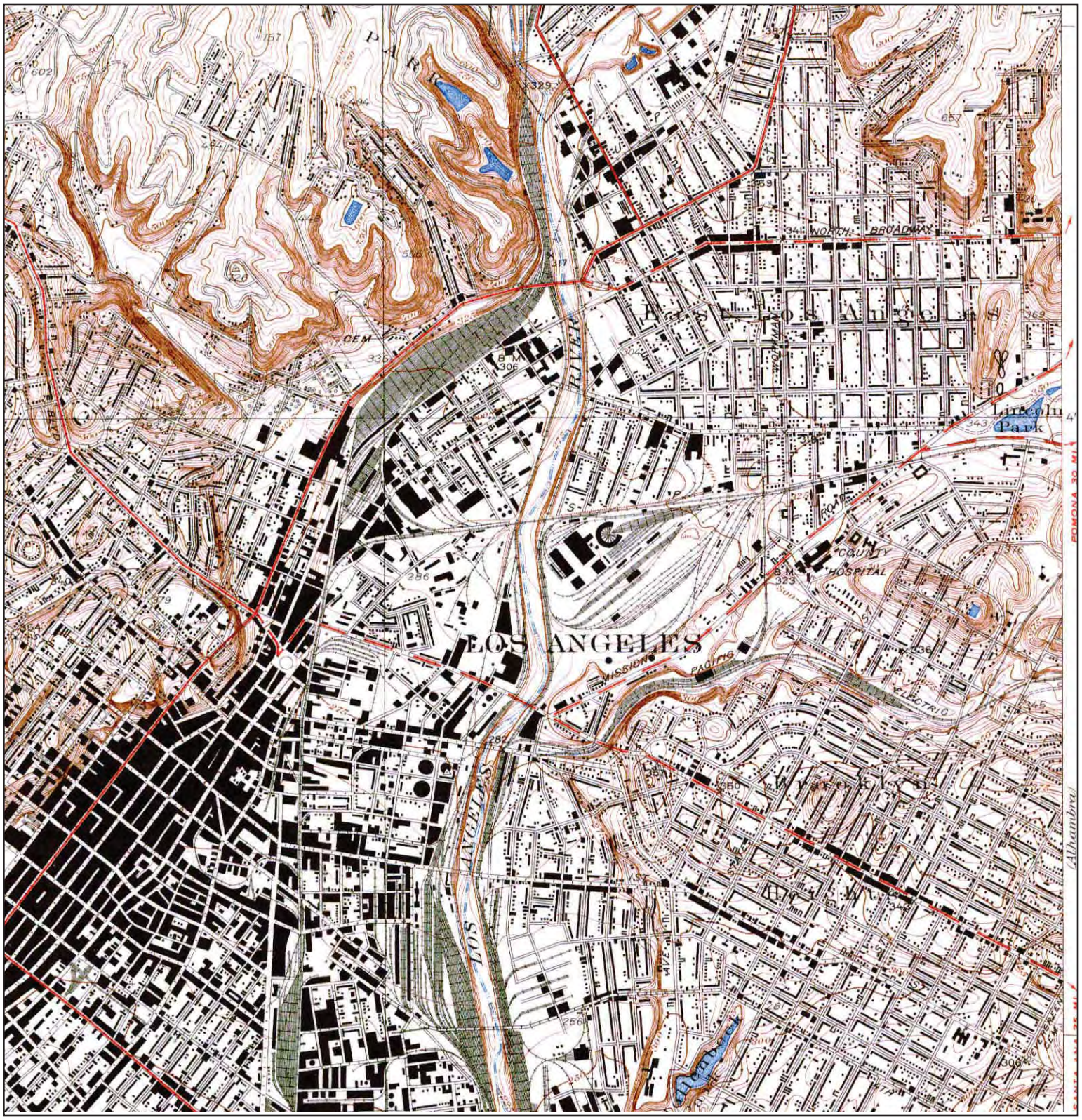


N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1900 SERIES: 15 SCALE: 1:62500	SITE NAME: Lac Usc Phase I ADDRESS: 1200 N State Street Los Angeles, CA 90033 LAT/LONG: 34.061 / -118.2114	CLIENT: Kimley Horn & Associates, Inc. CONTACT: Jennifer Steen INQUIRY#: 3659410.4 RESEARCH DATE: 07/09/2013

Historical Topographic Map

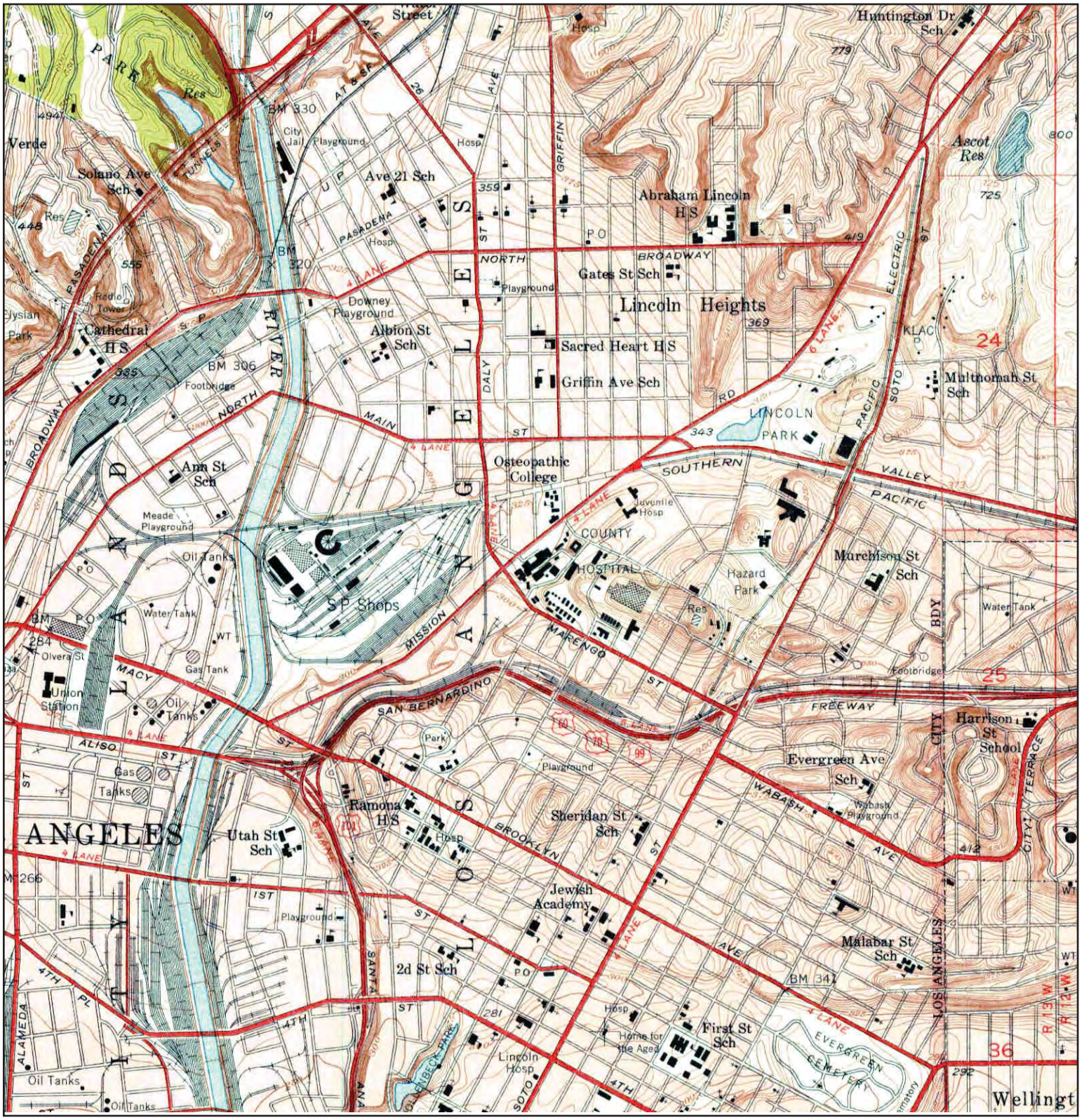
N	TARGET QUAD NAME: SOUTHERN CA SHEET 1 MAP YEAR: 1901 SERIES: 60 SCALE: 1:250000	SITE NAME: Lac Usc Phase I ADDRESS: 1200 N State Street Los Angeles, CA 90033 LAT/LONG: 34.061 / -118.2114	CLIENT: Kimley Horn & Associates, Inc. CONTACT: Jennifer Steen INQUIRY#: 3659410.4 RESEARCH DATE: 07/09/2013

Historical Topographic Map



N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1928 SERIES: 6 SCALE: 1:24000	SITE NAME: Lac Usc Phase I ADDRESS: 1200 N State Street Los Angeles, CA 90033 LAT/LONG: 34.061 / -118.2114	CLIENT: Kimley Horn & Associates, Inc. CONTACT: Jennifer Steen INQUIRY#: 3659410.4 RESEARCH DATE: 07/09/2013

Historical Topographic Map

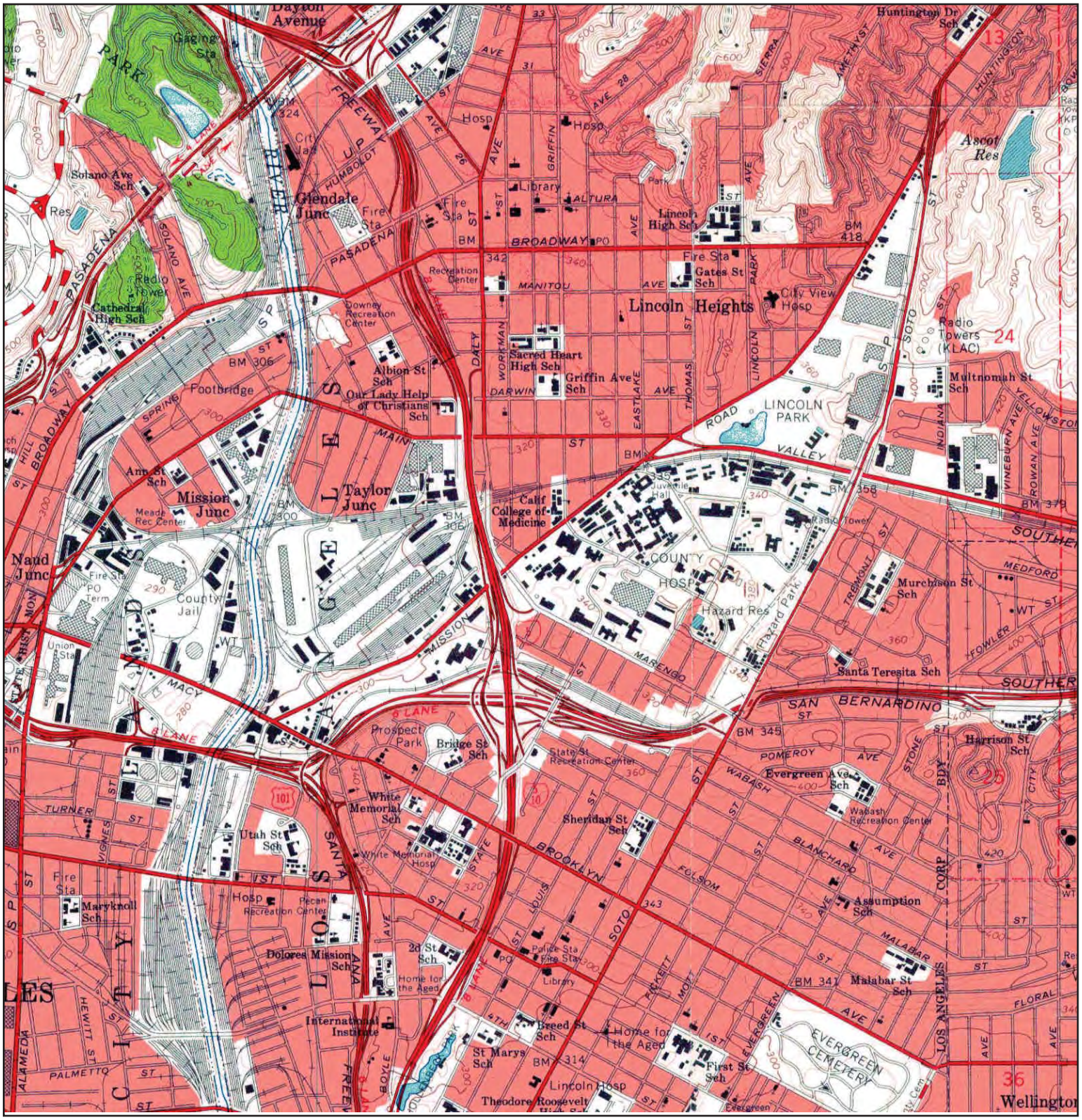


N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Lac Usc Phase I ADDRESS: 1200 N State Street Los Angeles, CA 90033 LAT/LONG: 34.061 / -118.2114	CLIENT: Kimley Horn & Associates, Inc. CONTACT: Jennifer Steen INQUIRY#: 3659410.4 RESEARCH DATE: 07/09/2013

Historical Topographic Map

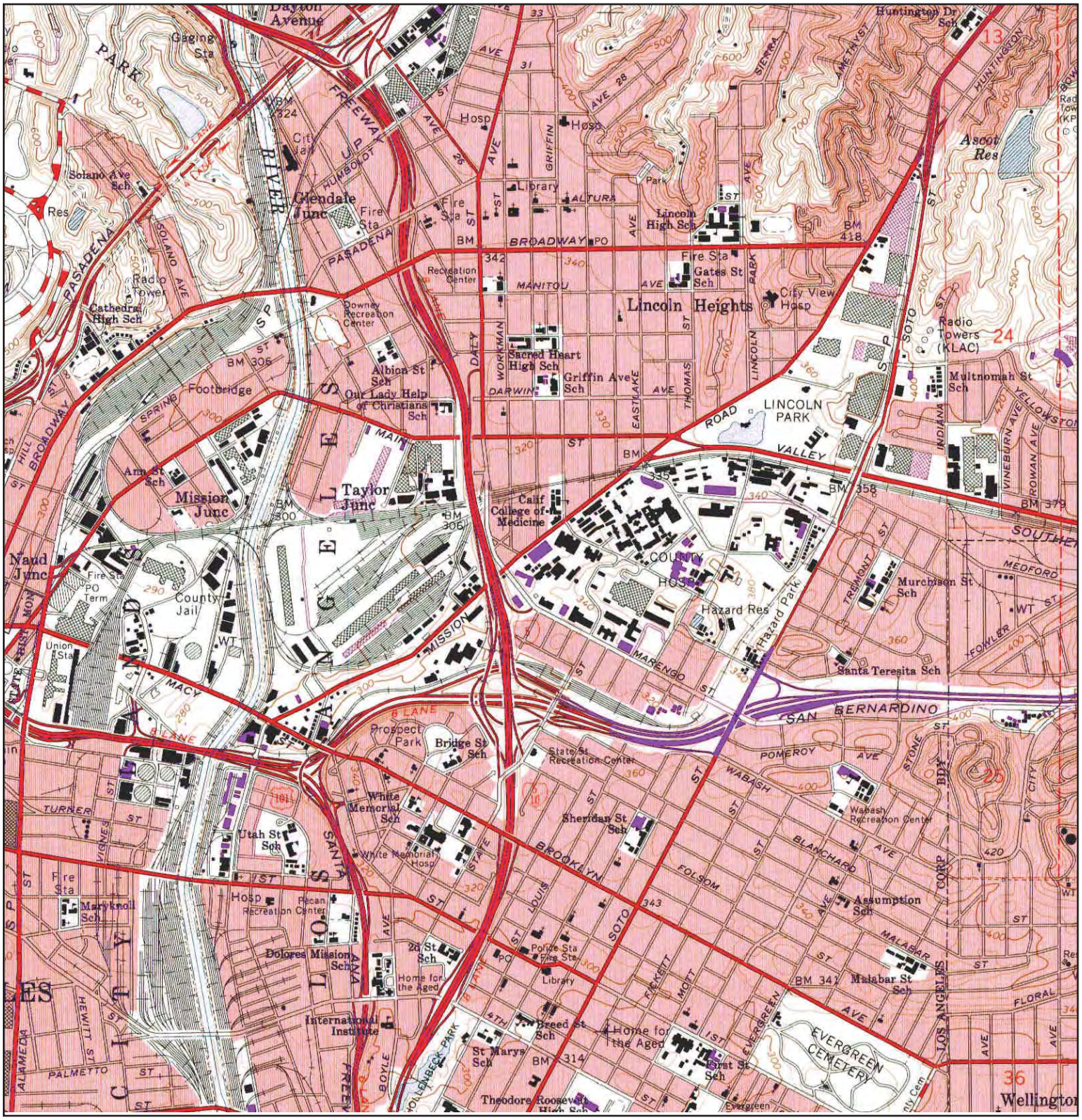
N	TARGET QUAD		SITE NAME:	Lac Usc Phase I	CLIENT:	Kimley Horn & Associates, Inc.
	NAME:	LOS ANGELES AND VICINITY EAST 2 OF 4	ADDRESS:	1200 N State Street Los Angeles, CA 90033	CONTACT:	Jennifer Steen
	MAP YEAR:	1953	LAT/LONG:	34.061 / -118.2114	INQUIRY#:	3659410.4
	SERIES:	7.5			RESEARCH DATE:	07/09/2013
	SCALE:	1:24000				

Historical Topographic Map



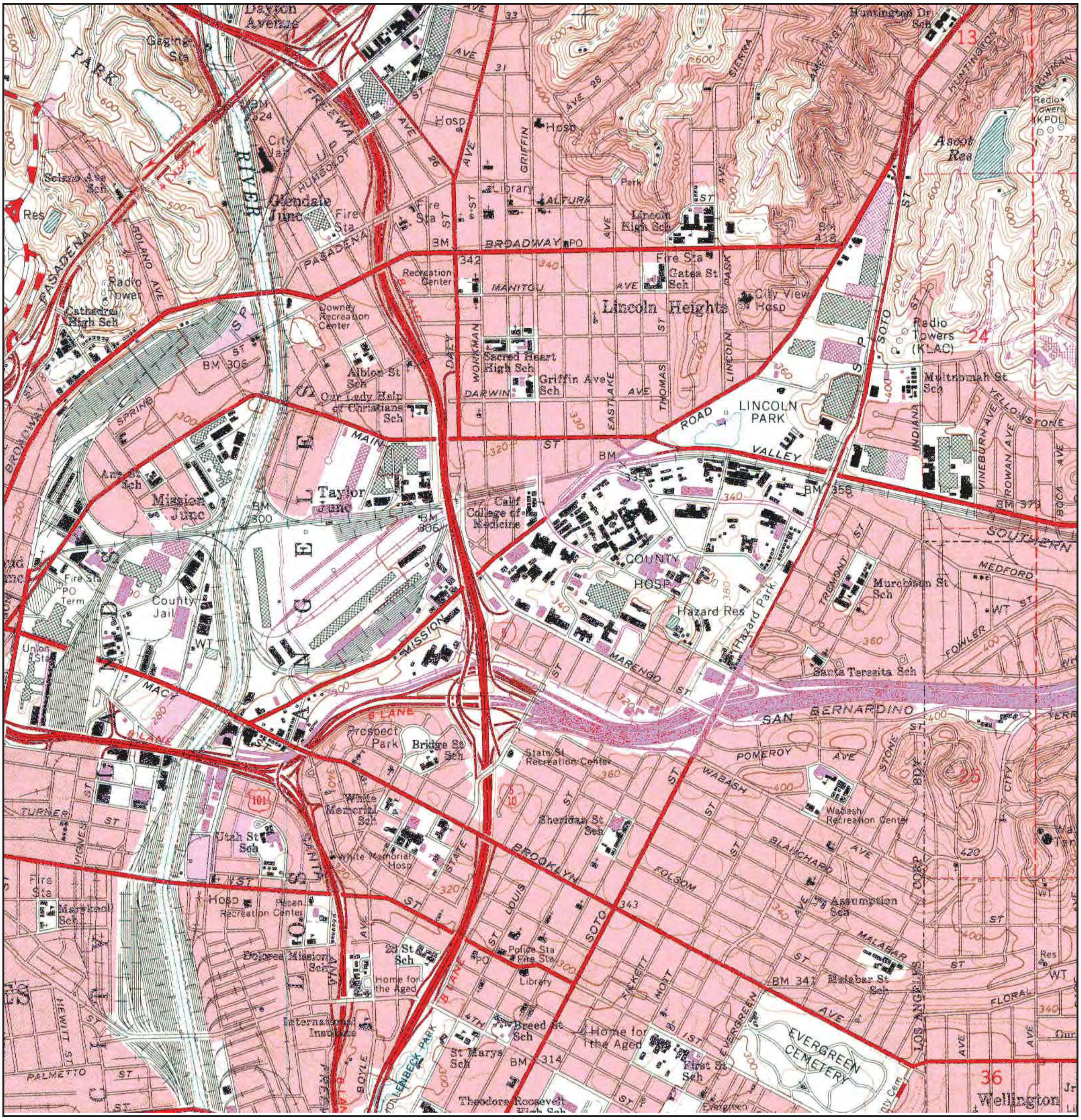
N	TARGET QUAD				
	NAME:	LOS ANGELES	SITE NAME:	Lac Usc Phase I	CLIENT: Kimley Horn & Associates, Inc.
	MAP YEAR:	1966	ADDRESS:	1200 N State Street	CONTACT: Jennifer Steen
				Los Angeles, CA 90033	INQUIRY#: 3659410.4
	SERIES:	7.5	LAT/LONG:	34.061 / -118.2114	RESEARCH DATE: 07/09/2013
	SCALE:	1:24000			

Historical Topographic Map



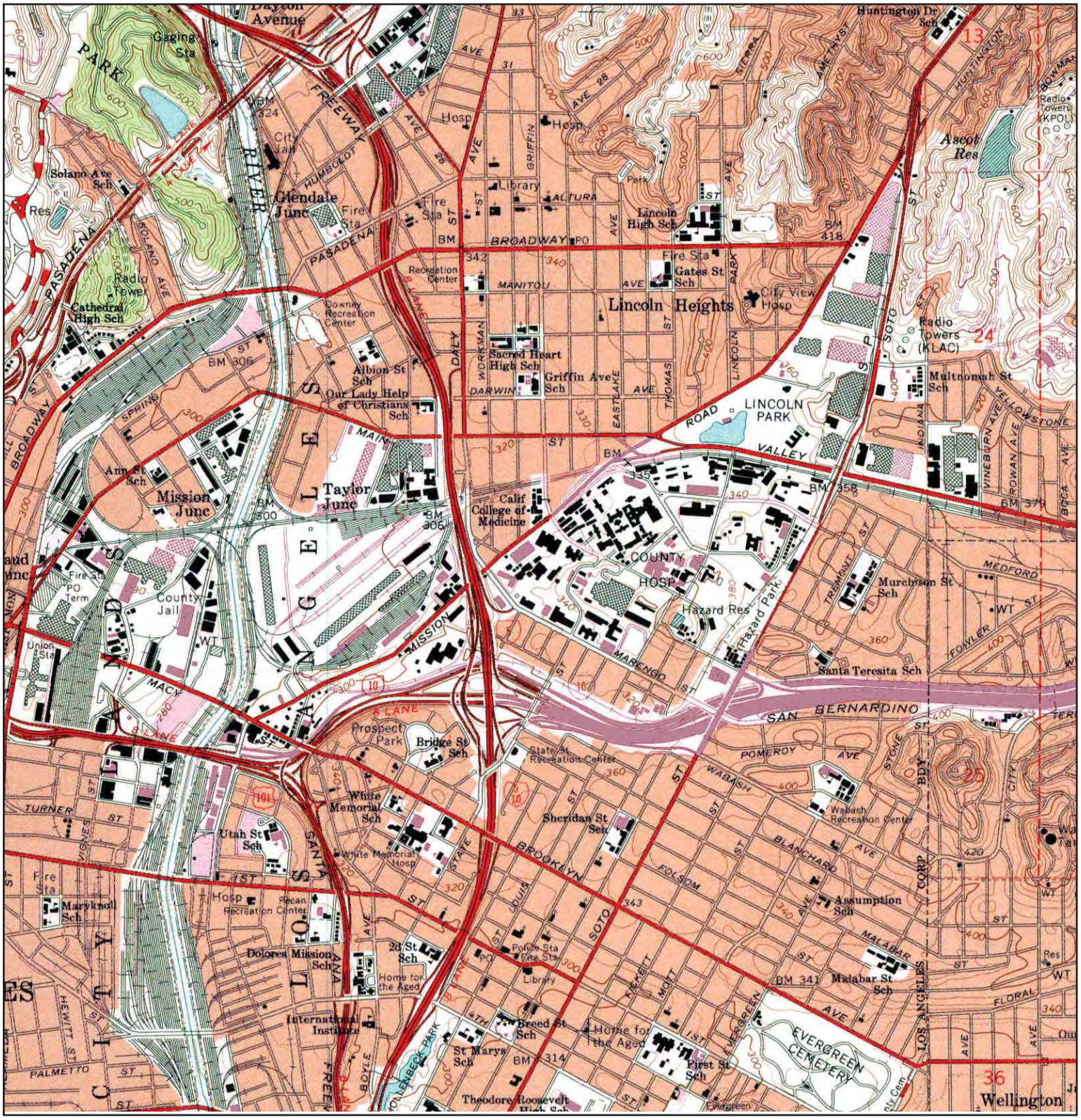
N	TARGET QUAD				
	NAME:	LOS ANGELES	SITE NAME:	Lac Usc Phase I	CLIENT: Kimley Horn & Associates, Inc.
	MAP YEAR:	1972	ADDRESS:	1200 N State Street	CONTACT: Jennifer Steen
	PHOTOREVISED FROM:	1966		Los Angeles, CA 90033	INQUIRY#: 3659410.4
	SERIES:	7.5	LAT/LONG:	34.061 / -118.2114	RESEARCH DATE: 07/09/2013
	SCALE:	1:24000			

Historical Topographic Map



N ↑ TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1981 PHOTOREVISED FROM :1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Lac Usc Phase I ADDRESS: 1200 N State Street Los Angeles, CA 90033 LAT/LONG: 34.061 / -118.2114	CLIENT: Kimley Horn & Associates, Inc. CONTACT: Jennifer Steen INQUIRY#: 3659410.4 RESEARCH DATE: 07/09/2013

Historical Topographic Map



N	TARGET QUAD				
	NAME:	LOS ANGELES	SITE NAME:	Lac Usc Phase I	CLIENT: Kimley Horn & Associates, Inc.
	MAP YEAR:	1994	ADDRESS:	1200 N State Street	CONTACT: Jennifer Steen
	REVISED FROM :	1966		Los Angeles, CA 90033	INQUIRY#: 3659410.4
	SERIES:	7.5	LAT/LONG:	34.061 / -118.2114	RESEARCH DATE: 07/09/2013
	SCALE:	1:24000			

APPENDIX G

Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Inquiry Number: 3659410.5
July 10, 2013

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography July 10, 2013

Target Property:

1200 N State Street

Los Angeles, CA 90033

Year	***Scale***	***Details***	***Source***
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	Fairchild
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	Laval
1947	Aerial Photograph. Scale: 1"=500'	Flight Year: 1947	Fairchild
1956	Aerial Photograph. Scale: 1"=500'	Flight Year: 1956	Fairchild
1965	Aerial Photograph. Scale: 1"=500'	Flight Year: 1965	Fairchild
1976	Aerial Photograph. Scale: 1"=500'	Flight Year: 1976	Teledyne
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR

INQUIRY #: 3659410.5

YEAR: 1928

= 500'

N

INQUIRY #: 3659410.5
YEAR: 1938
= 500'
N

INQUIRY #: 3659410.5

YEAR: 1947

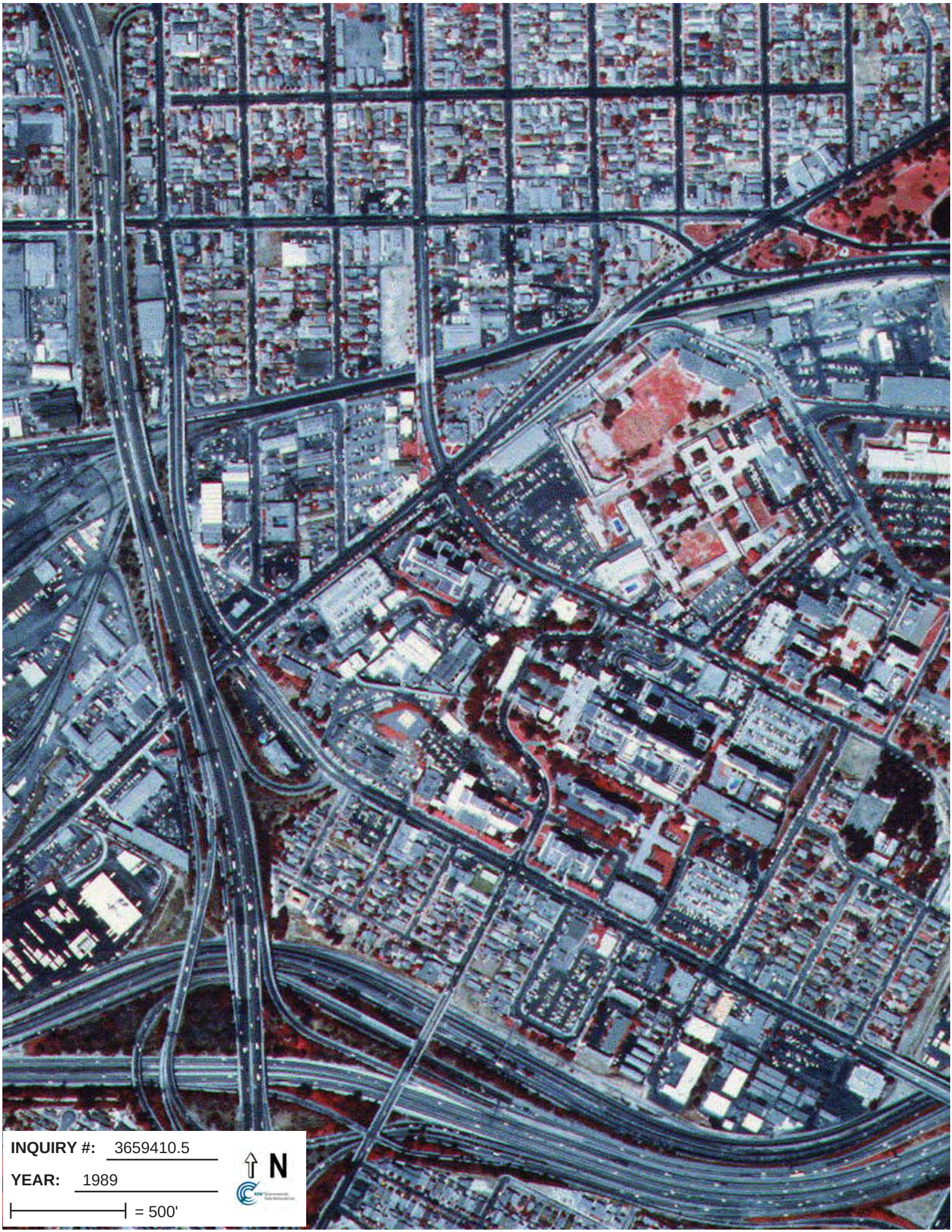
= 500'

N

INQUIRY #: 3659410.5
YEAR: 1956
= 500'
N

INQUIRY #: 3659410.5
YEAR: 1965
= 500'
N

INQUIRY #: 3659410.5
YEAR: 1976
= 500'
N


INQUIRY #: 3659410.5
YEAR: 1989
= 500'
N

INQUIRY #: 3659410.5
YEAR: 1994
= 500'
N

INQUIRY #: 3659410.5
YEAR: 2005
= 500'
N

INQUIRY #: 3659410.5
YEAR: 2009
= 500'
N

INQUIRY #: 3659410.5
YEAR: 2010
= 500'
N

INQUIRY #: 3659410.5
YEAR: 2012
= 500'
N

APPENDIX H

Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Inquiry Number: 3659410.6
July 09, 2013

The EDR-City Directory Abstract

Environmental Data Resources Inc
440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

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SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2012. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 332 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2012	Cole Information Services	X	-	X	-
2007	Cole Information Services	X	-	X	-
2006	Haines Company	X	-	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	X	X	-
2001	Haines & Company, Inc.	-	-	-	-
2000	Haines & Company	X	X	X	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	-	-	-
1990	Pacific Bell	X	X	X	-
1986	Pacific Bell	X	X	X	-
1985	Pacific Bell	-	-	-	-
1981	Pacific Telephone	X	-	X	-
1980	Pacific Telephone	-	-	-	-
1976	Pacific Telephone	X	X	X	-
1975	Pacific Telephone	-	-	-	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	X	X	X	-
1970	R. L. Polk & Co.	X	-	X	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	X	-	X	-
1966	Pacific Telephone	X	-	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1965	R. L. Polk & Co.	X	-	X	-
1964	Pacific Telephone	X	X	X	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	X	-	X	-
1961	R. L. Polk & Co.	-	-	-	-
1960	R. L. Polk & Co.	X	-	X	-
1958	Pacific Telephone	X	X	X	-
1957	Pacific Telephone	X	-	X	-
1956	R. L. Polk & Co.	X	-	X	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	X	-	X	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	R. L. Polk & Co.	X	-	X	-
1950	Pacific Telephone	X	-	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Los Angeles Directory Co.	-	-	-	-
1947	Los Angeles Directory Co.	-	-	-	-
1946	Los Angeles Directory Co.	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	X	X	X	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Co.	-	-	-	-
1937	Los Angeles Directory Co.	X	X	X	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	X	X	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	Los Angeles Directory Co.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	X	X	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	X	X	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1200 N State Street
Los Angeles, CA 90033

FINDINGS DETAIL

Target Property research detail.

N STATE

1200 N STATE

Year	Uses	Source
1990	BOYD STUART D MD	Pacific Bell
	HALIKIS NICK	Pacific Bell
	INTERN & RES ASSN OF LAC-USC	Pacific Bell
	JOINT COUNCIL OF INTERNS & RESIDENTS OF LOS ANGELES COUNTY	Pacific Bell
	JONAS KIMBERLY	Pacific Bell
	LIESKOVSKY GARY MD INC	Pacific Bell
	LOS ANGELES COUNTY MEDICAL CENTER SCHOOL OF NURSING	Pacific Bell
	MORRISON MANAGEMENT SERVICES	Pacific Bell
	MOSES DEVADAS	Pacific Bell
	USC MEDICAL CENTER CAFETERIA	Pacific Bell
1986	AMIN JATIN & AMITA	Pacific Bell
	BANK OF AMERICA NT & SA VERSATEL LOCATIONS	Pacific Bell
	BOYD STUART D MD	Pacific Bell
	GREGERSON PAUL MD	Pacific Bell
	LIESKOVSKY GARY MD INC	Pacific Bell
	LINDSAY JEFF	Pacific Bell
	MORRISON MANAGEMENT SERVICES	Pacific Bell
	SCHWARZBEIN D	Pacific Bell
	SEGAL MARK	Pacific Bell
	SKINNER DONALD G MD	Pacific Bell
	WILLIAMS MARIANNE	Pacific Bell
1981	APUZZO MICHAEL L J UNIVERSITY OF SO CALIF NEUROSURGICAL ASSOCIATES	Pacific Telephone
	BOYLEN C THOMAS DR	Pacific Telephone
	DU BOIS PHYLLIS-PSYCHO THERAPIST	Pacific Telephone

FINDINGS

Year	Uses	Source
1981	GIANNOTTA STEVEN L UNIVERSITY OF SO CALIF NEUROSURGICAL ASSOCIATES	Pacific Telephone
	SKINNER DONALD G MD	Pacific Telephone
	UNIVERSITY OF SO CALIF NEUROSURGICAL ASSOCIATES	Pacific Telephone
	WEISS MARTIN H UNIVERSITY OF SO CALIF HEUROSURGICAL ASSOCIATES	Pacific Telephone
1971	Carter Sandy B	Pacific Telephone
	County Hospital LLU Ofc	Pacific Telephone
	Cress Jonathan H MD	Pacific Telephone
	Deneau David G	Pacific Telephone
	Ehrhart John D	Pacific Telephone
	Genl Ofc	Pacific Telephone
	Gomes A S	Pacific Telephone
	Hospital L A County University Of So California Medical Center	Pacific Telephone
	Kaye Walter	Pacific Telephone
	L A County University Of So California Medical Center	Pacific Telephone
	Liff Michael	Pacific Telephone
	LOMA LINDA UNIVERSITY	Pacific Telephone
	LOS ANGELES COUNTY OF MEDICAL AID DISTRICTS	Pacific Telephone
	Los Angeles County University Of So California Medical Center	Pacific Telephone
	Mc Fadden Christine	Pacific Telephone
	Pacemnaker Registry	Pacific Telephone
	Randau Paul C	Pacific Telephone
	Smith Katherine H MD	Pacific Telephone
	Underman A E	Pacific Telephone
	UNIVERSITY OF SOUTHERN CALIFORNIA School Of Medicine	Pacific Telephone
1970	LOS ANGELES COUNTY OF HOSPITALS DEPT OF	Pacific Telephone
1967	Briscoe Kathleen	Pacific Telephone
	Chamberlain Will MD	Pacific Telephone
	Chang Hollis H M Dr	Pacific Telephone
	County General Hospital County Hospital	Pacific Telephone
	County Hospital L A General	Pacific Telephone
	County Hospital L L U Ofc	Pacific Telephone
	Employees Genl Hospital	Pacific Telephone
	Freedman Sydney Dr	Pacific Telephone

FINDINGS

Year	Uses	Source
1967	General Hospital L A County of	Pacific Telephone
	Genl Ofc	Pacific Telephone
	Gollub Michael	Pacific Telephone
	Hospital L A County Gene	Pacific Telephone
	L A COUNTY EMPLOYEES UNION LOCAL	Pacific Telephone
	L A General Hospital	Pacific Telephone
	Lindblad Donald E MD	Pacific Telephone
	Llewellyn Fred W MD	Pacific Telephone
	Loma Linda University	Pacific Telephone
	Los Angeles County of HOSPITALS	Pacific Telephone
	Los Angeles County of MEDICAL AID DISTS	Pacific Telephone
	Neder Irving R	Pacific Telephone
	Olsen Harvey	Pacific Telephone
	Pearson Kent Dr	Pacific Telephone
	Rademacher John J Mrs	Pacific Telephone
	Rubin Robt B Dr MD	Pacific Telephone
	School of Medicine Dept of Surgery	Pacific Telephone
	Tan Joyce	Pacific Telephone
	UNIVERSITY OF SOUTHERN CALIFORNIA University Park School of Medicine	Pacific Telephone
	Weiner Ira G Dr MD	Pacific Telephone
	Wick J Dennis MD	Pacific Telephone
	Williams Edw J	Pacific Telephone
1966	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
1962	Cancer Investigation Unit	Pacific Telephone
	Chaplains Serv L A County General Hospital	Pacific Telephone
	County General Hospital County Hospital	Pacific Telephone
	County Hospital L A General	Pacific Telephone
	County Hospital L L U Ofc	Pacific Telephone
	Dept of Surgery	Pacific Telephone
	General Hospital L A County of	Pacific Telephone
	Genl Ofc	Pacific Telephone
	Hospital L A County Genl	Pacific Telephone
	L A General Hospital	Pacific Telephone
	LOMA LINDA UNIVERSITY	Pacific Telephone
	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
	LOS ANGELES COUNTY OF MEDICAL AID DISTS	Pacific Telephone
	Miller Robt A	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	Newberg Construction Co	Pacific Telephone
	UNITED STATES GOVERNMENT HEALTH EDUCATION & WELFARE DEPT OF Public Health Service	Pacific Telephone
	University of Southern California Other Colleges Schools & Departments School of Medicine	Pacific Telephone
1960	LOS ANGELES COUNTY OF HOSPITALS COUNTY GENERAL HOSPITAL	Pacific Telephone
1957	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
1950	LOS ANGELES COUNTY OF AGRICULTURAL DEPT	Pacific Telephone
1942	Allington Robt R interne Genl Hosp	Los Angeles Directory Co.
	Andler Maxwell M jr res phys Genl Hosp	Los Angeles Directory Co.
	Armas Lydia E stdt nurse Geol Hasp	Los Angeles Directory Co.
	ARNOLD Geo J res phys Genl Hosp	Los Angeles Directory Co.
	Bachmann Geo W jr interne Genl Hosp	Los Angeles Directory Co.
	BAIRD Hallena M stdt nurse Genl Hosp	Los Angeles Directory Co.
	BARTON Jackson A interne Genl Hosp	Los Angeles Directory Co.
	Beiser Helen R internt Genl Hosp	Los Angeles Directory Co.
	Bellin Amarie stdt nurse	Los Angeles Directory Co.
	Biggin John T atdt Genl Hosp	Los Angeles Directory Co.
	Bleiberg Donald inteme Genl Hosp	Los Angeles Directory Co.
	Bonynge Thos W res pharm Genl Hosp	Los Angeles Directory Co.
	BOYER Marcia N stdt nurse Genl Hosp	Los Angeles Directory Co.
	Brantley Martha A nurse Genl Hosp	Los Angeles Directory Co.
	Britt Annabelle stdt nurse Genl Hosp	Los Angeles Directory Co.
	Cadranel Jos L interne Genl Hosp	Los Angeles Directory Co.
	CADWELL Jane stdt nurse Genl Hosp	Los Angeles Directory Co.
	Card Marilla L stdt nurse Genl Hosp	Los Angeles Directory Co.
	CARL Nathan E interne Genl Hosp	Los Angeles Directory Co.
	CARSON Margt M stdt nurse Genl Hosp	Los Angeles Directory Co.
	CARTER Norman K interne Genl Hosp	Los Angeles Directory Co.
	Cavins Ruth E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Clapp Audrey E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Clifford Edw M jan Genl Hosp	Los Angeles Directory Co.
	COHN Arnold L interne Genl Hosp	Los Angeles Directory Co.
	COLE Fern E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Conkwright Margt A stdt nurse Genl Hosp	Los Angeles Directory Co.
	CONROY Eva M Mrs nurse Genl Hosp	Los Angeles Directory Co.
	CRANE Jay F interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Crawford Clifford N interne Genl Hosp	Los Angeles Directory Co.
	Crawford Donald J interne Genl Hosp	Los Angeles Directory Co.
	Crumrine Martin H res phys Genl Hosp	Los Angeles Directory Co.
	Crutcher Luke F interne Genl Hosp	Los Angeles Directory Co.
	CURTIN Ed W D interns Genl Hosp	Los Angeles Directory Co.
	DAHLMAN Rynol A interne Genl Hosp	Los Angeles Directory Co.
	Dakin Marion J res phys Genl Hosp	Los Angeles Directory Co.
	DAVIS Jas G interne Genl Hosp	Los Angeles Directory Co.
	De Leon Pilar I stdt nurse Genl Hosp	Los Angeles Directory Co.
	DENHAM Eleanor stdt nurse Genl Hosp	Los Angeles Directory Co.
	Denlinger Ross B interne Genl Hosp	Los Angeles Directory Co.
	Department of Charities Department of Institutions Bureau of Medical Social Service	Los Angeles Directory Co.
	Department of Charities Department of Institutions Los Angeles Countly General Hospital	Los Angeles Directory Co.
	Detwiler Howard F interne Genl Hosp	Los Angeles Directory Co.
	DILLON Dolores M interne Genl Hosp	Los Angeles Directory Co.
	Donato Alsace L stdt nurse Genl Hosp	Los Angeles Directory Co.
	DORMAN Thelma E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Dougherty Jas elev opr Genl Hosp	Los Angeles Directory Co.
	DWYER Mary E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Dybdahl Gerhardt L interne Genl Hosp	Los Angeles Directory Co.
	Easter Anona M Mrs nurse Genl Hosp	Los Angeles Directory Co.
	Easterday Pearl G nurse Genl Hosp	Los Angeles Directory Co.
	Eaton Chas H interne Genl Hosp	Los Angeles Directory Co.
	EBERT Alice J stdt nurse Genl Hosp	Los Angeles Directory Co.
	EBERT Norma F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Eisenbeiss John interne Genl Hosp	Los Angeles Directory Co.
	Elerding Alan C interne Gen Hosp	Los Angeles Directory Co.
	Elgin J Carroll res phys Genl Hosp	Los Angeles Directory Co.
	Ellenburg Robt L interne Genl Hosp	Los Angeles Directory Co.
	ELLSWORTH Mary E stdt nurse Genl Hosp	Los Angeles Directory Co.
	ENGLE Robt B interne Genl Hosp	Los Angeles Directory Co.
	Ermoian Lucille N stdt nurse Genl Hosp	Los Angeles Directory Co.
	Esnard John E interne Genl Hosp	Los Angeles Directory Co.
	Feder Ellen P interne Genl Hosp	Los Angeles Directory Co.
	Ferman Jack A mterne Gen Hosp	Los Angeles Directory Co.
	FIELDS Irving A res phys Genl Hosp	Los Angeles Directory Co.
	Finerman Wilmore B interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	FINKELSTEIN Gertrude P res phys Ganl Hosp	Los Angeles Directory Co.
	Finnety T Mrs still Genl Hosp	Los Angeles Directory Co.
	Firor Marion M stdt nurse Genl Hosp	Los Angeles Directory Co.
	FISHER Earnestine nurse Genl Hosp	Los Angeles Directory Co.
	FISHER Lloyd D phys Genl Hosp	Los Angeles Directory Co.
	Fites Cora J Mrs chf supvg nurse Genl Hosp	Los Angeles Directory Co.
	FOGEL David interne Genl Hosp	Los Angeles Directory Co.
	Fong Edna M interne Genl Hosp	Los Angeles Directory Co.
	FORBES Harry B anesthetist Genl Hosp	Los Angeles Directory Co.
	FORD Liam J interne Genl Hosp	Los Angeles Directory Co.
	FOSTER Flavia stdt nurse Genl Hosp	Los Angeles Directory Co.
	FOSTER Louise J stdt nurse Genl Hosp	Los Angeles Directory Co.
	FOULK Marguerite L interne Genl Hosp	Los Angeles Directory Co.
	Freed Arnold L interne Genl Hosp	Los Angeles Directory Co.
	FREEDMAN Bernard interne Genl Hosp	Los Angeles Directory Co.
	FRICK Oliver interne Genl Hosp	Los Angeles Directory Co.
	FRIEDMAN Marshall H interne Genl Hosp	Los Angeles Directory Co.
	Funk Arth P interne Genl Hosp	Los Angeles Directory Co.
	Funke Robt E interne Genl Hosp	Los Angeles Directory Co.
	GARCIA Olimpia M stdt nurse Genl Hosp	Los Angeles Directory Co.
	GARFIELD Sidney R phys Genl Hoap	Los Angeles Directory Co.
	Gee Jean E stdt nurse Genl Hosp	Los Angeles Directory Co.
	General Hospital Department of Institutions Dr Edwin S Bennett dir	Los Angeles Directory Co.
	Gerber Alex interne Genl Hosp	Los Angeles Directory Co.
	Golenternek Dan phys	Los Angeles Directory Co.
	Golstream Blanche stdt nurse Genl Hosp	Los Angeles Directory Co.
	GORDON Jean E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Goto Jas M res phys Genl Hosp	Los Angeles Directory Co.
	Grant Sidney S interne Genl Hoap	Los Angeles Directory Co.
	Greentree Harold S interne Genl Hosp	Los Angeles Directory Co.
	Guggenheim Paul interne Genl Hosp	Los Angeles Directory Co.
	Hachisuka Setsuko M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Haigh Jon S res phys Genl Hosp	Los Angeles Directory Co.
	Hallstone C Everette jr interne Genl Hosp	Los Angeles Directory Co.
	Hamaguchi Aiko stdt nurse Genl Hosp	Los Angeles Directory Co.
	HAMILTON R Sidney interne Genl Hosp	Los Angeles Directory Co.
	HANSON Wayne P interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Harrison Alex V interne Genl Hosp	Los Angeles Directory Co.
	Hartie Ethel L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Hasegawa Mitsuko stdt nurse Genl Hosp	Los Angeles Directory Co.
	Heaton Marie L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Heldfond Alf res phys Genl Hosp	Los Angeles Directory Co.
	HENRY Clara A nurse Genl Hosp	Los Angeles Directory Co.
	Hilker Chas E storemn Genl Hosp	Los Angeles Directory Co.
	HILL Raymond M phys Genl Hosp	Los Angeles Directory Co.
	HOLLOWAY Alberta H stdt nurse Genl Hosp	Los Angeles Directory Co.
	HOLMES Emma L stdt nurse Genl Hosp	Los Angeles Directory Co.
	HOPE Martha E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Hopkins Nella J nurse Genl Hosp	Los Angeles Directory Co.
	Hovsepian Deron interne Genl Hosp	Los Angeles Directory Co.
	HOWE Ellen J stdt nurse Genl Hosp	Los Angeles Directory Co.
	HUNT Guy M jr Interne Genl Hoep	Los Angeles Directory Co.
	in H Sit A ltt nmcee Gncn Hoap	Los Angeles Directory Co.
	Irvin Clarice I stdt nurse Genl Hosp	Los Angeles Directory Co.
	Isaacson Alvin Interne Genl Hosp	Los Angeles Directory Co.
	Jamentz Albt H hd phys Genl Hosp	Los Angeles Directory Co.
	JONES Harriet H nurse Genl Hosp	Los Angeles Directory Co.
	JONES Pauline C stdt nurse Genl Hosp	Los Angeles Directory Co.
	JORGENSEN Elsie phys Genl Hosp	Los Angeles Directory Co.
	Jourdan Harve W interne Genl Hosp	Los Angeles Directory Co.
	Journigan Vera J stdt nurse Genl Hosp	Los Angeles Directory Co.
	KEATING Mary A stdt nurse Genj Hosp	Los Angeles Directory Co.
	KENNEDY Mary L stdt nurse Genl Hosp	Los Angeles Directory Co.
	KERN Carroll E interne Genl Hosp	Los Angeles Directory Co.
	KIEL Wm H kitchenwkr Genl Hosp	Los Angeles Directory Co.
	Kimura Asayo stdt nurse Genl Hosp	Los Angeles Directory Co.
	KIRK Vera L stdt nurse Genl Hosp	Los Angeles Directory Co.
	KIRSHNER Ruth stat nurse Genl Hosp	Los Angeles Directory Co.
	Knouf Evelnne G hd phys Genl Hosp	Los Angeles Directory Co.
	Kobayashi Marian H stdt nurse Genl Hosp	Los Angeles Directory Co.
	Koury Jas Naomi beauty shop	Los Angeles Directory Co.
	Krauthaus Virginia stdt nurse Genl Hosp	Los Angeles Directory Co.
	Kugel Arth I interne Genl Hosp	Los Angeles Directory Co.
	Kurkjian Grace A stdt nurse Genl Hosp	Los Angeles Directory Co.
	KURTZ Isabelle N stdt nurse Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	LARSEN Floyd E interne Genl Hosp	Los Angeles Directory Co.
	Lasky Irving I interne Genl Hosp	Los Angeles Directory Co.
	LAWRENCE Herbt res phys Genl Hosp	Los Angeles Directory Co.
	Levan Norman E interne Genl Hosp	Los Angeles Directory Co.
	LEVINE Esther M std nurse Genl Hosp	Los Angeles Directory Co.
	LEVITT Harry interne Genl Hosp	Los Angeles Directory Co.
	LEWIS Bernice M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Linderman Albt J res phys Genl Hosp	Los Angeles Directory Co.
	Lofgren Alice stdt nurse Genl Hosp	Los Angeles Directory Co.
	LOS ANGELES COUNTY GENERAL HOSPITAL Dr Edwin S Bennett Director	Los Angeles Directory Co.
	Macenwing Geo A res phys Genl Hosp	Los Angeles Directory Co.
	Maddes Kath E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Mambert Harry W kitchenwkr Genl Hosp	Los Angeles Directory Co.
	MANDELL Jos res phys Genl Hosp	Los Angeles Directory Co.
	Maron Victor res phys Genl Hosp	Los Angeles Directory Co.
	Maruyama Eliz T stdt nurse Genl Hosp	Los Angeles Directory Co.
	Masson John M interne Genl Hosp	Los Angeles Directory Co.
	Mauch Ina F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Mc FADDEN Inez L stdt nurse Genl Hosp	Los Angeles Directory Co.
	MEEHAN Herbt interns Genl Hosp	Los Angeles Directory Co.
	MERKEL Emil E interne Genl Hosp	Los Angeles Directory Co.
	MILLER Lillian C stdt nurse Genl Hosp	Los Angeles Directory Co.
	Millitzer M Monica phys Genl Hosp	Los Angeles Directory Co.
	Mirman Benj H interne Genl Hosp	Los Angeles Directory Co.
	MITCHELL Judson M lndywkr Genl Hosp	Los Angeles Directory Co.
	MOORE Emory S jr interne Genl Hosp	Los Angeles Directory Co.
	Movius Herbt J H interne Genl Hosp	Los Angeles Directory Co.
	MOWATT Sarah F nurse Genl Hosp	Los Angeles Directory Co.
	MUELLER Lorine F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Munger J Roger interne Genl Hosp	Los Angeles Directory Co.
	MURPHY Lyle F interne Genl Hosp	Los Angeles Directory Co.
	NAGEL Sherman A jr interne Genl Hosp	Los Angeles Directory Co.
	Naiditch Morris J phys Genl Hosp	Los Angeles Directory Co.
	NAVARRO Loretta stdt nurse Genl Hosp	Los Angeles Directory Co.
	NEWMAN Norma D std nurse Gaul Hasp	Los Angeles Directory Co.
	NIELSEN Robt F interne Genl Hosp	Los Angeles Directory Co.
	NUSBAUM Malvena L nurse Genl Hosp	Los Angeles Directory Co.
	OLSON Wm A phys Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	ONEAL Wm J interne Genl Hosp	Los Angeles Directory Co.
	Ottman Miriam E interne Genl Hosp	Los Angeles Directory Co.
	OVERMAN John E interne Genl Hosp	Los Angeles Directory Co.
	Ovsey Lionel interne Genl Hosp	Los Angeles Directory Co.
	PEARSON John P interne Genl Hosp	Los Angeles Directory Co.
	PENDLETON Adaline interne Genl Hosp	Los Angeles Directory Co.
	PERKINS Roy F interne Genl Hosp	Los Angeles Directory Co.
	PERLMAN Florence K stdt nurse Genl Hosp	Los Angeles Directory Co.
	Peterman Joan A stdt nurse Genl Hosp	Los Angeles Directory Co.
	Petrik Jean M interrie Genal Hoap	Los Angeles Directory Co.
	Pettier Arth M phys Gen Hosp	Los Angeles Directory Co.
	PITMAN Ruth C Mrs stdt nurse Genl Hosp	Los Angeles Directory Co.
	POLLOCK Jos H plays Genl Hosp	Los Angeles Directory Co.
	Potampa Philip B phys Genl Hosp	Los Angeles Directory Co.
	Pouder Letha hse mother Genl Hosp	Los Angeles Directory Co.
	RANEY Aidan A phys Genl Hosp	Los Angeles Directory Co.
	Rentfro Joelle E interne Genl Hosp	Los Angeles Directory Co.
	Ribner Carol M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Ricbh Elmira A interne Genl Hosp	Los Angeles Directory Co.
	RICHARDSON Clark M interne Genl Hosp	Los Angeles Directory Co.
	Rickenberg Robt E interne Genl Hosp	Los Angeles Directory Co.
	ROBERTSON Robt F interne Genl Hosp	Los Angeles Directory Co.
	Rodi Albt H res phys Genl Hosp	Los Angeles Directory Co.
	Roe Wm F interne Genl Hosp	Los Angeles Directory Co.
	ROSENTHAL Saml M interne Genl Hosp	Los Angeles Directory Co.
	ROTH Merall interne Genl Hosp	Los Angeles Directory Co.
	Ruch Betty N stdt nurse Gen Hosp	Los Angeles Directory Co.
	SALAZAR Carmen stdt nurse Genl Hosp	Los Angeles Directory Co.
	Samoyloff Mary M stdt nurse Genl Hosp	Los Angeles Directory Co.
	SCHMIDT Mary A stdt nurse Genl Hosp	Los Angeles Directory Co.
	SCHNEIDER Rae M Mrs interne Genl Hosp	Los Angeles Directory Co.
	Schwerin Lois stdt nurse Genl Hosp	Los Angeles Directory Co.
	Shoor Maurice N phys Genl Hosp	Los Angeles Directory Co.
	Siebecker Karl L jr res phys Genl Hosp	Los Angeles Directory Co.
	Siess Eug E interne Genl Hosp	Los Angeles Directory Co.
	Simmonds Leslie interne Genl Hosp	Los Angeles Directory Co.
	SMITH Burton interne Genl Hosp	Los Angeles Directory Co.
	SMITH Gladys G interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	SMITH Saml N interne Genl Hosp	Los Angeles Directory Co.
	Smithson Barbara L stdt nurse Genl Hosp r	Los Angeles Directory Co.
	SNEDECOR Nina M nurse Genl Hosp	Los Angeles Directory Co.
	Sokol Archer J interne Genl Hosp	Los Angeles Directory Co.
	Spiers Donald W interne Genl Hosp	Los Angeles Directory Co.
	STEELE Wanda K stdt nurse Genl Hosp	Los Angeles Directory Co.
	Steindel Sam interne Genl Hosp	Los Angeles Directory Co.
	STEPHENSON Wm H interne Genl Hosp	Los Angeles Directory Co.
	Stirrett Lloyd A interne Genl Hosp	Los Angeles Directory Co.
	Stomel Ethel R stdt nurse Genl Hosp	Los Angeles Directory Co.
	STONE Jeanne L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Stroman Evelyn M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Swardloff Harold interne Genl Hosp	Los Angeles Directory Co.
	Takeno M Geo interne Genl Hosp	Los Angeles Directory Co.
	Tanger Jeannete F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Tarango Catalina stdt nurse Genl Hosp	Los Angeles Directory Co.
	TAYLOR Edithmae interne Genl Hosp	Los Angeles Directory Co.
	Thale Harold B interne Genl Hosp	Los Angeles Directory Co.
	Tsunekawa Geo H interne Genl Hosp	Los Angeles Directory Co.
	Tuch Benj E interne Genl Hosp	Los Angeles Directory Co.
	Tynan Jas O interne Genl Hosp	Los Angeles Directory Co.
	Van Pelt Wilda E stdt nurse Genl Hosp	Los Angeles Directory Co.
	VOGEL Mary T quers Glenl Hosp	Los Angeles Directory Co.
	Von Dollen Margt H stdt nurse Genl Hosp	Los Angeles Directory Co.
	Wada Margie F sta nurse Genl Hosp	Los Angeles Directory Co.
	WADE Martha B stdt nurse Genl Hosp	Los Angeles Directory Co.
	WALKER Frank E atdt Genl Hosp	Los Angeles Directory Co.
	WALTERS John D interne Genl Hosp	Los Angeles Directory Co.
	Weaver Beryl L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Weinberger Willard W Interne Genl Hosp	Los Angeles Directory Co.
	Werner Corinne stdt nurse Genl Hosp	Los Angeles Directory Co.
	Weyand Geo M interne Genl Hosp	Los Angeles Directory Co.
	WHEELER Jane M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Wiesenfeld Irving H res phys Genl Hosp	Los Angeles Directory Co.
	WILLIAMS Anne stdt nurse Genl Hosp	Los Angeles Directory Co.
	WILLIAMS Phyllis M stdt nurse Genl Hosp	Los Angeles Directory Co.
	WILSON Alice J bkpr Bldg Material Dealers Credit Assn r Inglwd r	Los Angeles Directory Co.
	WILSON John A jr interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Winkler David P interne Genl Hosp	Los Angeles Directory Co.
	WRIGHT Margt M nurse Genl Hosp	Los Angeles Directory Co.
	Wrons Sally Z Mrs nurse Genl Hosp	Los Angeles Directory Co.
	Yasuda Tomiko stdt nurse Genl Hosp	Los Angeles Directory Co.
1937	Ammon M Mercedes nurse Genl Hosp	Los Angeles Directory Co.
	ANDREWS Nora M nurse Genl Hosp	Los Angeles Directory Co.
	BAIRD Maggie A nurse Genl Hosp	Los Angeles Directory Co.
	Berendeen Maude L nurse Genl Hosp	Los Angeles Directory Co.
	Berker Dorothy J nurse Genl Hosp	Los Angeles Directory Co.
	Blythe Dorothy C nurse Genl Hosp	Los Angeles Directory Co.
	Breole Marie A nurse Genl Hosp	Los Angeles Directory Co.
	CAMPBELL Neava P nurse Genl Hosp	Los Angeles Directory Co.
	DICKENSON Muriel nurse Genl Hosp	Los Angeles Directory Co.
	DICKSON Mildred I nurse Genl Hosp	Los Angeles Directory Co.
	DOHERTY Jas J elev apr Genl Hasp	Los Angeles Directory Co.
	EKLUND Esther M nurse Genl Hosp	Los Angeles Directory Co.
	General Hospital Everett J Gray supt	Los Angeles Directory Co.
	GRAY EVERETT J Executive Supt L A County General Hospital	Los Angeles Directory Co.
	Hewitt Grace S nurse Genl Hosp	Los Angeles Directory Co.
	Hickman Harry S atdt Genl Hosp	Los Angeles Directory Co.
	King Cecile P nurse Genl Hosp	Los Angeles Directory Co.
	King Jack W atdt Genl Hosp	Los Angeles Directory Co.
	KING Marie I nurse Genl Hops	Los Angeles Directory Co.
	Lindgren Gunnar atdt Genl Hosp	Los Angeles Directory Co.
	LONG Florence E nurse Genl Hosp	Los Angeles Directory Co.
	LOS ANGELES COUNTY GENERAL HOSPITAL Everett J Gray Exec Supt	Los Angeles Directory Co.
	Mills Alice nurse Genl Hosp	Los Angeles Directory Co.
	MITCHELL Grace nurse Genl Hosp	Los Angeles Directory Co.
	MOREHOUSE Mable M nurse Genl Hosp	Los Angeles Directory Co.
	Parenteau Leona nurse Genl Hosp	Los Angeles Directory Co.
	ROSEDALE Marie F nurse Genl Hosp	Los Angeles Directory Co.
	Rudy Peter atdt Genl Hosp	Los Angeles Directory Co.
	Schubel Murel nurse Genl Hosp	Los Angeles Directory Co.
	SCHULTZ Emil A elev opr Genl Hosp	Los Angeles Directory Co.
	SIKES Gladys B nurse Genl Hosp	Los Angeles Directory Co.
	Studley Louise B nurse Genl Hosp	Los Angeles Directory Co.
	Van Vliet Eliz nurse Genl Hosp	Los Angeles Directory Co.

Year	Uses	Source
1937	Yoop Loretta nurse Genl Hosn	Los Angeles Directory Co.
	ZIMMERMAN CHAS A Chf Clk General Hospital	Los Angeles Directory Co.

N STATE ST

1200 N STATE ST

Year	Uses	Source
2012	ARUP	Cole Information Services
	LOS ANGELES COUNTY MEDICAL CENTER SC	Cole Information Services
	PSYCHIATRIC HOSPITAL LOS ANGELES COU	Cole Information Services
2007	ASHOKUMAR L JAIN	Cole Information Services
	COUNTY OF LOS ANGELES	Cole Information Services
	DARRYL SHIBATA	Cole Information Services
	EMERGENCY MEDICINE	Cole Information Services
	HOWARD SILBERMAN MD INC	Cole Information Services
	JOHN LEEDOM MD	Cole Information Services
	LA COUNTY MEDICAL CENTER	Cole Information Services
	LA COUNTY USC MEDICAL CENTER REPLACE	Cole Information Services
	LA CTY	Cole Information Services
	LAC & USC RM 437	Cole Information Services
	LAC + USC HEALTHCARE NETWORK	Cole Information Services
	LAC USC DEPARTMENT OF ANESTHESIOLOGY	Cole Information Services
	LAC USC MEDICAL CENTER	Cole Information Services
	LAC USC MEDICAL CENTER DEPT OF UROLO	Cole Information Services
	LACT USC UNIT I	Cole Information Services
	LACUSC	Cole Information Services
	LOS ANGELES COUNTY & UNIV OF SOUTHER	Cole Information Services
	LOS ANGELES COUNTY HOSPITAL EMR	Cole Information Services
	LOS ANGELES COUNTY MEDICAL CENTER	Cole Information Services
	LOS ANGELES COUNTY USC GENERAL SURGE	Cole Information Services
	MORRISTOWN HEALTH CARE FOOD SERVICES	Cole Information Services
	NURSE RECRUITMENT OFFICE	Cole Information Services
	PARAKRAMA CHANDRASOMA MD	Cole Information Services

FINDINGS

Year	Uses	Source
2007	REGENTS OF THE UNIVERSITY OF CAL	Cole Information Services
	SOCIETY OF UNIVERSITY OTOLARYNGOLOGY	Cole Information Services
	UNIVERSITY PATHOLOGY ASSOCS	Cole Information Services
	USC DEPARTMENT OF MEDICINE	Cole Information Services
	USC DEPARTMENT OF SURGERY	Cole Information Services
	USC GARIATRIC & GENERAL INT MEDICAL	Cole Information Services
	USC NEURO SURGERY	Cole Information Services
	USC RADIOLOGY	Cole Information Services
	VITO CAMPESE MD	Cole Information Services
	WESTERN STATES	Cole Information Services
2006	HOWARD MD	Haines Company, Inc.
	LA CO HOSP MED	Haines Company, Inc.
	LA CO HOSP TDD	Haines Company, Inc.
	LA COUNTY HOSP	Haines Company, Inc.
	LACO MDCLCTSC	Haines Company, Inc.
	NORTHSTAR FIRE	Haines Company, Inc.
	OF NRSNG	Haines Company, Inc.
	PROTECTION	Haines Company, Inc.
	SILBERMAN	Haines Company, Inc.
1976	HOSPITALS & CLINICS SERVICES General Hospital	Pacific Telephone
	HOSPITALS & CLINICS SERVICES Medical Center Services	Pacific Telephone
	HOSPITALS & CLINICS SERVICES Medical Center Services Nurse Recruitment Ofc RN & LVN Employment	Pacific Telephone
	L A County Medical Center Employees Federal Credit Union	Pacific Telephone
	LOS ANGELES COUNTY OF Contd	Pacific Telephone
1970	HOSPITALS	Pacific Telephone
	LOS ANGELES CITY OF HOSPITALS DEPT OF	Pacific Telephone
	LOS ANGELES COUNTY OF HOSPITALS DEPT OF	Pacific Telephone
1965	LOS ANGELES	Pacific Telephone
1964	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
1962	LOS ANGELES COUNTY OF HEALTH DEPT MAIN OFC	Pacific Telephone
1960	LOS ANGELES COUNTY OF HOSPITALS COUNTY GENERAL HOSPITAL	Pacific Telephone
1958	California Foundation for Medical Research	Pacific Telephone

Year	Uses	Source
1958	Chaplains Sarv Genl Hospital	Pacific Telephone
	County Hospital	Pacific Telephone
	County Hospital C M E Ofc	Pacific Telephone
	County Hospital Los Angeles General	Pacific Telephone
	General Hospital Los Angeles County of	Pacific Telephone
	Genl Ofc	Pacific Telephone
	Grinspoon Lester MD	Pacific Telephone
	Hovey Kirby Yates Mrs	Pacific Telephone
	L A General Hospital	Pacific Telephone
	LOS ANGELES COUNTY OF HOSPITALS County General Hospital	Pacific Telephone
	LOS ANGELES COUNTY OF MEDICAL AID DISTS	Pacific Telephone
	Myers Agnes H	Pacific Telephone
	School of Medicine Dept of Medicine	Pacific Telephone
	School of Medicine Dept of Surgery	Pacific Telephone
	University of Southern California	Pacific Telephone
1957	LOS ANGELES CITY OF HOSPITALS	Pacific Telephone
1956	LOS ANGELES COUNTY OF HOSPITALS COUNTY GENERAL HOSPITAL	Pacific Telephone
1954	LOS ANGELES COUNTY OF HOSPITALS	R. L. Polk & Co.
1950	LOS ANGELES COUNTY OF AGRICULTURAL DEPT	Pacific Telephone
	LOS ANGELES COUNTY OF GENERAL HOSPITAL	Pacific Telephone
	LOS ANGELES COUNTY OF GENERAL HOSPITAL COUNTY HOSPITAL	Pacific Telephone

STATE N

1200 STATE N

Year	Uses	Source
2000	CA DINING SV USC MDCL PUB CAFE	Haines & Company
	LA CO HOSP TDD	Haines & Company
	LA CO HSP BLLG INQY	Haines & Company
	LA CO HSP GENL MEDICAL RE	Haines & Company
	LA CO HSP GENL REQUEST	Haines & Company
	LA CO HSP LST	Haines & Company
	LA CO HSP MED	Haines & Company
	LA CO HSP MED CTR	Haines & Company
	LA CO HSP MED CTR CARES A	Haines & Company

Year	Uses	Source
2000	LA CO HSP MED RCRDS 32322e	Haines & Company
	LA CO HSP PUB	Haines & Company
	LA CO HSP SFTY POL	Haines & Company
	LA CO MEDICAL	Haines & Company
	LA COUNTY HOSP AMOROSO DENNIS J	Haines & Company
	MORRISON HEALTH CARE INC	Haines & Company
	PSICOR INC	Haines & Company
	SILBERMAN HOWARD MD	Haines & Company

STATE ST N

1200 STATE ST N

Year	Uses	Source
1951	Calif State of mental hygiene dept of	Pacific Telephone & Telegraph Co.
	L A County X Ray Survey Foundation tumor div	Pacific Telephone & Telegraph Co.
	Lord D Miss X Ray Survey Foundation L A County	Pacific Telephone & Telegraph Co.
	N State	Pacific Telephone & Telegraph Co.
	N State American Legion Serv Dept L A County Genl Hospital Office	Pacific Telephone & Telegraph Co.
	N State County Hospital L A General	Pacific Telephone & Telegraph Co.
	N State General Hospital L A County of	Pacific Telephone & Telegraph Co.
	N State Hospital Chaplains Serv	Pacific Telephone & Telegraph Co.
	N State L A County of general hospital County Hospital	Pacific Telephone & Telegraph Co.
	N State L A General Hospital	Pacific Telephone & Telegraph Co.
	N State Raulston Burrello Dr County Hospital	Pacific Telephone & Telegraph Co.
	N State University of So Calif County Hospital	Pacific Telephone & Telegraph Co.
	N State University of Southern California school of medicine Ofc Bldg Div of Graduate Medicine	Pacific Telephone & Telegraph Co.
	N State University of Southern California school of medicine Resident Training Program Ofc	Pacific Telephone & Telegraph Co.
	State Los Angeles County Of medical aid dists Genl Ofc	Pacific Telephone & Telegraph Co.
	University of So Calif school of medicine Dept of Surgery	Pacific Telephone & Telegraph Co.
	X Ray Survey Foundation L A County tumor div	Pacific Telephone & Telegraph Co.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

E STATE ST

1218 E STATE ST

Year	Uses	Source
2003	:PIERCE Mern	Haines & Company

1241 E STATE ST

Year	Uses	Source
2003	CURTILarry	Haines & Company

HOSPITAL PL

1912 HOSPITAL PL

Year	Uses	Source
1942	MARSHALL Julia Mrs atdt Genl Hosp	Los Angeles Directory Co.
	MARSHALL Wm F uphol SP Co	Los Angeles Directory Co.
1937	MARSHALL Wm F uphol SPCol SPo	Los Angeles Directory Co.
	MARSHALL Julia atdt Genl Hoep	Los Angeles Directory Co.
1933	MARSHALL Wm Julia uphol	Los Angeles Directory Co.
	MARSHALL Julia studt Gen Hosp	Los Angeles Directory Co.
	Marshall Anna M atndt Genl Hosp	Los Angeles Directory Co.

1918 HOSPITAL PL

Year	Uses	Source
1942	Cantrell Violet Mrs	Los Angeles Directory Co.
1937	JOHNSON Marion G atdt Genl Hosp	Los Angeles Directory Co.
1933	JOHNSON Marion G atdt Genl Hosp	Los Angeles Directory Co.
	Dolkas Charlotte Mrs	Los Angeles Directory Co.

1922 HOSPITAL PL

Year	Uses	Source
1942	Robinett Bertha Mrs	Los Angeles Directory Co.
	MAIN Elsie M nurse Genl Hosp	Los Angeles Directory Co.
1933	MAIN Louella stmstrs Gen Hosp	Los Angeles Directory Co.
1929	MAIN Louella smstrs L A Genl Hosp	Los Angeles Directory Co.

FINDINGS

1926 HOSPITAL PL

Year	Uses	Source
1937	FOSTER Clara L clk Ganl Hosp	Los Angeles Directory Co.
1933	Juneman Clara L clk Genl Hosp	Los Angeles Directory Co.

1927 HOSPITAL PL

Year	Uses	Source
2000	xxxx	Haines & Company

1930 HOSPITAL PL

Year	Uses	Source
1942	Fleschner Louise S Mrs nurse Genl Hosp	Los Angeles Directory Co.
1937	Flescliner Louise nurse Genl Hosp	Los Angeles Directory Co.
1933	SMITH Grace E sten Gen Hosp	Los Angeles Directory Co.

1934 HOSPITAL PL

Year	Uses	Source
1976	Swanson Electric Inc	Pacific Telephone
	LOS ANGELES COUNTY OF Contd	Pacific Telephone
	HOSPITALS & CLINICS SERVICES Psychiatric Hospital	Pacific Telephone
	LOS ANGELES COUNTY OF Contd	Pacific Telephone
	HOSPITALS & CLINICS SERVICES Psychiatric Hospital Appointments For Clinic Visits Follow Up Clinic	Pacific Telephone
1971	LOS ANGELES COUNTY OF HOSPITALS DEPT OF Hospitals Other Facilities Psychiatric Unit	Pacific Telephone
	Psychiatric Unit	Pacific Telephone
	LOS ANGELES COUNTY OF COUNTY CLERK DISTRICT ATTORNEY	Pacific Telephone
	LOS ANGELES COUNTY OF COUNTY CLERK Mental Health Court Records	Pacific Telephone
1958	Bureu of Social Work Regional Ofc District Offices East Side	Pacific Telephone
	CALIFORNIA STATE OF MENTAL HYGIENE DEPT OF	Pacific Telephone
	L A Braches County Genl Hospital Ofc	Pacific Telephone
	American Legion Los Angeles County Council Hdqtrs	Pacific Telephone
1942	Hillis Harry M Fanny storemn Genl Hosp	Los Angeles Directory Co.

FINDINGS

1937 HOSPITAL PL

Year	Uses	Source
1990	ANIS INAS	Pacific Bell
	BARKER SYLVIA	Pacific Bell
	BENITEZ CARMEN	Pacific Bell
	BRUTTER FRED	Pacific Bell
	BURD K	Pacific Bell
	CHANG LILLY RI-CHUNG	Pacific Bell
	CRAWSHAW JULIE	Pacific Bell
	DAVIS DONALEE	Pacific Bell
	DINSDALE JAMES	Pacific Bell
	DOMINGO ROSANNA	Pacific Bell
	ELLISON JEAN	Pacific Bell
	ESMAS ANGELIKA M	Pacific Bell
	GALLAGHER M	Pacific Bell
	GORMAN T	Pacific Bell
	GOROSPE GERRY L	Pacific Bell
	GRAVES CHARLES	Pacific Bell
	GRIFFIN KELLEIGH	Pacific Bell
	GRIGOLLA A	Pacific Bell
	GUENTERT K	Pacific Bell
	HELLIE KAT	Pacific Bell
	HELLIE TRACIE	Pacific Bell
	HOPKINS KELVIN	Pacific Bell
	HOPP LAWRENCE M MD	Pacific Bell
	HOUGH KELSIE	Pacific Bell
	HUTTON-MILLS EVELYN	Pacific Bell
	JACOBSEN MICHAEL L	Pacific Bell
	KOR JOY	Pacific Bell
	KOURETA PANY	Pacific Bell
	LANG MARY	Pacific Bell
	LAYMAN GREG O	Pacific Bell
	LIN PETER	Pacific Bell
	LORCA CRISTINE	Pacific Bell
	MALLET TUNESSA	Pacific Bell
	MILLER BETSY	Pacific Bell
	MILLER HOWARD F	Pacific Bell
	MILLER SHONDA	Pacific Bell
	NGUYEN J S	Pacific Bell

FINDINGS

Year	Uses	Source
1990	O CARROLL LISA M	Pacific Bell
	PALMAS ELIZABETH	Pacific Bell
	PARRA ANTHONY	Pacific Bell
	PETERS CYNTHIA	Pacific Bell
	RITTO SHARLENEE M DPM	Pacific Bell
	ROMERO OSCAR	Pacific Bell
	ROQUE JEANETTE	Pacific Bell
	RUMPF K	Pacific Bell
	SCHLESINGER TAYA	Pacific Bell
	SCHROEDER PATTY	Pacific Bell
	SHEWEY MARCIANNE	Pacific Bell
	SOLLANO LETICIA I	Pacific Bell
	STONE KARREY	Pacific Bell
	STOUT CINDY	Pacific Bell
	TINKER D	Pacific Bell
	TREJO ESPERANZA ROSE	Pacific Bell
	ZUANICH GLYNNMARIE	Pacific Bell
	WHITE JOHN	Pacific Bell
	WILLIAMS MARY K	Pacific Bell
	WOO HILDA C	Pacific Bell
1986	ALLEN MARSHA	Pacific Bell
	AMES CRAIG	Pacific Bell
	BALTAZAR L	Pacific Bell
	BARISIC LEEANNE F	Pacific Bell
	BARKER T	Pacific Bell
	BETTS ELAINE	Pacific Bell
	BILLUPS SHERRY S	Pacific Bell
	BONDS M	Pacific Bell
	BURNS ANN	Pacific Bell
	CALKINS C A	Pacific Bell
	CARCERY C	Pacific Bell
	CARTER C	Pacific Bell
	CHAPARRO A L	Pacific Bell
	CHRISMAN ANNE	Pacific Bell
	COLE H	Pacific Bell
	DECASTRO JOCELYN	Pacific Bell
	ELSTEIN D	Pacific Bell
	ESPINOSA J	Pacific Bell

FINDINGS

Year	Uses	Source
1986	FLETCHER KIMBERLEY	Pacific Bell
	GARCIA R	Pacific Bell
	GENTILINI SHERRY	Pacific Bell
	GONZALES D	Pacific Bell
	GONZALEZ MARCO	Pacific Bell
	HAGSTROM L	Pacific Bell
	HALLIADY HOLLIS	Pacific Bell
	HAMM THOMAS	Pacific Bell
	HENDERSON CHERYL	Pacific Bell
	HOLBRAUN KAREN	Pacific Bell
	HORN PATRICIA	Pacific Bell
	JARQUIN MARTHA	Pacific Bell
	KATZER SANDRA	Pacific Bell
	KEARSLEY PEGGY	Pacific Bell
	KELLOGG STACY	Pacific Bell
	KELLY WILLIAM	Pacific Bell
	KEMBY COLLEEN	Pacific Bell
	KNAPP KIMBERLY	Pacific Bell
	KOELSCH A	Pacific Bell
	LORMAN KAREN	Pacific Bell
	MAINS F	Pacific Bell
	MARQUEZ ANNIE-MARIE	Pacific Bell
	MENEGHINI K	Pacific Bell
	MORRILL J S	Pacific Bell
	MUELLER P K	Pacific Bell
	MUNOZ KRISTEN	Pacific Bell
	MUNOZ RENE	Pacific Bell
	NELSON S	Pacific Bell
	OKAMOTO SHARON	Pacific Bell
	OLIVAREZ HELENA L	Pacific Bell
	OSTLING DEANNA	Pacific Bell
	PADILLA JERRY	Pacific Bell
	PASQUA MELISSA	Pacific Bell
	PAULSON MARIA	Pacific Bell
	PAYNE J	Pacific Bell
	PENULLAR BARBAR S	Pacific Bell
	PLESSER JEFF	Pacific Bell
	PREML SHEELA	Pacific Bell

Year	Uses	Source
1986	PRYDE LYNN	Pacific Bell
	REILLY MAUREEN ANN	Pacific Bell
	REUKEMA ELIZABETH	Pacific Bell
	ROGERS KATHLEEN	Pacific Bell
	ROJAS PATRICK	Pacific Bell
	RUSCHE PAULA A	Pacific Bell
	SANCHEZ REBECCA	Pacific Bell
	SERRANO WILFREDO	Pacific Bell
	SEVERINO GINA	Pacific Bell
	SHADER ERIN	Pacific Bell
	SHEVLIN D	Pacific Bell
	SHOJI NANCY	Pacific Bell
	SIRONI C D	Pacific Bell
	SKROPEDA JOSEPH	Pacific Bell
	SOLLINGER KAREN L	Pacific Bell
	SUMMERS SANDRA	Pacific Bell
	TEAL WILLIAM	Pacific Bell
	TOLBY J A	Pacific Bell
	TOLIVER RENETTE	Pacific Bell
	TUNGOL V	Pacific Bell
	VESEY J	Pacific Bell
	VITOCRUZ EPPIE	Pacific Bell
	WEEKLEY JEANETTE	Pacific Bell
	WEINBERG MICHELLE D	Pacific Bell
	WILSON LISA D	Pacific Bell
	YOUNG CAROLYNE J	Pacific Bell

1938 HOSPITAL PL

Year	Uses	Source
1942	LA MARR Selma	Los Angeles Directory Co.
1937	BAILEY Robt techn Genl Hosp	Los Angeles Directory Co.
1933	Paradzick Chas Bertha oilwkr	Los Angeles Directory Co.
1929	La Fehr Jessie V nurse L A Genl Hosp	Los Angeles Directory Co.

1942 HOSPITAL PL

Year	Uses	Source
1942	Wellet Howard Nellie	Los Angeles Directory Co.
1933	Prudence Norman ambulancemn Gen Hosp	Los Angeles Directory Co.

FINDINGS

1946 HOSPITAL PL

Year	Uses	Source
1937	Dirksen Melvin P atdt Genl Hosp	Los Angeles Directory Co.
1933	BIRD Wm S nurse Gen Hosp	Los Angeles Directory Co.

1949 HOSPITAL PL

Year	Uses	Source
1937	BIRD Wm B nurse Genl Hosp	Los Angeles Directory Co.

N STATE

1129 N STATE

Year	Uses	Source
1990	I-S A M CLINIC	Pacific Bell
	S A M CLINIC	Pacific Bell

1130 N STATE

Year	Uses	Source
1924	MATTHEWS Amos h	Los Angeles Directory Co.
	MATTHEWS Wm r	Los Angeles Directory Co.

1144 N STATE

Year	Uses	Source
1924	Russo Lawrence h	Los Angeles Directory Co.
	Russo Lawrence R clk r	Los Angeles Directory Co.

1152 N STATE

Year	Uses	Source
1924	Mc Burney Thos J h	Los Angeles Directory Co.
	Girnus Wm J truck driver r	Los Angeles Directory Co.

1158 N STATE

Year	Uses	Source
1924	OKeefe John T eng S P h	Los Angeles Directory Co.

1170 N STATE

Year	Uses	Source
1924	Wirtz Ludwig r	Los Angeles Directory Co.
	BARNES Steven B Hines & Barnes h	Los Angeles Directory Co.
	BARNES Stephen W car bldr S P r	Los Angeles Directory Co.

FINDINGS

1188 N STATE

Year	Uses	Source
1942	Narvino Jas Angelina	Los Angeles Directory Co.

1206 N STATE

Year	Uses	Source
1924	Surbuis Claude motrmn r	Los Angeles Directory Co.

1218 N STATE

Year	Uses	Source
1929	TAYLOR Walter L techn L A Genl Hosp r	Los Angeles Directory Co.
1924	Soule Nellie mach opr r	Los Angeles Directory Co.

N STATE ST

1129 N STATE ST

Year	Uses	Source
1976	HOSPITALS & CLINICS SERVICES Pediatric Pavilion Hospital	Pacific Telephone
	LOS ANGELES COUNTY OF Contd	Pacific Telephone
	Five Star Builders	Pacific Telephone

S STATE ST

1137B S STATE ST

Year	Uses	Source
1964	ALEXANDER IDAMAE	Pacific Telephone

1242 S STATE ST

Year	Uses	Source
1995	i Henry David	Pacific Bell

STATE N

1129 STATE N

Year	Uses	Source
2000	LA CO HSP CMM	Haines & Company

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
1200 N State Street	2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1975, 1972, 1969, 1963, 1961, 1955, 1952, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1129 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1129 N STATE ST	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1129 STATE N	2012, 2007, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1130 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1137B S STATE ST	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1144 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1152 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1158 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1170 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1188 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1206 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1218 E STATE ST	2012, 2007, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1218 N STATE	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1241 E STATE ST	2012, 2007, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1242 S STATE ST	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1912 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1918 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1922 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1926 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1927 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1930 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1934 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1937 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1938 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1942 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1946 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1949 HOSPITAL PL	2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

APPENDIX I

Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Inquiry Number: 3659410.3
July 10, 2013

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

7/10/13

Site Name:
Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Client Name:
Kimley Horn & Associates, Inc.
401 B Street
San Diego, CA 92101

EDR Inquiry # 3659410.3

Contact: Jennifer Steen

EDR® Environmental Data Resources Inc

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Certified Sanborn Results:

Site Name: Lac Usc Phase I
Address: 1200 N State Street
City, State, Zip: Los Angeles, CA 90033
Cross Street:
P.O. # NA
Project: lac usc phase i
Certification # 3157-4410-AB8B

Maps Provided:

1970
1951
1920
1906
1894
1890

Sanborn® Library search results
Certification # 3157-4410-AB8B

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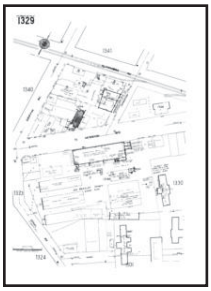
Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

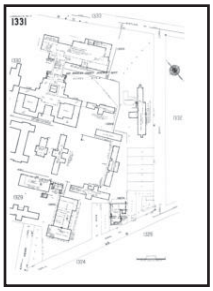
1970 Source Sheets

Volume 13, Sheet 1323

Volume 13, Sheet 1324



Volume 13, Sheet 1329



Volume 13, Sheet 1331

Volume 13, Sheet 1340

1951 Source Sheets

Volume 13, Sheet 1324

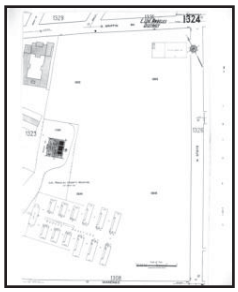
Volume 13, Sheet 1329

Volume 13, Sheet 1340

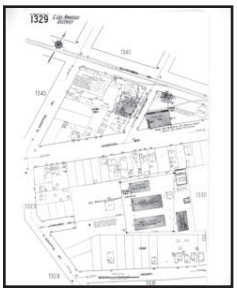
Volume 13, Sheet 1323

1920 Source Sheets

Volume 13, Sheet 1323



Volume 13, Sheet 1324

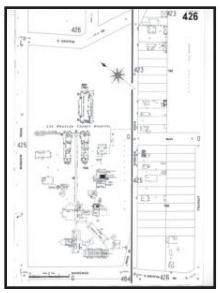


Volume 13, Sheet 1329

Volume 13, Sheet 1340

1906 Source Sheets

Volume 4, Sheet 425



Volume 4, Sheet 426

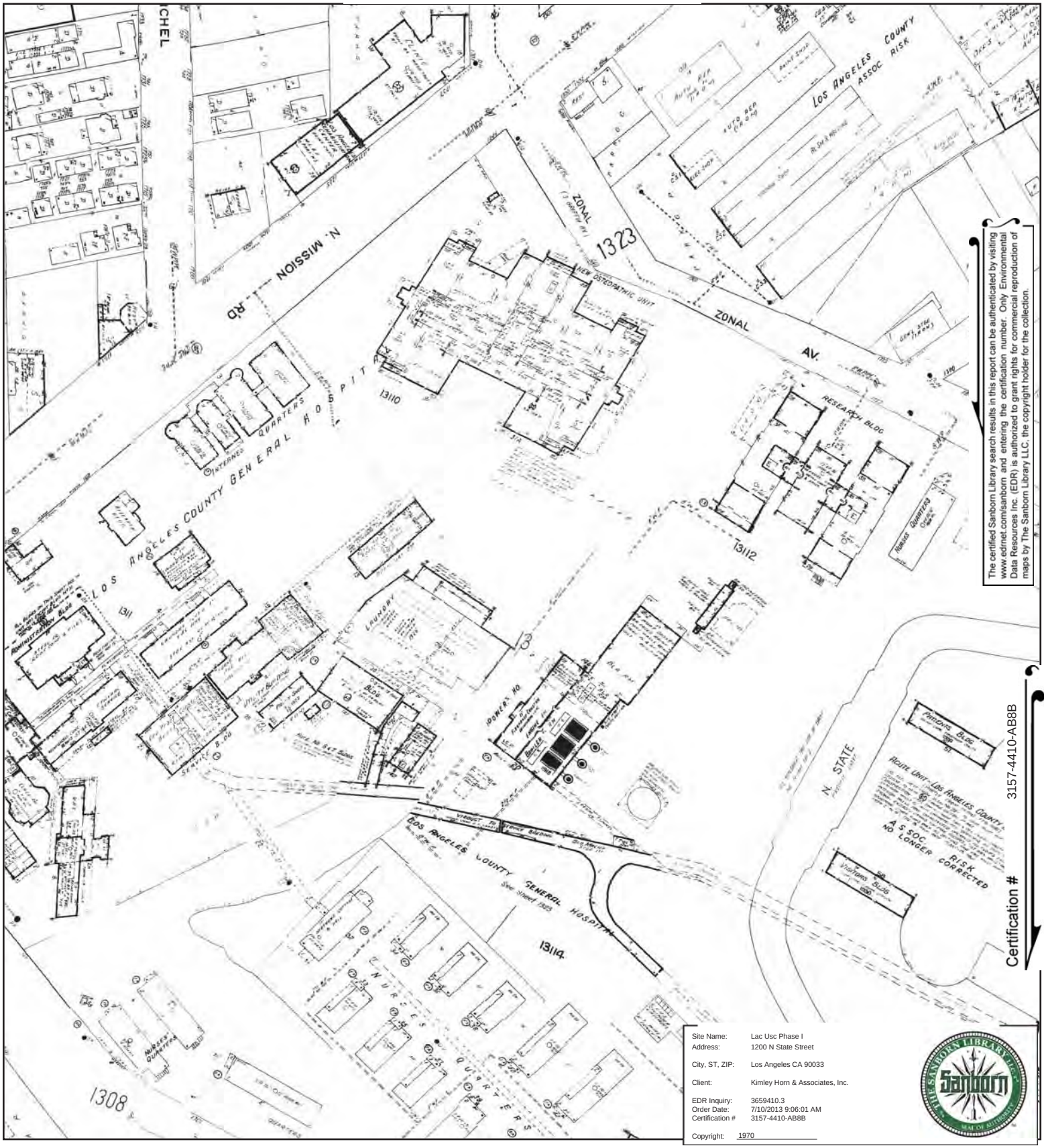
1894 Source Sheets

Volume 2, Sheet 54

1890 Source Sheets

Volume 2, Sheet 67

1970 Certified Sanborn Map



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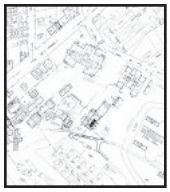
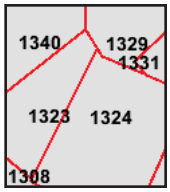


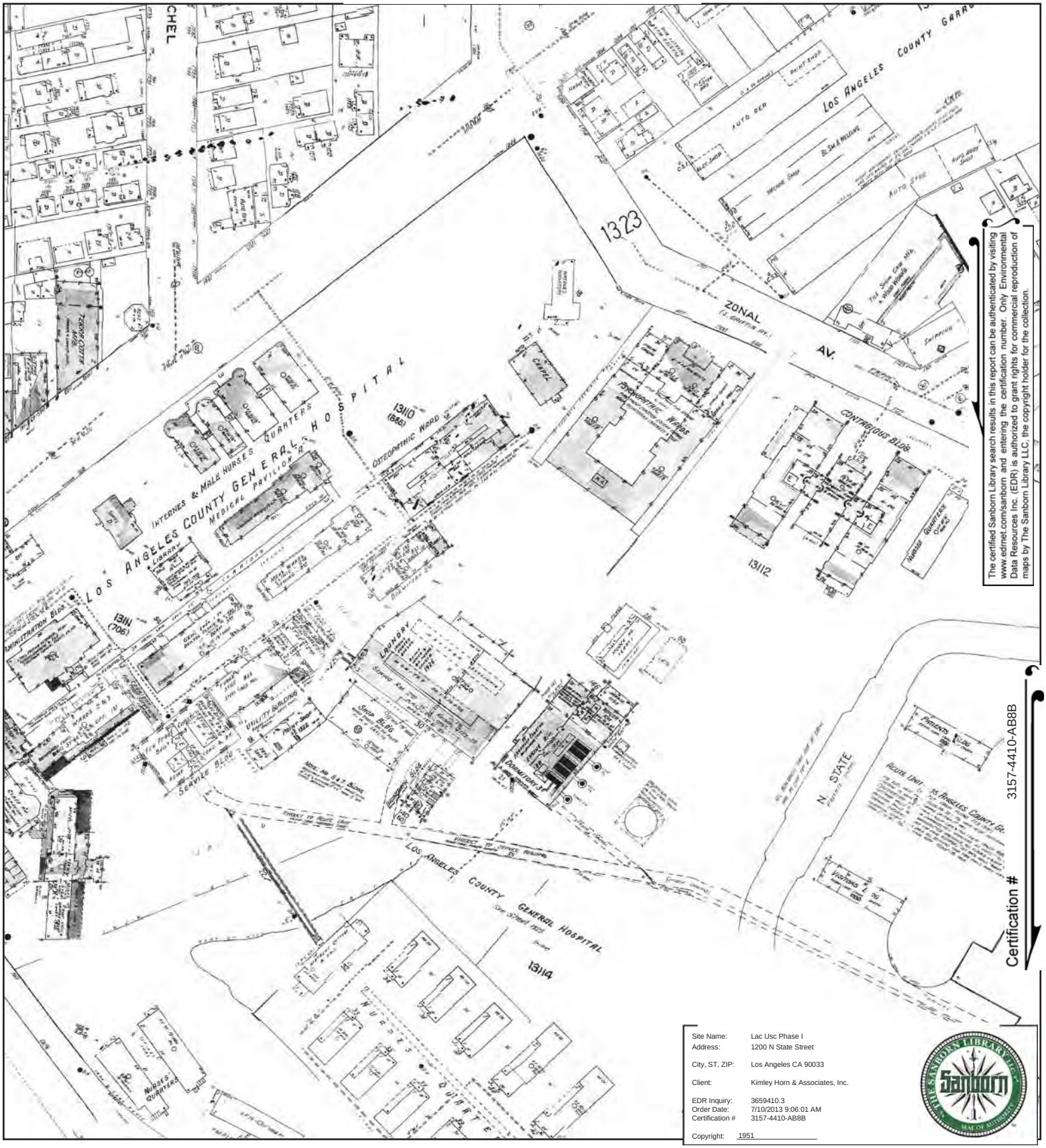


Volume 13, Sheet 1323
Volume 13, Sheet 1324
Volume 13, Sheet 1329
Volume 13, Sheet 1331
Volume 13, Sheet 1340

0 Feet 150 300 600

N

1951 Certified Sanborn Map



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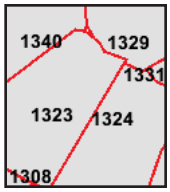
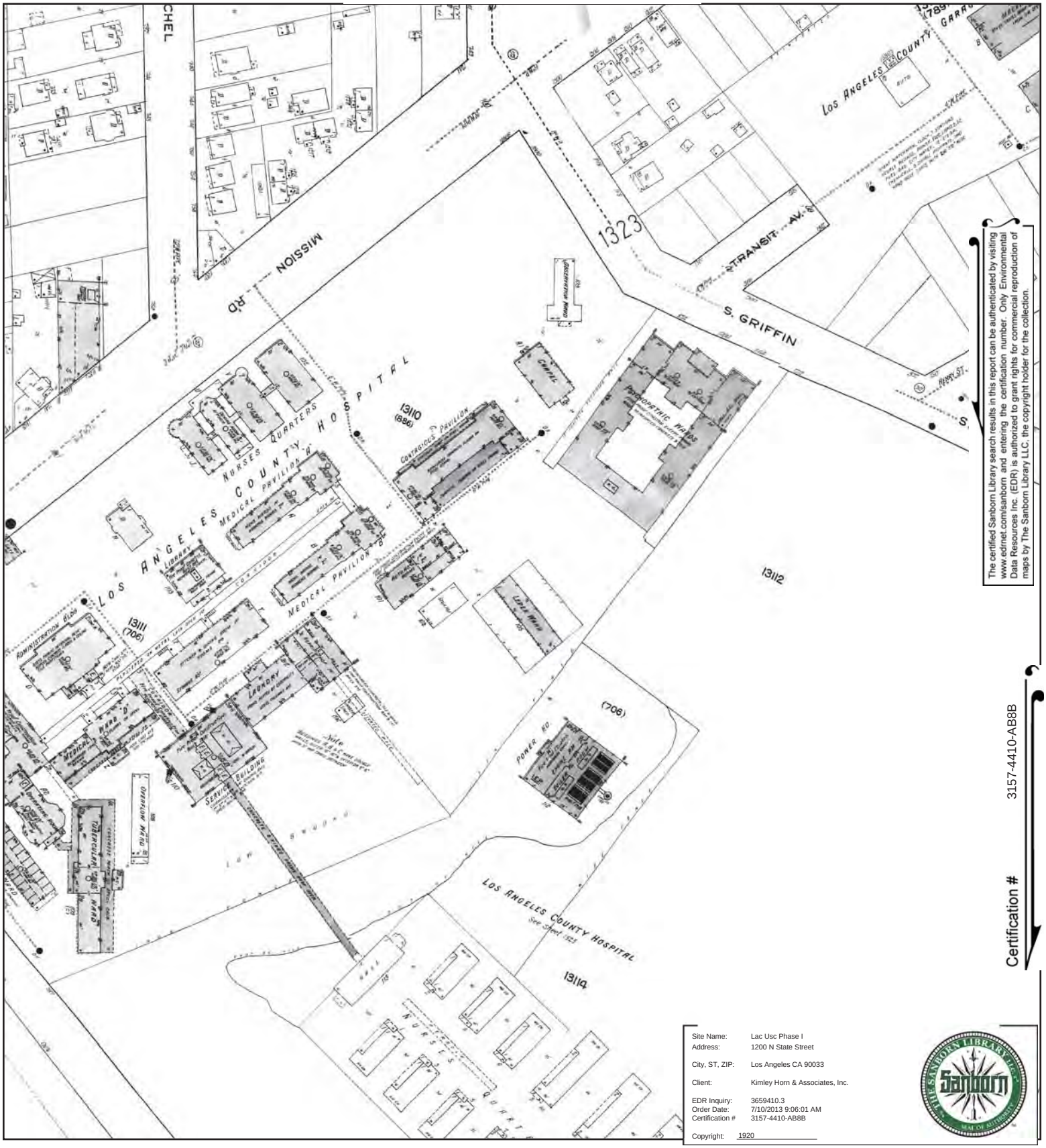


Volume 13, Sheet 1324
Volume 13, Sheet 1329
Volume 13, Sheet 1340
Volume 13, Sheet 1323

N

1920 Certified Sanborn Map



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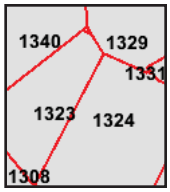
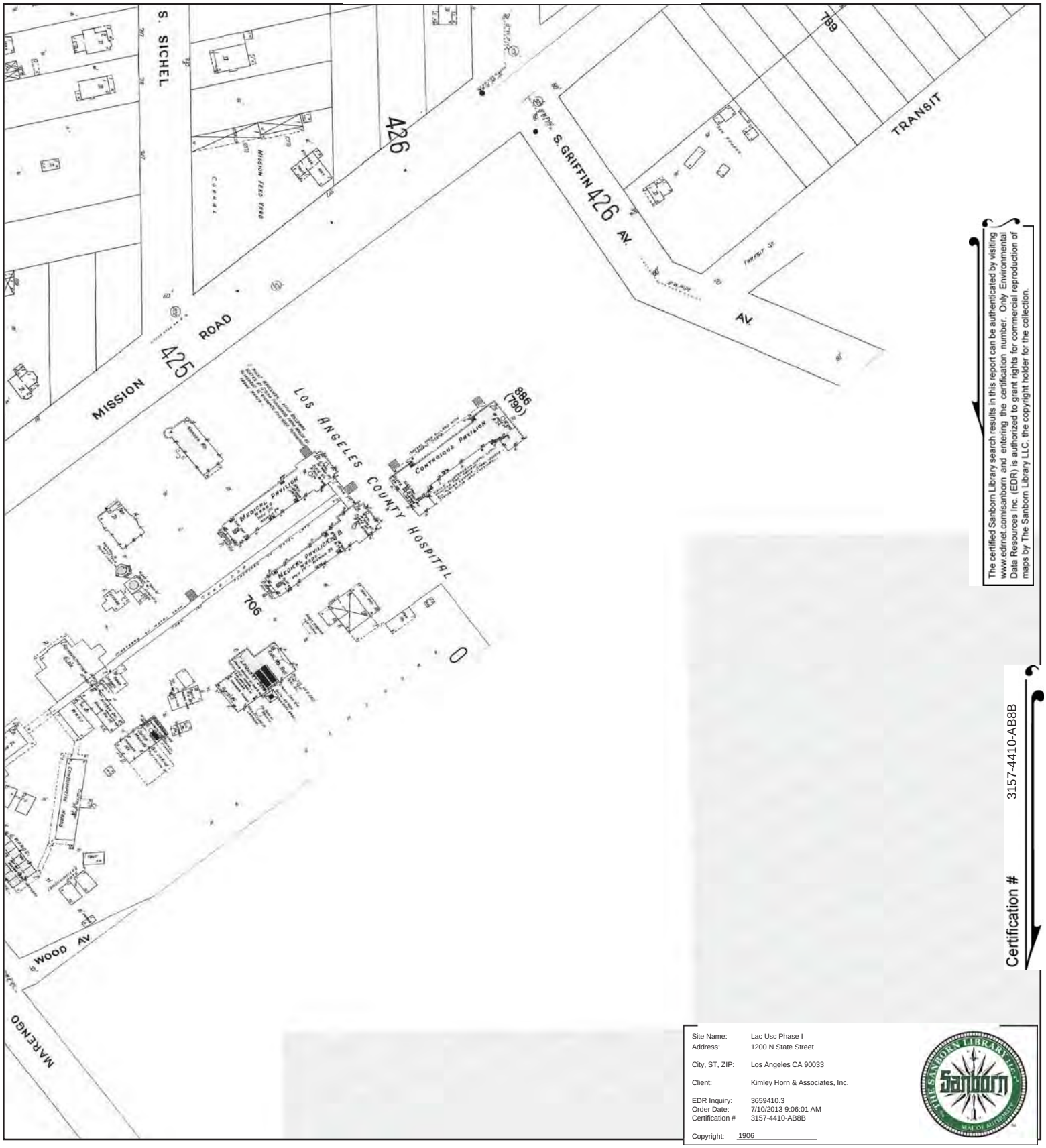


Volume 13, Sheet 1323
Volume 13, Sheet 1324
Volume 13, Sheet 1329
Volume 13, Sheet 1340

0 Feet 150 300 600

N

1906 Certified Sanborn Map



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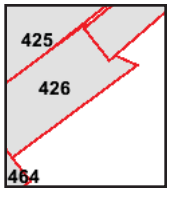

Volume 4, Sheet 425
Volume 4, Sheet 426

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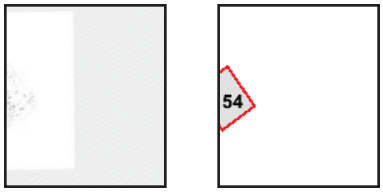

Volume 2, Sheet 54

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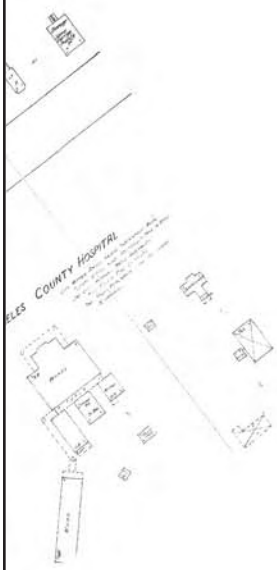
N

1890 Certified Sanborn Map



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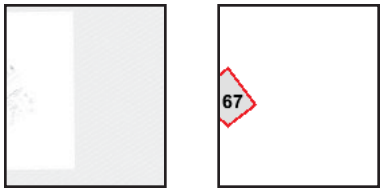

Volume 2, Sheet 67

0 Feet 150 300 600

N

Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Inquiry Number: 3659410.3
July 10, 2013

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Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

Client Name:
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EDR Inquiry # 3659410.3

Contact: Jennifer Steen

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City, State, Zip: Los Angeles, CA 90033
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P.O. # NA
Project: lac usc phase i
Certification # 3157-4410-AB8B

Maps Provided:

1970
1951
1920

Sanborn® Library search results
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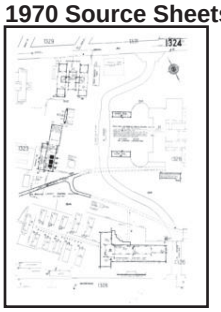
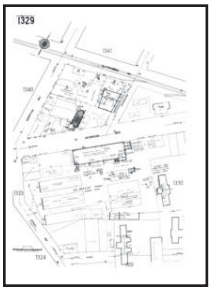


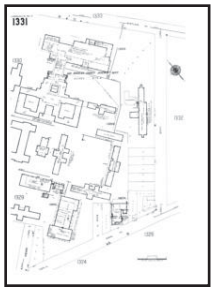
Volume 13, Sheet 1324

Volume 13, Sheet 1326



Volume 13, Sheet 1329

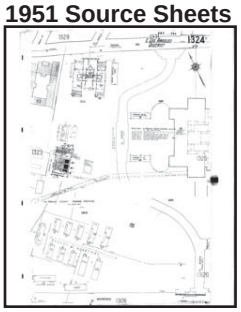
Volume 13, Sheet 1330



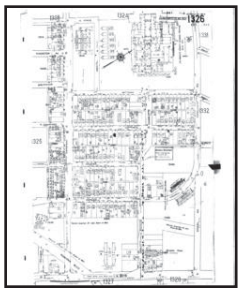
Volume 13, Sheet 1331

Volume 13, Sheet 1332

1951 Source Sheets



Volume 13, Sheet 1324



Volume 13, Sheet 1326

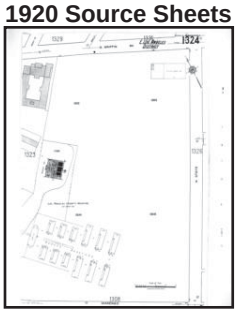
Volume 13, Sheet 1329

Volume 13, Sheet 1330

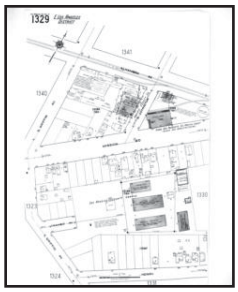
Volume 13, Sheet 1331

Volume 13, Sheet 1332

1920 Source Sheets



Volume 13, Sheet 1324



Volume 13, Sheet 1329

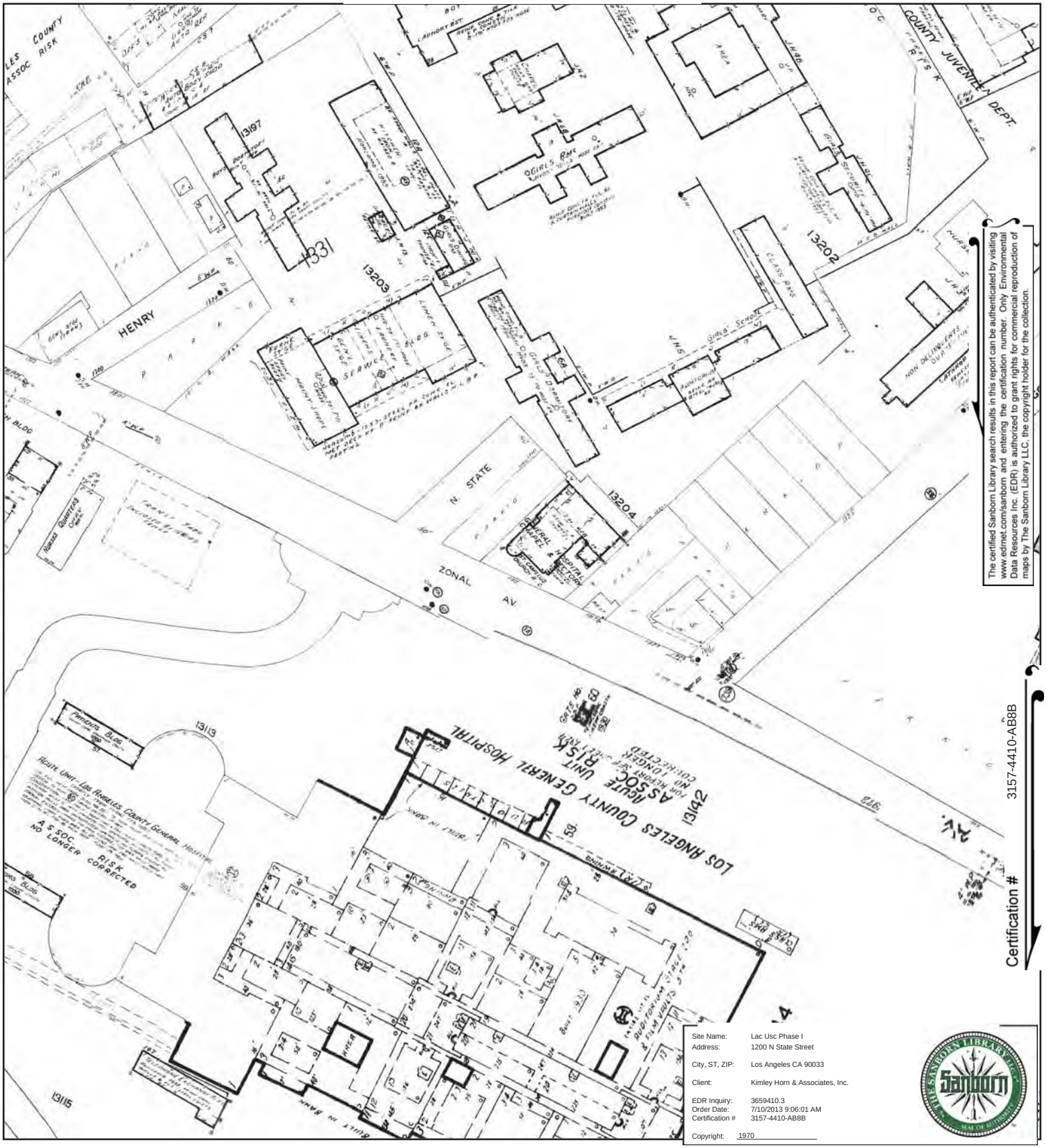
Volume 13, Sheet 1330

Volume 13, Sheet 1331

Volume 13, Sheet 1332

Volume 13, Sheet 1326

1970 Certified Sanborn Map



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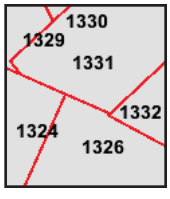
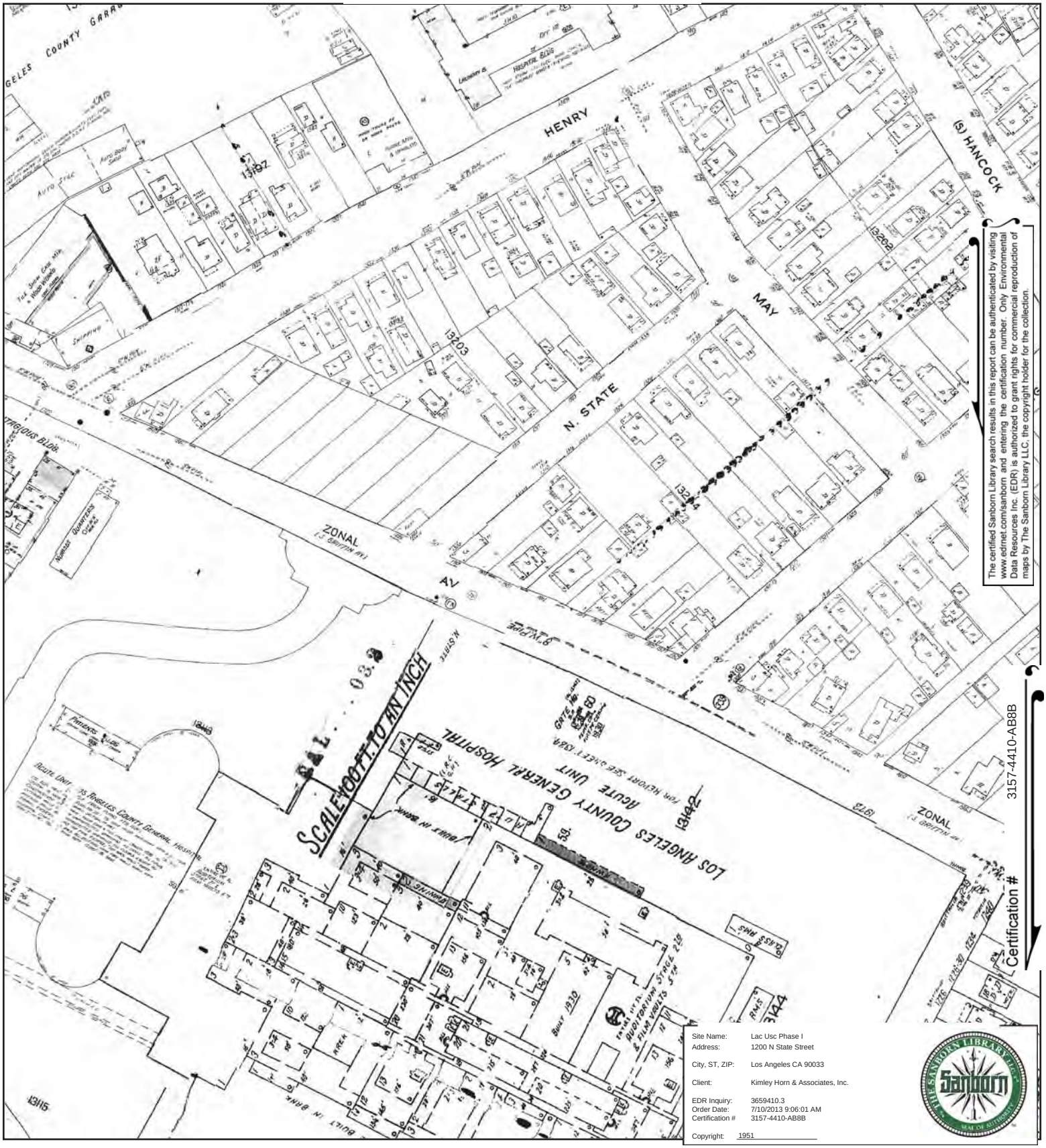


Volume 13, Sheet 1324
Volume 13, Sheet 1326
Volume 13, Sheet 1329
Volume 13, Sheet 1330
Volume 13, Sheet 1331
Volume 13, Sheet 1332

N

1951 Certified Sanborn Map



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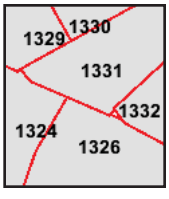

Volume 13, Sheet 1324
Volume 13, Sheet 1326
Volume 13, Sheet 1329
Volume 13, Sheet 1330
Volume 13, Sheet 1331
Volume 13, Sheet 1332

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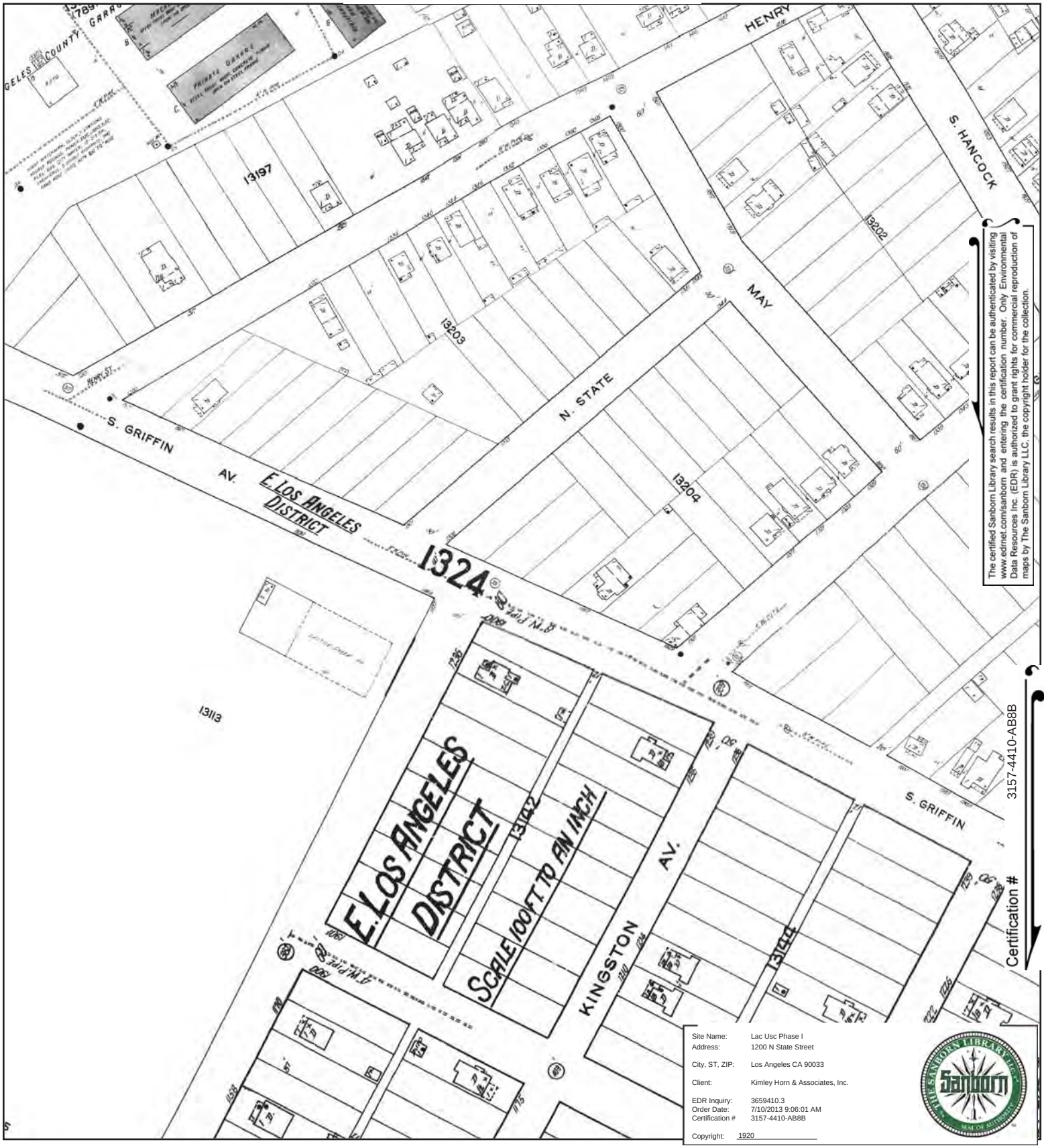
1920 Certified Sanborn Map



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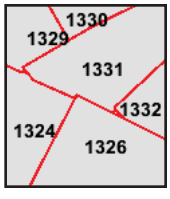

Volume 13, Sheet 1324
Volume 13, Sheet 1329
Volume 13, Sheet 1330
Volume 13, Sheet 1331
Volume 13, Sheet 1332
Volume 13, Sheet 1326

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Lac Usc Phase I
1200 N State Street
Los Angeles, CA 90033

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1200 N State Street
Los Angeles, CA 90033

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Contact: Jennifer Steen

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Project: lac usc phase i
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Maps Provided:

1970
1951
1920
1906
1894
1890

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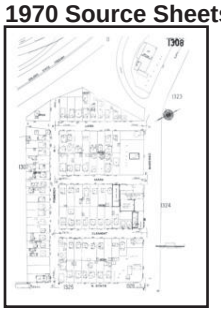
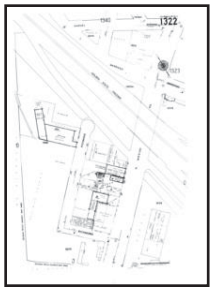
1970 Source Sheets



Volume 13, Sheet 1308



Volume 13, Sheet 1322

Volume 13, Sheet 1323

Volume 13, Sheet 1340

1951 Source Sheets

Volume 13, Sheet 1308

Volume 13, Sheet 1340

Volume 13, Sheet 1322

Volume 13, Sheet 1323

1920 Source Sheets

Volume 13, Sheet 1308

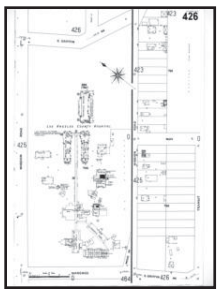
Volume 13, Sheet 1322

Volume 13, Sheet 1323

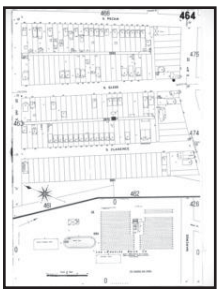
Volume 13, Sheet 1340

1906 Source Sheets

Volume 4, Sheet 425



Volume 4, Sheet 426



Volume 4, Sheet 464

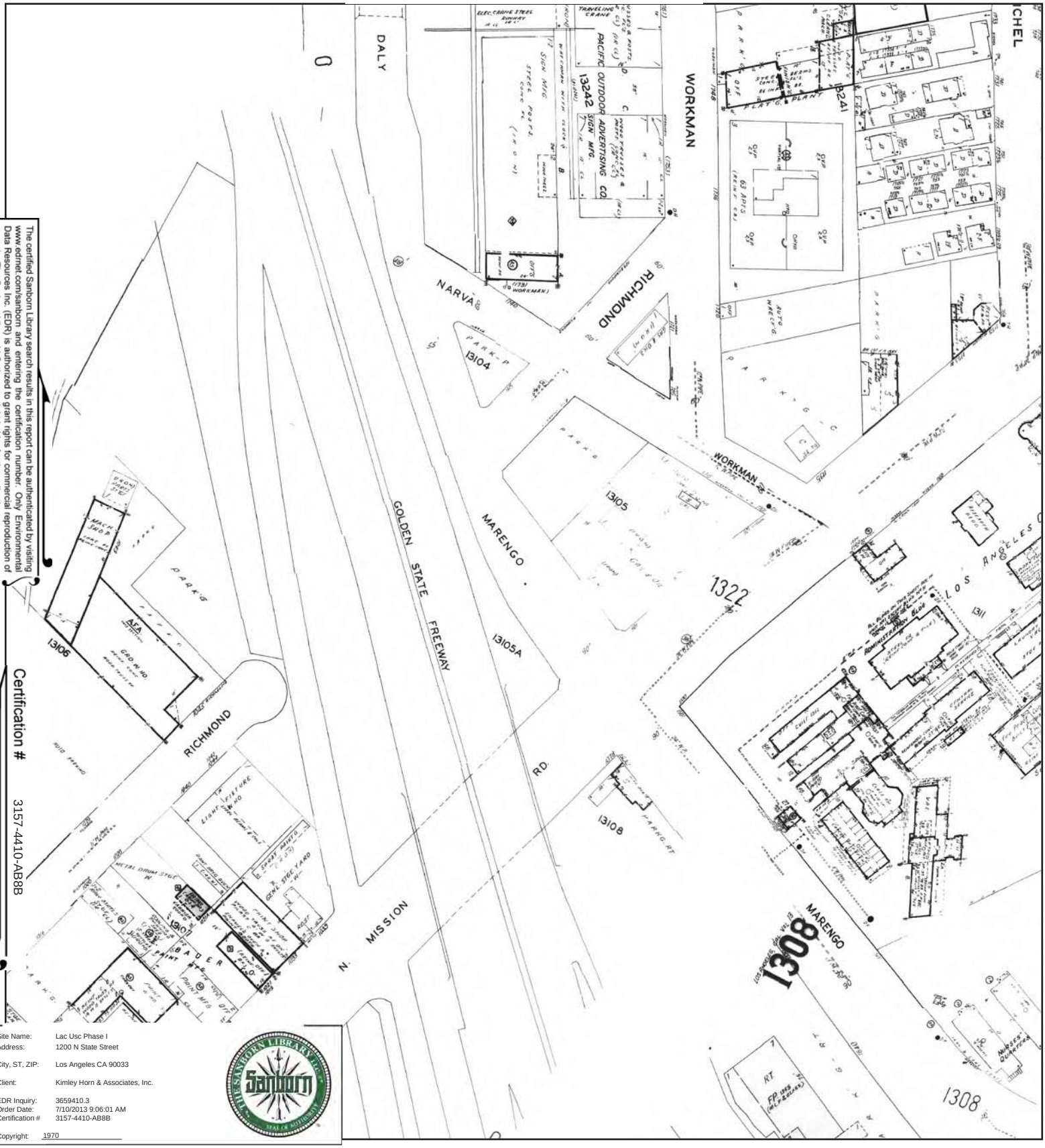
1894 Source Sheets

Volume 2, Sheet 54

1890 Source Sheets

Volume 2, Sheet 67

1970 Certified Sanborn Map



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Certification # 3157-4410-AB8B

Site Name:	Lac Usc Phase I
Address:	1200 N State Street
City, ST, ZIP:	Los Angeles CA 90033
Client:	Kimley Horn & Associates, Inc.
EDR Inquiry:	3659410.3
Order Date:	7/10/2013 9:06:01 AM
Certification #	3157-4410-AB8B
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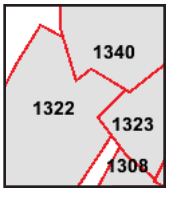

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Volume 13, Sheet 1340

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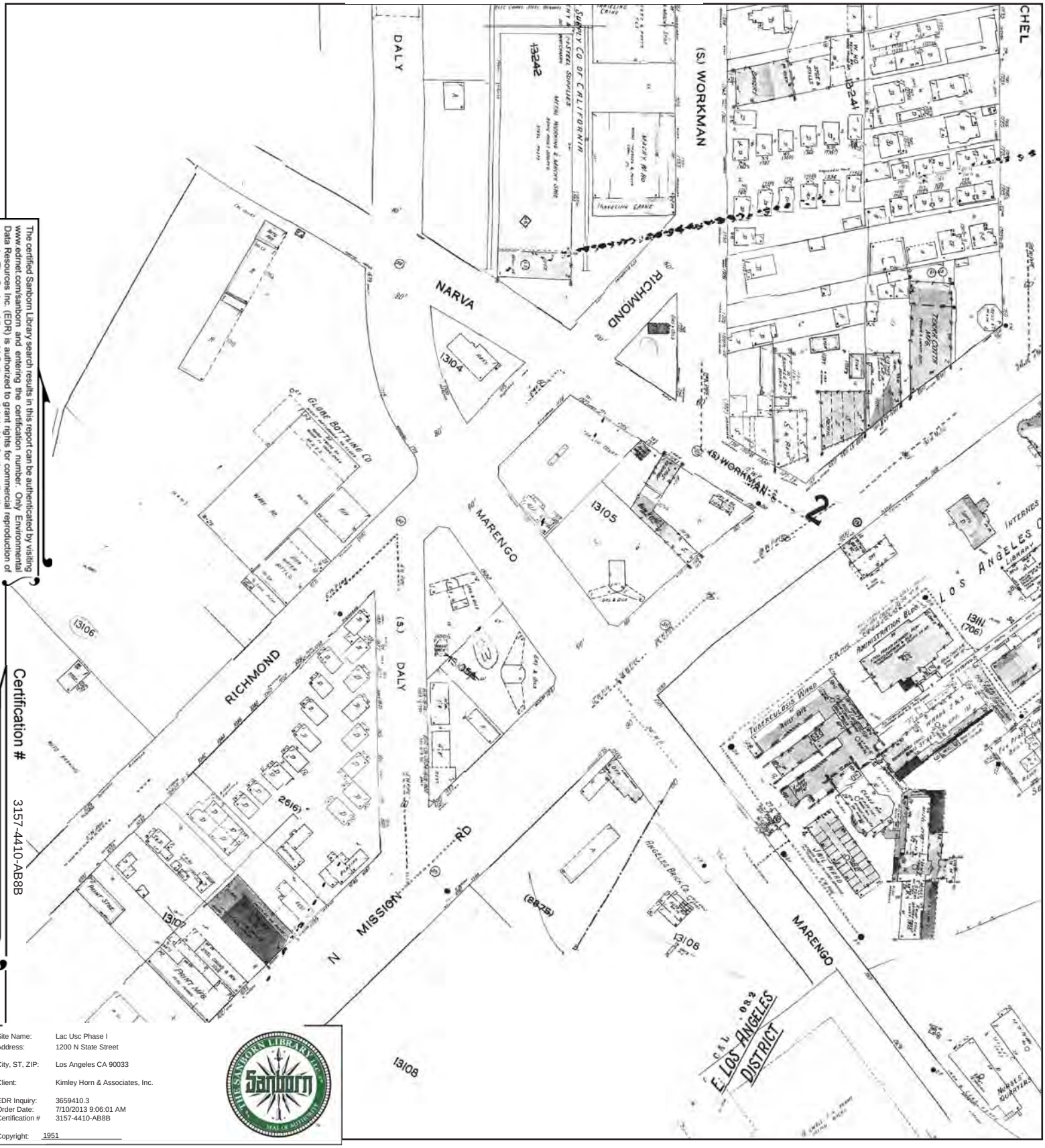
1951 Certified Sanborn Map



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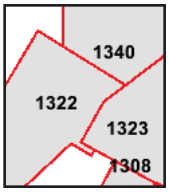

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Volume 13, Sheet 1322
Volume 13, Sheet 1323

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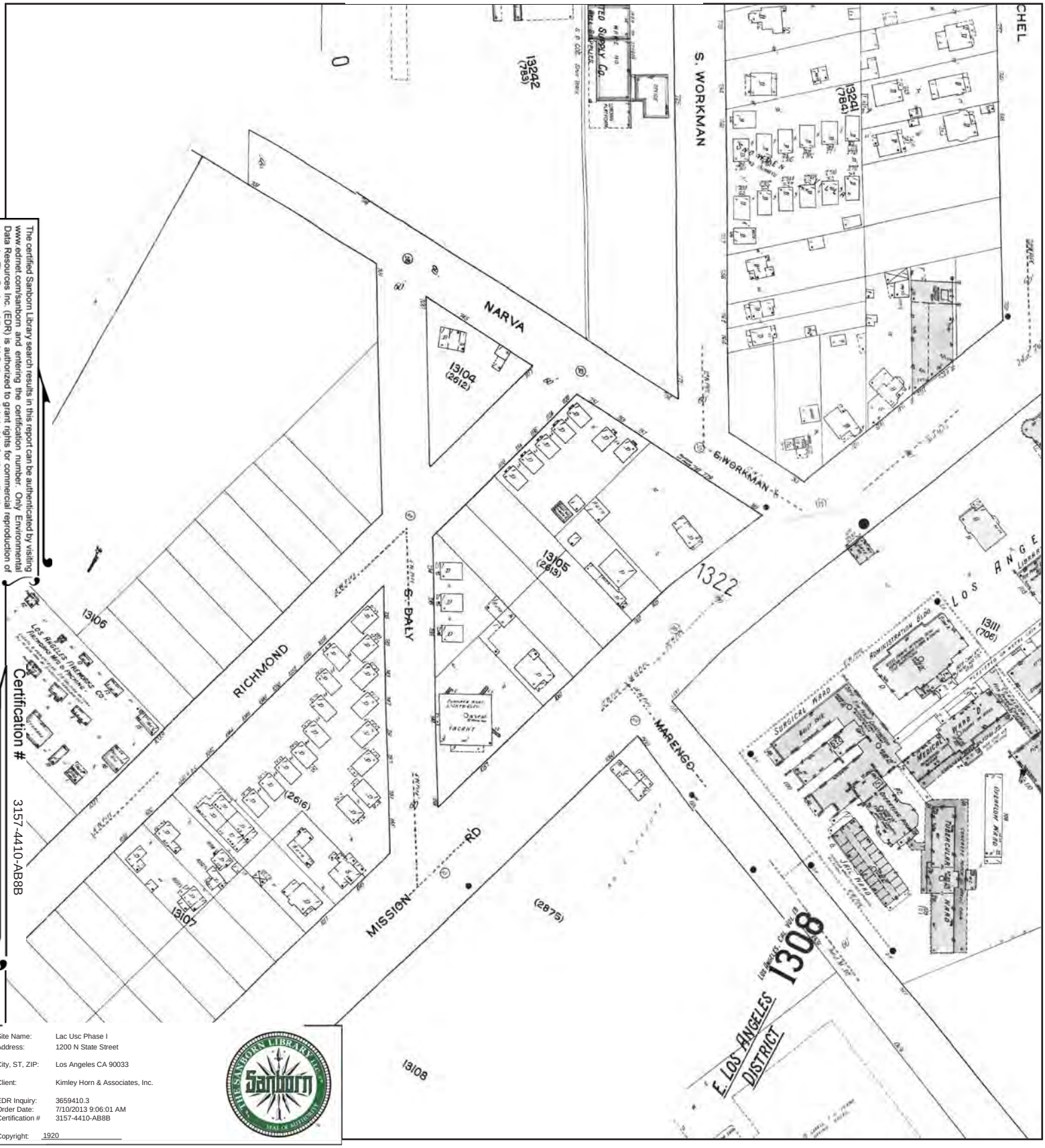
1920 Certified Sanborn Map



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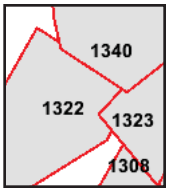

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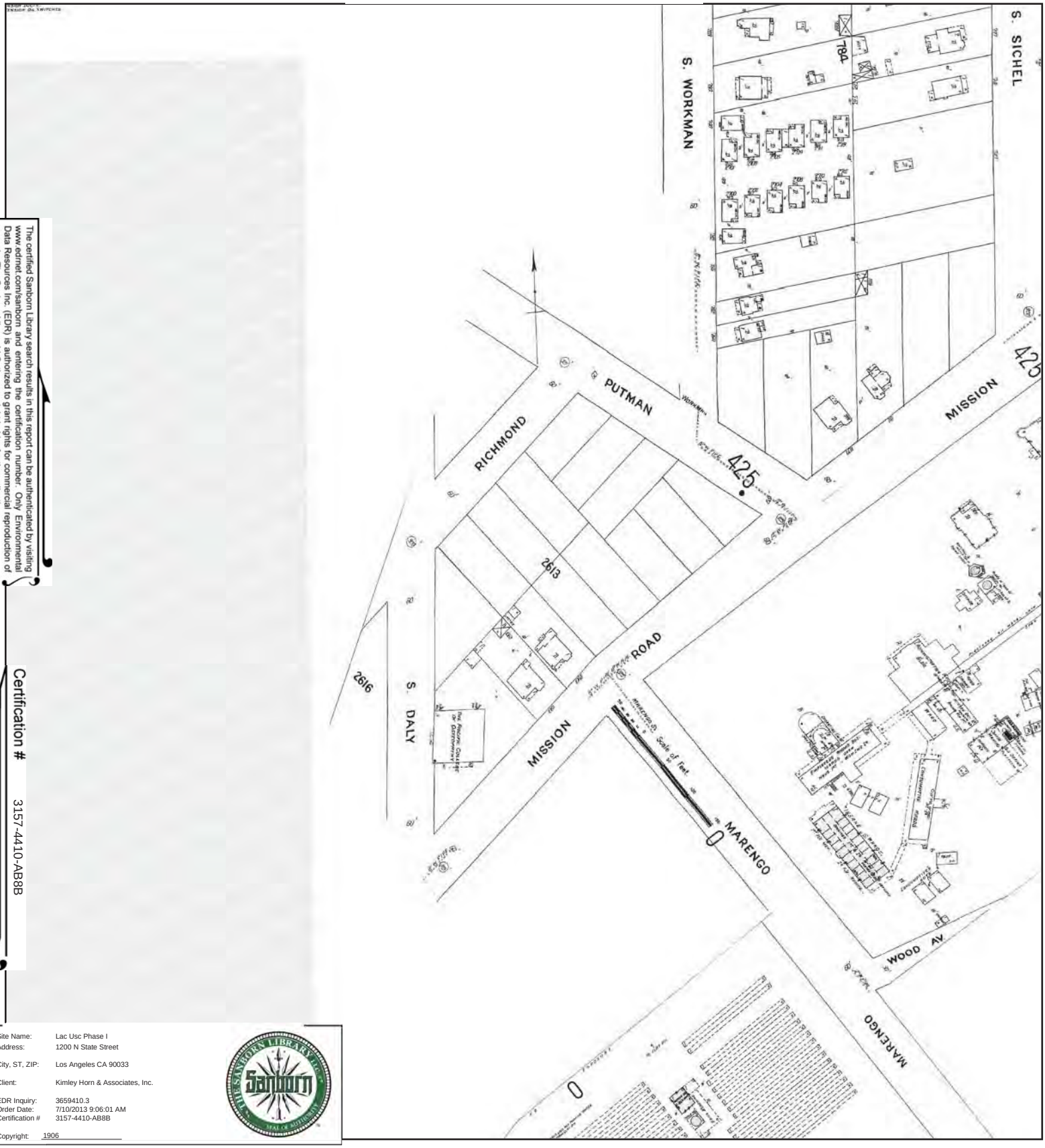
1906 Certified Sanborn Map



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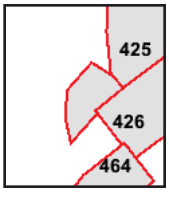

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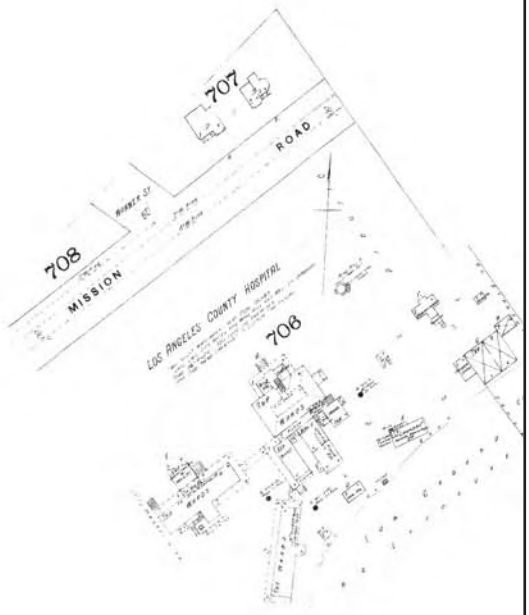

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Address: 1200 N State Street
City, ST, ZIP: Los Angeles CA 90033
Client: Kimley Horn & Associates, Inc.
EDR Inquiry: 3659410.3
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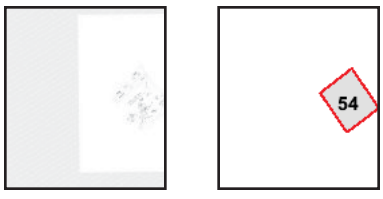

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1890 Certified Sanborn Map

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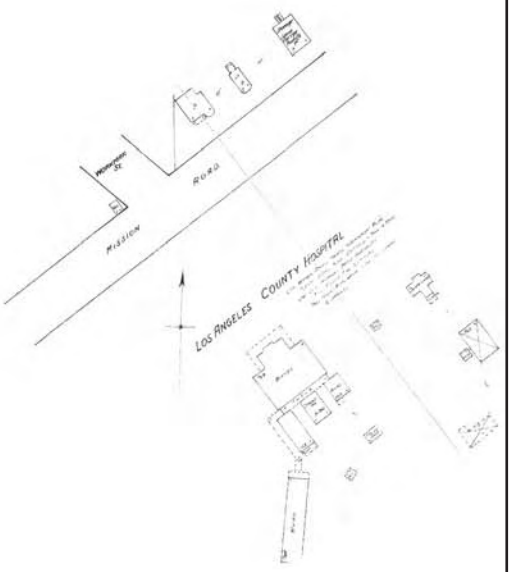

Site Name: Lac Usc Phase I
Address: 1200 N State Street
City, ST, ZIP: Los Angeles CA 90033
Client: Kimley Horn & Associates, Inc.
EDR Inquiry: 3659410.3
Order Date: 7/10/2013 9:06:01 AM
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N

APPENDIX J

Kimley-Horn
and Associates, Inc.

Jason C. Sheasley, P.G.

Professional Credentials

Bachelor of Science, Earth and Environmental Science, Minors Geology and Physics,
Wilkes University (Pennsylvania), 1993

Professional Geologist in Florida, Pennsylvania, and North Carolina

Certified Hazardous Materials Manager

OSHA 40-Hour HAZWOPER Training

Specialized Training

The MODFLOW Course: Theory and Practical Application in Natural Attenuation, Remediation Design and Water Resource Management – National Ground Water Association

Automated Model Calibration using WinPEST – National Ground Water Association

Introduction to Groundwater Flow and Transport Modeling Using Groundwater Vistas – Environmental Simulations, Inc.

Review of the District-Wide Regulation Model Version 2 and Focus TMR Technique – Environmental Simulations, Inc.

Application of Health Risk Assessment for Environmental Decision Making – National Ground Water Association

Ground-Water Field Methods GW1227S – United States Geological Survey

Certified Hazardous Materials Manager's Review Course – Georgia Institute of Technology

Professional Organizations

National Ground Water Association

Institute of Hazardous Materials Management

Academy of Hazardous Materials Managers

First Coast Chapter of the Academy of Certified Hazardous Materials Managers,
Chapter Secretary (2003), Vice-President (2004), President (2005)

Florida Association of Professional Geologists
Geological Society of America

Special Qualifications

- More than nineteen years experience in water resources, hydrogeology and geology.
- Due diligence Phase I and Phase II Environmental Site Assessment Reporting
- Specialize in ground water resource management

Kimley-Horn
and Associates, Inc.

Jason C. Sheasley, P.G.

Relevant Experience, cont.

Special Qualifications, cont.

- Proficient with MODFLOW 3-dimensional ground water modeling
- Managed geologic and hydrogeologic investigations for the characterization of subsurface contamination at commercial and industrial sites nationwide.
- Experience in the development of Brownfield sites and environmentally impacted properties.
- Directed and managed projects relating to the characterization and remediation of soil and ground water contamination.
- Provided technical oversight for the development of regional ground water management policies.
- Familiar with the use and application of geographic information systems (ArcView, ArcInfo, ArcSDE).
- Experience with environmental compliance under RCRA, CERCLA and various state hazardous waste programs.

Relevant Experience

Former Buena Vista Railroad Yard/Mid-Town Miami Brownfield Site, Miami, FL – Senior Hydrogeologist for the site assessment activities conducted on the 50-acre site that formerly operated as a railroad yard. Supervised and documented of soil and ground water sampling activities. Assisted in the development of remedial strategies to address the environmental concerns associated with the site. These strategies were incorporated into the multi-million dollar Brownfield redevelopment of the site. Remedial strategies were developed to reduce the potential for environmental impact and human exposure while allowing for the beneficial development of the site. Ultimately the remedial strategies saved the client millions of dollars in soil disposal costs. Completed Site Assessment Reports, Remedial Action Plans and Engineering Evaluation and Cost Analysis for the site. Assisted in preparing the Brownfield Site Rehabilitation Agreement for the subject site. The Site was issued a Site Rehabilitation Completion Order in 2006. In 2009 the U.S. Environmental Protection Agency awarded the Site the Phoenix Award, the nation's most prestigious award for Brownfield redevelopment. The Mid-Town Miami projects is one of only three Phoenix Award recipients in the State of Florida.

Brownfield Grant – Los Angeles County, CA - Managed the USEPA's Brownfields Hazardous Assessment Grant for Los Angeles County, California. Prepared a Phase I Environmental Site Assessment for a portion of the LA County University of Southern California (LAC+USC) Medical Center. The assessment included a portion of the Medical Center that has been utilized as a medical facility since 1858. This area contained numerous medical buildings as well as the physical plant for the entire Medical Center Campus. Prepared a site-specific Quality Assurance Project Plan for future assessment activities at the Site. Coordinated the subsequent Phase II Environmental Site Assessment to investigate the identified recognized environmental conditions.

Jason C. Sheasley, P.G.

Relevant Experience, cont.

Wal-Mart Store No. 1575 – Pompano, FL – Managed and coordinated assessment and remediation activities under a Brownfields Site Rehabilitation Agreement on behalf of Wal-Mart Stores, Inc. for a retail store. The historical use of the site for automotive repair and sales resulted in localized impacts to the soil and ground water. Conducted site assessment activities and developed a remedial action plan for the Site that complemented the proposed Site development. Developed a construction dewatering plan for the Site that included effluent treatment for the principal contaminants of concern. Preparation of the dewatering plan included the development of a site-specific numerical ground water model to simulate the proposed dewatering activity relative to the on-site contamination as well as nearby contaminated sites. Oversaw the implementation of the remedial action plan during site construction. Coordinated with the site contractors to facilitate off-site disposal of contaminated soil.

Wal-Mart Store No. 2987-01 – Davie, FL – Lead hydrogeologist for the assessment and remediation of a former agricultural area under a Brownfields Site Rehabilitation Agreement. Coordinated the assessment of soil and ground water impacts associated with the past use of the property for agricultural purposes. Developed a remedial action plan allowed for the on-site encapsulation of contaminated soils beneath an engineering control. Implemented a quarterly ground water monitoring plan following construction. Prepared and implemented an engineering control monitoring plan. Assisted environmental counsel with the preparation of institutional controls and a deed restriction for the Stie.

Brownfield Grant – New Smyrna Beach, FL – Conducted Phase II Environmental Site Assessment activities under a USEPA Brownfields Hazardous Assessment Grant for the City of New Smyrna Beach. Performed soil and ground water sampling in accordance with a site-specific Quality Assurance Project Plan to assess and delineate the extent of contamination emanating from a historical dry cleaning facility. Reviewed and evaluated soil and ground water quality data and assisted in the preparation of the Site Assessment Report.

City of Homestead Brownfield Geographic Information System (GIS), Homestead, FL – Managed the design and implementation of a dynamic GIS project using ArcGIS for the City of Homestead's Brownfield Program. Collected, inturperted and mapped information pertaining to contaminated sites throughout the City. Prepared corresponding spatial data files and databases for relevant contaminated Sites and potential or on-going Brownfield redevelopment programs. Created user-friendly templets for data output. Prepared the corresponding User Manuals for the GIS project.

Los Alamitos Medical Center – Los Alamitos, CA – Facilitated the a Consultative Service Agreement between the California Department of Toxic Substances Control and Pacific Medical Buildings, LLC for the development of a medical office building on a site impacted by elevated concentrations of chlorinated solvents in the soil and ground water. Coordinate with City and County agencies for approval to develop the contaminated site. Prepared a Soil Management Plan to address the removal and disposal of contaminated soil during the excavation of the building

Jason C. Sheasley, P.G.

Relevant Experience, cont.

foundation. Coordinated the disposal of approximately 2,500 cubic yards of contaminated soil from the Site. Designed a vapor mitigation system for the medical office building that incorporated a spray-applied vapor membrane with sub-slab depressurization.

Office Depot, Inc. – Delray Beach, FL – Project Manager and lead hydrogeologist for the assessment and remediation of the former Office Depot, Inc. headquarters. Developed and implemented a remedial action plan to facilitate the excavation and off-site disposal of contaminated soil and debris. Coordinated with future investors and prospective purchasers for the remediation of the Site. Implemented a long-term plan to monitor contaminants in the ground water.

Jones Pier – Indian River County, FL – Project Manager for the assessment and remediation of the former Jones Pier Site in Indian River County under chapter 62-780, Florida Administrative Code. The historical use of the Jones Pier site as a tree nursery resulted in pesticide impacts to the localized soil. An extensive site assessment was conducted to assess the extent of the pesticide concentrations in the soil. This was followed by a ground water assessment to confirm that the contaminants had not leached into the ground water. Developed a remedial strategy for the Site which incorporated the County's intended use of the property for land preservation. Prepared and submitted Site Assessment Reports and a Remedial Action Plan for the Site which were approved by the Florida Department of Environmental Protection. A Site Rehabilitation Completion Order was issued for the Site 2011.

Shadowbrook Estates – Indian River County, FL – Project Manager for the assessment and remediation of a former citrus grove in Indian River County under chapter 62-780, Florida Administrative Code. Conducted ground water quality assessment activities and performed and evaluated aquifer test data. Successfully petitioned the Florida Department of Environmental protection to accept dissolved metals ground water quality data for characterization purposes due to the prevailing site conditions. Developed a remedial strategy for the Site which incorporated the County's intended use of the property for land preservation. A Site Rehabilitation Completion Order was issued for the Site in July 2013.

Wal-Mart Stores, Inc. Southeastern United States – Project Manager for environmental due diligence activities at over 150 sites in the southeastern United States, including Florida, North Carolina, South Carolina and Georgia. Prepared Phase I Environmental Site Assessment Reports in accordance with ASTM Standard E-1527-05 and Wal-Marts Environmental Due Diligence Policy. Conducted subsequent Phase II ESAs to evaluate potential recognized environmental conditions relative to the subject Sites. The Phase II ESAs included the collection and analysis of soil and ground water samples from sites suspected as being impacted by deleterious substances. The results of the Phase II ESA were used to evaluate the sites for constructability purposes. Prepared Construction Dewatering Plans and Soil Management Plans for proposed development sites based upon the results of the Phase II ESA or subsequent investigations. Coordinated and managed the

Jason C. Sheasley, P.G.

Relevant Experience, cont.

completion of Hazardous Building Material Surveys, which included the collection of asbestos and lead-based paint samples from the structures present on the Site.

Indian River County Environmental Due Diligence, Indian River County, FL – Served as the Quality Control Manager for the environmental due diligence work undertaken by KHA on behalf of Indian River County. Provided technical oversight for several Phase I and II Environmental Site Assessments conducted on properties under consideration by the County. Reviewed Phase I and II Environmental Site Assessment Reports prepared for the County. Provided recommendations to the County based on the due diligence findings.

Water Use Permitting, Mulberry, FL – Prepared and submitted a three million gallon per day (MGD) Water Use Permit for a proposed 6,500 unit residential development within the Southwest Florida Water Management District's (SWFWMD) Southern Water Use Caution Area (SWUCA). Prepared justification for the necessary and beneficial use of ground water withdrawn from the Upper Floridan Aquifer. Prepared an impact analysis using the SWFWMD's District-Wide Regulation Model using the MODFLOW pre and post-process Groundwater Vistas to simulate potential impacts to sensitive environmental features and legal users of the ground water resource. Developed beneficial re-use options to be implemented as part of the planed residential development. Prepared an Environmental Monitoring Plan to monitor ground water withdrawals and potential impacts to sensitive wetlands, surface water bodies and legal uses of the Floridan Aquifer.

The Resorts Water Use Permit, Polk County, FL – Prepared and submitted a General Water Use Permit for a proposed 3,967 unit residential/resort development within the Southwest Florida Water Management District (SWFWMD). Prepared justification for the necessary and beneficial use of ground water for irrigation and water-based recreation. Conducted an environmental impact analysis that examined the potential impact of the proposed withdrawal quantities on sensitive environmental features and legal users of the ground water resource. Utilized the SWFWMD's District-Wide Regulation Model using the MODFLOW pre and post-process Groundwater Vistas to simulate and assess the proposed ground water withdrawals. Negotiated with the SWFWMD to allow the use of ground water to service the proposed water use demands for a 15-acrea water park. Prepared and submitted responses to requests for additional information (RAI) from the SWFWMD.

The Preserves Water Use Permit, Polk County, FL – Prepared and submitted a General Water Use Permit to the Southwest Florida Water Management District (SWFWMD) for a proposed 480 unit residential development in northeastern Polk County, Florida. Calculated the proposed irrigation demand for the development using the SWFWMD's agricultural water demand software AGMOD. Examined the potential impact on nearby sensitive environmental features and legal users of the ground water resource using the SWFWMD's District-Wide Regulation Model. Prepared an opinion regarding the potential for impact resulting from the proposed ground water withdrawals. Prepared and submitted responses to requests for additional information (RAI) from the SWFWMD.

Jason C. Sheasley, P.G.

Relevant Experience, cont.

Titan America, LLC, New Hanover County, NC – Prepared a steady-state, 3-dimensional, numerical ground water flow model using the US Geological Survey's MODFLOW computer code to simulate the expansion of existing quarry operations in northeastern New Hanover County, NC. Developed a conceptual model for the study area using site-specific and published hydrogeologic data. Utilized the MODFLOW computer code pre and post processor Ground Water Vista software to prepare a five-layer numerical model representing the complex geology of the study area. Calibrated the numerical model using a semi-quantitative analysis of observed conditions and steady-state model results. This included the completion of a parameter sensitivity analysis and automatic calibration procedure. Prepared several model simulations to model the existing quarry operations and the proposed quarry expansion plans. Examined the potential impact to nearby wetlands and the Northeast Cape Fear River as a result of the proposed quarry expansion simulations. Estimate the quarry dewatering rates for each proposed quarry expansion scenario. Prepared a comprehensive Hyrdogeologic Report for the study area that included the findings of the site-specific hydrogeologic investigation and numerical ground water modeling efforts.

Bald Head Island, Reverse Osmosis System Recovery Improvements, Bald Head Island, NC Served as a Senior Hydrogeologist on the project and supervised a hydrogeologic study of the wastewater lagoon system that services the island. The island utilizes a series of lagoons to discharge and dispose of wastewater. The purpose of the study was to determine the cause of overflows of the lagoon system that occurred during periods of increase precipitation. Developed a plan to measure ground water and surface water elevations during a 30-day period, in which peak loading occurred. Utilized the data collected from the site for formulate a conceptual model of the lagoon systems hydrdogeologic cycle. Ultimately determined that a ground-water divide was created during periods of peak precipitation that prevented the infiltration of wastewater into the subsurface resulting in the flooding of the lagoon system. Made recommendations regarding the continued operation and maintenance of the lagoon system as well as projected the feasibility of the system to accept increased wastewater loading.

Oak Hills Wastewater Treatment Facility Expansion, Polk County, FL – Served as a senior hydrogeologist for the expansion of a 200,000-gallon per day (GPD) wastewater treatment facility. This project included the siting and design of a rapid infiltration basin (RIB) for the disposal of treated effluent. Coordinated and supervised the completion of a hydrogeologic investigation on the Site. Conducted a mounding analysis, using site-specific hydrogeologic data, to analyze the effects of the RIB on the localized ground water regime. This included the preparation of a finite-difference numerical model (MODFLOW) to simulate the mounding effects of the proposed RIB on the water table. Prepared corresponding permitting documentation that was submitted to the Florida Department of Environmental Protection (FDEP). Interacted with the FDEP and local agencies for the approval of the water use permit for the proposed RIB.

Wal-Mart, Lauderdale Lakes, FL – Prepared relevant construction plans to address the on-site ground water contamination during construction dewatering. This included the designing a hydraulic barrier system to be used during construction that would preclude migration of the

Jason C. Sheasley, P.G.

Relevant Experience, cont.

contaminants during dewatering. A numerical ground water model was prepared to simulate the operation of the proposed hydraulic barrier system. Submitted relevant documentation to the Broward County Environmental Protection Department and obtained approval for the construction dewatering activities.

Rybovich Spencer Boat Works, West Palm Beach, FL – Senior Hydrogeologist for the environmental due diligence, site assessment and remedial design for the re-development a boat manufacturing and repair facility. Supervised and coordinated the subsequent site assessment activities in support of a remedial design for the site. Developed a remedial approach for the site that incorporated elements of the proposed site development and construction, which were approved by the FDEP. Developed corresponding Soil Management Plans and Construction Dewatering Plans for the Site to be implemented during construction.

Thomas Ranch, Sarasota County, FL – Senior Hydrogeologist for the ground water resource investigation conduct on a1,600-acre ranch. Supervised the drilling and installation of irrigation wells on the site. Coordinated the collection of relevant lithologic, geophysical, hydrogeologic and water quality data from each well. Analyzed the step-drawdown data collected from each well to estimate the corresponding transmissivity and hydraulic conductivity values. Also examined the yield, production and water quality of the wells relative to the projected irrigation demands. Prepared a hydrogeologic report for the subject site utilizing the aforementioned. The report included recommendations regarding the construction of future wells on the site.

JAXPORT Blount Island and Talleyrand Facilities, Jacksonville, FL – Coordinated and managed the Jacksonville Port Authority's (JAXPORT) Multi-Sector Generic Permits for industrial stormwater discharge for their Blount Island and Talleyrand Marine Terminals. Prepared, maintained and updated Stormwater Pollution Prevention Plans (SWPPP) for each facility. Conducted comprehensive site evaluations to evaluate each facility's compliance with the MSGP's requirements and evaluated the application and effectiveness of best management practices for pollution management. Coordinated the collection and analysis of quarterly stormwater samples from each facility. Provided training for JAXPORT personnel responsible for the implementation of the implementation of the SWPPPs.

Emergency Source Area Removal, Florid Rock Industries, Inc., Bunnell, FL – Coordinated and supervised emergency source area removal activities associated with the Florida Rock concrete plant in Bunnell, FL. The emergence activities included free-product removal and soil excavation and disposal. Further examined the extent of soil and ground water impacts associated with the identified contamination. Coordinated the source area removal and characterization activities with the on-gong construction work. Advised Florida Rock and the contractor on the proper management and mitigation of the contaminated media. Developed construction techniques to preclude further exacerbation of the contamination.

Stormwater Drainage Wells, Former Buena Vista Railroad Yard, Miami, FL – Project Manager for a hydrogeologic study conducted on the former railroad yard to determine the feasibility of using

Jason C. Sheasley, P.G.

Relevant Experience, cont.

stormwater drainage wells in association with the proposed development of the site. Conducted an extensive geologic and hydrogeologic analysis of data collected from the site as it pertained to the use of injection wells for the disposal of stormwater runoff from the proposed development site. Developed construction criteria for the injection wells and stormwater management system.

Wellhead Protection, City of Jacksonville, FL – Directed the initiation and development of the City of Jacksonville's Wellhead Protection Program. This included the preparing the Wellhead Protection Rule of the City's Environmental Protection Board Rule. Interacted with various state and federal agencies to ensure specific wellhead protection issues and concerns were addressed by the City's Program. Conducted public meetings and hearings relative to the promulgation of the City's Wellhead Protection Rule. Developed an educational and community outreach program to inform the regulated community and general public about wellhead and ground water protection.

Well Permitting Geographic Information System (GIS), City of Jacksonville, FL – Developed a dynamic GIS for the City of Jacksonville maintains a water well database. The database contained over 20,000 wells installed throughout Duval County, Florida. The corresponding GIS system utilized an Oracle 9i database to store tabular data. The corresponding spatial data was stored in a geodatabase that was linked to an ArcSDE server. The resulting GIS was generated a feature class that was used to facilitate the mapping and management of ground water wells throughout the county.

Wal-Mart, Palmetto, FL – Project Manager for site assessment and remediation activities associated with the 30-acre development site. The site consisted of a former industrial facility, plant nursery and unregulated solid waste disposal area. Delineated the extent of the soil/ground water impacts and buried solid waste on the site. Developed a Remedial Action Plan, which incorporated the proposed site development plans, to address the identified environmental impacts. The remedial alternatives included the use of engineering and institutional controls to address the soil/ground water impacts. Provide oversight for the ongoing remedial activities.

Ortega River Boat Yard Redevelopment, Jacksonville, FL – Project Manager for the site assessment and remediation activities for the Ortega River Boat Yard. The site had continuously operated as a boat yard and marina since the early 1920s. Supervised the performance of a site assessment activities conducted on the site which included the collection of representative soil, sediment and ground water samples from the site. Prepared a combined Phase I and Phase II Environmental Site Assessment Report that addressed the identified environmental impacts with respect to the proposed site development plans. Prepared and submitted a Combined Report for the site to the Florida Department of Environmental Protection. Oversaw the implementation of the site's Remedial Action Plan and coordinated the remedial activities with the site construction work.

Towers of Channelside, Tampa, FL – Project Manager for the site assessment and remediation of a former commercial facility that was redeveloped as high-rise condominiums. Supervised site assessment activities and the collection of representative soil and ground water samples from the site. Delineated soil and ground water impacts related to the historical activities associated with

Jason C. Sheasley, P.G.

Relevant Experience, cont.

the site. Prepared a Combined Report and Remedial Action Plan for the Site. Prescribed remedial alternatives that included source removal and incorporated the proposed site construction activities to mitigate area-wide soil contamination. Interacted with the Hillsborough County Environmental Protection Commission for the approval and implementation of the Remedial Action Plan. Coordinated with the site developer and contractor for the implementation of the Remedial Action Plan during site construction. Developed construction practices that would preclude the exacerbation of the contamination present on the site. Phase I and Phase II Environmental Site Assessment Report and a Site Assessment Report for the site.

Depot Avenue Roadway Improvement Corridor, Gainesville, FL – Project Manager for the Phase I Environmental Site Assessment for the Depot Avenue Corridor. This project included the assessment of all the properties and parcels located within a two-mile corridor. Conducted extensive reconnaissance activities to identify recognized environmental conditions within the proposed roadway right-of-way. Prepared a corresponding Phase I Environmental Site Assessment Report that enumerated the potential environmental concerns and made recommendations for further assessment activities.

Florida Keys Electrical Cooperative, Marathon and Tavernier, FL – Project Manager responsible for the development of Remedial Actions Plans for two sites located in the Florida Keys with arsenic contamination in the soil. Utilizing relevant data collected from the site, developed remedial strategies to minimize further environmental impact and human exposure to the arsenic contaminated soils. The remedial strategies incorporated the combined use of engineering and institutional controls to address the arsenic impacted soils.

Atlanta Gas Light Company, Manufactured Gas Plant (MGP), Augusta, GA – Supervised field crews responsible for the assessment of dissolved phase and dense non-aqueous phase liquids (DNAPL) associated with the Augusta MGP Site. Prepared site-specific Sampling and Analysis Plans; Health and Safety Plans; and Quality Assurance Plans. Scheduled, coordinated and supervised multiple field staff, drilling crews and on-site mobile laboratories. Coordinated and negotiated access to off-site properties. Provided litigation support to the Client's counsel in the preparation of site access agreements. Coordinated and supervised the completion of on-site aquifer performance testing. Provided field and technical support for remediation pilot tests. Compiled, reviewed and evaluated soil and ground water quality data collected from the Site. Prepared hydrogeologic cross-sections, contaminant plume maps and ground water contour maps. Analyzed and calculated site-specific aquifer parameters based upon the hydrogeologic data collected from the Site. Assisted with the preparation of the Contamination Assessment Report prepared for the Site.

Southern Wood Piedmont, Wood Treatment Facility, East Point, GA and Chattanooga, TN – Coordinated and supervised field activities associated with the assessment and remediation of two former wood preserving facilities primarily contaminated with cresols, polynuclear aromatic hydrocarbons, chromated copper arsenate), and zinc meta-arsenate. Assisted with the design and installation of the corresponding ground water/free-product recovery systems. Supervised the

Jason C. Sheasley, P.G.

Relevant Experience, cont.

installation of large diameter recovery wells. Supervised and coordinated monthly operation and maintenance procedures for each ground water recovery system. Coordinate quarterly ground water sampling and reporting programs at both facilities.

Kansas Army Ammunition Plant, Parsons KS – Project Geologist responsible for assisting in the RCRA facility investigation of a 14,000-acre installation used for the manufacture of ammunition. Conducted extensive soil and ground water sampling activities across the site. Directed and supervised field crews during the numerous phases associated with the facility investigation activities. Assisted in the preparation of corresponding Health and Safety Plans, Field Sampling Plans and Quality Assurance Project Plans.

Various Geologic and Hydrogeologic Investigation of Commercial and Industrial Sites, GA, PA, MD, NC, NY, SC, TN, VA and WV – Responsible for managing geologic and hydrogeologic investigations for the characterization of subsurface contamination at various commercial and industrial sites throughout the Mid-Atlantic United States. Designed and managed soil and ground water remediation systems with annual budgets in excess of $500,000. Conducted aquifer testing and contaminant fate and transport analysis in support of hydrogeologic investigations. Provided technical oversight in conjunction with Phase I and II site assessments for real estate transactions. Prepared and reviewed site-specific Site Assessment Reports, Quarterly Ground Water Monitoring Reports, Remedial Action Plans, Health and Safety Plans, and Sampling and Analysis Plans in support of Pennsylvania's Land Recycling Program. Trained and managed staff and technical level personnel in accordance with current standard operating procedures and state and federal doctrines pertaining to health and safety, sampling and investigative activities at environmentally impacted sites.

RCRA Facility Investigations, Various Industrial, Commercial, and Government Sites throughout the United States – Served as the Lead Scientist / Project Manager responsible for conducting extensive field activities in support of geologic and hydrogeologic investigations of industrial, commercial and government sites regulated under RCRA. Prepared and implemented site specific Health and Safety Plans, Sampling and Analysis Plans, Quality Assurance Project Plans, Compliance Status Reports, Corrective Action Plans and Data Quality Assessment Guidelines for various industrial, commercial and governmental RCRA sites throughout the United States. Coordinated and managed the removal and disposal of RCRA-listed hazardous wastes from commercial and industrial facilities. Performed data quality assessment analysis of soil, groundwater and sediment collected from various RCRA sites.

Low-Level Radioactive Waste Disposal Facility Siting Project, Harrisburg, PA – Served as task manager responsible for overseeing various task related to the evaluation and dissemination of geologic and hydrogeologic data use in siting of a low-level radioactive waste disposal facility in Pennsylvania. Responsible for the training and management of project personnel in accordance with the U.S. Nuclear Regulatory Commission regulations.

Kimley-Horn and Associates, Inc.

Karina L. Fidler, AICP, REA I

Professional Credentials

- Bachelor of Science, Aquatic Biology, University of California, Santa Barbara, 1997
- Master of Public Health, Environmental Health, San Diego State University, 2005
- American Institute of Certified Planners
- Registered Environmental Assessor (REA) 1 – issued by the California Department of Toxic Substances Control (requires a minimum of five years of full-time employment conducting Phase I Environmental Site Assessments)

Special Qualifications

- Completed several Phase I Environmental Site Assessments in accordance with ASTM standards for approximately 11 years in California, Arizona and Texas.
- Prepared numerous Resource Agency Permits including Clean Water Act Sections 404 and 401 permits, and 1602 permits of the California Department of Fish and Game Code.
- Completed Construction Storm Water Compliance and Storm Water Pollution Prevention Plan Preparation Training Seminars.
- Participated in several meetings with the Resource Agencies including the U.S Army Corps of Engineers, California Department of Fish and Game, U.S Fish and Wildlife and the Regional Water Quality Control Boards.

Relevant Experience

Conducted the following Phase I ESAs as part of the due diligence for private developments:

- March Business Center – Lot 15, Riverside, CA.
- Corrections Corporation of America, San Diego, CA.
- Siempre Viva Business Park, San Diego, CA.
- Hesperia Property, Hesperia, CA
- U.S Marshall Seized Vehicle Lot, San Diego, CA.
- Apache Junction, Apache Junction, AZ.
- Interstate Industrial Centre, San Diego, CA.
- Mesa Verde, Flagstaff, AZ.
- Waveyard, Mesa, AZ.
- Commercial Retail Projects. Various locations including California and Arizona.

Kimley-Horn and Associates, Inc.

Jennifer A. Steen

Professional Credentials

- Bachelor of Arts, Sociology, University of Illinois, Chicago (2003)

Special Qualifications

- Experienced in performing Phase I Environmental Site Assessments
- Knowledgeable of performing Phase I ESAs to American Standard for Testing and Materials (ASTM) E 1527-13
- Experienced in performing jurisdictional delineations pursuant of Section 404 of the Clean Water Act
- Authored Storm Water Pollution Prevention Plans describing construction water quality BMPs to be installed.
- Authored Water Quality Management Plans describing post-construction water quality BMPs to be installed

Relevant Experience

- Commercial Retail Projects throughout California, Private Client
- Riverside Community Hospital, Riverside, CA
- Los Alamitos Medical Center, Los Alamitos, CA
- Douglas Park, Long Beach, CA
- Sam's Club, City of Industry, CA
- 29 Palms Marine Corps Exchange Building, 29 Palms, CA.
- Walgreens, Huntington Beach, CA
- Taco Bell, San Marcos, CA
- Fresh and Easy, Sylmar, CA
- Brown Field Tech Park, San Diego, CA

DRAFT

APPENDIX D

HISTORICAL DOCUMENTATION

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North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.5
March 26, 2014

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

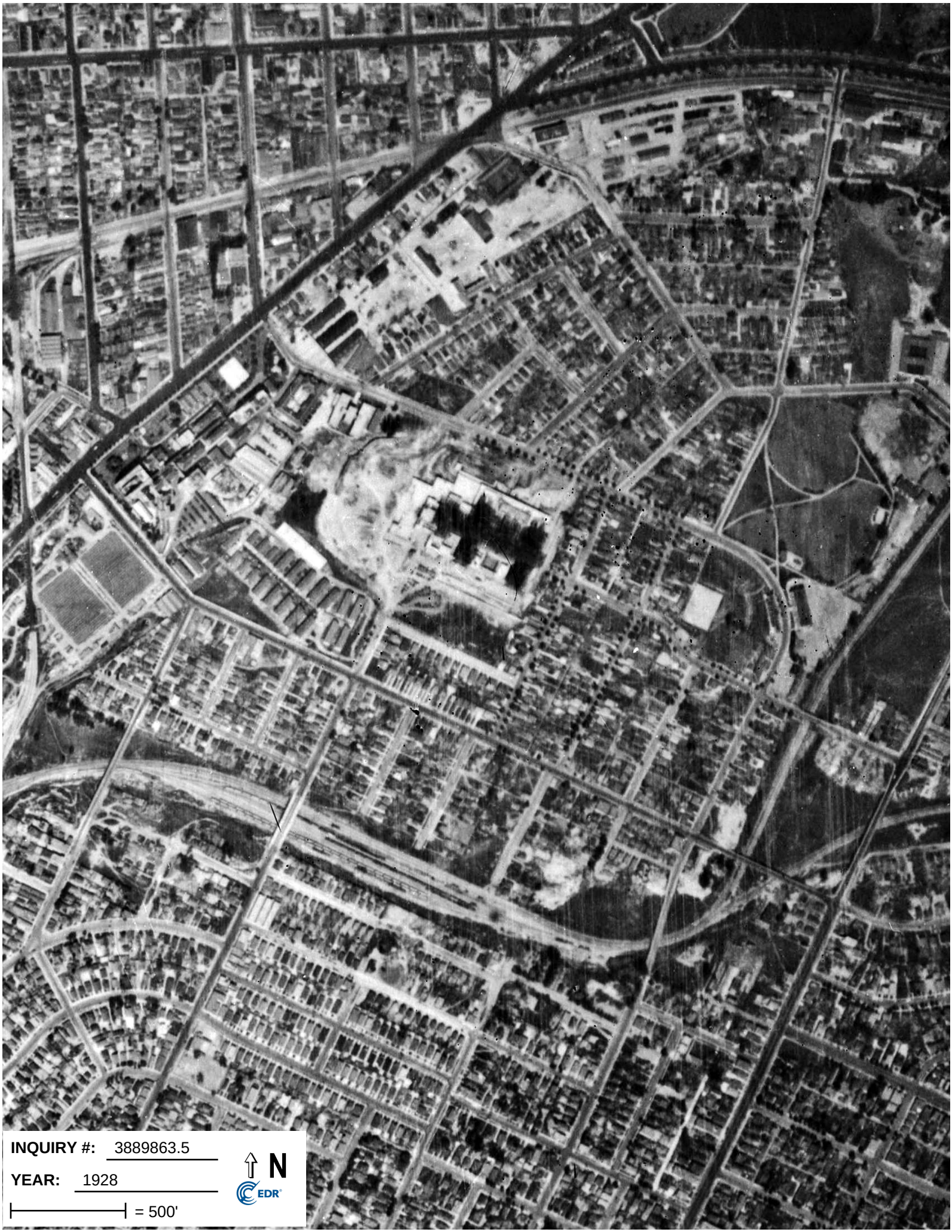
Aerial Photography March 26, 2014

Target Property:

North State Street

Los Angeles, CA 90033

Year	***Scale***	***Details***	***Source***
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	Fairchild
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	EDR
1948	Aerial Photograph. Scale: 1"=500'	Flight Year: 1948	EDR
1952	Aerial Photograph. Scale: 1"=500'	Flight Year: 1952	EDR
1964	Aerial Photograph. Scale: 1"=500'	Flight Year: 1964	EDR
1972	Aerial Photograph. Scale: 1"=500'	Flight Year: 1972	EDR
1981	Aerial Photograph. Scale: 1"=500'	Flight Year: 1981	AMI
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR



INQUIRY #: 3889863.5

YEAR: 1928

= 500'

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EDR

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YEAR: 1938
= 500'
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EDR

INQUIRY #: 3889863.5
YEAR: 1948
= 500'
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EDR

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YEAR: 1952
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EDR

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YEAR: 1964
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EDR

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YEAR: 1972
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EDR

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YEAR: 1981
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EDR

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YEAR: 1989
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EDR

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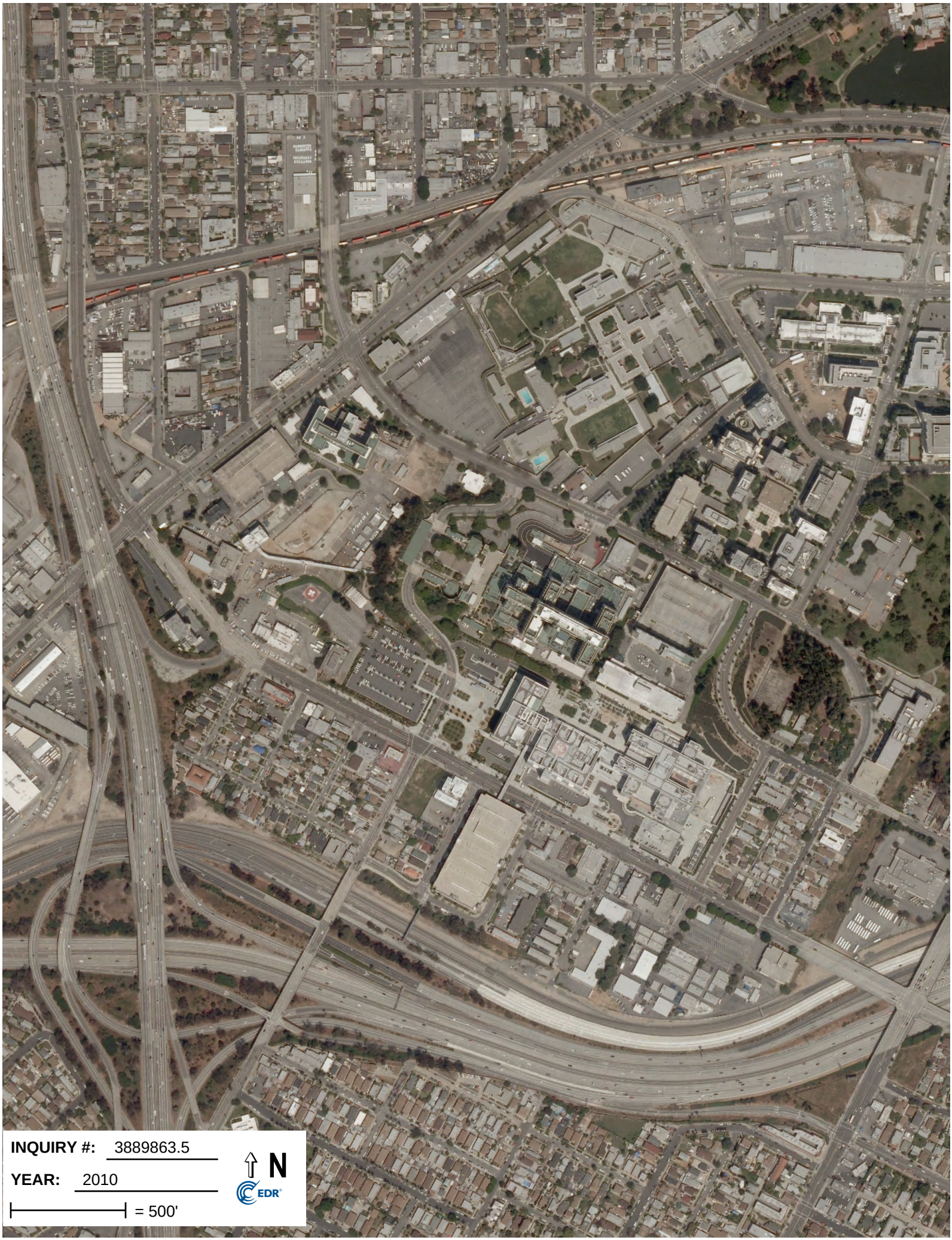
INQUIRY #: 3889863.5
YEAR: 2010
= 500'
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EDR

INQUIRY #: 3889863.5
YEAR: 2012
= 500'
N
EDR

North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.3
March 27, 2014

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

3/27/14

Site Name:
North State Street
North State Street
Los Angeles, CA 90033

Client Name:
Ninyo & Moore
475 Goddard
Irvine, CA 92618

EDR Inquiry # 3889863.3

Contact: Jonathan Johnson

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Address: North State Street
City, State, Zip: Los Angeles, CA 90033
Cross Street:
P.O. # 209126001
Project: North State Street
Certification # 42B5-43A3-AFCC

Maps Provided:

1970
1951
1920

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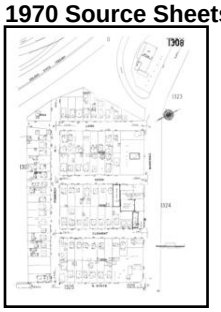

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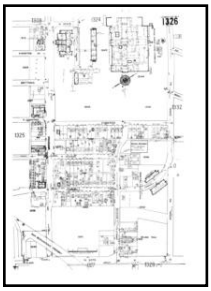

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1951 Source Sheets

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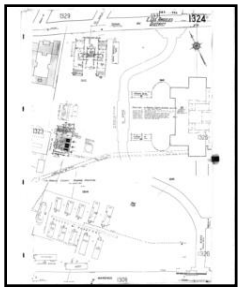

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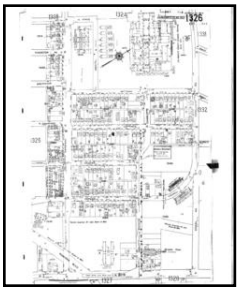

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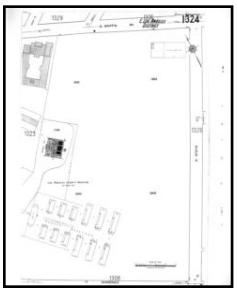
1920 Source Sheets

Volume 13, Sheet 1308

Volume 13, Sheet 1323



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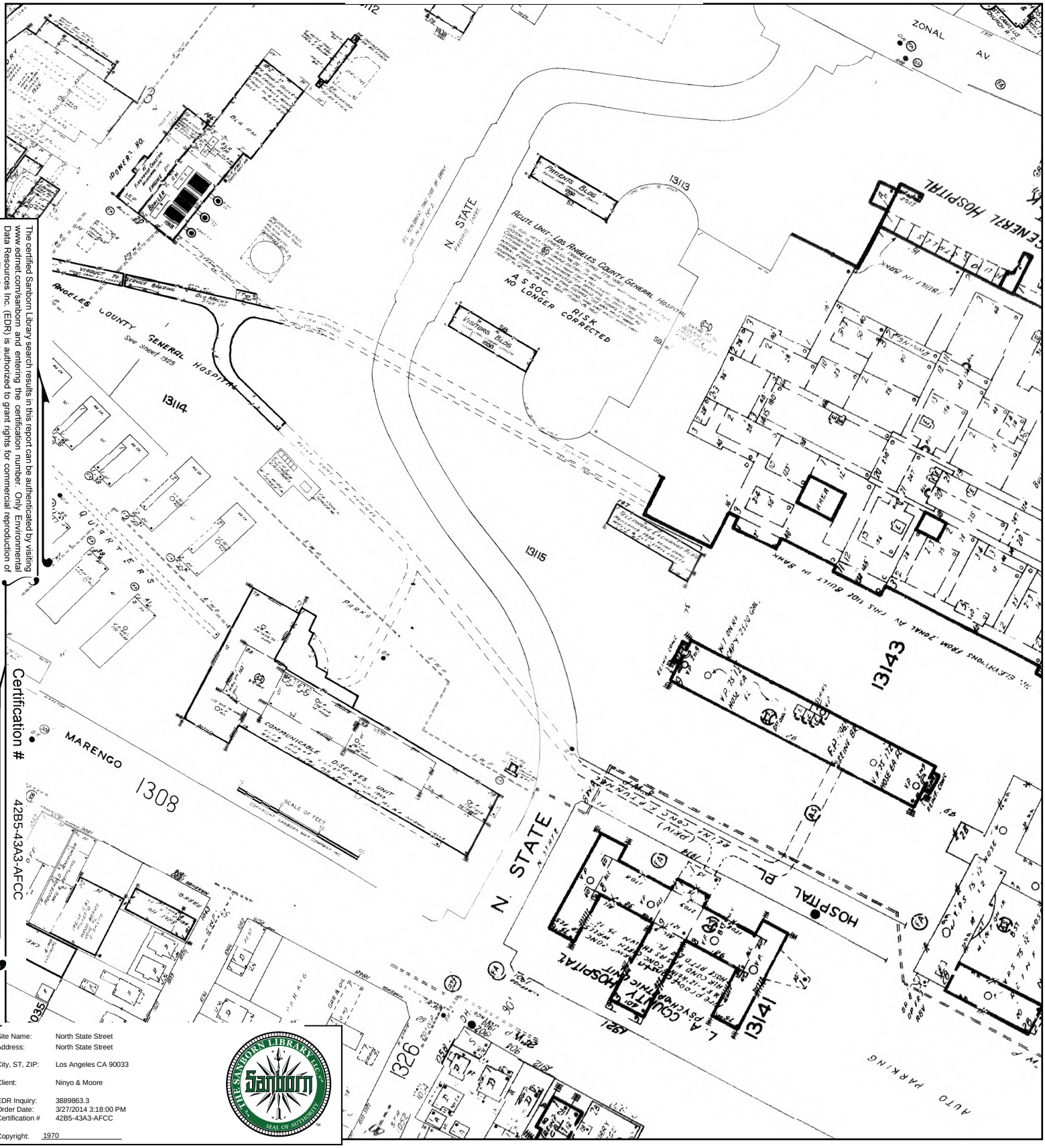

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Address: North State Street
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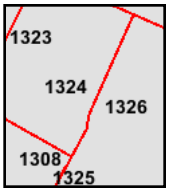

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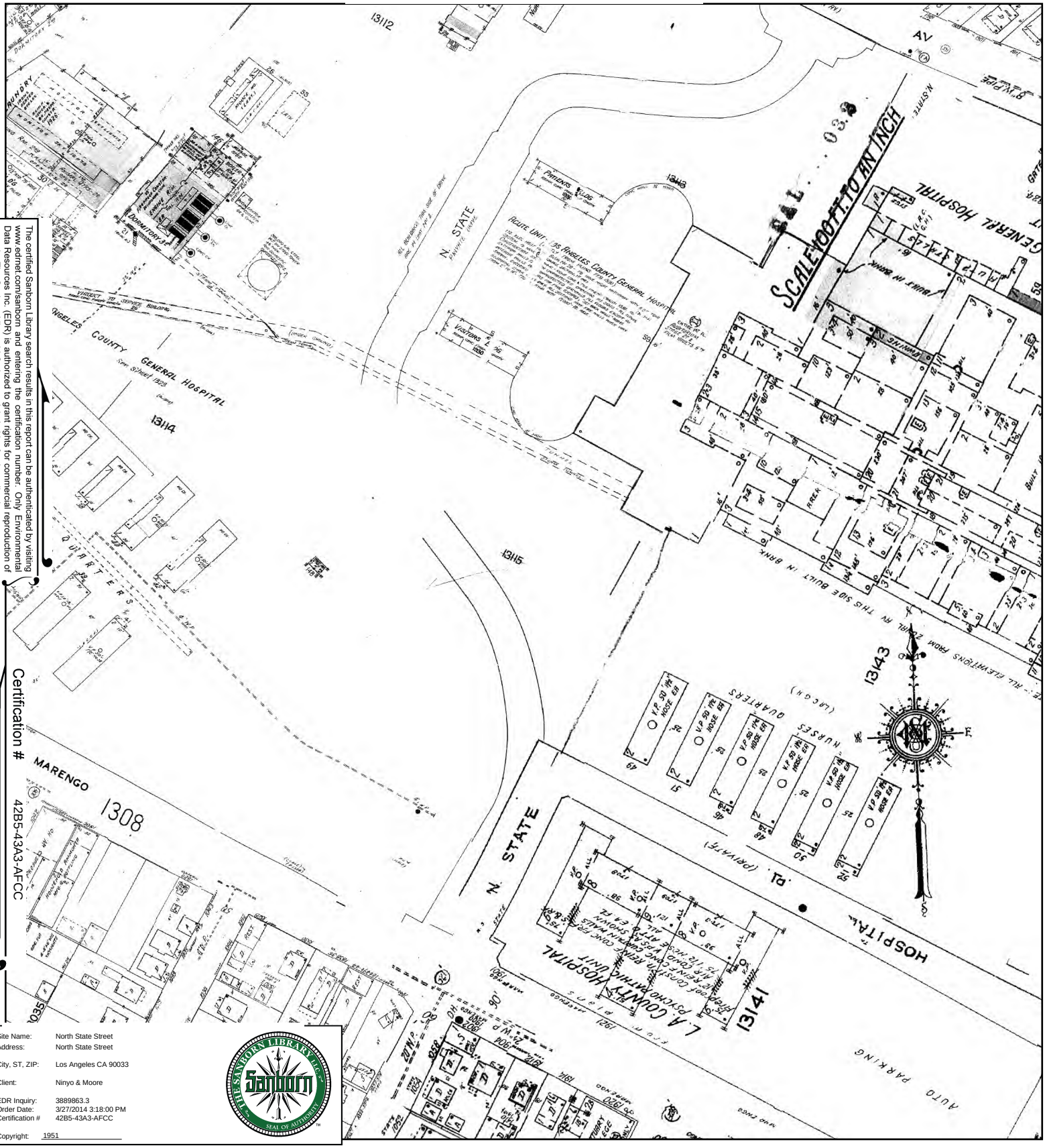

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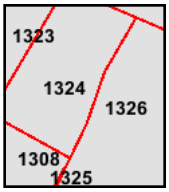

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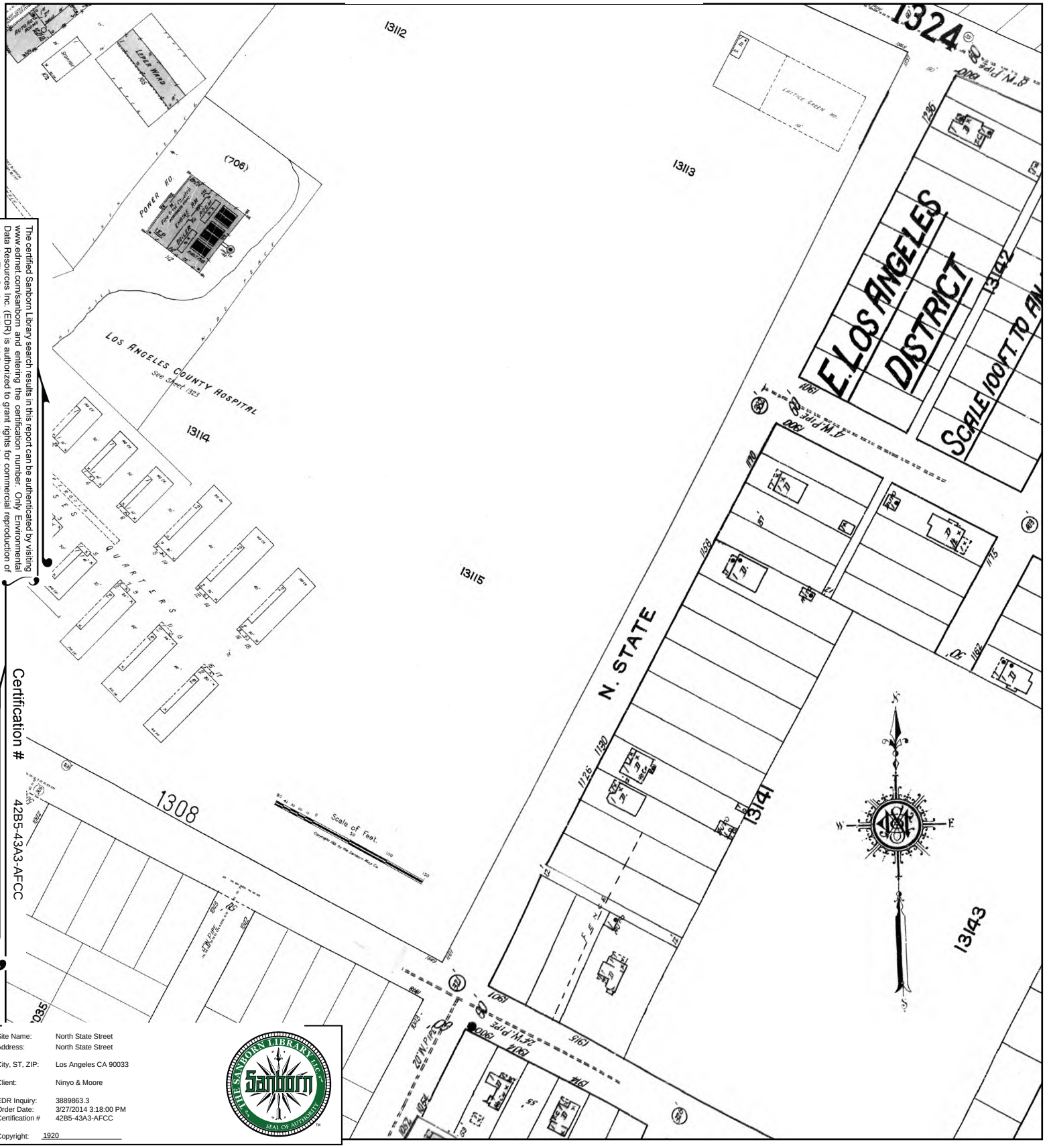
1920 Certified Sanborn Map



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Address:	North State Street
City, ST, ZIP:	Los Angeles CA 90033
Client:	Ninyo & Moore
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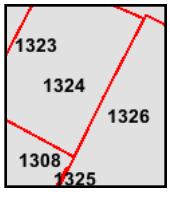

Volume 13, Sheet 1308
Volume 13, Sheet 1323
Volume 13, Sheet 1324
Volume 13, Sheet 1326

0 Feet 165 330 660

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North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.3
March 27, 2014

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Site Name:
North State Street
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Client Name:
Ninyo & Moore
475 Goddard
Irvine, CA 92618

EDR Inquiry # 3889863.3

Contact: Jonathan Johnson

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Site Name: North State Street
Address: North State Street
City, State, Zip: Los Angeles, CA 90033
Cross Street:
P.O. # 209126001
Project: North State Street
Certification # 42B5-43A3-AFCC

Maps Provided:

1970
1951
1920
1906
1894
1890

Sanborn® Library search results
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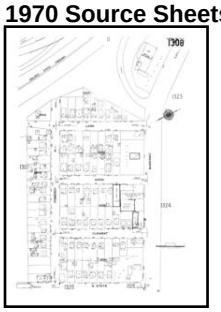
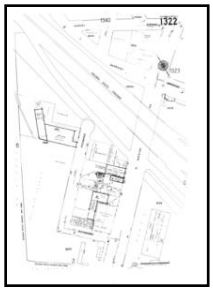


Volume 13, Sheet 1308



Volume 13, Sheet 1322

Volume 13, Sheet 1323

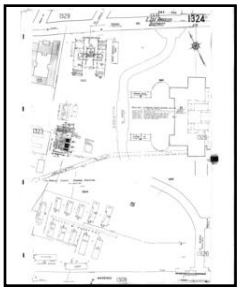
Volume 13, Sheet 1324

1951 Source Sheets

Volume 13, Sheet 1308

Volume 13, Sheet 1322

Volume 13, Sheet 1323



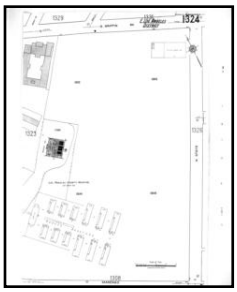
Volume 13, Sheet 1324

1920 Source Sheets

Volume 13, Sheet 1308

Volume 13, Sheet 1322

Volume 13, Sheet 1323



Volume 13, Sheet 1324

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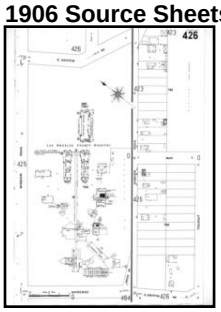
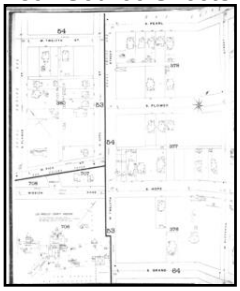


Volume 4, Sheet 426

Volume 4, Sheet 464

1894 Source Sheets

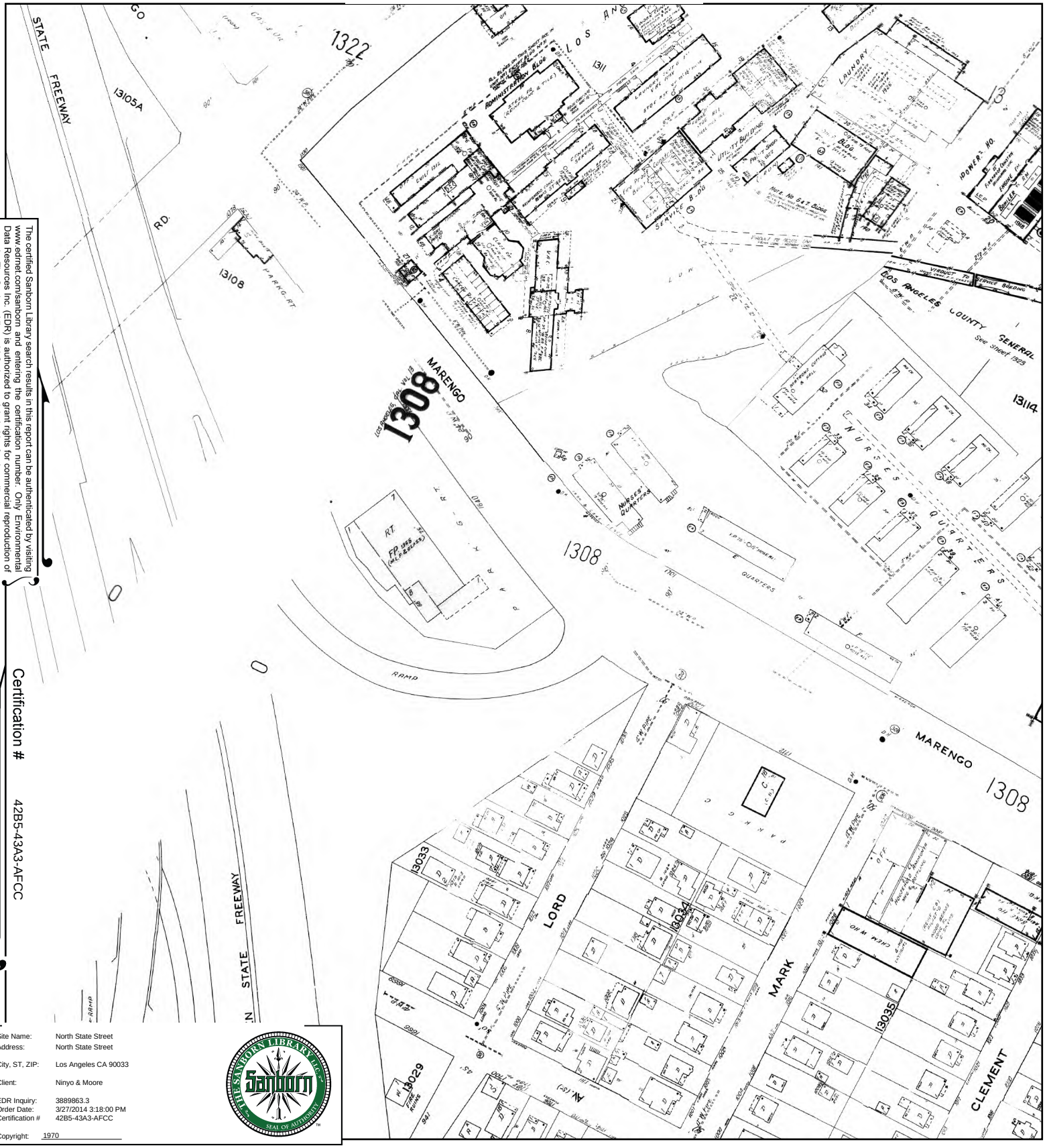


Volume 2, Sheet 54

1890 Source Sheets

Volume 2, Sheet 67

1970 Certified Sanborn Map



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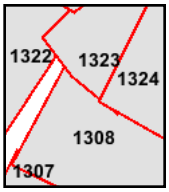
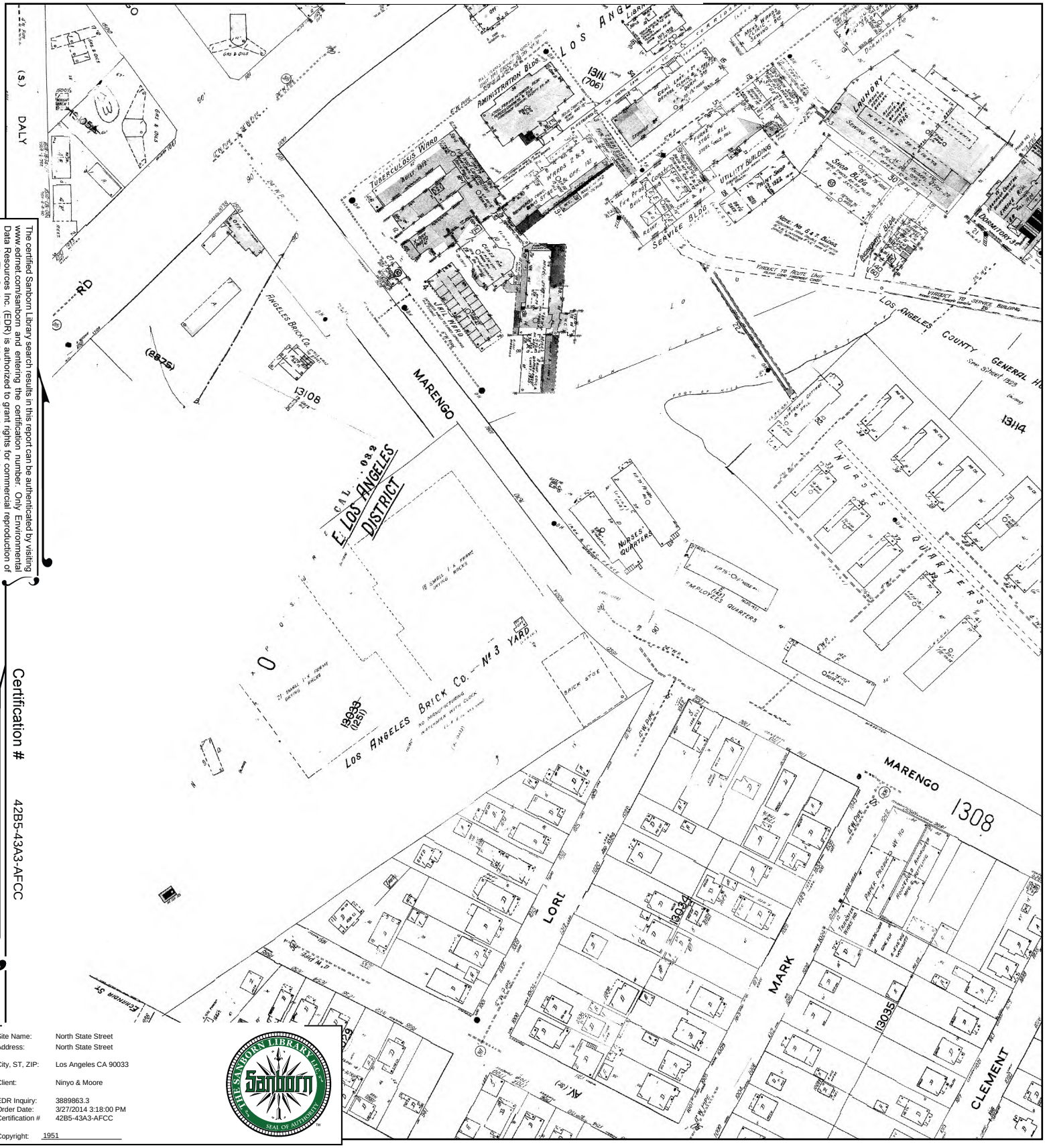


Volume 13, Sheet 1308
Volume 13, Sheet 1322
Volume 13, Sheet 1323
Volume 13, Sheet 1324

0 Feet 165 330 660

N

1951 Certified Sanborn Map



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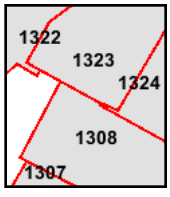

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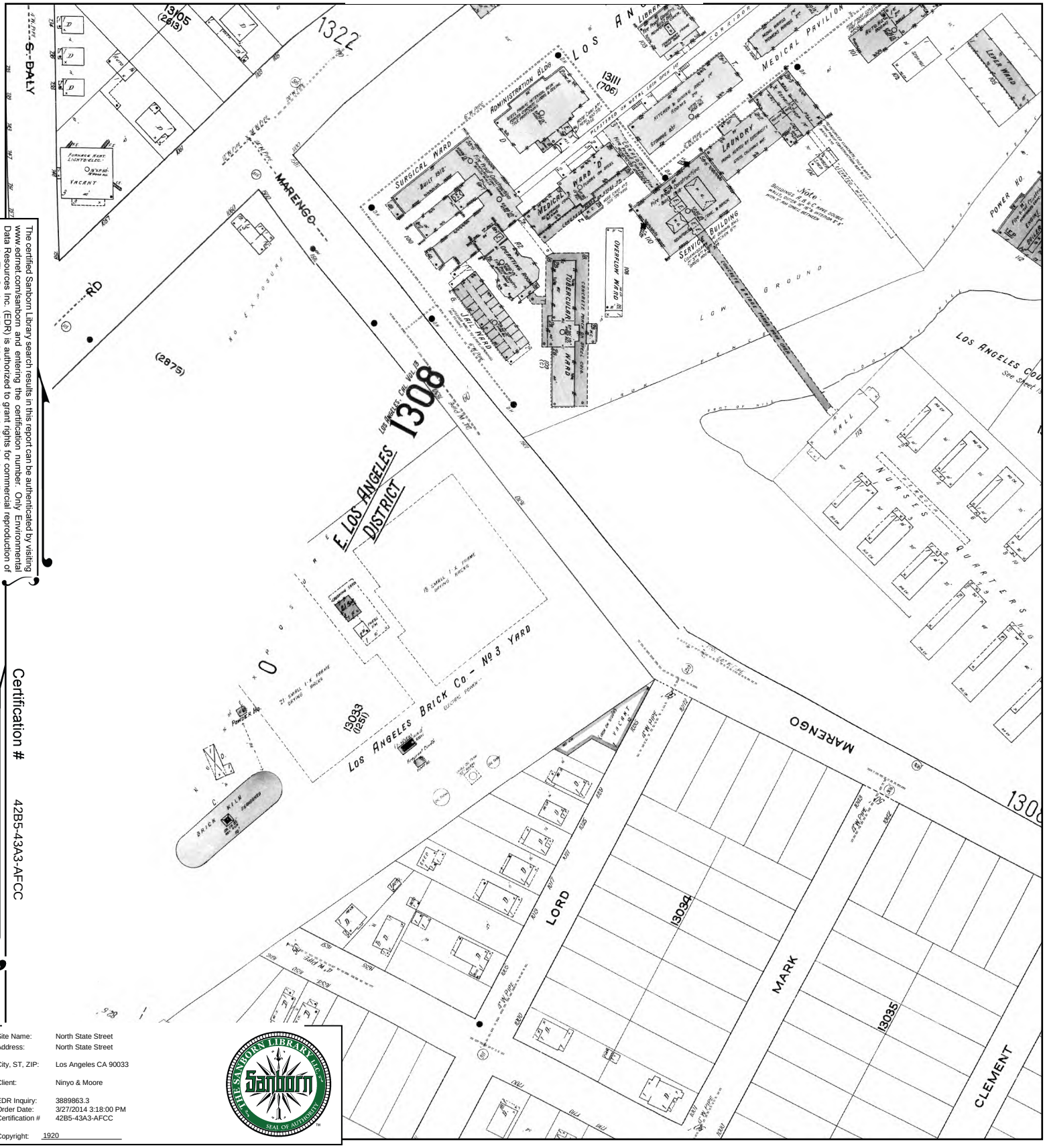
Volume 13, Sheet 1322
Volume 13, Sheet 1323
Volume 13, Sheet 1324

0 Feet 165 330 660

N

1920 Certified Sanborn Map



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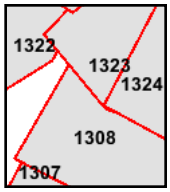
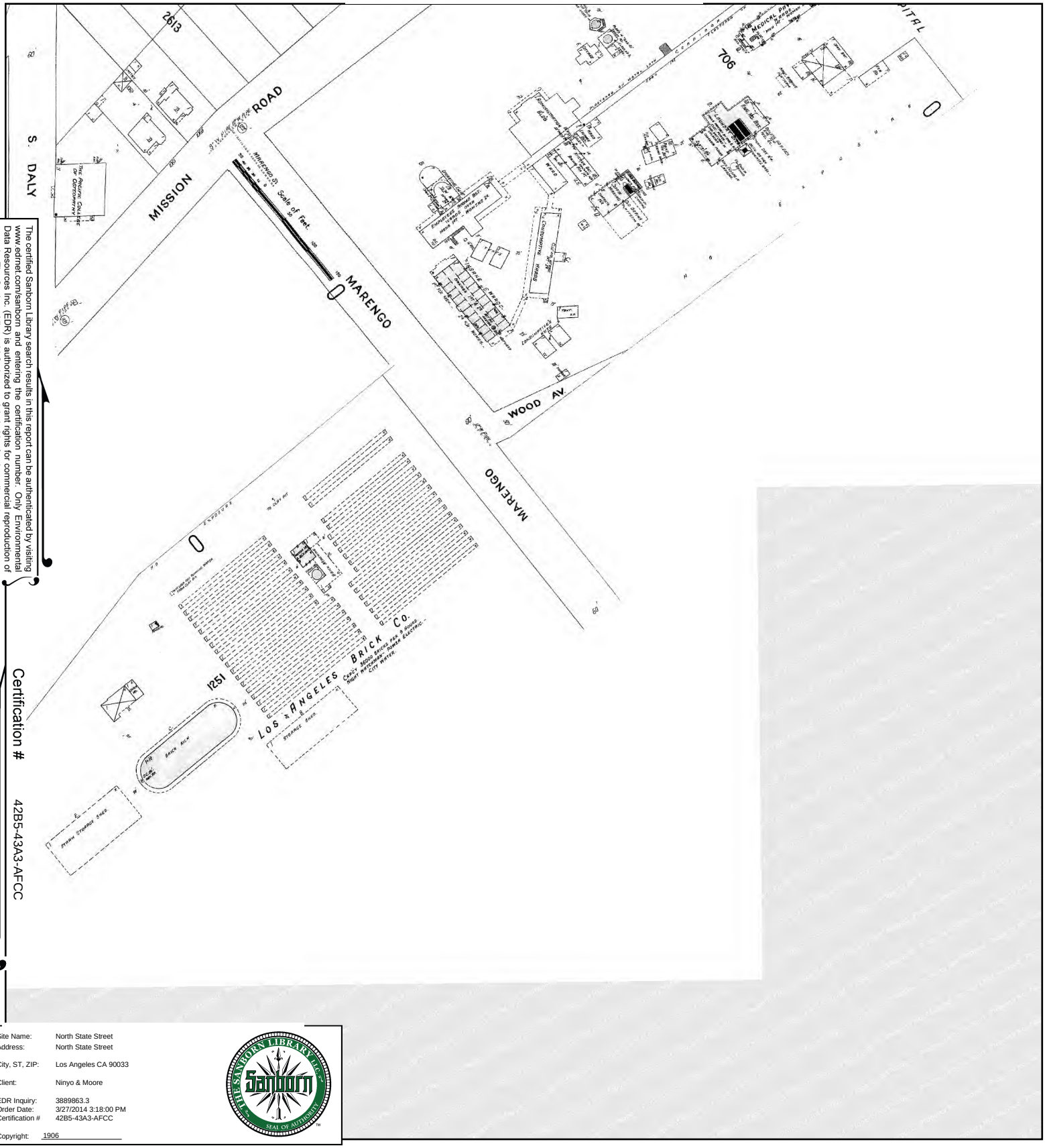


Volume 13, Sheet 1308
Volume 13, Sheet 1322
Volume 13, Sheet 1323
Volume 13, Sheet 1324

0 Feet 165 330 660

N

1906 Certified Sanborn Map



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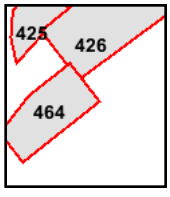
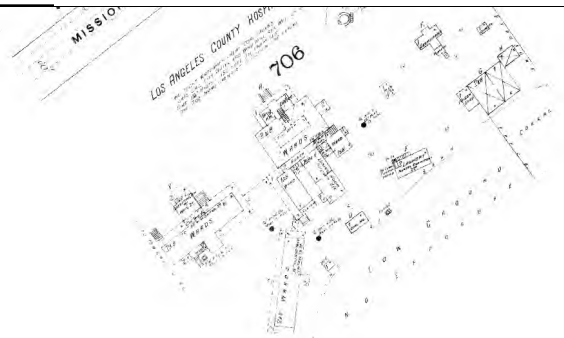


Volume 4, Sheet 426
Volume 4, Sheet 464

0 Feet 165 330 660

N

1894 Certified Sanborn Map



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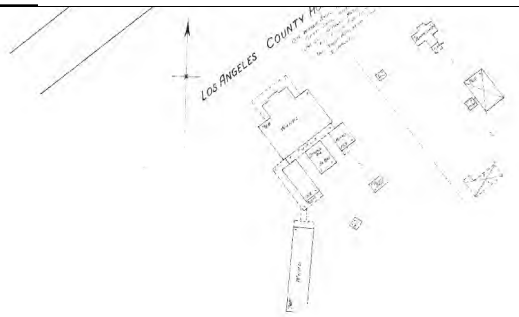
Volume 2, Sheet 54

N

1890 Certified Sanborn Map



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0 Feet 165 330 660

67

Volume 2, Sheet 67

N

North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.3
March 27, 2014

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Certified Sanborn® Map Report

3/27/14

Site Name:
North State Street
North State Street
Los Angeles, CA 90033

Client Name:
Ninyo & Moore
475 Goddard
Irvine, CA 92618

EDR Inquiry # 3889863.3

Contact: Jonathan Johnson

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Project: North State Street
Certification # 42B5-43A3-AFCC

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1970
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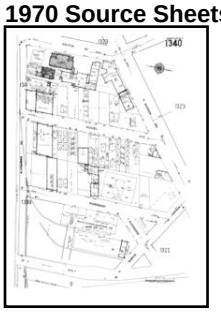
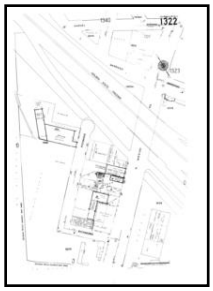


Volume 13, Sheet 1340



Volume 13, Sheet 1322

Volume 13, Sheet 1323

1951 Source Sheets

Volume 13, Sheet 1322

Volume 13, Sheet 1323

Volume 13, Sheet 1340

1920 Source Sheets

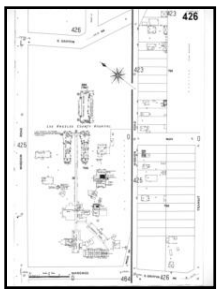
Volume 13, Sheet 1340

Volume 13, Sheet 1322

Volume 13, Sheet 1323

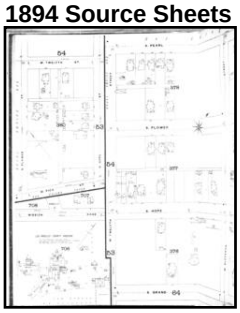
1906 Source Sheets

Volume 4, Sheet 425



Volume 4, Sheet 426

1894 Source Sheets

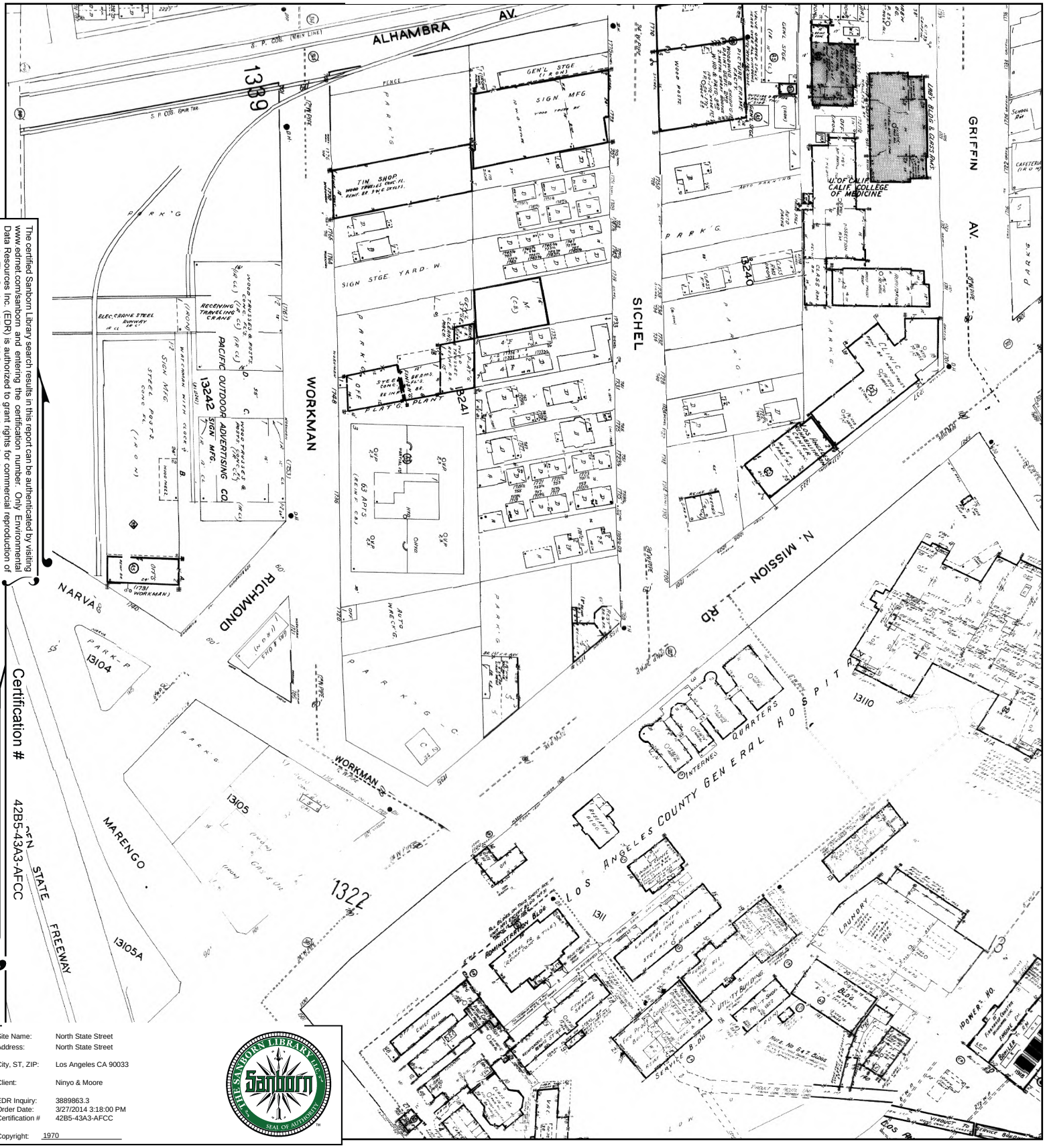


Volume 2, Sheet 54

1890 Source Sheets

Volume 2, Sheet 67

1970 Certified Sanborn Map



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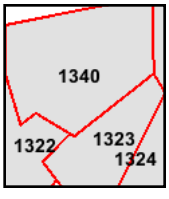
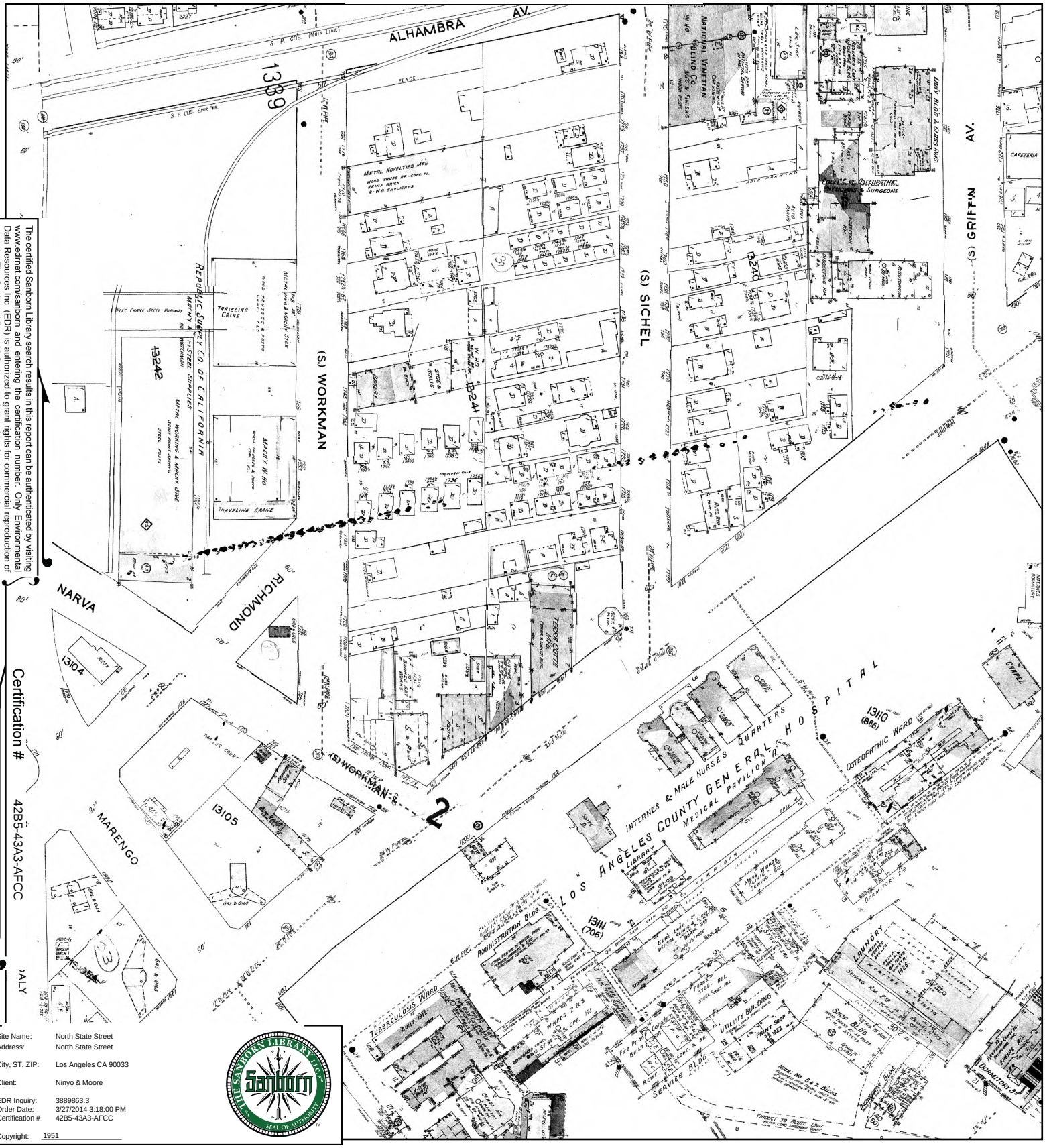


Volume 13, Sheet 1340
Volume 13, Sheet 1322
Volume 13, Sheet 1323

0 Feet 165 330 660

N

1951 Certified Sanborn Map



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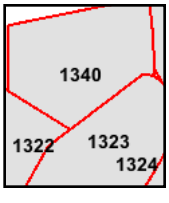
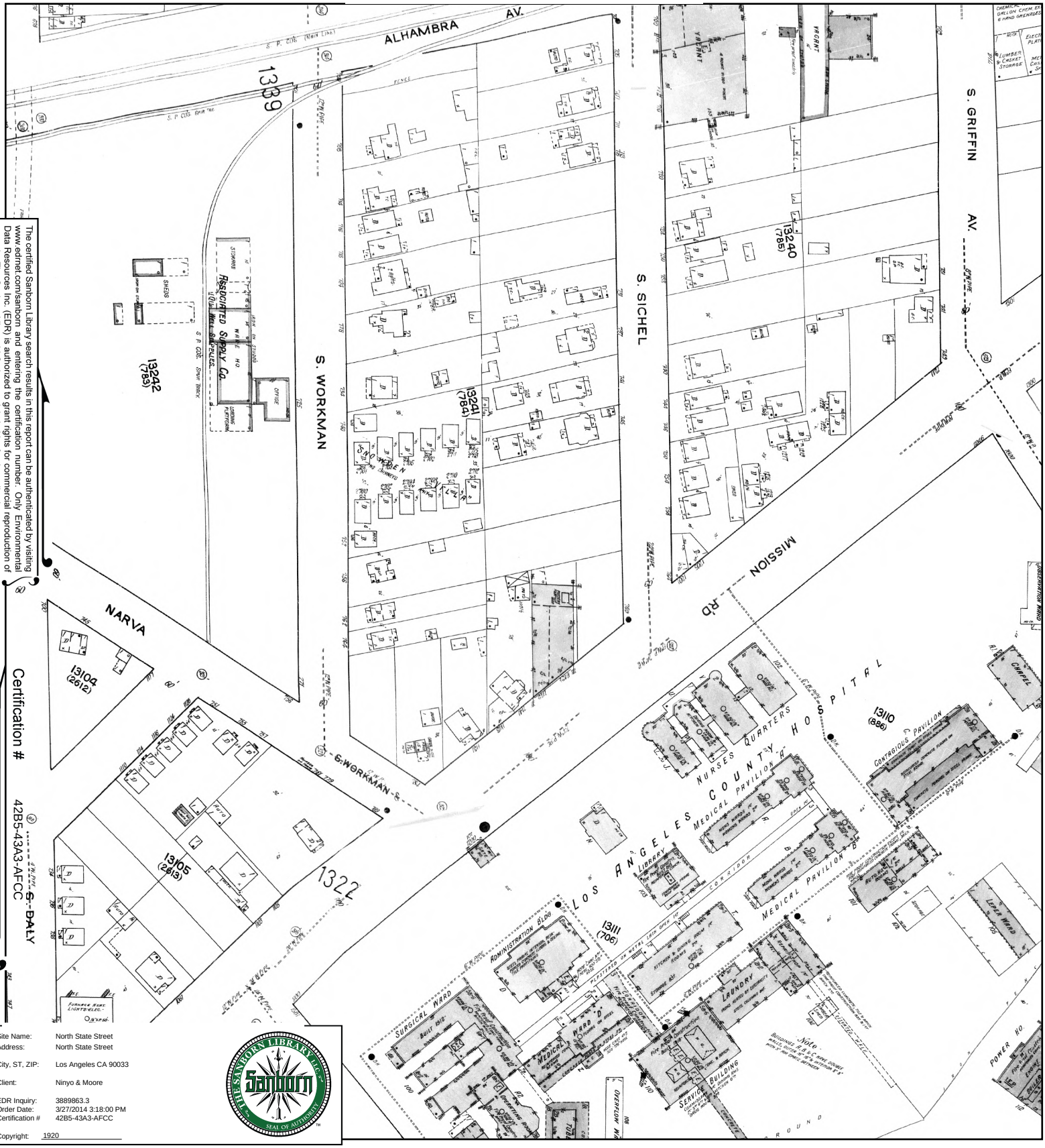


Volume 13, Sheet 1322
Volume 13, Sheet 1323
Volume 13, Sheet 1340

0 Feet 165 330 660

N

1920 Certified Sanborn Map



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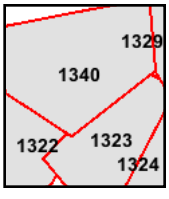

Volume 13, Sheet 1340
Volume 13, Sheet 1322
Volume 13, Sheet 1323

0 Feet 165 330 660

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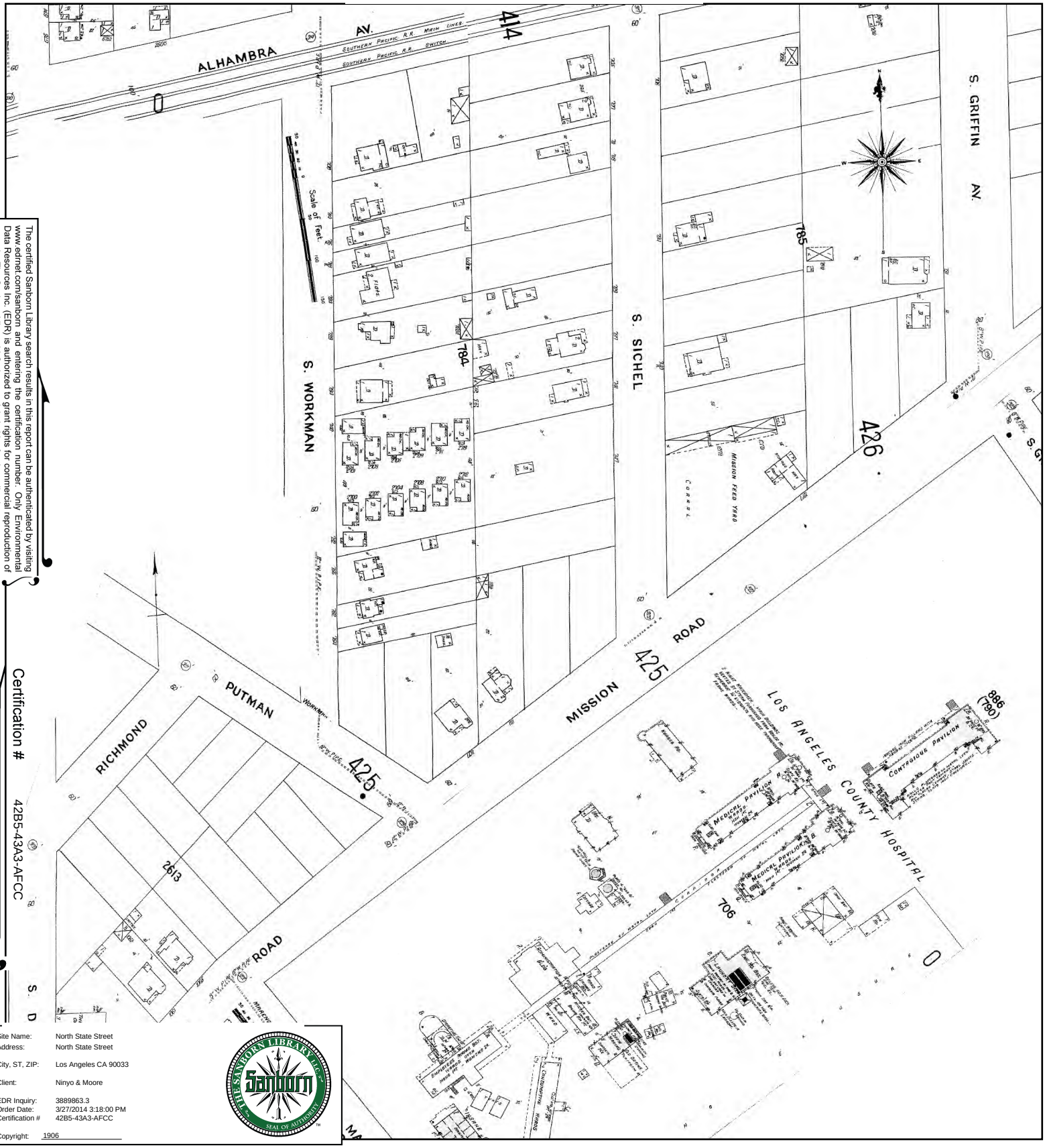

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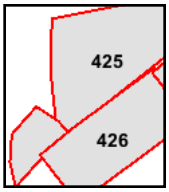

Volume 4, Sheet 425
Volume 4, Sheet 426

0 Feet 165 330 660

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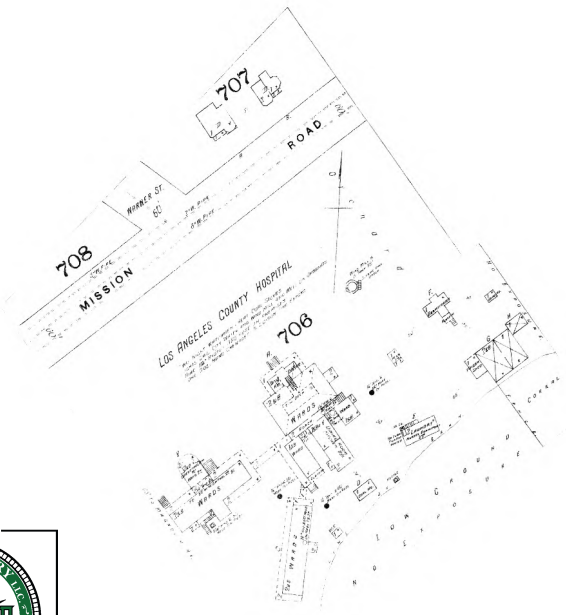

Site Name: North State Street
Address: North State Street

City, ST, ZIP: Los Angeles CA 90033

Client: Ninyo & Moore

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Volume 2, Sheet 54

54

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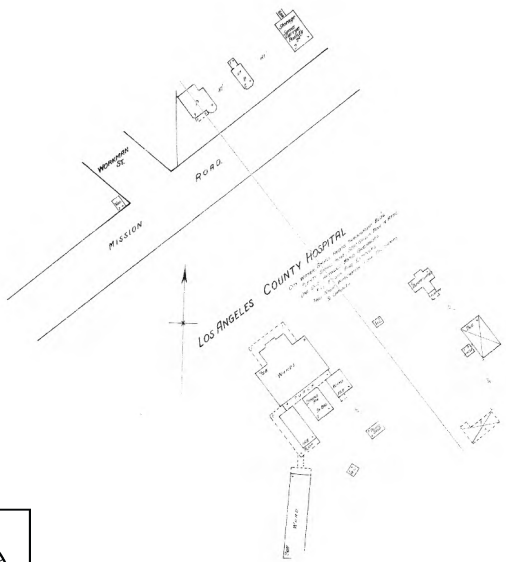

Site Name: North State Street
Address: North State Street
City, ST, ZIP: Los Angeles CA 90033
Client: Ninyo & Moore
EDR Inquiry: 3889863.3
Order Date: 3/27/2014 3:18:00 PM
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Copyright: 1890

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0 Feet 165 330 660

Volume 2, Sheet 67

67

N

North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.3
March 27, 2014

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Shelton, Connecticut 06484
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3/27/14

Site Name:
North State Street
North State Street
Los Angeles, CA 90033

Client Name:
Ninyo & Moore
475 Goddard
Irvine, CA 92618

EDR Inquiry # 3889863.3

Contact: Jonathan Johnson

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Site Name: North State Street
Address: North State Street
City, State, Zip: Los Angeles, CA 90033
Cross Street:
P.O. # 209126001
Project: North State Street
Certification # 42B5-43A3-AFCC

Maps Provided:

1970
1951
1920
1906

Sanborn® Library search results
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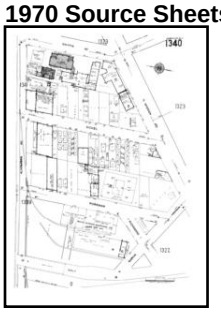
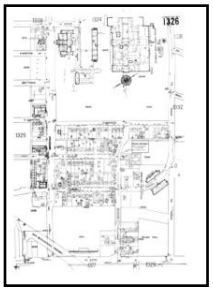


Volume 13, Sheet 1340

Volume 13, Sheet 1323

Volume 13, Sheet 1324



Volume 13, Sheet 1326

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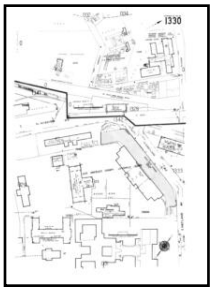
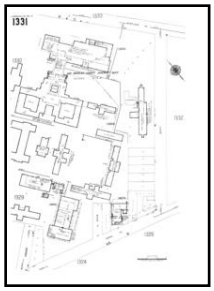
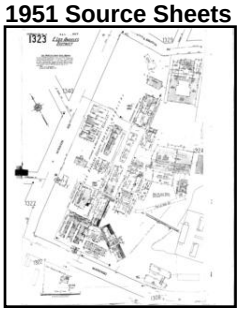


Volume 13, Sheet 1330

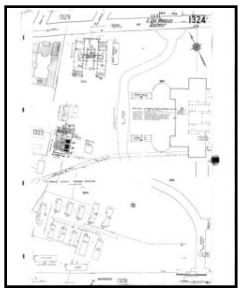


Volume 13, Sheet 1331

1951 Source Sheets

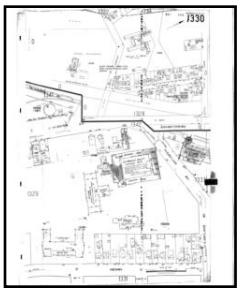


Volume 13, Sheet 1323



Volume 13, Sheet 1324

Volume 13, Sheet 1329



Volume 13, Sheet 1330

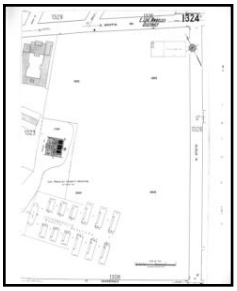
Volume 13, Sheet 1331

Volume 13, Sheet 1340

1920 Source Sheets

Volume 13, Sheet 1340

Volume 13, Sheet 1323



Volume 13, Sheet 1324

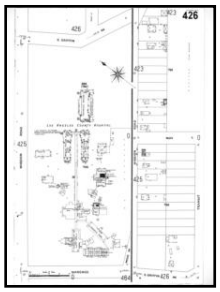
Volume 13, Sheet 1329

Volume 13, Sheet 1330

Volume 13, Sheet 1331

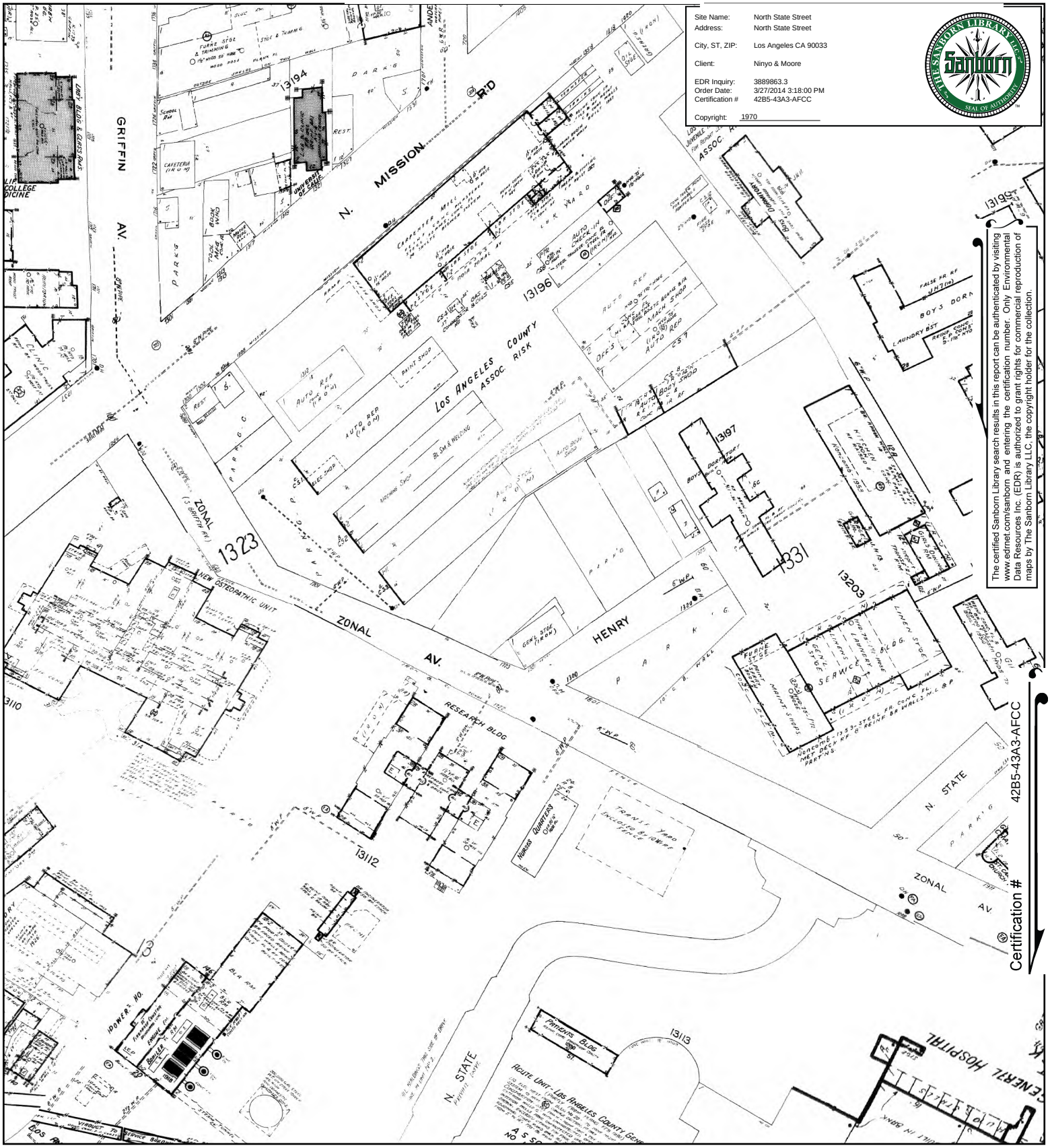
1906 Source Sheets

Volume 4, Sheet 425



Volume 4, Sheet 426

1970 Certified Sanborn Map



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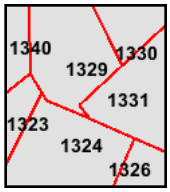

Volume 13, Sheet 1340
Volume 13, Sheet 1323
Volume 13, Sheet 1324
Volume 13, Sheet 1326
Volume 13, Sheet 1329
Volume 13, Sheet 1330
Volume 13, Sheet 1331

N

1951 Certified Sanborn Map

Site Name: North State Street
Address: North State Street
City, ST, ZIP: Los Angeles CA 90033
Client: Ninyo & Moore
EDR Inquiry: 3889863.3
Order Date: 3/27/2014 3:18:00 PM
Certification # 42B5-43A3-AFCC
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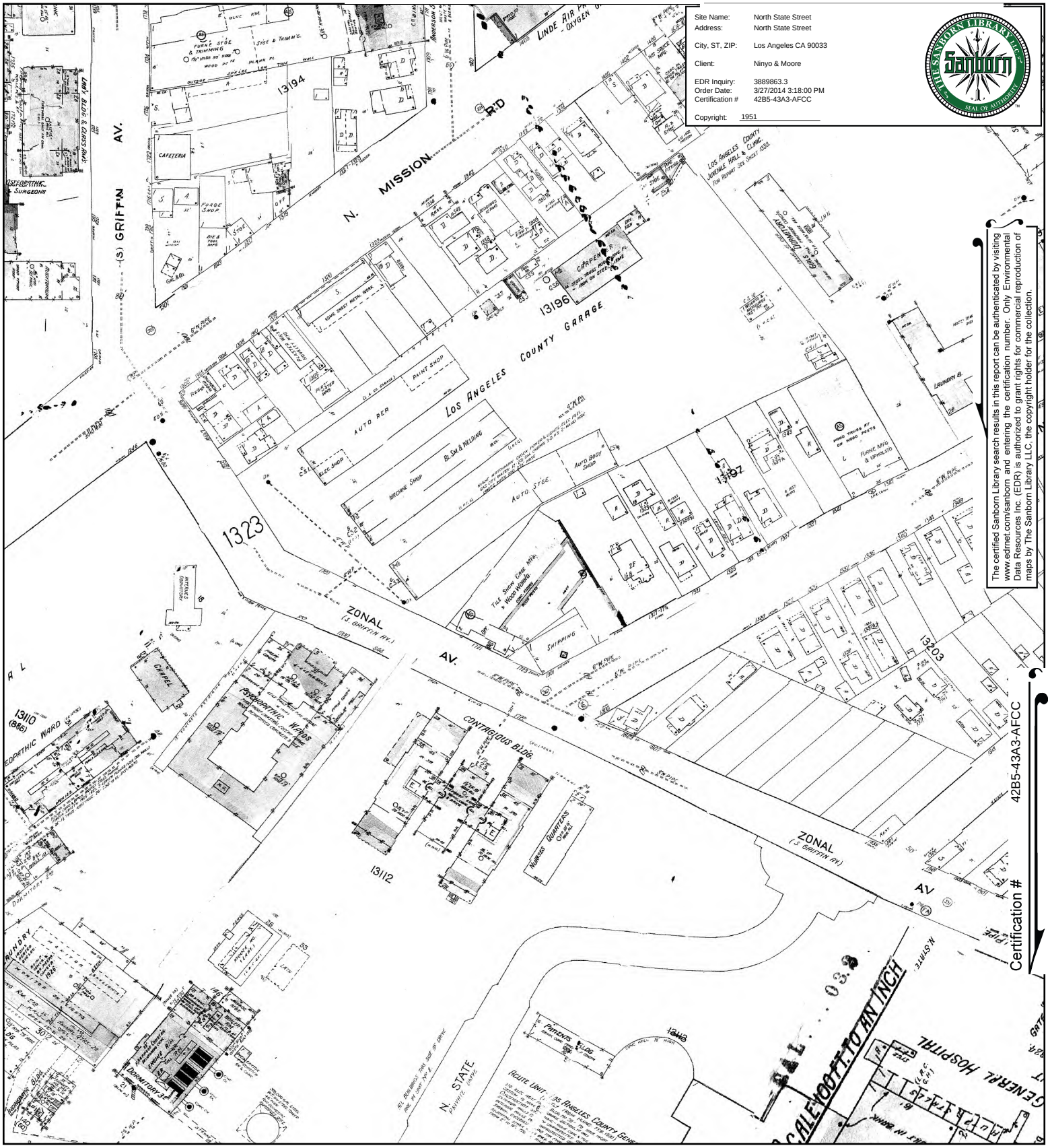

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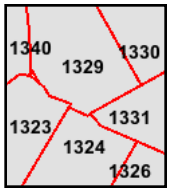
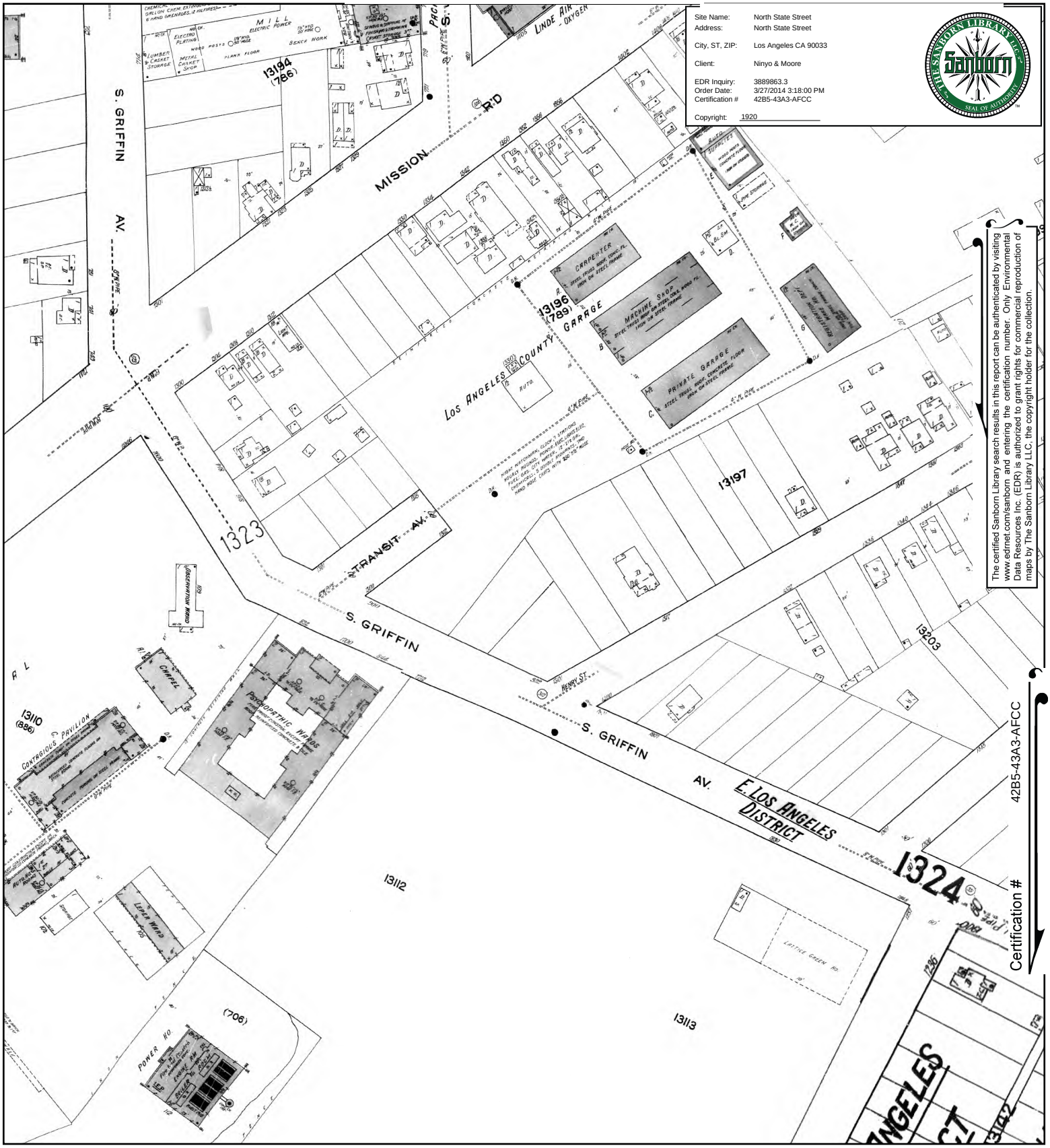


Volume 13, Sheet 1323
Volume 13, Sheet 1324
Volume 13, Sheet 1329
Volume 13, Sheet 1330
Volume 13, Sheet 1331
Volume 13, Sheet 1340

N

1920 Certified Sanborn Map



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Address: North State Street
City, ST, ZIP: Los Angeles CA 90033
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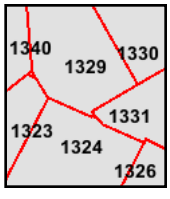
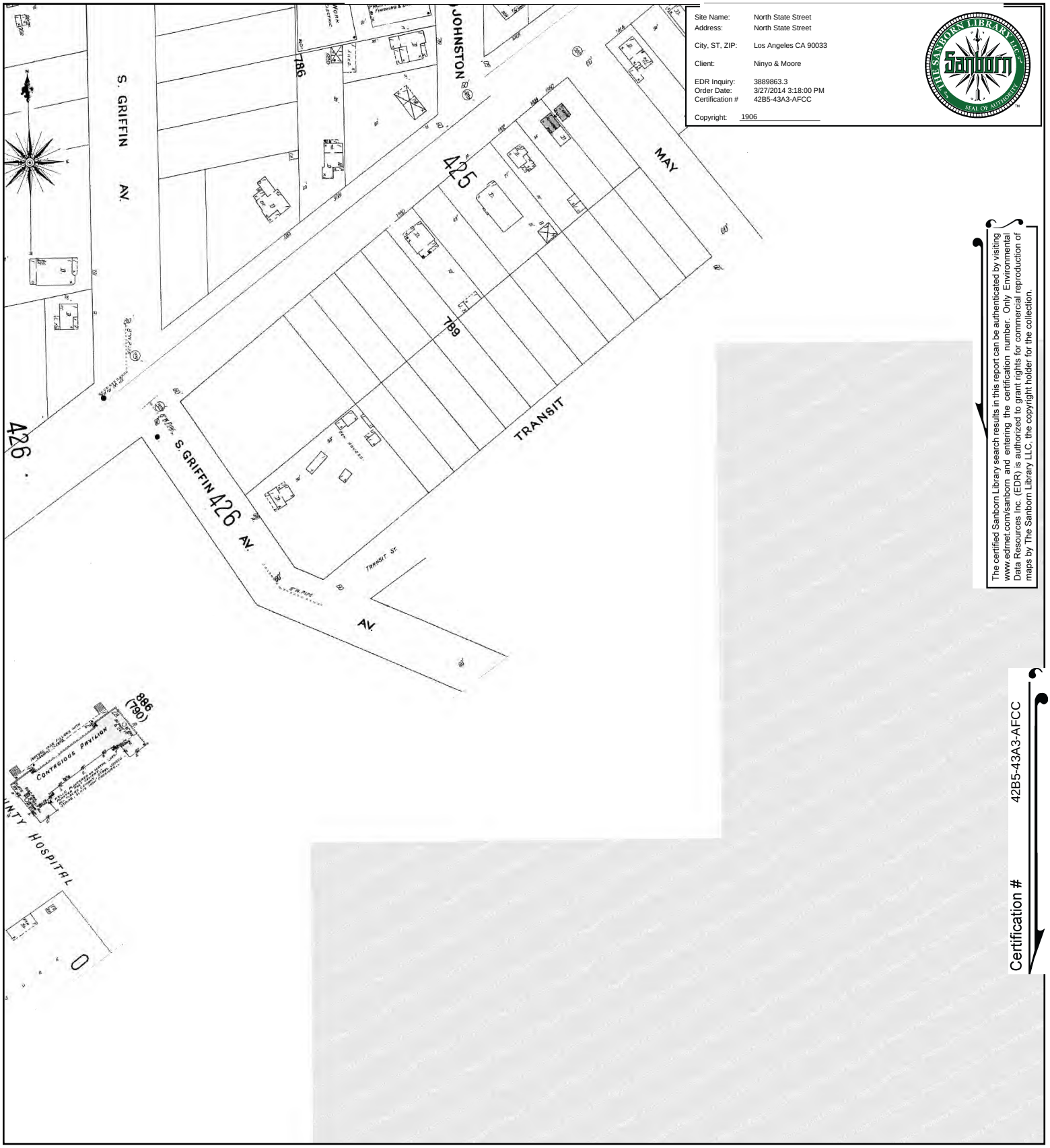


Volume 13, Sheet 1340
Volume 13, Sheet 1323
Volume 13, Sheet 1324
Volume 13, Sheet 1329
Volume 13, Sheet 1330
Volume 13, Sheet 1331

N

1906 Certified Sanborn Map



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Volume 4, Sheet 425
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North State Street
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Los Angeles, CA 90033

Inquiry Number: 3889863.3
March 27, 2014

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North State Street
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475 Goddard
Irvine, CA 92618

EDR Inquiry # 3889863.3

Contact: Jonathan Johnson

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Certified Sanborn Results:

Site Name: North State Street
Address: North State Street
City, State, Zip: Los Angeles, CA 90033
Cross Street:
P.O. # 209126001
Project: North State Street
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Maps Provided:

1970
1951
1920

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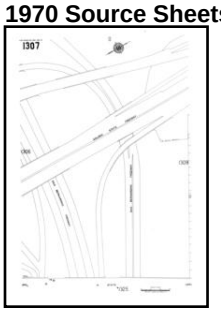
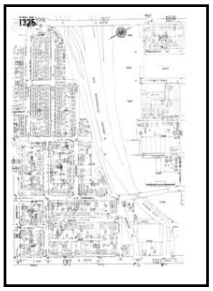


Volume 13, Sheet 1307

Volume 13, Sheet 1308

Volume 13, Sheet 1324

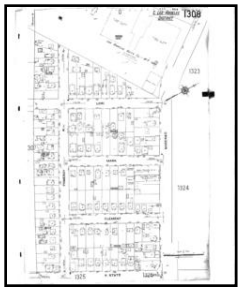


Volume 13, Sheet 1325

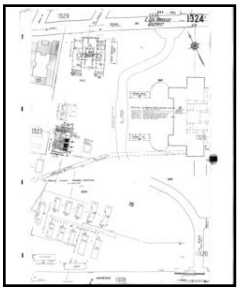
Volume 13, Sheet 1326

1951 Source Sheets

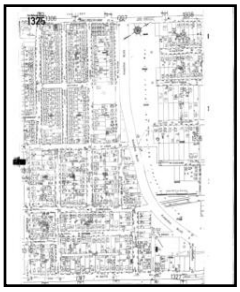
Volume 13, Sheet 1307



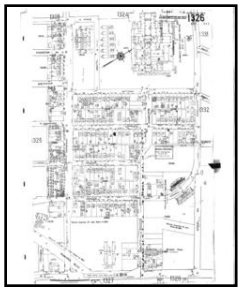
Volume 13, Sheet 1308



Volume 13, Sheet 1324

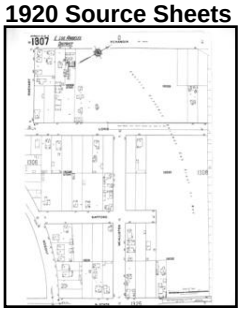


Volume 13, Sheet 1325



Volume 13, Sheet 1326

1920 Source Sheets



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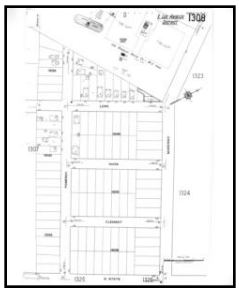

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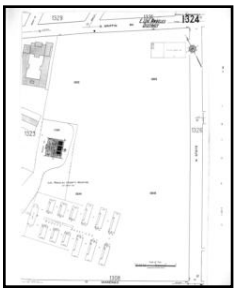
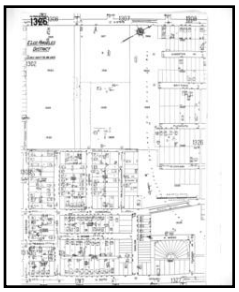


Volume 13, Sheet 1324



Volume 13, Sheet 1325

Volume 13, Sheet 1326

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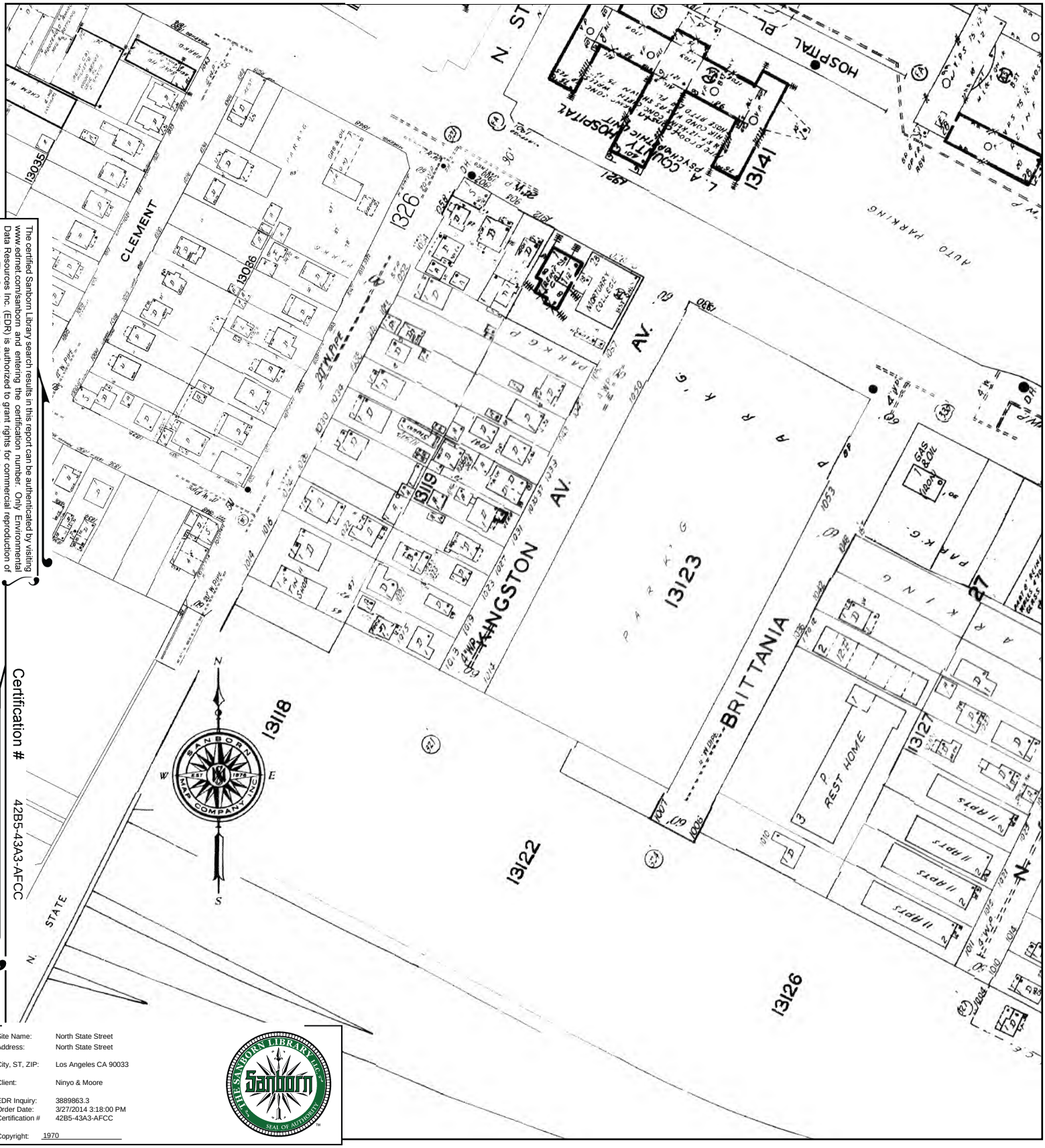

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City, ST, ZIP: Los Angeles CA 90033
Client: Ninyo & Moore
EDR Inquiry: 3889863.3
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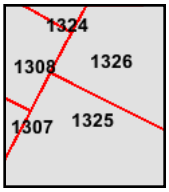

Volume 13, Sheet 1307
Volume 13, Sheet 1308
Volume 13, Sheet 1324
Volume 13, Sheet 1325
Volume 13, Sheet 1326

0 Feet 165 330 660

N

1951 Certified Sanborn Map

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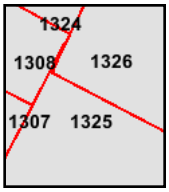
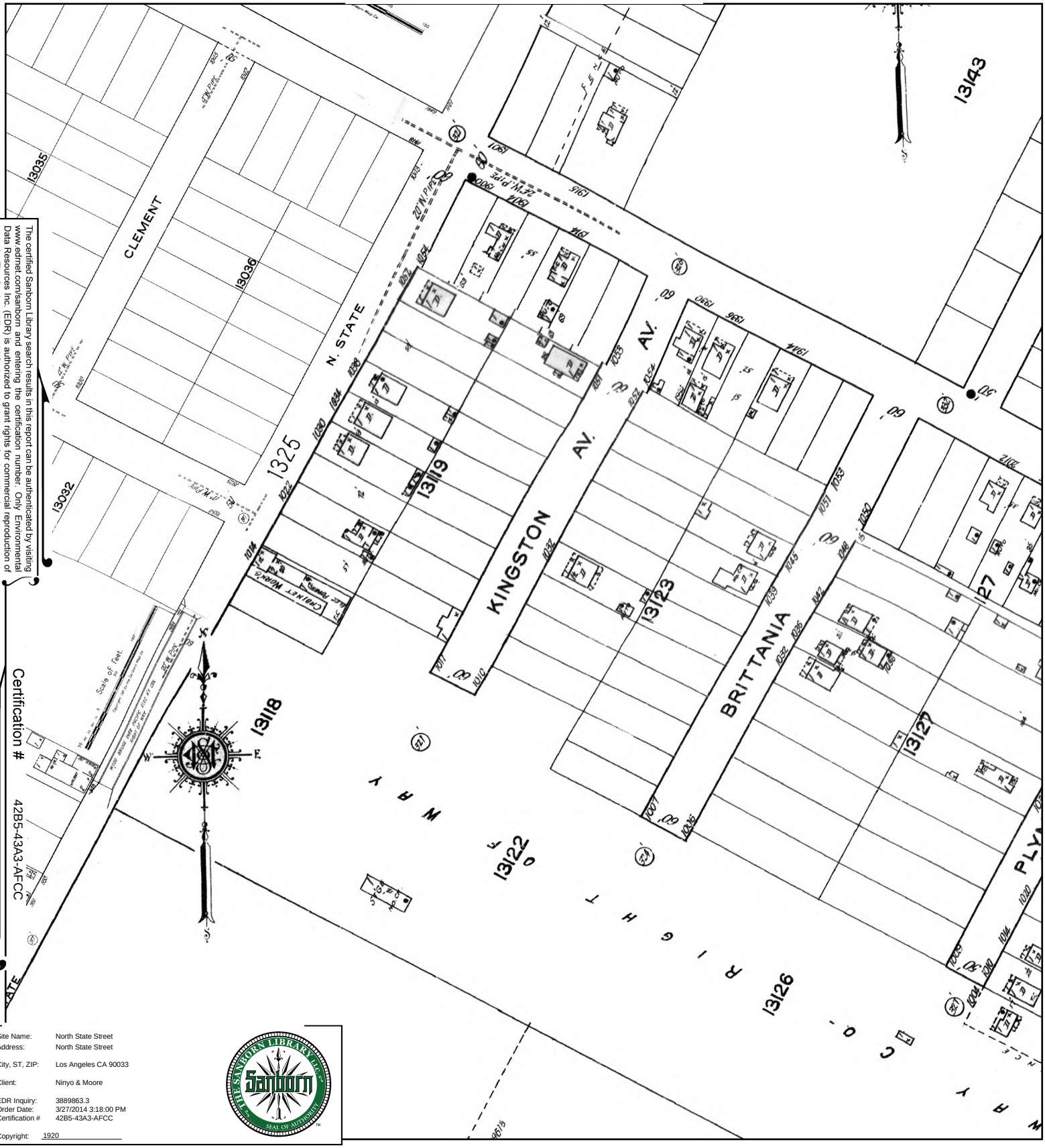


Volume 13, Sheet 1307
Volume 13, Sheet 1308
Volume 13, Sheet 1324
Volume 13, Sheet 1325
Volume 13, Sheet 1326

0 Feet 165 330 660

N

1920 Certified Sanborn Map



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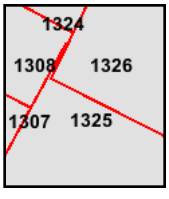

Volume 13, Sheet 1307
Volume 13, Sheet 1308
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Volume 13, Sheet 1325
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0 Feet 165 330 660

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Client Name:
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Contact: Jonathan Johnson

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Project: North State Street
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Maps Provided:

1970
1951
1920

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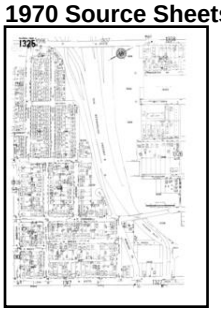
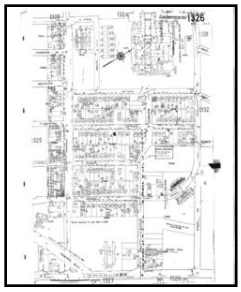


Volume 13, Sheet 1325

Volume 13, Sheet 1326

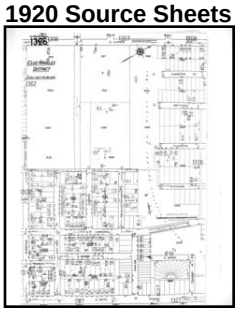
1951 Source Sheets

Volume 13, Sheet 1325



Volume 13, Sheet 1326

1920 Source Sheets



Volume 13, Sheet 1325

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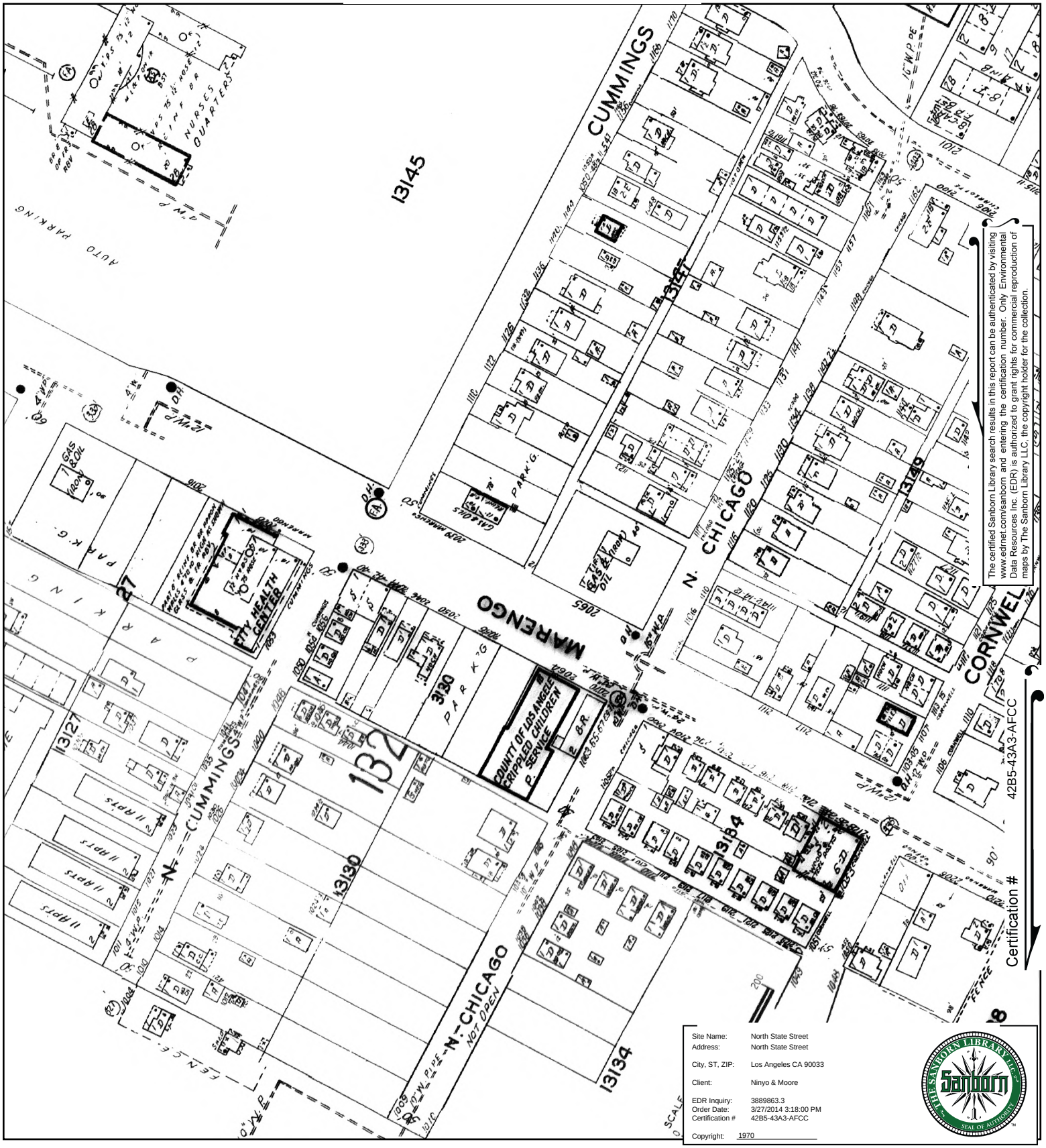
1970 Certified Sanborn Map



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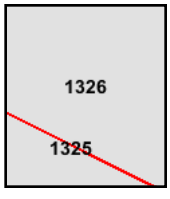
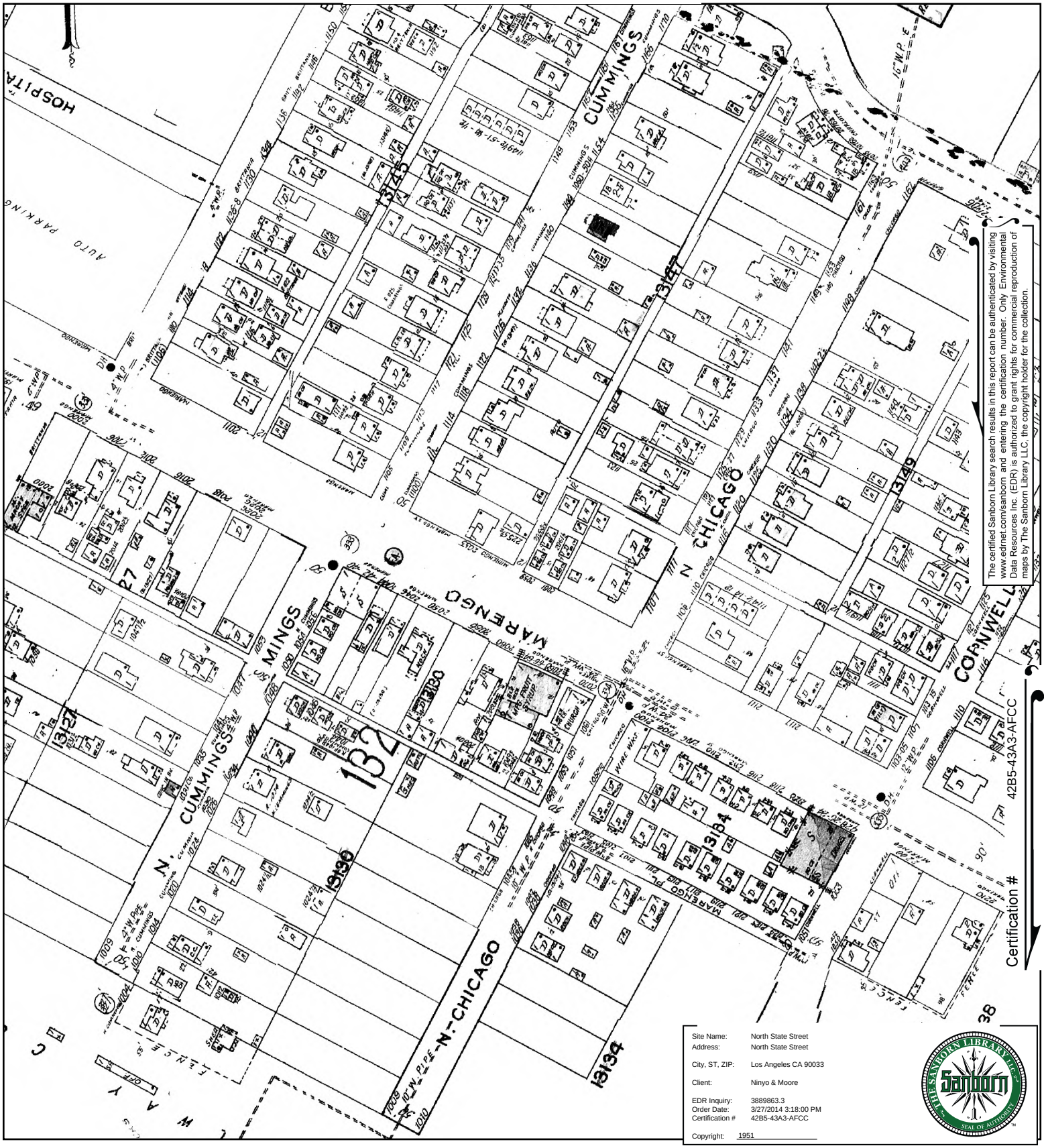


Volume 13, Sheet 1325
Volume 13, Sheet 1326

0 Feet 165 330 660

N

1951 Certified Sanborn Map



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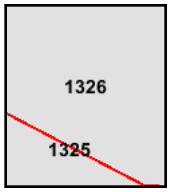

Volume 13, Sheet 1325
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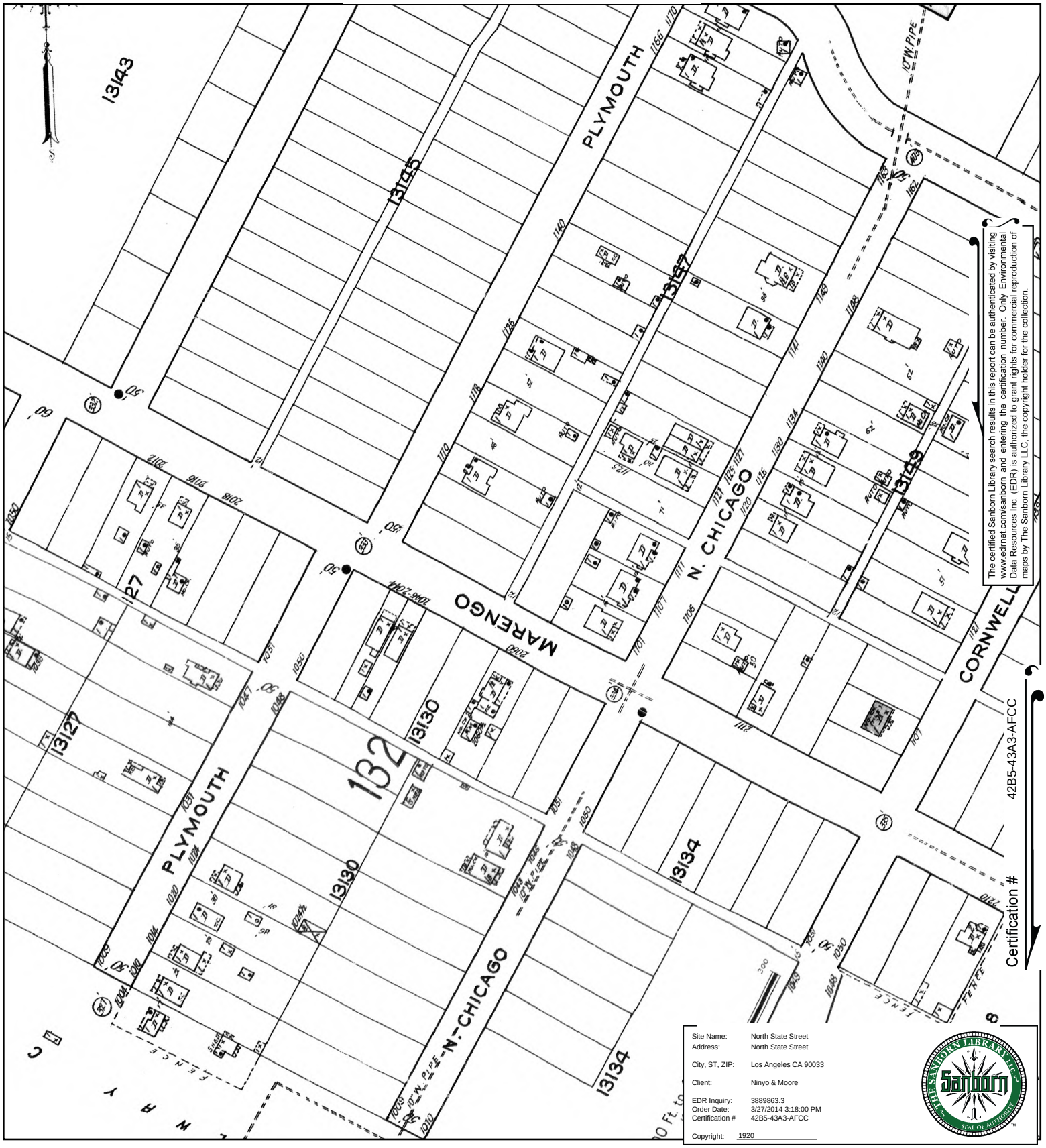
1920 Certified Sanborn Map



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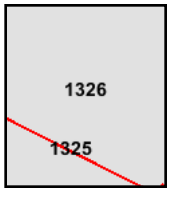

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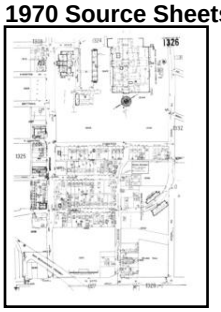
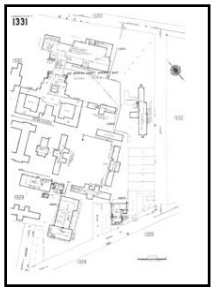


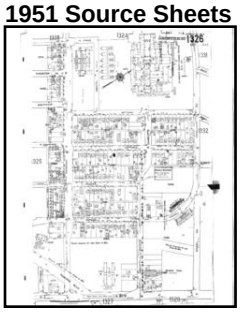
Volume 13, Sheet 1326



Volume 13, Sheet 1331

Volume 13, Sheet 1332

1951 Source Sheets



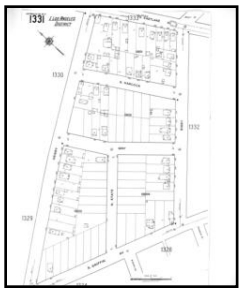
Volume 13, Sheet 1326

Volume 13, Sheet 1331

Volume 13, Sheet 1332

1920 Source Sheets

Volume 13, Sheet 1326



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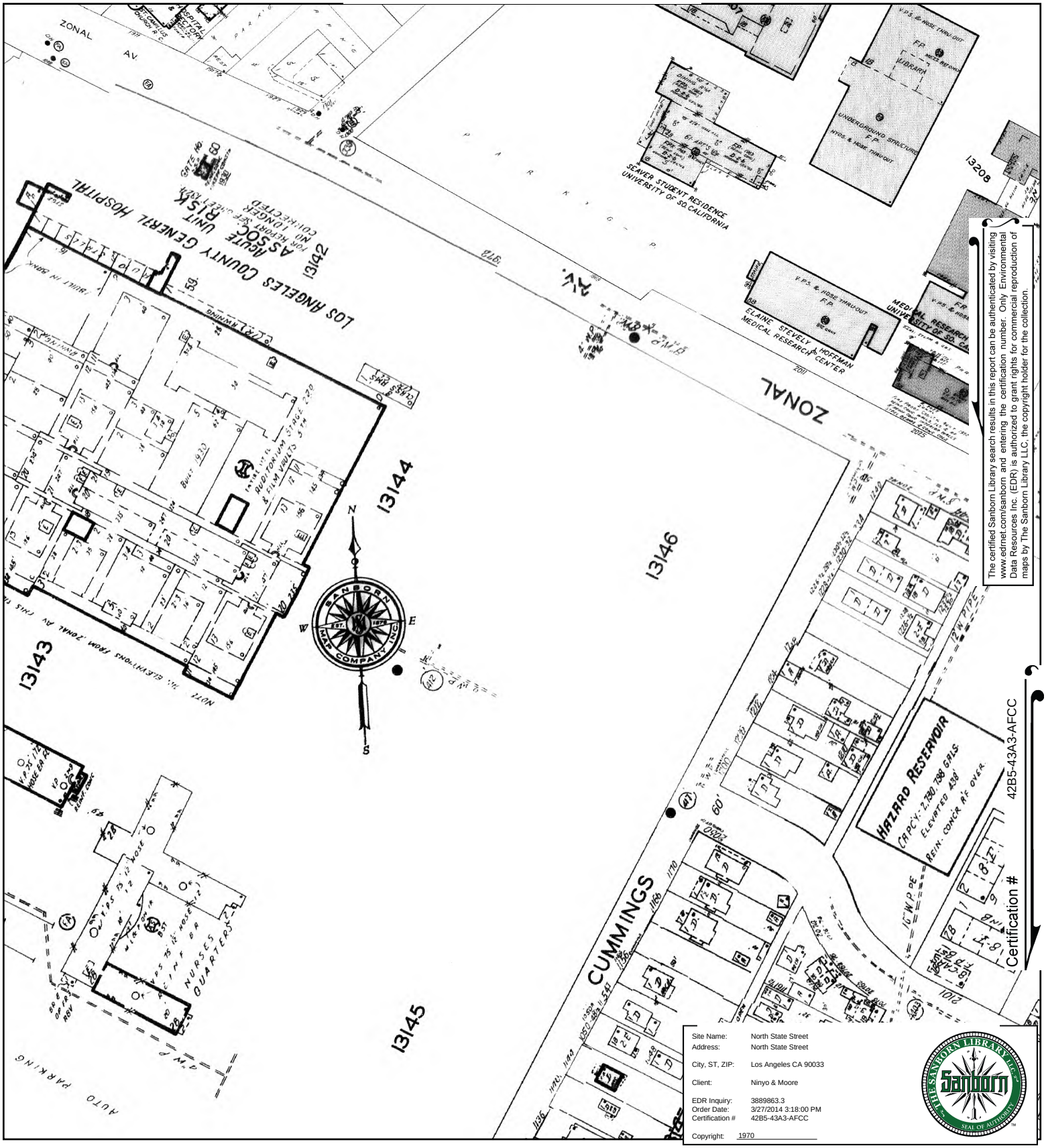

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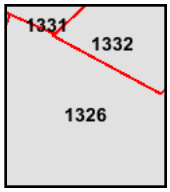
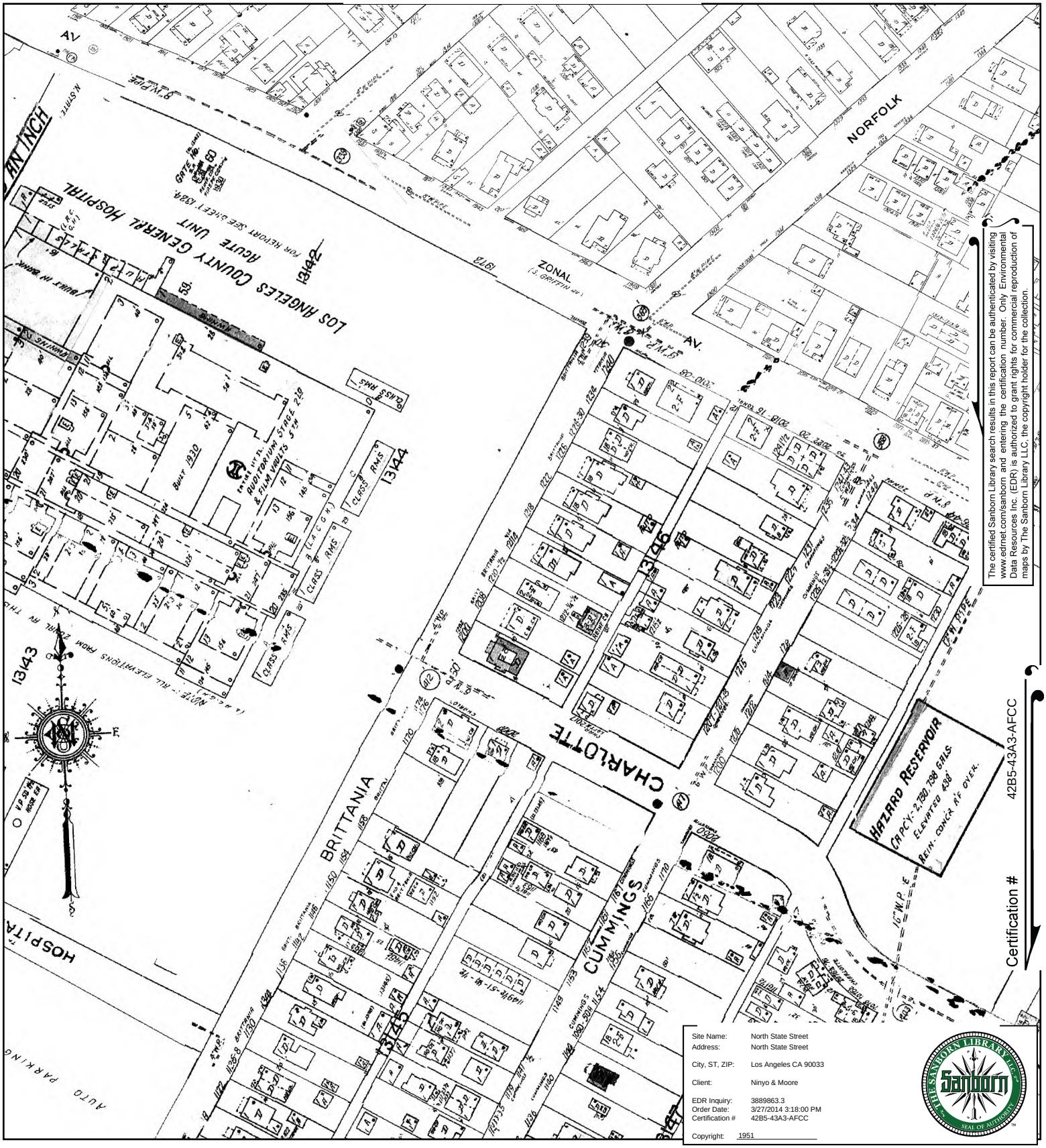


Volume 13, Sheet 1326
Volume 13, Sheet 1331
Volume 13, Sheet 1332

0 Feet 165 330 660

N

1951 Certified Sanborn Map



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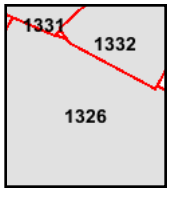

Volume 13, Sheet 1326
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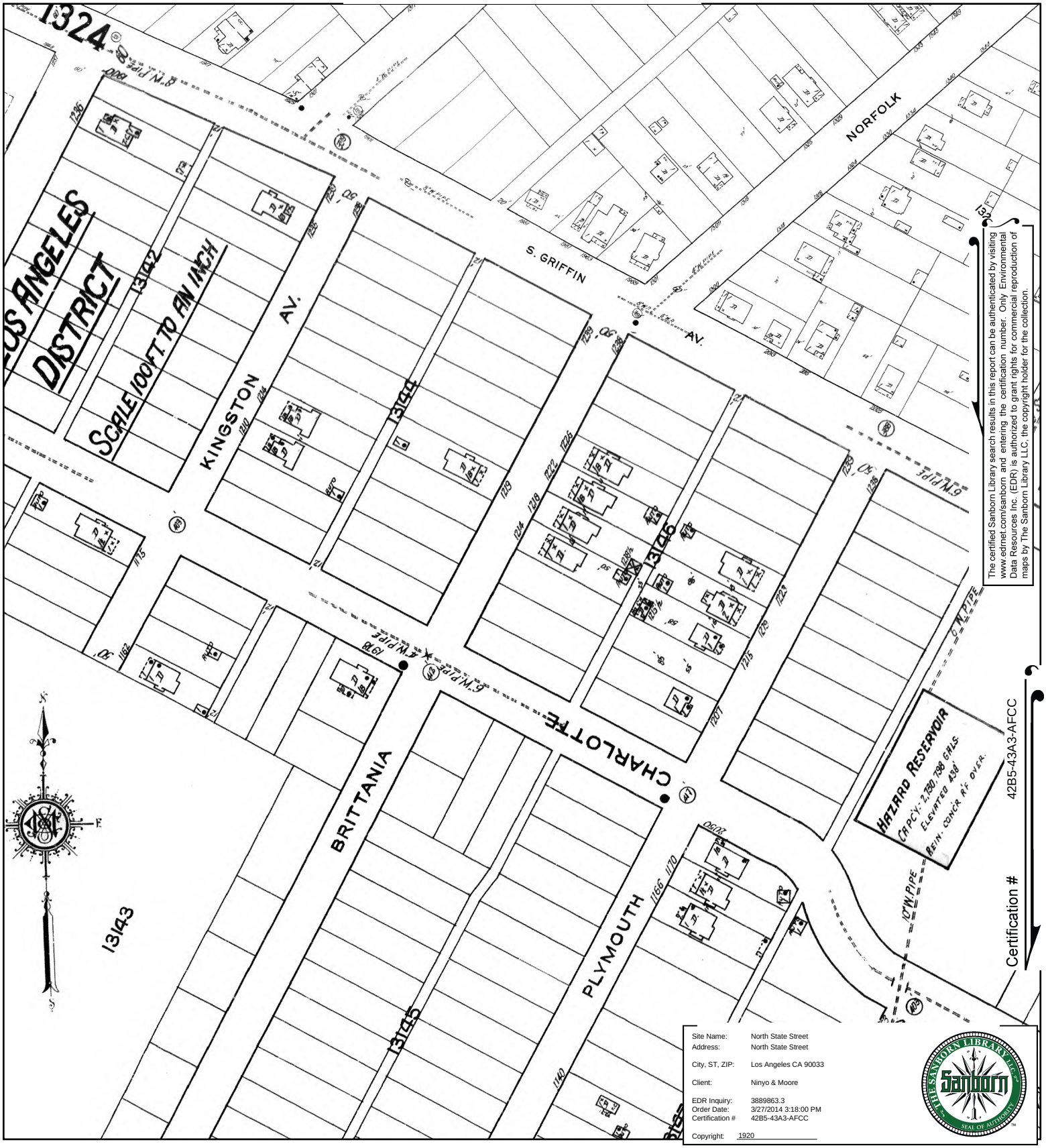

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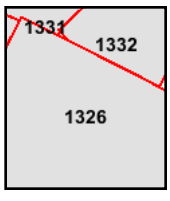

Volume 13, Sheet 1326
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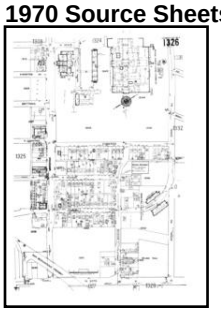
Sanborn Sheet Thumbnails

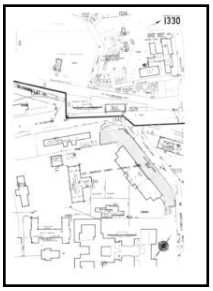
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1970 Source Sheets



Volume 13, Sheet 1326

Volume 13, Sheet 1329



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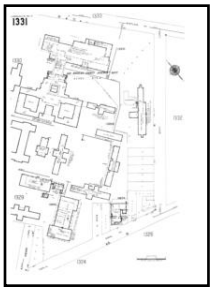

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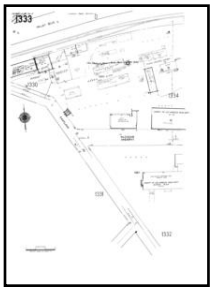
Volume 13, Sheet 1332



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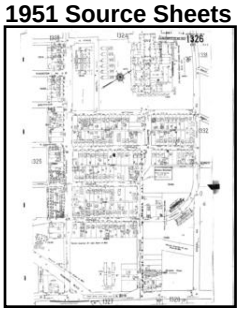
1951 Source Sheets



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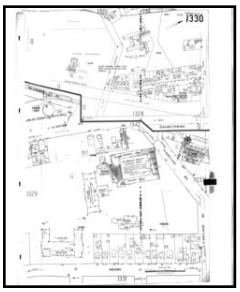

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1920 Source Sheets

Volume 13, Sheet 1326

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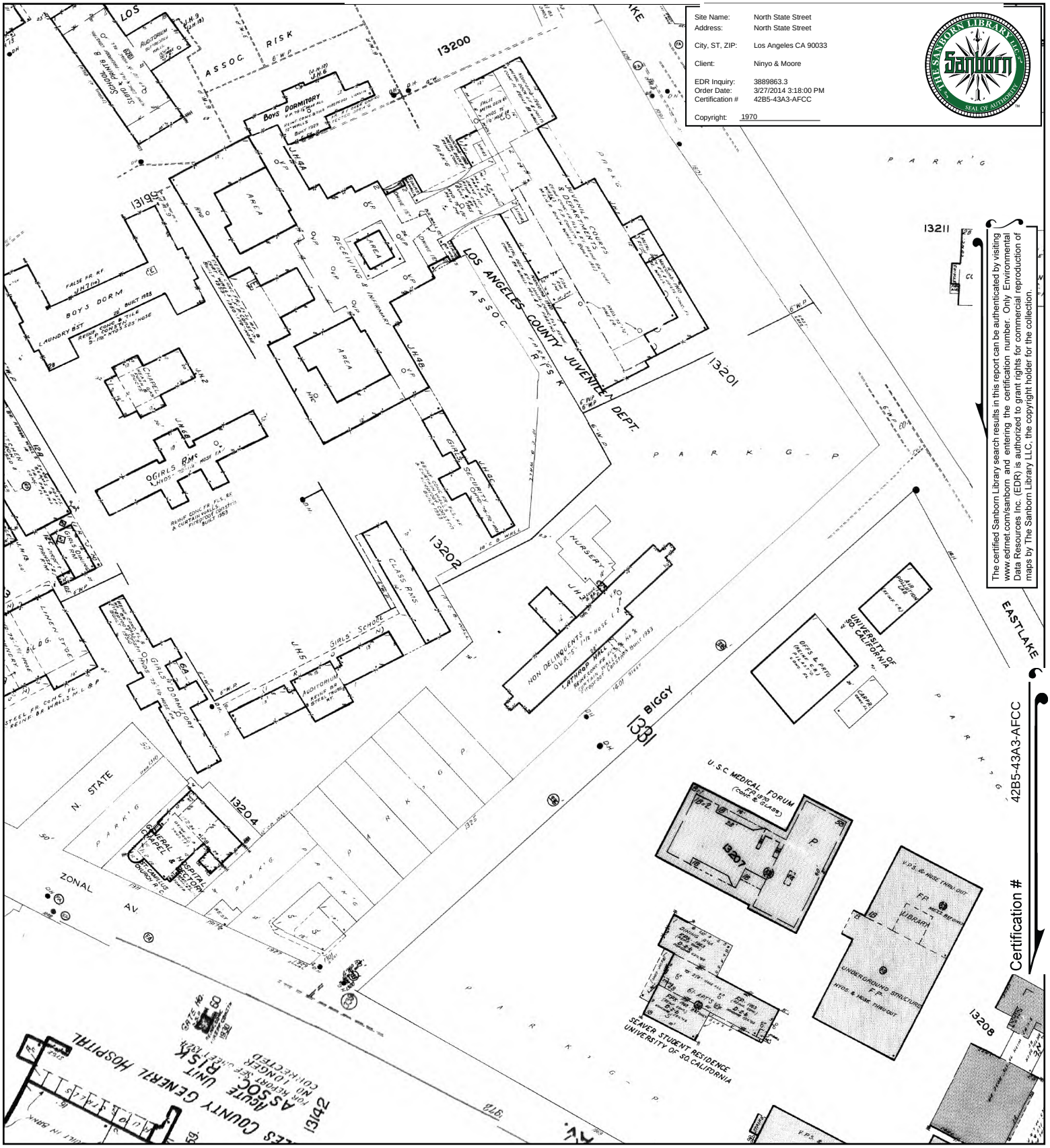
1970 Certified Sanborn Map



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Outlined areas indicate map sheets within the collection.

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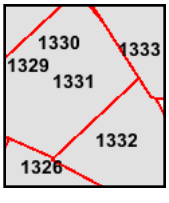

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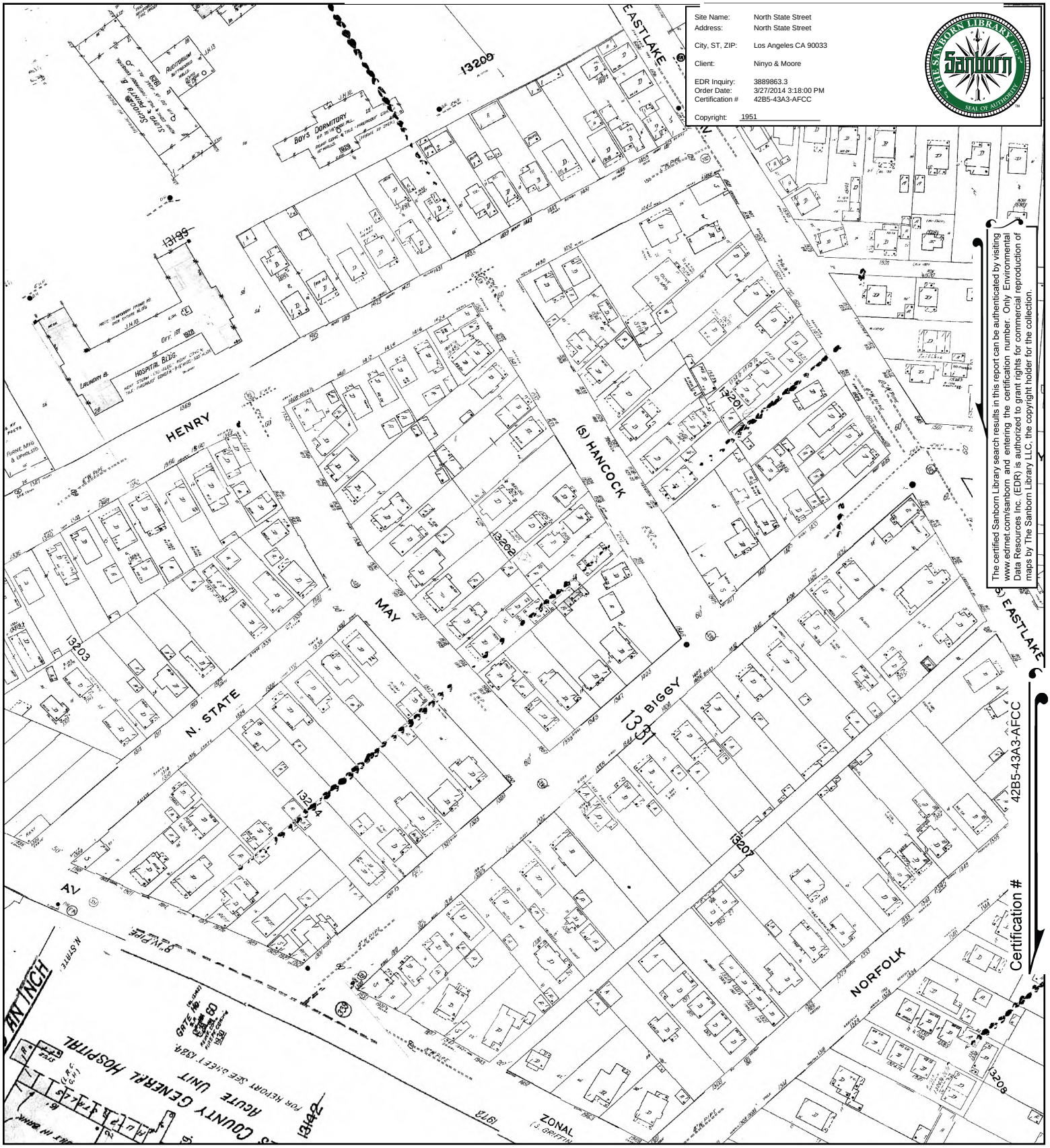
1951 Certified Sanborn Map



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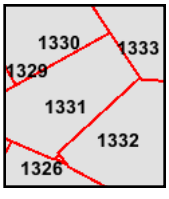

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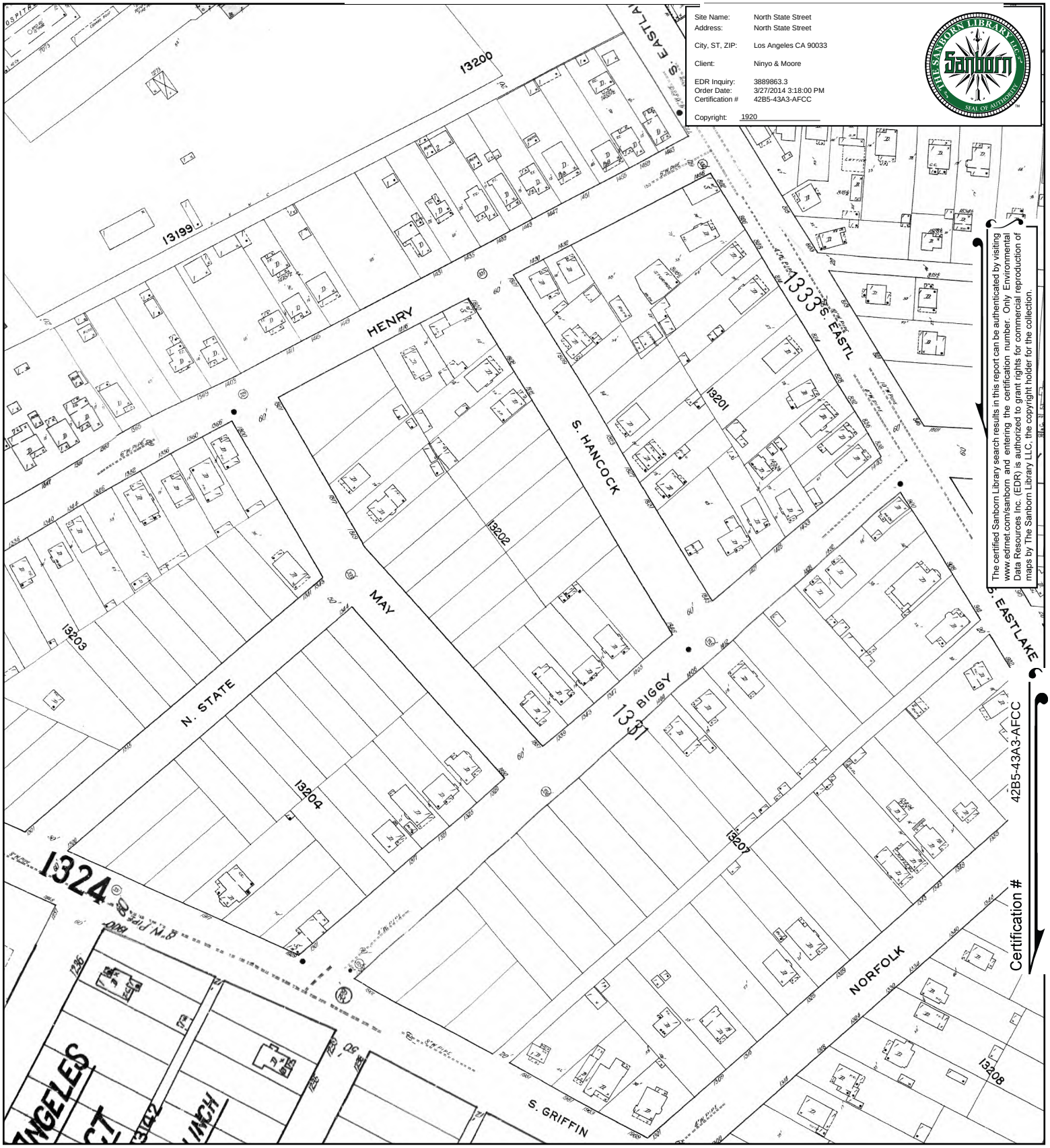
1920 Certified Sanborn Map



Site Name: North State Street
Address: North State Street
City, ST, ZIP: Los Angeles CA 90033
Client: Ninyo & Moore
EDR Inquiry: 3889863.3
Order Date: 3/27/2014 3:18:00 PM
Certification #: 42B5-43A3-AFCC
Copyright: 1920

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Certification #

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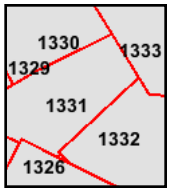

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N

North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.9
March 26, 2014

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 332 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	-	X	X	-
2008	Cole Information Services	-	X	X	-
2006	Haines Company, Inc.	-	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	X	X	-
2001	Haines & Company, Inc.	-	-	-	-
2000	Haines & Company	-	X	X	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	-	-	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell	-	X	X	-
1985	Pacific Bell	-	-	-	-
1981	Pacific Telephone	-	X	X	-
1980	Pacific Telephone	-	-	-	-
1976	Pacific Telephone	-	X	X	-
1975	Pacific Telephone	-	-	-	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	-	X	X	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	X	X	-
1966	Pacific Telephone	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1965	Pacific Telephone	-	X	X	-
1964	Pacific Telephone	-	X	X	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	X	X	-
1961	Luskey Brothers & Co	-	-	-	-
1960	Pacific Telephone	-	X	X	-
1958	Pacific Telephone	-	X	X	-
1957	Pacific Telephone	-	X	X	-
1956	Pacific Telephone	-	X	X	-
1955	Home Directory Service	-	-	-	-
1954	R. L. Polk & Co.	-	X	X	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Pacific Telephone & Telegraph Co.	-	X	X	-
1950	Pacific Telephone	-	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Western Directory Co.	-	-	-	-
1945	The Glendale Directory Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	X	X	-
1940	Glendale Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Co.	-	-	-	-
1937	Los Angeles Directory Co.	-	X	X	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	Los Angeles Directory Co.	-	-	-	-
1930	Glendale Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	X	X	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Kaasen Directory Company Publishers	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	X	X	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

North State Street
Los Angeles, CA 90033

FINDINGS DETAIL

Target Property research detail.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

E STATE ST

1218 E STATE ST

Year	Uses	Source
2003	:PIERCE Mern	Haines & Company

1241 E STATE ST

Year	Uses	Source
2003	CURTILarry	Haines & Company

HOSPITAL PL

1937 HOSPITAL PL

Year	Uses	Source
1990	SCHROEDER PATTY	Pacific Bell
	SHEWEY MARCIANNE	Pacific Bell
	SOLLANO LETICIA I	Pacific Bell
	STONE KARREY	Pacific Bell
	STOUT CINDY	Pacific Bell
	TINKER D	Pacific Bell
	TREJO ESPERANZA ROSE	Pacific Bell
	WHITE JOHN	Pacific Bell
	WILLIAMS MARY K	Pacific Bell
	WOO HILDA C	Pacific Bell
	ZUANICH GLYNNMARIE	Pacific Bell
	ANIS INAS	Pacific Bell
	BARKER SYLVIA	Pacific Bell
	BENITEZ CARMEN	Pacific Bell
	BRUTTER FRED	Pacific Bell
	BURD K	Pacific Bell
	CHANG LILLY RI-CHUNG	Pacific Bell
	CRAWSHAW JULIE	Pacific Bell
	DAVIS DONALEE	Pacific Bell
	DINSDALE JAMES	Pacific Bell
	DOMINGO ROSANNA	Pacific Bell
	ELLISON JEAN	Pacific Bell

FINDINGS

Year	Uses	Source
1990	ESMAS ANGELIKA M	Pacific Bell
	GALLAGHER M	Pacific Bell
	GORMAN T	Pacific Bell
	GOROSPE GERRY L	Pacific Bell
	GRAVES CHARLES	Pacific Bell
	GRIFFIN KELLEIGH	Pacific Bell
	GRIGOLLA A	Pacific Bell
	GUENTERT K	Pacific Bell
	HELLIE KAT	Pacific Bell
	HELLIE TRACIE	Pacific Bell
	HOPKINS KELVIN	Pacific Bell
	HOPP LAWRENCE M MD	Pacific Bell
	HOUGH KELSIE	Pacific Bell
	HUTTON-MILLS EVELYN	Pacific Bell
	JACOBSEN MICHAEL L	Pacific Bell
	KOR JOY	Pacific Bell
	KOURETA PANY	Pacific Bell
	LANG MARY	Pacific Bell
	LAYMAN GREG O	Pacific Bell
	LIN PETER	Pacific Bell
	LORCA CRISTINE	Pacific Bell
	MALLET TUNESSA	Pacific Bell
	MILLER BETSY	Pacific Bell
	MILLER HOWARD F	Pacific Bell
	MILLER SHONDA	Pacific Bell
	NGUYEN J S	Pacific Bell
	O CARROLL LISA M	Pacific Bell
	PALMAS ELIZABETH	Pacific Bell
	PARRA ANTHONY	Pacific Bell
	PETERS CYNTHIA	Pacific Bell
	RITTO SHARLENEE M DPM	Pacific Bell
	ROMERO OSCAR	Pacific Bell
	ROQUE JEANETTE	Pacific Bell
	RUMPF K	Pacific Bell
	SCHLESINGER TAYA	Pacific Bell
1986	ALLEN MARSHA	Pacific Bell
	AMES CRAIG	Pacific Bell
	BALTAZAR L	Pacific Bell

FINDINGS

Year	Uses	Source
1986	BARISIC LEEANNE F	Pacific Bell
	BARKER T	Pacific Bell
	BETTS ELAINE	Pacific Bell
	BILLUPS SHERRY S	Pacific Bell
	BONDS M	Pacific Bell
	BURNS ANN	Pacific Bell
	CALKINS C A	Pacific Bell
	CARCERY C	Pacific Bell
	CARTER C	Pacific Bell
	CHAPARRO A L	Pacific Bell
	CHRISMAN ANNE	Pacific Bell
	COLE H	Pacific Bell
	DECASTRO JOCELYN	Pacific Bell
	ELSTEIN D	Pacific Bell
	ESPINOSA J	Pacific Bell
	FLETCHER KIMBERLEY	Pacific Bell
	GARCIA R	Pacific Bell
	GENTILINI SHERRY	Pacific Bell
	GONZALES D	Pacific Bell
	GONZALEZ MARCO	Pacific Bell
	HAGSTROM L	Pacific Bell
	HALLIADY HOLLIS	Pacific Bell
	HAMM THOMAS	Pacific Bell
	HENDERSON CHERYL	Pacific Bell
	HOLBRAUN KAREN	Pacific Bell
	HORN PATRICIA	Pacific Bell
	JARQUIN MARTHA	Pacific Bell
	KATZER SANDRA	Pacific Bell
	KEARSLEY PEGGY	Pacific Bell
	KELLOGG STACY	Pacific Bell
	KELLY WILLIAM	Pacific Bell
	KEMBY COLLEEN	Pacific Bell
	KNAPP KIMBERLY	Pacific Bell
	KOELSCH A	Pacific Bell
	LORMAN KAREN	Pacific Bell
	MAINS F	Pacific Bell
	MARQUEZ ANNIE-MARIE	Pacific Bell
	MENEGHINI K	Pacific Bell

FINDINGS

Year	Uses	Source
1986	MORRILL J S	Pacific Bell
	MUELLER P K	Pacific Bell
	MUNOZ KRISTEN	Pacific Bell
	MUNOZ RENE	Pacific Bell
	NELSON S	Pacific Bell
	OKAMOTO SHARON	Pacific Bell
	OLIVAREZ HELENA L	Pacific Bell
	OSTLING DEANNA	Pacific Bell
	PADILLA JERRY	Pacific Bell
	PASQUA MELISSA	Pacific Bell
	PAULSON MARIA	Pacific Bell
	PAYNE J	Pacific Bell
	PENULLAR BARBAR S	Pacific Bell
	PLESSER JEFF	Pacific Bell
	PREML SHEELA	Pacific Bell
	PRYDE LYNN	Pacific Bell
	REILLY MAUREEN ANN	Pacific Bell
	REUKEMA ELIZABETH	Pacific Bell
	ROGERS KATHLEEN	Pacific Bell
	ROJAS PATRICK	Pacific Bell
	RUSCHE PAULA A	Pacific Bell
	SANCHEZ REBECCA	Pacific Bell
	SERRANO WILFREDO	Pacific Bell
	SEVERINO GINA	Pacific Bell
	SHADER ERIN	Pacific Bell
	SHEVLIN D	Pacific Bell
	SHOJI NANCY	Pacific Bell
	SIRONI C D	Pacific Bell
	SKROPEDA JOSEPH	Pacific Bell
	SOLLINGER KAREN L	Pacific Bell
	SUMMERS SANDRA	Pacific Bell
	TEAL WILLIAM	Pacific Bell
	TOLBY J A	Pacific Bell
	TOLIVER RENETTE	Pacific Bell
	TUNGOL V	Pacific Bell
	VESEY J	Pacific Bell
	VITOCRUZ EPPIE	Pacific Bell
	WEEKLEY JEANETTE	Pacific Bell

Year	Uses	Source
1986	WEINBERG MICHELLE D	Pacific Bell
	WILSON LISA D	Pacific Bell
	YOUNG CAROLYNE J	Pacific Bell

1972 HOSPITAL PL

Year	Uses	Source
1942	RICE Juanita Mrs	Los Angeles Directory Co.

N STATE

1144 N STATE

Year	Uses	Source
1924	Russo Lawrence h	Los Angeles Directory Co.
	Russo Lawrence R clk r	Los Angeles Directory Co.

1152 N STATE

Year	Uses	Source
1924	Girnus Wm J truck driver r	Los Angeles Directory Co.
	Mc Burney Thos J h	Los Angeles Directory Co.

1158 N STATE

Year	Uses	Source
1924	OKeefe John T eng S P h	Los Angeles Directory Co.

1170 N STATE

Year	Uses	Source
1924	BARNES Stephen W car bldr S P r	Los Angeles Directory Co.
	BARNES Steven B Hines & Barnes h	Los Angeles Directory Co.
	Wirtz Ludwig r	Los Angeles Directory Co.

1188 N STATE

Year	Uses	Source
1942	Narvino Jas Angelina	Los Angeles Directory Co.

1200 N STATE

Year	Uses	Source
1990	BOYD STUART D MD	Pacific Bell
	HALIKIS NICK	Pacific Bell
	INTERN & RES ASSN OF LAC-USC	Pacific Bell
	JOINT COUNCIL OF INTERNS & RESIDENTS OF LOS ANGELES COUNTY	Pacific Bell

FINDINGS

Year	Uses	Source
1990	JONAS KIMBERLY	Pacific Bell
	LIESKOVSKY GARY MD INC	Pacific Bell
	LOS ANGELES COUNTY MEDICAL CENTER SCHOOL OF NURSING	Pacific Bell
	MORRISON MANAGEMENT SERVICES	Pacific Bell
	MOSES DEVADAS	Pacific Bell
	USC MEDICAL CENTER CAFETERIA	Pacific Bell
1986	AMIN JATIN & AMITA	Pacific Bell
	BANK OF AMERICA NT & SA VERSATEL LOCATIONS	Pacific Bell
	BOYD STUART D MD	Pacific Bell
	GREGERSON PAUL MD	Pacific Bell
	LIESKOVSKY GARY MD INC	Pacific Bell
	LINDSAY JEFF	Pacific Bell
	MORRISON MANAGEMENT SERVICES	Pacific Bell
	SCHWARZBEIN D	Pacific Bell
	SEGAL MARK	Pacific Bell
	SKINNER DONALD G MD	Pacific Bell
	WILLIAMS MARIANNE	Pacific Bell
1981	APUZZO MICHAEL L J UNIVERSITY OF SO CALIF NEUROSURGICAL ASSOCIATES	Pacific Telephone
	BOYLEN C THOMAS DR	Pacific Telephone
	DU BOIS PHYLLIS-PSYCHO THERAPIST	Pacific Telephone
	GIANNOTTA STEVEN L UNIVERSITY OF SO CALIF NEUROSURGICAL ASSOCIATES	Pacific Telephone
	SKINNER DONALD G MD	Pacific Telephone
	UNIVERSITY OF SO CALIF NEUROSURGICAL ASSOCIATES	Pacific Telephone
	WEISS MARTIN H UNIVERSITY OF SO CALIF HEUROSURGICAL ASSOCIATES	Pacific Telephone
1971	Carter Sandy B	Pacific Telephone
	Cress Jonathan H MD	Pacific Telephone
	Deneau David G	Pacific Telephone
	Ehrhart John D	Pacific Telephone
	Gomes A S	Pacific Telephone
	Hospital L A County University Of So California Medical Center	Pacific Telephone
	Kaye Walter	Pacific Telephone
	Liff Michael	Pacific Telephone

FINDINGS

Year	Uses	Source
1971	County Hospital LLU Ofc	Pacific Telephone
	LOMA LINDA UNIVERSITY	Pacific Telephone
	L A County University Of So California Medical Center	Pacific Telephone
	Genl Ofc	Pacific Telephone
	LOS ANGELES COUNTY OF MEDICAL AID DISTRICTS	Pacific Telephone
	Los Angeles County University Of So California Medical Center	Pacific Telephone
	Mc Fadden Christine	Pacific Telephone
	Randau Paul C	Pacific Telephone
	Smith Katherine H MD	Pacific Telephone
	Underman A E	Pacific Telephone
	L A County University Of So California Medical Center	Pacific Telephone
	UNIVERSITY OF SOUTHERN CALIFORNIA School Of Medicine	Pacific Telephone
	UNIVERSITY OF SOUTHERN CALIFORNIA School Of Medicine	Pacific Telephone
	Pacemnaker Registry	Pacific Telephone
1970	LOS ANGELES COUNTY OF HOSPITALS DEPT OF	Pacific Telephone
1967	Briscoe Kathleen	Pacific Telephone
	Chamberlain Will MD	Pacific Telephone
	Chang Hollis H M Dr	Pacific Telephone
	County Hospital L A General	Pacific Telephone
	Freedman Sydney Dr	Pacific Telephone
	General Hospital L A County of	Pacific Telephone
	Gollub Michael	Pacific Telephone
	Hospital L A County Gene	Pacific Telephone
	Lindblad Donald E MD	Pacific Telephone
	Llewellyn Fred W MD	Pacific Telephone
	Loma Linda University	Pacific Telephone
	County Hospital L L U Ofc	Pacific Telephone
	Employees Genl Hospital	Pacific Telephone
	L A COUNTY EMPLOYEES UNION LOCAL	Pacific Telephone
	County General Hospital County Hospital	Pacific Telephone
	Los Angeles County of HOSPITALS	Pacific Telephone
	Genl Ofc	Pacific Telephone
	Los Angeles County of MEDICAL AID DISTS	Pacific Telephone

FINDINGS

Year	Uses	Source
1967	L A General Hospital	Pacific Telephone
	Neder Irving R	Pacific Telephone
	Olsen Harvey	Pacific Telephone
	Pearson Kent Dr	Pacific Telephone
	Rademacher John J Mrs	Pacific Telephone
	Rubin Robt B Dr MD	Pacific Telephone
	Tan Joyce	Pacific Telephone
	UNIVERSITY OF SOUTHERN CALIFORNIA University Park School of Medicine	Pacific Telephone
	School of Medicine Dept of Surgery	Pacific Telephone
	Weiner Ira G Dr MD	Pacific Telephone
	Wick J Dennis MD	Pacific Telephone
	Williams Edw J	Pacific Telephone
1966	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
1962	Chaplains Serv L A County General Hospital	Pacific Telephone
	County Hospital L A General	Pacific Telephone
	General Hospital L A County of	Pacific Telephone
	Hospital L A County Genl	Pacific Telephone
	LOMA LINDA UNIVERSITY	Pacific Telephone
	County Hospital L L U Ofc	Pacific Telephone
	County General Hospital County Hospital	Pacific Telephone
	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
	LOS ANGELES COUNTY OF MEDICAL AID DISTS	Pacific Telephone
	Genl Ofc	Pacific Telephone
	L A General Hospital	Pacific Telephone
	Miller Robt A	Pacific Telephone
	Newberg Construction Co	Pacific Telephone
	Cancer Investigation Unit	Pacific Telephone
	UNITED STATES GOVERNMENT HEALTH EDUCATION & WELFARE DEPT OF Public Health Service	Pacific Telephone
	University of Southern California Other Colleges Schools & Departments School of Medicine	Pacific Telephone
	Dept of Surgery	Pacific Telephone
1960	LOS ANGELES COUNTY OF HOSPITALS COUNTY GENERAL HOSPITAL	Pacific Telephone

FINDINGS

Year	Uses	Source
1957	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
1950	LOS ANGELES COUNTY OF AGRICULTURAL DEPT	Pacific Telephone
1942	Allington Robt R interne Genl Hosp	Los Angeles Directory Co.
	Andler Maxwell M jr res phys Genl Hosp	Los Angeles Directory Co.
	Armas Lydia E stdt nurse Geol Hasp	Los Angeles Directory Co.
	ARNOLD Geo J res phys Genl Hosp	Los Angeles Directory Co.
	Bachmann Geo W jr interne Genl Hosp	Los Angeles Directory Co.
	BAIRD Hallena M stdt nurse Genl Hosp	Los Angeles Directory Co.
	BARTON Jackson A interne Genl Hosp	Los Angeles Directory Co.
	Beiser Helen R internt Genl Hosp	Los Angeles Directory Co.
	Bellin Amarie stdt nurse	Los Angeles Directory Co.
	Biggin John T atdt Genl Hosp	Los Angeles Directory Co.
	Bleiberg Donald inteme Genl Hosp	Los Angeles Directory Co.
	Bonynge Thos W res pharm Genl Hosp	Los Angeles Directory Co.
	BOYER Marcia N stdt nurse Genl Hosp	Los Angeles Directory Co.
	Brantley Martha A nurse Genl Hosp	Los Angeles Directory Co.
	Britt Annabelle stdt nurse Genl Hosp	Los Angeles Directory Co.
	Cadranel Jos L interne Genl Hosp	Los Angeles Directory Co.
	CADWELL Jane stdt nurse Genl Hosp	Los Angeles Directory Co.
	Card Marilla L stdt nurse Genl Hosp	Los Angeles Directory Co.
	CARL Nathan E interne Genl Hosp	Los Angeles Directory Co.
	CARSON Margt M stdt nurse Genl Hosp	Los Angeles Directory Co.
	CARTER Norman K interne Genl Hosp	Los Angeles Directory Co.
	Cavins Ruth E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Clapp Audrey E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Clifford Edw M jan Genl Hosp	Los Angeles Directory Co.
	COHN Arnold L interne Genl Hosp	Los Angeles Directory Co.
	COLE Fern E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Conkwright Margt A stdt nurse Genl Hosp	Los Angeles Directory Co.
	CONROY Eva M Mrs nurse Genl Hosp	Los Angeles Directory Co.
	CRANE Jay F interne Genl Hosp	Los Angeles Directory Co.
	Crawford Clifford N interne Genl Hosp	Los Angeles Directory Co.
	Crawford Donald J interne Genl Hosp	Los Angeles Directory Co.
	Crumrine Martin H res phys Genl Hosp	Los Angeles Directory Co.
	Crutcher Luke F interne Genl Hosp	Los Angeles Directory Co.
	CURTIN Ed W D interns Genl Hosp	Los Angeles Directory Co.
	DAHLMAN Rynol A interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Dakin Marion J res phys Genl Hosp	Los Angeles Directory Co.
	DAVIS Jas G interne Genl Hosp	Los Angeles Directory Co.
	De Leon Pilar I stdt nurse Genl Hosp	Los Angeles Directory Co.
	DENHAM Eleanor stdt nurse Genl Hosp	Los Angeles Directory Co.
	Denlinger Ross B interne Genl Hosp	Los Angeles Directory Co.
	Detwiler Howard F interne Genl Hosp	Los Angeles Directory Co.
	DILLON Dolores M interne Genl Hosp	Los Angeles Directory Co.
	Donato Alsace L stdt nurse Genl Hosp	Los Angeles Directory Co.
	DORMAN Thelma E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Dougherty Jas elev opr Genl Hosp	Los Angeles Directory Co.
	DWYER Mary E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Dybdahl Gerhardt L interne Genl Hosp	Los Angeles Directory Co.
	Easter Anona M Mrs nurse Genl Hosp	Los Angeles Directory Co.
	Easterday Pearl G nurse Genl Hosp	Los Angeles Directory Co.
	Eaton Chas H interne Genl Hosp	Los Angeles Directory Co.
	EBERT Alice J stdt nurse Genl Hosp	Los Angeles Directory Co.
	EBERT Norma F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Eisenbeiss John interne Genl Hosp	Los Angeles Directory Co.
	Elerding Alan C interne Gen Hosp	Los Angeles Directory Co.
	Elgin J Carroll res phys Genl Hosp	Los Angeles Directory Co.
	Ellenburg Robt L interne Genl Hosp	Los Angeles Directory Co.
	ELLSWORTH Mary E stdt nurse Genl Hosp	Los Angeles Directory Co.
	ENGLE Robt B interne Genl Hosp	Los Angeles Directory Co.
	Ermoian Lucille N stdt nurse Genl Hosp	Los Angeles Directory Co.
	Esnard John E interne Genl Hosp	Los Angeles Directory Co.
	Feder Ellen P interne Genl Hosp	Los Angeles Directory Co.
	Ferman Jack A mterne Gen Hosp	Los Angeles Directory Co.
	FIELDS Irving A res phys Genl Hosp	Los Angeles Directory Co.
	Finerman Wilmore B interne Genl Hosp	Los Angeles Directory Co.
	FINKELSTEIN Gertrude P res phys Ganl Hosp	Los Angeles Directory Co.
	Finnety T Mrs still Genl Hosp	Los Angeles Directory Co.
	Firor Marion M stdt nurse Genl Hosp	Los Angeles Directory Co.
	FISHER Earnestine nurse Genl Hosp	Los Angeles Directory Co.
	FISHER Lloyd D phys Genl Hosp	Los Angeles Directory Co.
	Fites Cora J Mrs chf supvg nurse Genl Hosp	Los Angeles Directory Co.
	FOGEL David interne Genl Hosp	Los Angeles Directory Co.
	Fong Edna M interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	FORBES Harry B anesthetist Genl Hosp	Los Angeles Directory Co.
	FORD Liam J interne Genl Hosp	Los Angeles Directory Co.
	FOSTER Flavia stdt nurse Genl Hosp	Los Angeles Directory Co.
	FOSTER Louise J stdt nurse Genl Hosp	Los Angeles Directory Co.
	FOULK Marguerite L interne Genl Hosp	Los Angeles Directory Co.
	Freed Arnold L interne Genl Hosp	Los Angeles Directory Co.
	FREEDMAN Bernard interne Genl Hosp	Los Angeles Directory Co.
	FRICK Oliver interne Genl Hosp	Los Angeles Directory Co.
	FRIEDMAN Marshall H interne Genl Hosp	Los Angeles Directory Co.
	Funk Arth P interne Genl Hosp	Los Angeles Directory Co.
	Funke Robt E interne Genl Hosp	Los Angeles Directory Co.
	GARCIA Olimpia M stdt nurse Genl Hosp	Los Angeles Directory Co.
	GARFIELD Sidney R phys Genl Hoap	Los Angeles Directory Co.
	Gee Jean E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Gerber Alex interne Genl Hosp	Los Angeles Directory Co.
	Golenternek Dan phys	Los Angeles Directory Co.
	Golstream Blanche stdt nurse Genl Hosp	Los Angeles Directory Co.
	GORDON Jean E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Goto Jas M res phys Genl Hosp	Los Angeles Directory Co.
	Grant Sidney S interne Genl Hoap	Los Angeles Directory Co.
	Greentree Harold S interne Genl Hosp	Los Angeles Directory Co.
	Guggenheim Paul interne Genl Hosp	Los Angeles Directory Co.
	Hachisuka Setsuko M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Haigh Jon S res phys Genl Hosp	Los Angeles Directory Co.
	Hallstone C Everette jr interne Genl Hosp	Los Angeles Directory Co.
	Hamaguchi Aiko stdt nurse Genl Hosp	Los Angeles Directory Co.
	HAMILTON R Sidney interne Genl Hosp	Los Angeles Directory Co.
	HANSON Wayne P interne Genl Hosp	Los Angeles Directory Co.
	Harrison Alex V interne Genl Hosp	Los Angeles Directory Co.
	Hartie Ethel L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Hasegawa Mitsuko stdt nurse Genl Hosp	Los Angeles Directory Co.
	Heaton Marie L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Heldfond Alf res phys Genl Hosp	Los Angeles Directory Co.
	HENRY Clara A nurse Genl Hosp	Los Angeles Directory Co.
	Hilker Chas E storemn Genl Hosp	Los Angeles Directory Co.
	HILL Raymond M phys Genl Hosp	Los Angeles Directory Co.
	HOLLOWAY Alberta H stdt nurse Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	HOLMES Emma L stdt nurse Genl Hosp	Los Angeles Directory Co.
	HOPE Martha E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Hopkins Nella J nurse Genl Hosp	Los Angeles Directory Co.
	Hovsepian Deron interne Genl Hosp	Los Angeles Directory Co.
	HOWE Ellen J stdt nurse Genl Hosp	Los Angeles Directory Co.
	HUNT Guy M jr Interne Genl Hoep	Los Angeles Directory Co.
	Irvin Clarice I stdt nurse Genl Hosp	Los Angeles Directory Co.
	Isaacson Alvin Interne Genl Hosp	Los Angeles Directory Co.
	Jamentz Albt H hd phys Genl Hosp	Los Angeles Directory Co.
	JONES Harriet H nurse Genl Hosp	Los Angeles Directory Co.
	JONES Pauline C stdt nurse Genl Hosp	Los Angeles Directory Co.
	JORGENSEN Elsie phys Genl Hosp	Los Angeles Directory Co.
	Jourdan Harve W interne Genl Hosp	Los Angeles Directory Co.
	Journigan Vera J stdt nurse Genl Hosp	Los Angeles Directory Co.
	KEATING Mary A stdt nurse Genj Hosp	Los Angeles Directory Co.
	KENNEDY Mary L stdt nurse Genl Hosp	Los Angeles Directory Co.
	KERN Carroll E interne Genl Hosp	Los Angeles Directory Co.
	KIEL Wm H kitchenwkr Genl Hosp	Los Angeles Directory Co.
	Kimura Asayo stdt nurse Genl Hosp	Los Angeles Directory Co.
	KIRK Vera L stdt nurse Genl Hosp	Los Angeles Directory Co.
	KIRSHNER Ruth stat nurse Genl Hosp	Los Angeles Directory Co.
	Knouf Evelnne G hd phys Genl Hosp	Los Angeles Directory Co.
	Kobayashi Marian H stdt nurse Genl Hosp	Los Angeles Directory Co.
	Koury Jas Naomi beauty shop	Los Angeles Directory Co.
	Krauthaus Virginia stdt nurse Genl Hosp	Los Angeles Directory Co.
	Kugel Arth I interne Genl Hosp	Los Angeles Directory Co.
	Kurkjian Grace A stdt nurse Genl Hosp	Los Angeles Directory Co.
	KURTZ Isabelle N stdt nurse Genl Hosp	Los Angeles Directory Co.
	LARSEN Floyd E interne Genl Hosp	Los Angeles Directory Co.
	Lasky Irving I interne Genl Hosp	Los Angeles Directory Co.
	LAWRENCE Herbt res phys Genl Hosp	Los Angeles Directory Co.
	Levan Norman E interne Genl Hosp	Los Angeles Directory Co.
	LEVINE Esther M std nurse Genl Hosp	Los Angeles Directory Co.
	LEVITT Harry interne Genl Hosp	Los Angeles Directory Co.
	LEWIS Bernice M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Linderman Albt J res phys Genl Hosp	Los Angeles Directory Co.
	Lofgren Alice stdt nurse Genl Hosp	Los Angeles Directory Co.
	LOS ANGELES COUNTY GENERAL HOSPITAL Dr Edwin S Bennett Director	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Department of Charities Department of Institutions Bureau of Medical Social Service	Los Angeles Directory Co.
	Department of Charities Department of Institutions Los Angeles Countly General Hospital	Los Angeles Directory Co.
	General Hospital Department of Institutions Dr Edwin S Bennett dir	Los Angeles Directory Co.
	Macenwing Geo A res phys Genl Hosp	Los Angeles Directory Co.
	Maddes Kath E stdt nurse Genl Hosp	Los Angeles Directory Co.
	Mambert Harry W kitchenwkr Genl Hosp	Los Angeles Directory Co.
	MANDELL Jos res phys Genl Hosp	Los Angeles Directory Co.
	Maron Victor res phys Genl Hosp	Los Angeles Directory Co.
	Maruyama Eliz T stdt nurse Genl Hosp	Los Angeles Directory Co.
	Masson John M interne Genl Hosp	Los Angeles Directory Co.
	Mauch Ina F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Mc FADDEN Inez L stdt nurse Genl Hosp	Los Angeles Directory Co.
	MEEHAN Herbt interns Genl Hosp	Los Angeles Directory Co.
	MERKEL Emil E interne Genl Hosp	Los Angeles Directory Co.
	MILLER Lillian C stdt nurse Genl Hosp	Los Angeles Directory Co.
	Millitzer M Monica phys Genl Hosp	Los Angeles Directory Co.
	Mirman Benj H interne Genl Hosp	Los Angeles Directory Co.
	MITCHELL Judson M lndywkr Genl Hosp	Los Angeles Directory Co.
	MOORE Emory S jr interne Genl Hosp	Los Angeles Directory Co.
	Movius Herbt J H interne Genl Hosp	Los Angeles Directory Co.
	MOWATT Sarah F nurse Genl Hosp	Los Angeles Directory Co.
	MUELLER Lorine F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Munger J Roger interne Genl Hosp	Los Angeles Directory Co.
	MURPHY Lyle F interne Genl Hosp	Los Angeles Directory Co.
	NAGEL Sherman A jr interne Genl Hosp	Los Angeles Directory Co.
	Naiditch Morris J phys Genl Hosp	Los Angeles Directory Co.
	NAVARRO Loretta stdt nurse Genl Hosp	Los Angeles Directory Co.
	NEWMAN Norma D std nurse Gaul Hasp	Los Angeles Directory Co.
	NIELSEN Robt F interne Genl Hosp	Los Angeles Directory Co.
	NUSBAUM Malvena L nurse Genl Hosp	Los Angeles Directory Co.
	OLSON Wm A phys Genl Hosp	Los Angeles Directory Co.
	ONEAL Wm J interne Genl Hosp	Los Angeles Directory Co.
	Ottman Miriam E interne Genl Hosp	Los Angeles Directory Co.
	OVERMAN John E interne Genl Hosp	Los Angeles Directory Co.
	Ovsey Lionel interne Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	PEARSON John P interne Genl Hosp	Los Angeles Directory Co.
	PENDLETON Adaline interne Genl Hosp	Los Angeles Directory Co.
	PERKINS Roy F interne Genl Hosp	Los Angeles Directory Co.
	PERLMAN Florence K stdt nurse Genl Hosp	Los Angeles Directory Co.
	Peterman Joan A stdt nurse Genl Hosp	Los Angeles Directory Co.
	Petrik Jean M interrie Genal Hoap	Los Angeles Directory Co.
	Pettier Arth M phys Gen Hosp	Los Angeles Directory Co.
	PITMAN Ruth C Mrs stdt nurse Genl Hosp	Los Angeles Directory Co.
	in H Sit A ltt nmcee Gncn Hoap	Los Angeles Directory Co.
	POLLOCK Jos H plays Genl Hosp	Los Angeles Directory Co.
	Potampa Philip B phys Genl Hosp	Los Angeles Directory Co.
	Pouder Letha hse mother Genl Hosp	Los Angeles Directory Co.
	RANEY Aidan A phys Genl Hosp	Los Angeles Directory Co.
	Rentfro Joelle E interne Genl Hosp	Los Angeles Directory Co.
	Ribner Carol M stdt nurse Genl Hosp	Los Angeles Directory Co.
	RICHARDSON Clark M interne Genl Hosp	Los Angeles Directory Co.
	Ricbh Elmira A interne Genl Hosp	Los Angeles Directory Co.
	Rickenberg Robt E interne Genl Hosp	Los Angeles Directory Co.
	ROBERTSON Robt F interne Genl Hosp	Los Angeles Directory Co.
	Rodi Albt H res phys Genl Hosp	Los Angeles Directory Co.
	Roe Wm F interne Genl Hosp	Los Angeles Directory Co.
	ROSENTHAL Saml M interne Genl Hosp	Los Angeles Directory Co.
	ROTH Merall interne Genl Hosp	Los Angeles Directory Co.
	Ruch Betty N stdt nurse Gen Hosp	Los Angeles Directory Co.
	SALAZAR Carmen stdt nurse Genl Hosp	Los Angeles Directory Co.
	Samoyloff Mary M stdt nurse Genl Hosp	Los Angeles Directory Co.
	SCHMIDT Mary A stdt nurse Genl Hosp	Los Angeles Directory Co.
	SCHNEIDER Rae M Mrs interne Genl Hosp	Los Angeles Directory Co.
	Schwerin Lois stdt nurse Genl Hosp	Los Angeles Directory Co.
	Shoor Maurice N phys Genl Hosp	Los Angeles Directory Co.
	Siebecker Karl L jr res phys Genl Hosp	Los Angeles Directory Co.
	Siess Eug E interne Genl Hosp	Los Angeles Directory Co.
	Simmonds Leslie interne Genl Hosp	Los Angeles Directory Co.
	SMITH Burton interne Genl Hosp	Los Angeles Directory Co.
	SMITH Gladys G interne Genl Hosp	Los Angeles Directory Co.
	SMITH Saml N interne Genl Hosp	Los Angeles Directory Co.
	Smithson Barbara L stdt nurse Genl Hospr	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	SNEDECOR Nina M nurse Genl Hosp	Los Angeles Directory Co.
	Sokol Archer J interne Genl Hosp	Los Angeles Directory Co.
	Spiers Donald W interne Genl Hosp	Los Angeles Directory Co.
	STEELE Wanda K stdt nurse Genl Hosp	Los Angeles Directory Co.
	Steindel Sam interne Genl Hosp	Los Angeles Directory Co.
	STEPHENSON Wm H interne Genl Hosp	Los Angeles Directory Co.
	Stirrett Lloyd A interne Genl Hosp	Los Angeles Directory Co.
	Stomel Ethel R stdt nurse Genl Hosp	Los Angeles Directory Co.
	STONE Jeanne L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Stroman Evelyn M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Swardloff Harold interne Genl Hosp	Los Angeles Directory Co.
	Takeno M Geo interne Genl Hosp	Los Angeles Directory Co.
	Tanger Jeannete F stdt nurse Genl Hosp	Los Angeles Directory Co.
	Tarango Catalina stdt nurse Genl Hosp	Los Angeles Directory Co.
	TAYLOR Edithmae interne Genl Hosp	Los Angeles Directory Co.
	Thale Harold B interne Genl Hosp	Los Angeles Directory Co.
	Tsunekawa Geo H interne Genl Hosp	Los Angeles Directory Co.
	Tuch Benj E interne Genl Hosp	Los Angeles Directory Co.
	Tynan Jas O interne Genl Hosp	Los Angeles Directory Co.
	Van Pelt Wilda E stdt nurse Genl Hosp	Los Angeles Directory Co.
	VOGEL Mary T quers Glenl Hosp	Los Angeles Directory Co.
	Von Dollen Margt H stdt nurse Genl Hosp	Los Angeles Directory Co.
	Wada Margie F sta nurse Genl Hosp	Los Angeles Directory Co.
	WADE Martha B stdt nurse Genl Hosp	Los Angeles Directory Co.
	WALKER Frank E atdt Genl Hosp	Los Angeles Directory Co.
	WALTERS John D interne Genl Hosp	Los Angeles Directory Co.
	Weaver Beryl L stdt nurse Genl Hosp	Los Angeles Directory Co.
	Weinberger Willard W Interne Genl Hosp	Los Angeles Directory Co.
	Werner Corinne stdt nurse Genl Hosp	Los Angeles Directory Co.
	Weyand Geo M interne Genl Hosp	Los Angeles Directory Co.
	WHEELER Jane M stdt nurse Genl Hosp	Los Angeles Directory Co.
	Wiesenfeld Irving H res phys Genl Hosp	Los Angeles Directory Co.
	WILLIAMS Anne stdt nurse Genl Hosp	Los Angeles Directory Co.
	WILLIAMS Phyllis M stdt nurse Genl Hosp	Los Angeles Directory Co.
	WILSON Alice J bkpr Bldg Material Dealers Credit Assn r Inglwd r	Los Angeles Directory Co.
	WILSON John A jr interne Genl Hosp	Los Angeles Directory Co.
	Winkler David P interne Genl Hosp	Los Angeles Directory Co.
	WRIGHT Margt M nurse Genl Hosp	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1942	Wrons Sally Z Mrs nurse Genl Hosp	Los Angeles Directory Co.
	Yasuda Tomiko stdt nurse Genl Hosp	Los Angeles Directory Co.
1937	ZIMMERMAN CHAS A Chf Clk General Hospital	Los Angeles Directory Co.
	Ammon M Mercedes nurse Genl Hosp	Los Angeles Directory Co.
	ANDREWS Nora M nurse Genl Hosp	Los Angeles Directory Co.
	BAIRD Maggie A nurse Genl Hosp	Los Angeles Directory Co.
	Berendeen Maude L nurse Genl Hosp	Los Angeles Directory Co.
	Berker Dorothy J nurse Genl Hosp	Los Angeles Directory Co.
	Blythe Dorothy C nurse Genl Hosp	Los Angeles Directory Co.
	Breole Marie A nurse Genl Hosp	Los Angeles Directory Co.
	CAMPBELL Neava P nurse Genl Hosp	Los Angeles Directory Co.
	DICKENSON Muriel nurse Genl Hosp	Los Angeles Directory Co.
	DICKSON Mildred I nurse Genl Hosp	Los Angeles Directory Co.
	DOHERTY Jas J elev apr Genl Hasp	Los Angeles Directory Co.
	EKLUND Esther M nurse Genl Hosp	Los Angeles Directory Co.
	GRAY EVERETT J Executive Supt L A County General Hospital	Los Angeles Directory Co.
	Hewitt Grace S nurse Genl Hosp	Los Angeles Directory Co.
	Hickman Harry S atdt Genl Hosp	Los Angeles Directory Co.
	King Cecile P nurse Genl Hosp	Los Angeles Directory Co.
	King Jack W atdt Genl Hosp	Los Angeles Directory Co.
	KING Marie I nurse Genl Hops	Los Angeles Directory Co.
	Lindgren Gunnar atdt Genl Hosp	Los Angeles Directory Co.
	LONG Florence E nurse Genl Hosp	Los Angeles Directory Co.
	LOS ANGELES COUNTY GENERAL HOSPITAL Everett J Gray Exec Supt	Los Angeles Directory Co.
	General Hospital Everett J Gray supt	Los Angeles Directory Co.
	Mills Alice nurse Genl Hosp	Los Angeles Directory Co.
	MITCHELL Grace nurse Genl Hosp	Los Angeles Directory Co.
	MOREHOUSE Mable M nurse Genl Hosp	Los Angeles Directory Co.
	Parenteau Leona nurse Genl Hosp	Los Angeles Directory Co.
	ROSEDALE Marie F nurse Genl Hosp	Los Angeles Directory Co.
	Rudy Peter atdt Genl Hosp	Los Angeles Directory Co.
	Schubel Murel nurse Genl Hosp	Los Angeles Directory Co.
	SCHULTZ Emil A elev opr Genl Hosp	Los Angeles Directory Co.
	SIKES Gladys B nurse Genl Hosp	Los Angeles Directory Co.
	Studley Louise B nurse Genl Hosp	Los Angeles Directory Co.
	Van Vliet Eliz nurse Genl Hosp	Los Angeles Directory Co.
	Yoop Loretta nurse Genl Hosn	Los Angeles Directory Co.

FINDINGS

1206 N STATE

Year	Uses	Source
1924	Surbuis Claude motrmn r	Los Angeles Directory Co.

1218 N STATE

Year	Uses	Source
1929	TAYLOR Walter L techn L A Genl Hosp r	Los Angeles Directory Co.
1924	Soule Nellie mach opr r	Los Angeles Directory Co.

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1200 N STATE ST

Year	Uses	Source
2013	ARUP	Cole Information Services
	COUNTY OF LOS ANGELES	Cole Information Services
	GENERAL HOSPITAL LOS ANGELES COUNTY	Cole Information Services
	ARUP	Cole Information Services
	LOS ANGELES COUNTY MEDICAL CENTER SC	Cole Information Services
	ARUP	Cole Information Services
	COUNTY OF LOS ANGELES	Cole Information Services
	GENERAL HOSPITAL LOS ANGELES COUNTY	Cole Information Services
	ARUP	Cole Information Services
	LOS ANGELES COUNTY MEDICAL CENTER SC	Cole Information Services
2008	LACT USC UNIT I	Cole Information Services
	DEPARTMENT OF ANESTHESIOLOGY	Cole Information Services
	LAC USC MEDICAL CENTER	Cole Information Services
	EMERGENCY MEDICINE URGNT CR	Cole Information Services
	LOS ANGELES COUNTY U S C	Cole Information Services
	ALBERT YELLIN MD	Cole Information Services
	JACOBS ENGINEERING GROUP INC	Cole Information Services
	LACUSC	Cole Information Services
	GNH 3550	Cole Information Services
	GENERAL HOSPITAL	Cole Information Services
	DAVITA USC KIDNEY CENTER	Cole Information Services
	USC DEPARTMENT OF SURGERY	Cole Information Services
	UNIVERSITY OF SOUTHERN CALIFORNIA IN	Cole Information Services
	USC RADIOLOGY	Cole Information Services

FINDINGS

Year	Uses	Source
2008	EMERGENCY MEDICINE	Cole Information Services
	SOCIETY OF UNIVERSITY OTOLARYNGOLOGY	Cole Information Services
	WARREN L GARNER	Cole Information Services
	USC SCH MEDICAL	Cole Information Services
	USC DEPT RAD	Cole Information Services
	HOWARD SILBERMAN MD INC	Cole Information Services
	LOS ANGELES COUNTY MEDICAL CENTER	Cole Information Services
	COUNTY OF LOS ANGELES	Cole Information Services
	NORTHSTAR FIRE PROTECTION	Cole Information Services
	L A C U S C HEALTHCARE NETWORK	Cole Information Services
	LAC & USC DEPT EMERGENCY MEDICAL	Cole Information Services
	DARRYL SHIBATA	Cole Information Services
	LA COUNTY & USC MEDICAL CENTER OTO	Cole Information Services
	USC NEURO SURGERY	Cole Information Services
	FRED SATTLER INFECTIOUS DISEASES	Cole Information Services
	SPECTRUM APARTMENT SEARCH	Cole Information Services
	MORRISTOWN HEALTH CARE FOOD SERVICES	Cole Information Services
	NURSE RECRUITMENT OFFICE	Cole Information Services
	LAC USC HEALTHCARE NETWORK PTH	Cole Information Services
	PARAKRAMA CHANDRASOMA MD	Cole Information Services
	U SOUTHERN CALIF SCH OF MEDICAL	Cole Information Services
	USC & LAC HOSPITAL	Cole Information Services
	REGENTSTHE UNIVCAL	Cole Information Services
	LOS ANGELES COUNTY & UNIV OF SOUTHER	Cole Information Services
	LOS ANGELES COUNTY USC MD A	Cole Information Services
	L USC MEDICAL CENTER	Cole Information Services
	LAC USC MEDICAL CENTER RAD NEURRAD	Cole Information Services
	CARDIOLOGY	Cole Information Services
	LACT USC UNIT I	Cole Information Services
	DEPARTMENT OF ANESTHESIOLOGY	Cole Information Services
	LAC USC MEDICAL CENTER	Cole Information Services
	EMERGENCY MEDICINE URGNT CR	Cole Information Services
	LOS ANGELES COUNTY U S C	Cole Information Services

FINDINGS

Year	Uses	Source
2008	ALBERT YELLIN MD	Cole Information Services
	JACOBS ENGINEERING GROUP INC	Cole Information Services
	LACUSC	Cole Information Services
	GNH 3550	Cole Information Services
	GENERAL HOSPITAL	Cole Information Services
	DAVITA USC KIDNEY CENTER	Cole Information Services
	USC DEPARTMENT OF SURGERY	Cole Information Services
	UNIVERSITY OF SOUTHERN CALIFORNIA IN	Cole Information Services
	USC RADIOLOGY	Cole Information Services
	EMERGENCY MEDICINE	Cole Information Services
	SOCIETY OF UNIVERSITY OTOLARYNGOLOGY	Cole Information Services
	WARREN L GARNER	Cole Information Services
	USC SCH MEDICAL	Cole Information Services
	USC DEPT RAD	Cole Information Services
	HOWARD SILBERMAN MD INC	Cole Information Services
	LOS ANGELES COUNTY MEDICAL CENTER	Cole Information Services
	COUNTY OF LOS ANGELES	Cole Information Services
	NORTHSTAR FIRE PROTECTION	Cole Information Services
	L A C U S C HEALTHCARE NETWORK	Cole Information Services
	LAC & USC DEPT EMERGENCY MEDICAL	Cole Information Services
	DARRYL SHIBATA	Cole Information Services
	LA COUNTY & USC MEDICAL CENTER OTO	Cole Information Services
	USC NEURO SURGERY	Cole Information Services
	FRED SATTLER INFECTIOUS DISEASES	Cole Information Services
	SPECTRUM APARTMENT SEARCH	Cole Information Services
	MORRISTOWN HEALTH CARE FOOD SERVICES	Cole Information Services
	NURSE RECRUITMENT OFFICE	Cole Information Services
	LAC USC HEALTHCARE NETWORK PTH	Cole Information Services
	PARAKRAMA CHANDRASOMA MD	Cole Information Services
	U SOUTHERN CALIF SCH OF MEDICAL	Cole Information Services
	USC & LAC HOSPITAL	Cole Information Services
	REGENTSTHE UNIVCAL	Cole Information Services
	LOS ANGELES COUNTY & UNIV OF SOUTHER	Cole Information Services

FINDINGS

Year	Uses	Source
2008	LOS ANGELES COUNTY USC MD A	Cole Information Services
	L USC MEDICAL CENTER	Cole Information Services
	LAC USC MEDICAL CENTER RAD NEURRAD	Cole Information Services
	CARDIOLOGY	Cole Information Services
2006	LA COUNTY HOSP	Haines Company, Inc.
	LA CO HOSP MED	Haines Company, Inc.
	LA CO HOSP TDD	Haines Company, Inc.
	LACO MDCLCTSC	Haines Company, Inc.
	OF NRSNG	Haines Company, Inc.
	NORTHSTAR FIRE	Haines Company, Inc.
	PROTECTION	Haines Company, Inc.
	SILBERMAN	Haines Company, Inc.
	HOWARD MD	Haines Company, Inc.
1976	L A County Medical Center Employees Federal Credit Union	Pacific Telephone
	LOS ANGELES COUNTY OF Contd	Pacific Telephone
	HOSPITALS & CLINICS SERVICES Medical Center Services	Pacific Telephone
	LOS ANGELES COUNTY OF Contd	Pacific Telephone
	HOSPITALS & CLINICS SERVICES Medical Center Services Nurse Recruitment Ofc RN & LVN Employment	Pacific Telephone
	LOS ANGELES COUNTY OF Contd	Pacific Telephone
	HOSPITALS & CLINICS SERVICES General Hospital	Pacific Telephone
1970	HOSPITALS	Pacific Telephone
	HOSPITALS	Pacific Telephone
	LOS ANGELES CITY OF HOSPITALS DEPT OF	Pacific Telephone
	LOS ANGELES COUNTY OF HOSPITALS DEPT OF	Pacific Telephone
	LOS ANGELES CITY OF HOSPITALS DEPT OF	Pacific Telephone
	LOS ANGELES COUNTY OF HOSPITALS DEPT OF	Pacific Telephone
1965	LOS ANGELES	Pacific Telephone
1964	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
1962	LOS ANGELES COUNTY OF HEALTH DEPT MAIN OFC	Pacific Telephone
1960	LOS ANGELES COUNTY OF HOSPITALS COUNTY GENERAL HOSPITAL	Pacific Telephone

Year	Uses	Source
1958	California Foundation for Medical Research	Pacific Telephone
	Chaplains Sarv Genl Hospital	Pacific Telephone
	County Hospital C M E Ofc	Pacific Telephone
	County Hospital Los Angeles General	Pacific Telephone
	General Hospital Los Angeles County of	Pacific Telephone
	Grinspoon Lester MD	Pacific Telephone
	Hovey Kirby Yates Mrs	Pacific Telephone
	County Hospital	Pacific Telephone
	LOS ANGELES COUNTY OF HOSPITALS County General Hospital	Pacific Telephone
	Genl Ofc	Pacific Telephone
	LOS ANGELES COUNTY OF MEDICAL AID DISTS	Pacific Telephone
	L A General Hospital	Pacific Telephone
	Myers Agnes H	Pacific Telephone
	University of Southern California	Pacific Telephone
	School of Medicine Dept of Medicine	Pacific Telephone
	University of Southern California	Pacific Telephone
	School of Medicine Dept of Surgery	Pacific Telephone
1957	LOS ANGELES CITY OF HOSPITALS	Pacific Telephone
1956	LOS ANGELES COUNTY OF HOSPITALS COUNTY GENERAL HOSPITAL	Pacific Telephone
1954	LOS ANGELES COUNTY OF HOSPITALS	R. L. Polk & Co.
1950	LOS ANGELES COUNTY OF GENERAL HOSPITAL COUNTY HOSPITAL	Pacific Telephone
	LOS ANGELES COUNTY OF GENERAL HOSPITAL	Pacific Telephone
	LOS ANGELES COUNTY OF AGRICULTURAL DEPT	Pacific Telephone
	LOS ANGELES COUNTY OF GENERAL HOSPITAL	Pacific Telephone

S STATE ST

1137B S STATE ST

Year	Uses	Source
1964	ALEXANDER IDAMAE	Pacific Telephone

FINDINGS

1242 S STATE ST

Year	Uses	Source
1995	i Henry David	Pacific Bell

STATE N

1200 STATE N

Year	Uses	Source
2000	LA COUNTY HOSP AMOROSO DENNIS J	Haines & Company
	CA DINING SV USC MDCL PUB CAFE	Haines & Company
	SILBERMAN HOWARD MD	Haines & Company
	PSICOR INC	Haines & Company
	MORRISON HEALTH CARE INC	Haines & Company
	LA CO MEDICAL	Haines & Company
	LA CO HSP SFTY POL	Haines & Company
	LA CO HOSP TDD	Haines & Company
	LA CO HSP BLLG INQY	Haines & Company
	LA CO HSP GENL MEDICAL RE	Haines & Company
	LA CO HSP GENL REQUEST	Haines & Company
	LA CO HSP LST	Haines & Company
	LA CO HSP MED CTR	Haines & Company
	LA CO HSP MED CTR CARES A	Haines & Company
	LA CO HSP MED	Haines & Company
	LA CO HSP MED	Haines & Company
	LA CO HSP MED	Haines & Company
	LA CO HSP MED RCRDS 32322e	Haines & Company
	LA CO HSP PUB	Haines & Company

STATE ST

1200 STATE ST

Year	Uses	Source
2013	COUNTY OF LOS ANGELES	Cole Information Services

STATE ST N

1200 STATE ST N

Year	Uses	Source
1951	N State	Pacific Telephone & Telegraph Co.

FINDINGS

Year	Uses	Source
1951	N State University of Southern California school of medicine Resident Training Program Ofc	Pacific Telephone & Telegraph Co.
	University of So Calif school of medicine Dept of Surgery	Pacific Telephone & Telegraph Co.
	Lord D Miss X Ray Survey Foundation L A County	Pacific Telephone & Telegraph Co.
	L A County X Ray Survey Foundation tumor div	Pacific Telephone & Telegraph Co.
	X Ray Survey Foundation L A County tumor div	Pacific Telephone & Telegraph Co.
	N State American Legion Serv Dept L A County Genl Hospital Office	Pacific Telephone & Telegraph Co.
	N State County Hospital L A General	Pacific Telephone & Telegraph Co.
	N State General Hospital L A County of	Pacific Telephone & Telegraph Co.
	N State Hospital Chaplains Serv	Pacific Telephone & Telegraph Co.
	N State L A County of general hospital County Hospital	Pacific Telephone & Telegraph Co.
	State Los Angeles County Of medical aid dists Genl Ofc	Pacific Telephone & Telegraph Co.
	N State L A General Hospital	Pacific Telephone & Telegraph Co.
	N State Raulston Burrello Dr County Hospital	Pacific Telephone & Telegraph Co.
	N State University of So Calif County Hospital	Pacific Telephone & Telegraph Co.
	N State University of Southern California school of medicine Ofc Bldg Div of Graduate Medicine	Pacific Telephone & Telegraph Co.
	Calif State of mental hygiene dept of	Pacific Telephone & Telegraph Co.

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
North State Street	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1137B S STATE ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1144 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1152 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1158 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1170 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1188 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1200 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1969, 1965, 1964, 1963, 1961, 1958, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1200 N STATE ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1969, 1967, 1966, 1963, 1961, 1955, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1200 N STATE ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1200 N STATE ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1200 STATE N	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1200 STATE ST	2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1200 STATE ST N	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1206 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1218 E STATE ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1218 N STATE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1923, 1921, 1920
1241 E STATE ST	2013, 2008, 2006, 2004, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1242 S STATE ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
1937 HOSPITAL PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
1972 HOSPITAL PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.8
March 25, 2014

EDR Historical Topographic Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

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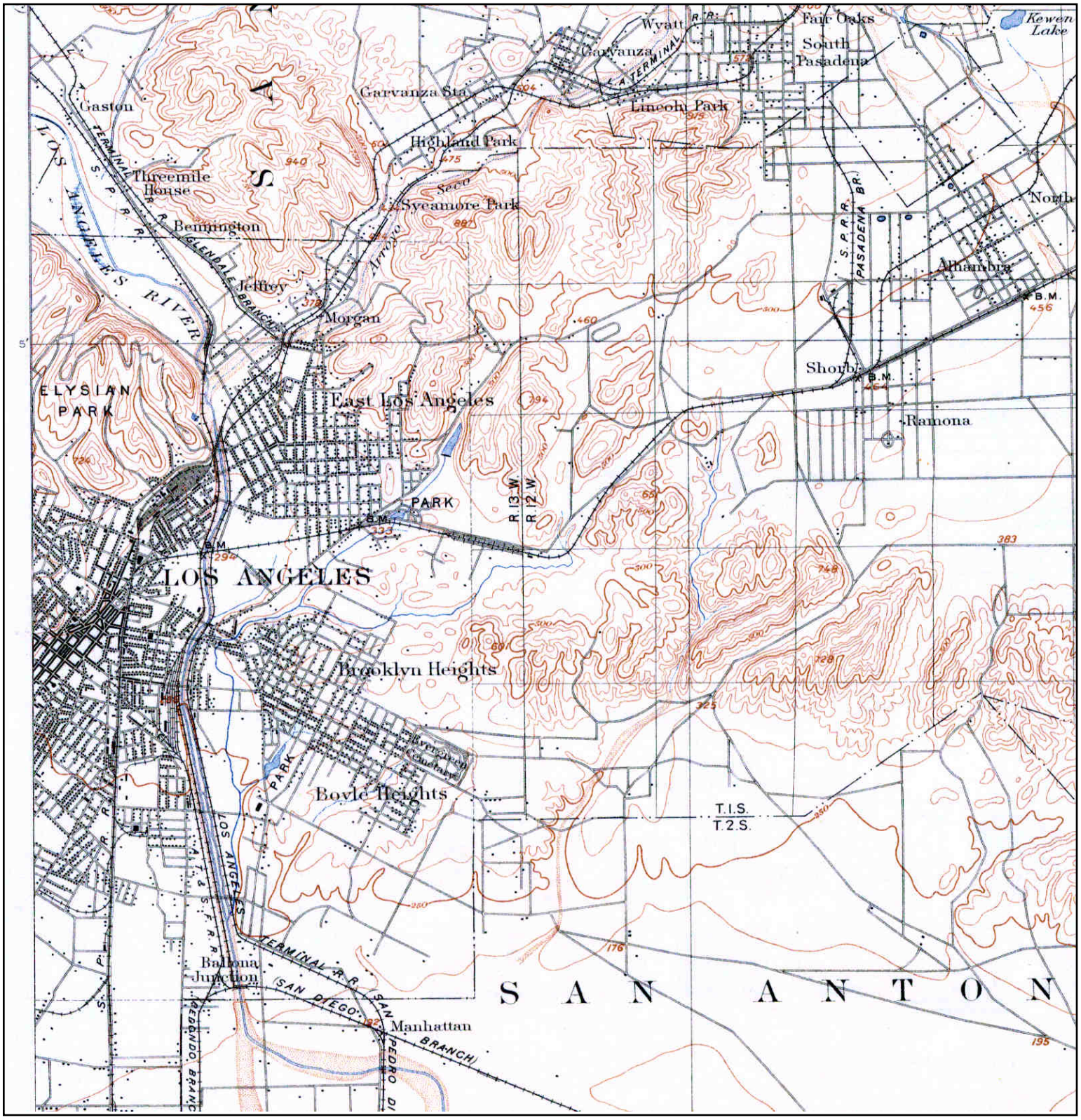
Historical Topographic Map

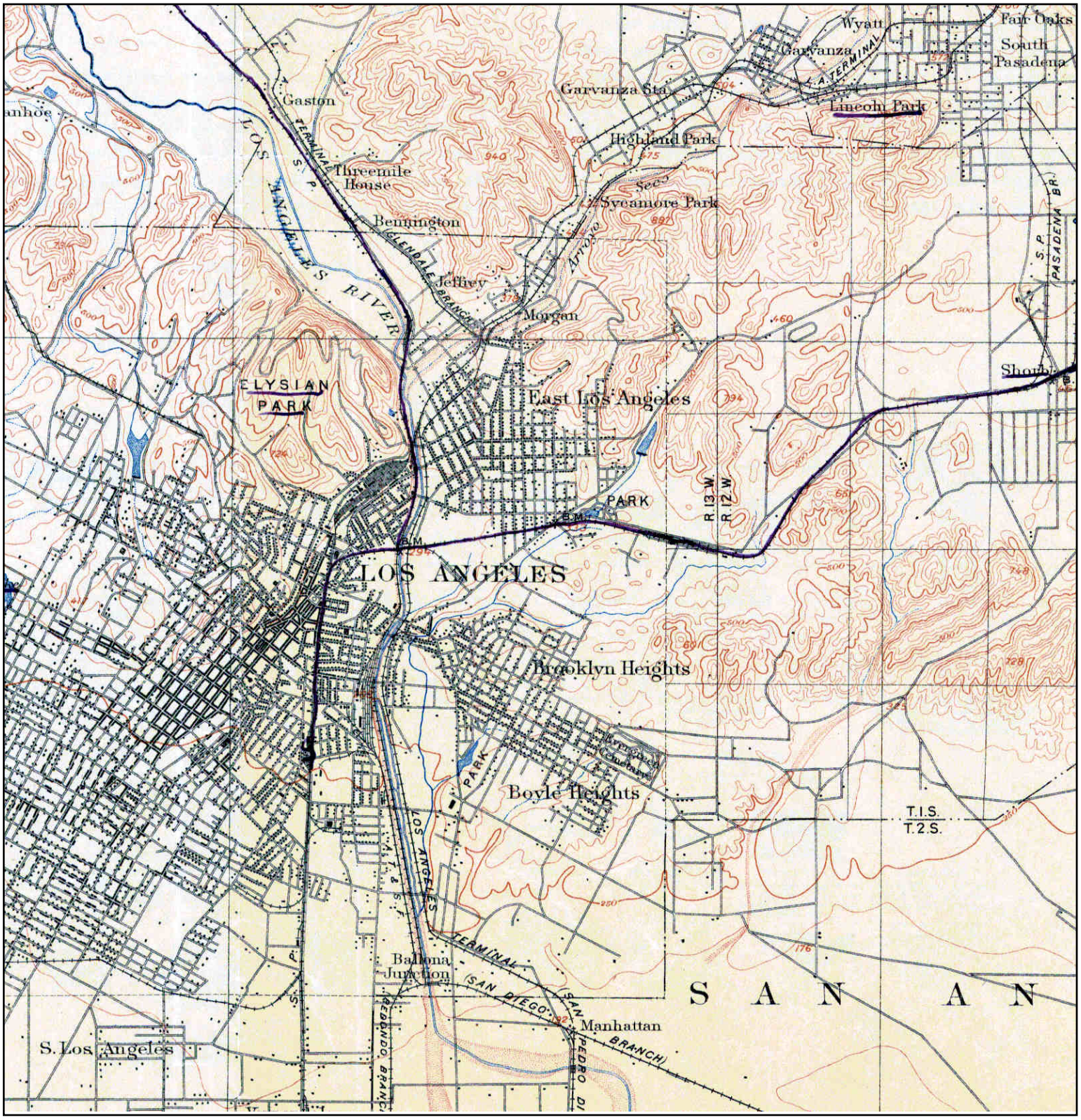
N	TARGET QUAD		SITE NAME:	North State Street	CLIENT:	Ninyo & Moore
	NAME:	PASADENA	ADDRESS:	North State Street	CONTACT:	Jonathan Johnson
	MAP YEAR:	1896		Los Angeles, CA 90033	INQUIRY#:	3889863.8
			LAT/LONG:	34.0592 / -118.2099	RESEARCH DATE:	03/25/2014
	SERIES:	15				
	SCALE:	1:62500				

Historical Topographic Map



N	TARGET QUAD NAME: PASADENA MAP YEAR: 1900 SERIES: 15 SCALE: 1:62500	SITE NAME: North State Street ADDRESS: North State Street Los Angeles, CA 90033 LAT/LONG: 34.0592 / -118.2099	CLIENT: Ninyo & Moore CONTACT: Jonathan Johnson INQUIRY#: 3889863.8 RESEARCH DATE: 03/25/2014

Historical Topographic Map



N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1900 SERIES: 15 SCALE: 1:62500	SITE NAME: North State Street ADDRESS: North State Street Los Angeles, CA 90033 LAT/LONG: 34.0592 / -118.2099	CLIENT: Ninyo & Moore CONTACT: Jonathan Johnson INQUIRY#: 3889863.8 RESEARCH DATE: 03/25/2014

Historical Topographic Map

N ↑	TARGET QUAD NAME: SOUTHERN CA SHEET 1 MAP YEAR: 1901 SERIES: 60 SCALE: 1:250000	SITE NAME: North State Street ADDRESS: North State Street Los Angeles, CA 90033 LAT/LONG: 34.0592 / -118.2099

CLIENT:	Ninyo & Moore
CONTACT:	Jonathan Johnson
INQUIRY#:	3889863.8
RESEARCH DATE:	03/25/2014

Historical Topographic Map

N	TARGET QUAD			
	NAME:	LOS ANGELES	SITE NAME:	North State Street
	MAP YEAR:	1928	ADDRESS:	North State Street Los Angeles, CA 90033
	SERIES:	6	LAT/LONG:	34.0592 / -118.2099
	SCALE:	1:24000	CLIENT:	Ninyo & Moore
			CONTACT:	Jonathan Johnson
			INQUIRY#:	3889863.8
			RESEARCH DATE:	03/25/2014

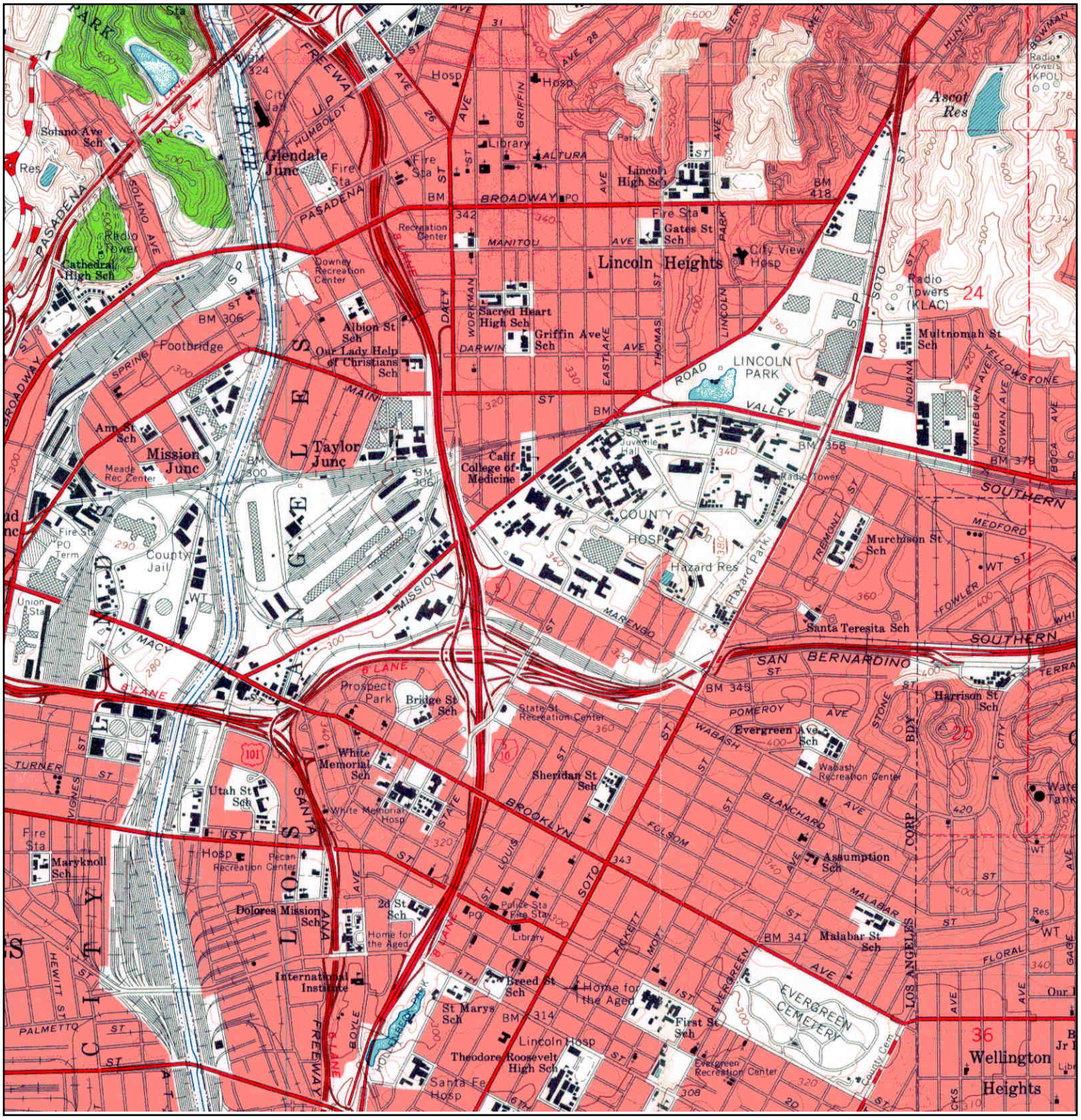
Historical Topographic Map

N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: North State Street ADDRESS: North State Street Los Angeles, CA 90033 LAT/LONG: 34.0592 / -118.2099	CLIENT: Ninyo & Moore CONTACT: Jonathan Johnson INQUIRY#: 3889863.8 RESEARCH DATE: 03/25/2014

Historical Topographic Map

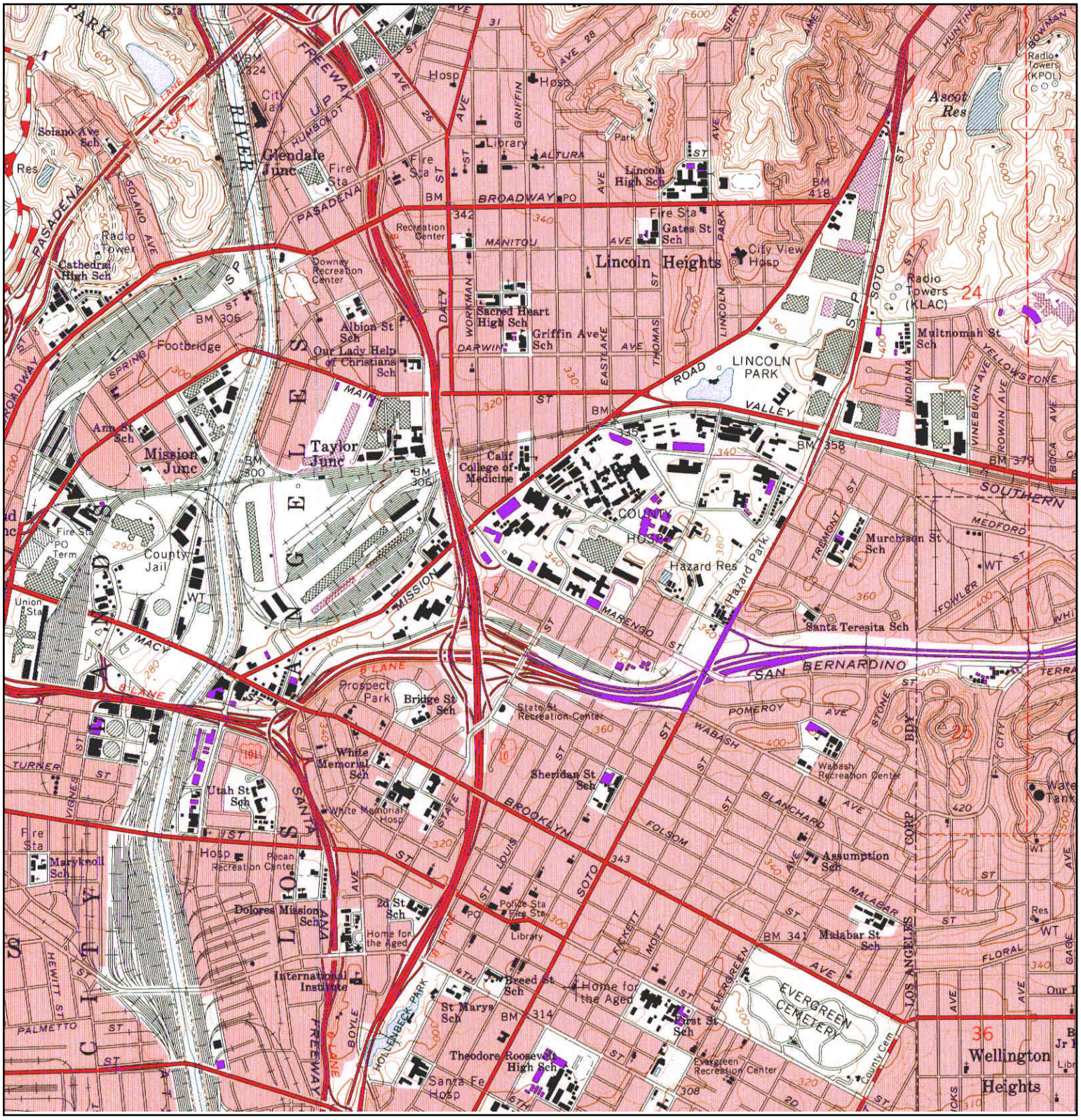
TARGET QUAD NAME: LOS ANGELES AND VICINITY EAST 2 OF 4	SITE NAME: North State Street	CLIENT: Ninyo & Moore
MAP YEAR: 1953	ADDRESS: North State Street, Los Angeles, CA 90033	CONTACT: Jonathan Johnson
SERIES: 7.5	LAT/LONG: 34.0592 / -118.2099	INQUIRY#: 3889863.8
SCALE: 1:24000		RESEARCH DATE: 03/25/2014

Historical Topographic Map



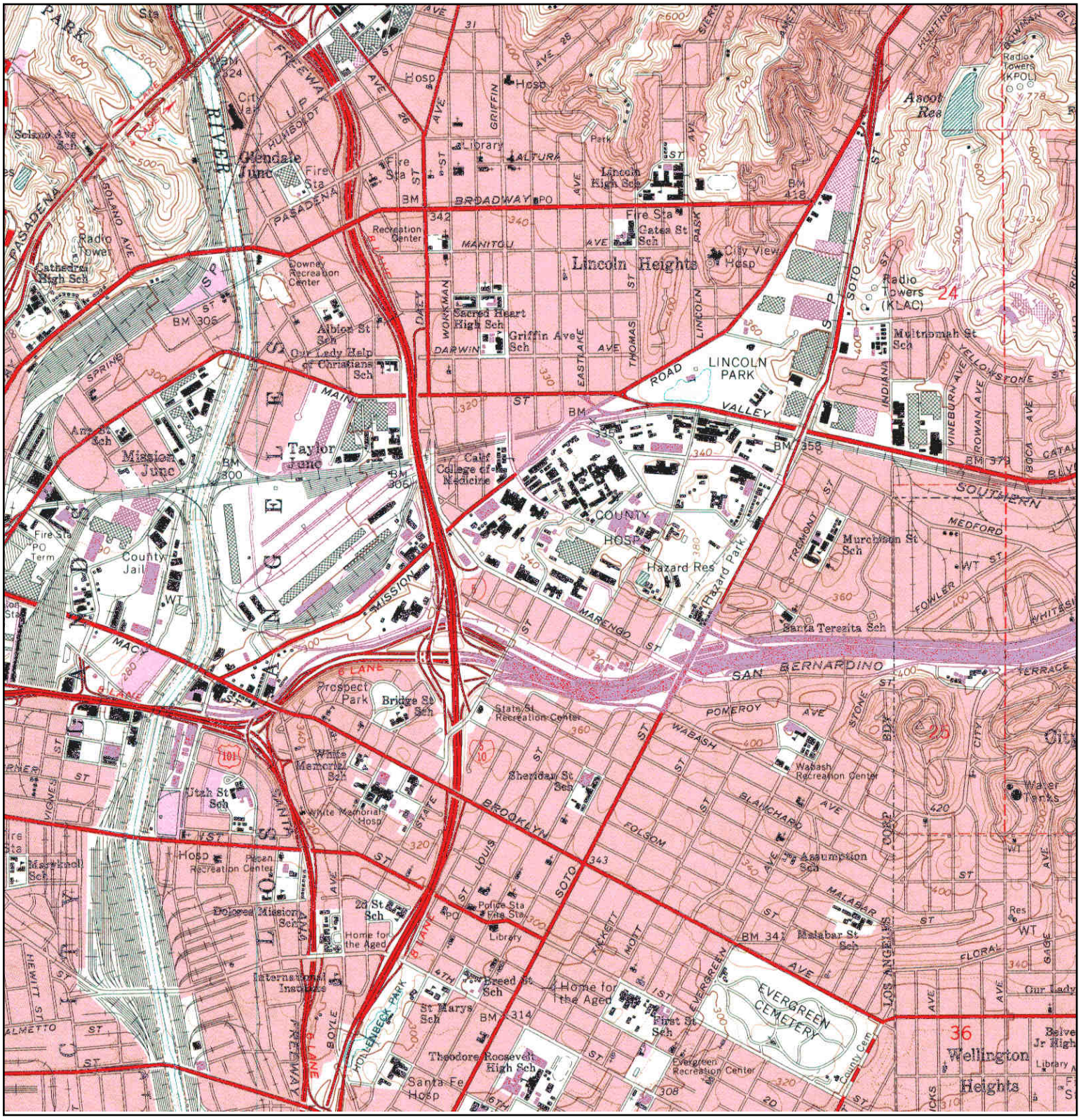
N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: North State Street ADDRESS: North State Street Los Angeles, CA 90033 LAT/LONG: 34.0592 / -118.2099	CLIENT: Ninyo & Moore CONTACT: Jonathan Johnson INQUIRY#: 3889863.8 RESEARCH DATE: 03/25/2014

Historical Topographic Map



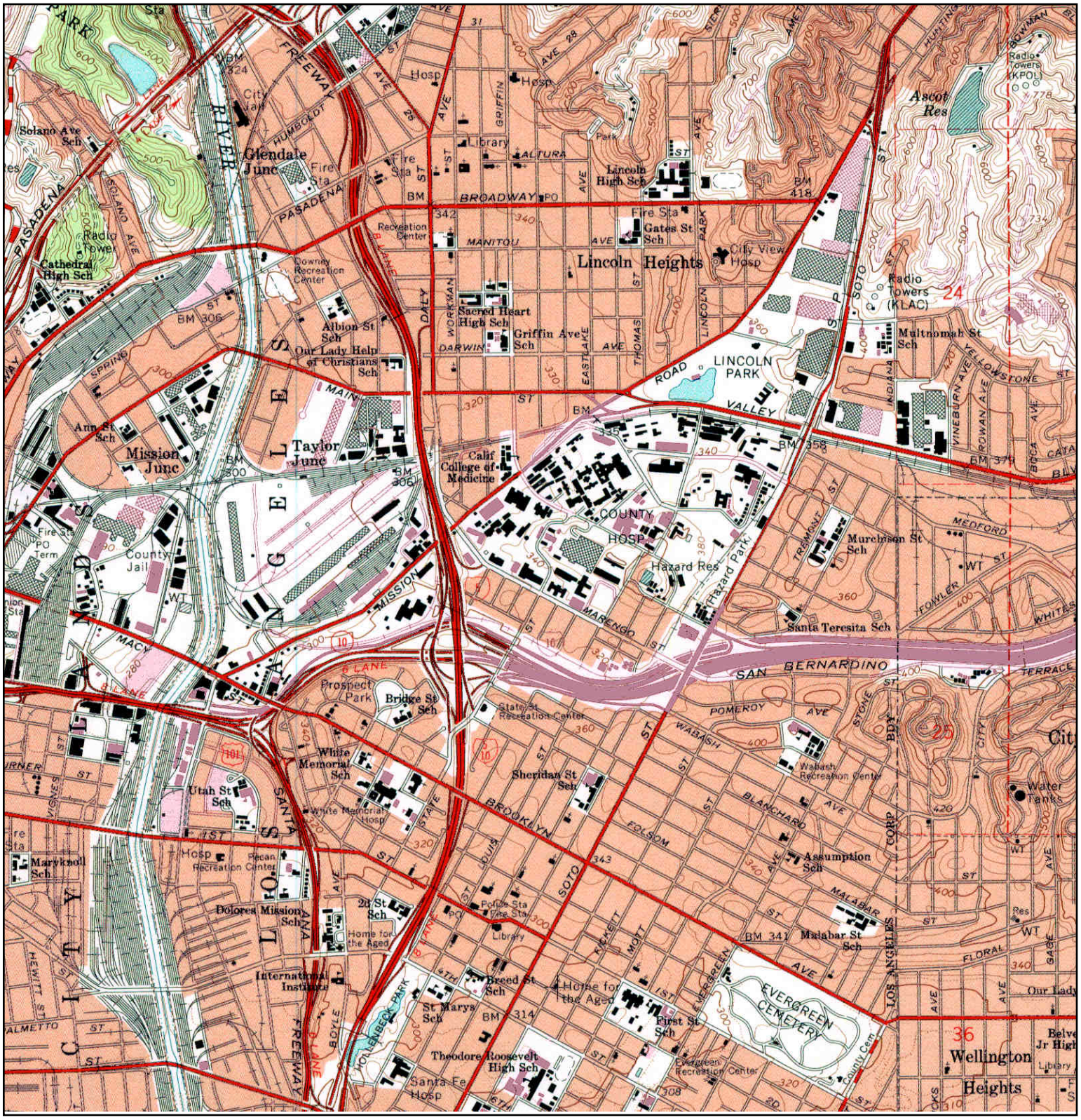
N	TARGET QUAD				
	NAME:	LOS ANGELES	SITE NAME:	North State Street	CLIENT: Ninyo & Moore
	MAP YEAR:	1972	ADDRESS:	North State Street	CONTACT: Jonathan Johnson
	PHOTOREVISED FROM:	1966		Los Angeles, CA 90033	INQUIRY#: 3889863.8
	SERIES:	7.5	LAT/LONG:	34.0592 / -118.2099	RESEARCH DATE: 03/25/2014
	SCALE:	1:24000			

Historical Topographic Map



N	TARGET QUAD				
	NAME:	LOS ANGELES	SITE NAME:	North State Street	CLIENT: Ninyo & Moore
	MAP YEAR:	1981	ADDRESS:	North State Street	CONTACT: Jonathan Johnson
	PHOTOREVISED FROM:	1966		Los Angeles, CA 90033	INQUIRY#: 3889863.8
	SERIES:	7.5	LAT/LONG:	34.0592 / -118.2099	RESEARCH DATE: 03/25/2014
	SCALE:	1:24000			

Historical Topographic Map



N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1994 REVISED FROM :1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: North State Street ADDRESS: North State Street Los Angeles, CA 90033 LAT/LONG: 34.0592 / -118.2099	CLIENT: Ninyo & Moore CONTACT: Jonathan Johnson INQUIRY#: 3889863.8 RESEARCH DATE: 03/25/2014

DRAFT

APPENDIX E

ENVIRONMENTAL DATABASE SEARCH

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North State Street
North State Street
Los Angeles, CA 90033

Inquiry Number: 3889863.2s
March 28, 2014

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NORTH STATE STREET
LOS ANGELES, CA 90033

COORDINATES

Latitude (North):	34.0592000 - 34° 3' 33.12''
Longitude (West):	118.2099000 - 118° 12' 35.64''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	388340.3
UTM Y (Meters):	3769185.8
Elevation:	356 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	34118-A2 LOS ANGELES, CA
Most Recent Revision:	1994

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2012
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ---------- Proposed National Priority List Sites

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites ---------- Historical Calsites Database

EXECUTIVE SUMMARY

Toxic Pits ---------- Toxic Pits Cleanup Act Sites

Local Land Records

LIENS 2 ---------- CERCLA Lien Information
LIENS ---------- Environmental Liens Listing
DEED ---------- Deed Restriction Listing

Other Ascertainable Records

ROD ---------- Records Of Decision
CA BOND EXP. PLAN ---------- Bond Expenditure Plan
Cortese ---------- "Cortese" Hazardous Waste & Substances Sites List
Notify 65 ---------- Proposition 65 Records
INDIAN RESERV ---------- Indian Reservations

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---------- Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NU WAY PLATING CO	1805 SICHEL ST	NNW 1/8 - 1/4 (0.135 mi.)	U144	196

EXECUTIVE SUMMARY

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERC-NFRAP site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BUILDERS HARDWARE FINISHERS	***1846 SICHEL ST***	***NNW 1/8 - 1/4 (0.191 mi.)***	***Z184***	***233***

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 09/10/2013 has revealed that there are 6 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY OF SOUTHERN CALIFOR	1540 ALCAZAR ST. CHP 14	E 0 - 1/8 (0.004 mi.)	L69	91
BRAVO MED MAG	1200 N CORNWELL ST	ESE 0 - 1/8 (0.069 mi.)	O121	156

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA CO- USC MEDICAL	1200 N STATE ST	0 - 1/8 (0.000 mi.)	E12	23
CHEVRON 93690	***1101 N MISSION***	***WNW 0 - 1/8 (0.006 mi.)***	***D79***	***108***
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.093 mi.)***	***S131***	***164***
CENTRAL PARKING ENFORCEMENT RE	1016 NORTH MISSION ROAD	W 1/8 - 1/4 (0.168 mi.)	T174	223

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/10/2013 has revealed that there are 15 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL SERVICE STATION	1203 N SOTO / CHARLOTTE	ESE 1/8 - 1/4 (0.207 mi.)	AE208	260

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC / USC IMAGING SCIENCE CTR	***1744 ZONAL AVE***	***0 - 1/8 (0.000 mi.)***	***A1***	***7***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA USC MEDICAL CENTER	***1200 NORTH STATE STREET***	***0 - 1/8 (0.000 mi.)***	***E9***	***15***
NORTHEAST HEALTH CTR	2032 MARENGO ST	0 - 1/8 (0.000 mi.)	G32	50
U S LABS LOS ANGELES	1640 MARENGO ST STE 600	W 0 - 1/8 (0.004 mi.)	N67	90
ELA OCCUPATIONAL CENTER	2100 MARENGO ST	SE 0 - 1/8 (0.005 mi.)	M78	107
CBS OUTDOOR	1731 WORKMAN ST.	NW 0 - 1/8 (0.059 mi.)	P101	138
VIACOM OUTDOOR	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P105	143
FORMER TMT PATHWAY	1021 N MISSION ROAD	W 0 - 1/8 (0.118 mi.)	T134	178
LOS ANGELES USD NEWMAN NUTRITI	2310 CHARLOTTE ST	ESE 1/8 - 1/4 (0.142 mi.)	V150	201
BUILDERS HARDWARE FINISHERS	***1846 SICHEL ST***	***NNW 1/8 - 1/4 (0.191 mi.)***	***Z184***	***233***
CENTRAL EASTLAKE JUVENILE	***1605 EASTLAKE***	***NE 1/8 - 1/4 (0.218 mi.)***	***AF214***	***267***
TRAYLOR SHEA FRONTIER KENNY JV	***886 N MISSION RD***	***W 1/8 - 1/4 (0.228 mi.)***	***225***	***277***
MODERN SCREEN PRINTING	***2919 1/2 N MAIN ST***	***N 1/8 - 1/4 (0.228 mi.)***	***226***	***279***
SLOANS	3001 N MAIN	N 1/8 - 1/4 (0.237 mi.)	AB231	284

Federal ERNS list

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 09/30/2013 has revealed that there are 5 ERNS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	2011 E. ZONAL AVENUE	ENE 0 - 1/8 (0.003 mi.)	L61	80

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1240 NORTH MISSION RD	NNW 0 - 1/8 (0.002 mi.)	K45	65
Not reported	1237 NORTH MISSION ROAD	NNW 0 - 1/8 (0.004 mi.)	K68	91
Not reported	LORD ST AND MARENGO ST	WSW 0 - 1/8 (0.009 mi.)	B82	118
Not reported	2322 CHARLOTTE ST.	ESE 1/8 - 1/4 (0.149 mi.)	V169	218

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 02/03/2014 has revealed that there are 3 ENVIROSTOR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LINCOLN MAGNET HIGH SCHOOL-LAU	***1200 CORNWELL ST***	***ESE 0 - 1/8 (0.069 mi.)***	***O120***	***153***
Status: Inactive - Needs Evaluation				

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOTO STREET Status: Inactive - Action Required	1010 SOTO STREET	SE 1/8 - 1/4 (0.240 mi.)	AH236	291

Lower Elevation	Address	Direction / Distance	Map ID	Page
CENTRAL REGION HIGH SCHOOL #15 Status: Inactive - Needs Evaluation	MARENGO STREET / CHICAG	SE 0 - 1/8 (0.003 mi.)	M56	73

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 12/16/2013 has revealed that there are 23 LUST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LINCOLN MAGNET HIGH SCHOOL-LAU Status: Completed - Case Closed	***1200 CORNWELL ST***	***ESE 0 - 1/8 (0.069 mi.)***	***O120***	***153***
ESTELLE DOHENY EYE HOSPITAL	1537 NORFOLK ST	ENE 1/8 - 1/4 (0.205 mi.)	AC198	246
ESTELLE DOHENY EYE HOSPITAL Status: Completed - Case Closed	***1537 NORFOLK ST***	***ENE 1/8 - 1/4 (0.205 mi.)***	***AC199***	***247***
SHELL Status: Open - Site Assessment	1203 SOTO ST.	ESE 1/8 - 1/4 (0.207 mi.)	AE204	251
SHELL/SOTO-CHARLOTTE Status: Completed - Case Closed	1203 SOTO ST N	ESE 1/8 - 1/4 (0.209 mi.)	AE209	262
MOBIL #11-KXI Status: Completed - Case Closed	***1010 SOTO ST N***	***SE 1/8 - 1/4 (0.240 mi.)***	***AH232***	***285***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA USC MEDICAL CENTER	***1200 NORTH STATE STREET***	***0 - 1/8 (0.000 mi.)***	***E9***	***15***
AL-SAL OIL #17	1848 MARENGO ST	0 - 1/8 (0.000 mi.)	C17	33
AL-SAL OIL #17 Status: Open - Assessment & Interim Remedial Action	***1848 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***C27***	***43***
ISD-LAC-USC MEDICAL CENTER Status: Open - Eligible for Closure	***1200 N STATE ST***	***0 - 1/8 (0.000 mi.)***	***E34***	***51***
MOZA AUTOMOTIVE REPAIR Status: Open - Remediation	***1201 MISSION RD N.***	***NW 0 - 1/8 (0.004 mi.)***	***K66***	***83***
CHEVRON #9-3690 Status: Open - Remediation	1101 MISSION RD N	WNW 0 - 1/8 (0.007 mi.)	D80	111
SHELL (FORMER) Status: Completed - Case Closed	2000-2012 MARENGO AVE	SSE 0 - 1/8 (0.012 mi.)	G86	120
STODDARD AUTOMOTIVE	1721 WORKMAN ST	NW 0 - 1/8 (0.043 mi.)	P96	134
STODDARD AUTOMOTIVE Status: Completed - Case Closed	***1721 WORKMAN***	***NW 0 - 1/8 (0.043 mi.)***	***P98***	***135***
GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P104	141

Lower Elevation	Address	Direction / Distance	Map ID	Page
MORTON INT'L WHITTAKER CORP.	***1021 MISSION RD N***	***W 0 - 1/8 (0.118 mi.)***	***T137***	***183***
NORRIS CANCER HOSPITAL	***1441 EASTLAKE AVE***	***ENE 1/8 - 1/4 (0.147 mi.)***	***X162***	***210***
Status: Completed - Case Closed				
SAN ANTONIO WINERY	1016 MISSION RD N	W 1/8 - 1/4 (0.167 mi.)	T170	218
Status: Completed - Case Closed				
UNION RAILROAD-LA TRANS	***2100 ALHAMBRA***	***NW 1/8 - 1/4 (0.192 mi.)***	***AA186***	***236***
Status: Completed - Case Closed				
UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE	NW 1/8 - 1/4 (0.192 mi.)	AA189	238
A-1 EASTERN HOMADE PICKLE COMP	1832 JOHNSTON STREET	N 1/8 - 1/4 (0.201 mi.)	AB195	243
Status: Open - Site Assessment				
MOBIL - CARDENAS,RICHARD	2829 MAIN ST N	NNW 1/8 - 1/4 (0.240 mi.)	AI240	294
Status: Completed - Case Closed				

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 12/16/2013 has revealed that there are 5 SLIC sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC - USC MEDICAL CENTER REPLA	2000 MARENGO ST	SSE 0 - 1/8 (0.012 mi.)	G83	118
Facility Status: Completed - Case Closed				
CBS OUTDOOR	***1731 WORKMAN ST***	***NW 0 - 1/8 (0.059 mi.)***	***P102***	***139***
Facility Status: Open - Remediation				
Facility Status: Open - Site Assessment				
INFINITY OUTDOOR	1731 WORKMAN	NW 0 - 1/8 (0.063 mi.)	P115	151
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.093 mi.)***	***S131***	***164***
Facility Status: Open - Site Assessment				
MORTON INT'L WHITTAKER CORP.	***1021 MISSION RD N***	***W 0 - 1/8 (0.118 mi.)***	***T137***	***183***
Facility Status: Open - Remediation				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 12/16/2013 has revealed that there are 20 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LAC+USC MEDICAL CENTER	1175 N CUMMINGS ST	0 - 1/8 (0.000 mi.)	F13	27
ESTELLE DOHENY EYE HOSPITAL	***1537 NORFOLK ST***	***ENE 1/8 - 1/4 (0.205 mi.)***	***AC200***	***248***
MACK'S SHELL	1203 N SOTO ST	ESE 1/8 - 1/4 (0.207 mi.)	AE203	251
SOTO MOBIL MART, INC.	1010 N SOTO ST	SE 1/8 - 1/4 (0.240 mi.)	AH234	289

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC+USC MEDICAL CENTER STEAM P	1635 MARENGO ST	0 - 1/8 (0.000 mi.)	B3	10

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC+USC MEDICAL CENTER	1129 N STATE ST	0 - 1/8 (0.000 mi.)	C5	11
LAC/USC MEDICAL CENTER	1950 MARENGO ST	0 - 1/8 (0.000 mi.)	18	34
LA COUNTY USC MEDICAL CENTER-R	1900 ZONAL AVE	0 - 1/8 (0.000 mi.)	H23	39
AL SAL #17	1848 MARENGO ST	0 - 1/8 (0.000 mi.)	C25	41
LA COUNTY MEDICAL CENTER TELEP	1200 N STATE ST	0 - 1/8 (0.000 mi.)	E31	50
MEDICAL EXAMINER - CORONER	***1104 N MISSION RD***	***WNW 0 - 1/8 (0.002 mi.)***	***D53***	***70***
CHEVRON STATION #9-3690	1101 N MISSION RD	WNW 0 - 1/8 (0.005 mi.)	D70	100
EAST LOS ANGELES OCCUP/CENTER	***2100 MARENGO ST***	***SE 0 - 1/8 (0.005 mi.)***	***M74***	***104***
CHROMAL PLATING CO	***1748 WORKMAN ST***	***NW 0 - 1/8 (0.093 mi.)***	***S130***	***164***
TMT-PATHWAY, LLC	1021 N MISSION RD	W 0 - 1/8 (0.118 mi.)	T136	183
NEWMAN NUTRITION CENTER	***2310 CHARLOTTE ST***	***ESE 1/8 - 1/4 (0.142 mi.)***	***V149***	***201***
LAC+USC MEDICAL CENTER	1830 GRIFFIN AVE	NNW 1/8 - 1/4 (0.144 mi.)	W154	204
UNIV. OF SO. CAL/NORRIS HOSP.	1441 EASTLAKE AVE	ENE 1/8 - 1/4 (0.147 mi.)	X163	213
CENTRAL JUVENILE HALL	***1605 EASTLAKE AVE***	***NE 1/8 - 1/4 (0.218 mi.)***	***AF213***	***266***
C & J GASOLINE	2829 N MAIN ST	NNW 1/8 - 1/4 (0.241 mi.)	AI241	295

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 34 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY OF SO CALIFORNIA	***1969 ZONAL AVE***	***0 - 1/8 (0.001 mi.)***	***J44***	***64***
UNIVERSITY OF SO CALIFORNIA	***2011 ZONAL AVE***	***ENE 0 - 1/8 (0.003 mi.)***	***L62***	***80***
LOS ANGELES CITY SCHOOL	***1204 N CORNWELL***	***ESE 0 - 1/8 (0.031 mi.)***	***O92***	***132***
UNIVERSITY OF SO CALIFORNIA	***1333 SAN PABLO ST***	***E 0 - 1/8 (0.065 mi.)***	***Q116***	***152***
ESTELLE DOHENY EYE HOSPITAL	***1537 NORFOLK ST***	***ENE 1/8 - 1/4 (0.205 mi.)***	***AC199***	***247***
SHELL OIL COMPANY	***1203 N SOTO ST***	***ESE 1/8 - 1/4 (0.207 mi.)***	***AE206***	***257***
MOBIL OIL CORP	***1010 N SOTO ST***	***SE 1/8 - 1/4 (0.240 mi.)***	***AH235***	***289***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MEDICAL EXAMINER - CORONER	1104 MISSION RD	0 - 1/8 (0.000 mi.)	D7	13
KWIK #17	***1848 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***C11***	***21***
IT CORP	***1129 N STATE ST***	***0 - 1/8 (0.000 mi.)***	***C19***	***34***
USC MEDICAL CENTER POWER PLANT	***1635 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***B21***	***36***
ESTHER M HILDAGO	***2006 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***G22***	***38***
LAC/USC MEDICAL CENTER	***1200 N STATE ST***	***0 - 1/8 (0.000 mi.)***	***E35***	***56***
RAY'S AUTO SERVICE	***2039 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***I37***	***58***
U S C MEDICAL CENTER	***1910 ZONAL AVE***	***0 - 1/8 (0.000 mi.)***	***H38***	***60***
E JASPER WRECKING & TRUCKING	***2055 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***I40***	***62***
USC MEDICAL CENTER	***1240 N MISSION RD***	***NNW 0 - 1/8 (0.002 mi.)***	***K50***	***68***
MOZA AUTOMOTIVE REPAIR	***1201 MISSION RD N.***	***NW 0 - 1/8 (0.004 mi.)***	***K66***	***83***
EAST LOS ANGELES OCCUP/CENTER	2100 MARENGO ST	SE 0 - 1/8 (0.005 mi.)	M75	105
93690	1101 N MISSION	WNW 0 - 1/8 (0.007 mi.)	D81	117
STODDARD SERRVICE	1721 WORKMAN ST	NW 0 - 1/8 (0.043 mi.)	P94	133
PACIFIC OUTDOOR ADVERSTISING	***1731 WORKMAN ST***	***NW 0 - 1/8 (0.059 mi.)***	***P103***	***141***

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.093 mi.)***	***S131***	***164***
MORTON INTERNATIONAL INC	***1021 N MISSION RD***	***W 0 - 1/8 (0.118 mi.)***	***T138***	***185***
NEWMAN NUTRITION CENTER	2310 CHARLOTTE ST	ESE 1/8 - 1/4 (0.142 mi.)	V151	203
KEN NORRIS JR CANCER HOSP/RESE	1441 EASTLAKE AVE	ENE 1/8 - 1/4 (0.147 mi.)	X159	208
JOE'S CHEVRON	***1011 N MISSION RD***	***W 1/8 - 1/4 (0.149 mi.)***	***T167***	***216***
GANNETT OUTDOOR CO	***1016 N MISSION RD***	***W 1/8 - 1/4 (0.167 mi.)***	***T171***	***221***
MONTGOMERY WARD SERVICE STATIO	***925 RICHMOND ST***	***W 1/8 - 1/4 (0.172 mi.)***	***T177***	***229***
PETROLEUM DYNAMICS, INC	***995 N MISSION RD***	***W 1/8 - 1/4 (0.173 mi.)***	***Y180***	***231***
COAST FREIGHTWAYS INC	***2100 ALHAMBRA AVE***	***NW 1/8 - 1/4 (0.192 mi.)***	***AA191***	***240***
CENTRAL JUVENILE HALL	***1605 N EASTLAKE AVE***	***NE 1/8 - 1/4 (0.218 mi.)***	***AF223***	***276***
OAK MANUFACTURING COMPANY, INC	***650 S AVENUE 21***	***NW 1/8 - 1/4 (0.235 mi.)***	***AG228***	***282***
CARDENAS TEXACO SERVICE	***2829 N MAIN ST***	***NNW 1/8 - 1/4 (0.241 mi.)***	***AI245***	***298***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 20 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JOSE T. PELAYO	1010 N SOTO ST	SE 1/8 - 1/4 (0.240 mi.)	AH239	293

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA USC MEDICAL CENTER	***1200 NORTH STATE STREET***	***0 - 1/8 (0.000 mi.)***	***E9***	***15***
KWIK #17	***1848 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***C11***	***21***
USC MEDICAL CENTER POWER PLANT	1635 MARENGO ST	0 - 1/8 (0.000 mi.)	B15	30
ISD-LAC-USC MEDICAL CENTER	***1200 N STATE ST***	***0 - 1/8 (0.000 mi.)***	***E34***	***51***
RAY'S AUTO SERVICE	2039 MARENGO ST	0 - 1/8 (0.000 mi.)	I36	57
MEDICAL EXAMINER - CORONER	***1104 N MISSION RD***	***WNW 0 - 1/8 (0.002 mi.)***	***D53***	***70***
TEXACO CO.	1201 N MISSION RD	NW 0 - 1/8 (0.004 mi.)	K63	81
ROBIN OIL CO. #29	1201 N MISSION RD	NW 0 - 1/8 (0.004 mi.)	K65	82
CURRENT OCCUPANT	***1101 N MISSION RD***	***WNW 0 - 1/8 (0.005 mi.)***	***D73***	***102***
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.093 mi.)***	***S131***	***164***
BAUER COATINGS	1021 N MISSION RD	W 0 - 1/8 (0.118 mi.)	T139	189
NEWMAN NTURITION CENTER	2310 CHARLOTTE ST	ESE 1/8 - 1/4 (0.142 mi.)	V152	203
GANNETT OUTDOOR CO., INC. OF S	1016 N MISSION RD	W 1/8 - 1/4 (0.168 mi.)	T173	222
PETROLEUM DYNAMICS INC	995 N MISSION RD	W 1/8 - 1/4 (0.173 mi.)	Y179	231
COAST FREIGHTWAYS, INC.	2100 ALHAMBRA AVE	NW 1/8 - 1/4 (0.192 mi.)	AA190	239
CENTRAL JUVENILE HALL	***1605 EASTLAKE AVE***	***NE 1/8 - 1/4 (0.218 mi.)***	***AF213***	***266***
CARDENAS SERVICE	2829 N MAIN ST	NNW 1/8 - 1/4 (0.241 mi.)	AI242	295
NASSIM B HANNA	2829 N MAIN ST	NNW 1/8 - 1/4 (0.241 mi.)	AI244	297
CARDENAS SERVICE	2829 N MAIN ST	NNW 1/8 - 1/4 (0.241 mi.)	AI246	301

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 37 SWEEPS UST sites within approximately 0.25 miles of the target property.

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LAC+USC MEDICAL CENTER/OUTPATI	1175 N CUMMINGS ST	0 - 1/8 (0.000 mi.)	F29	49
UNIVERSITY OF SO CALIFORNIA	***1969 ZONAL AVE***	***0 - 1/8 (0.001 mi.)***	***J44***	***64***
UNIVERSITY OF SO CALIFORNIA	***2011 ZONAL AVE***	***ENE 0 - 1/8 (0.003 mi.)***	***L62***	***80***
LOS ANGELES CITY SCHOOL	***1204 N CORNWELL***	***ESE 0 - 1/8 (0.031 mi.)***	***O92***	***132***
UNIVERSITY OF SO CALIFORNIA	***1333 SAN PABLO ST***	***E 0 - 1/8 (0.065 mi.)***	***Q116***	***152***
KENNETH NORRIS JR. CANCER/HOSP	1411 EASTLAKE AVE	ENE 1/8 - 1/4 (0.146 mi.)	X156	206
ESTELLE DOHENY EYE HOSPITAL	***1537 NORFOLK ST***	***ENE 1/8 - 1/4 (0.205 mi.)***	***AC200***	***248***
SHELL OIL COMPANY	***1203 N SOTO ST***	***ESE 1/8 - 1/4 (0.207 mi.)***	***AE206***	***257***
MOBIL OIL CORP	***1010 N SOTO ST***	***SE 1/8 - 1/4 (0.240 mi.)***	***AH235***	***289***

Lower Elevation	Address	Direction / Distance	Map ID	Page
AL - SAL STATION 17	1848 MARENGO ST	0 - 1/8 (0.000 mi.)	C6	11
IT CORP	***1129 N STATE ST***	***0 - 1/8 (0.000 mi.)***	***C19***	***34***
LAC+USC PARKING LOT 13/MEDICAL	1635 MARENGO RD	0 - 1/8 (0.000 mi.)	B20	35
USC MEDICAL CENTER POWER PLANT	***1635 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***B21***	***36***
ESTHER M HILDAGO	***2006 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***G22***	***38***
LAC/USC MEDICAL CENTER	***1200 N STATE ST***	***0 - 1/8 (0.000 mi.)***	***E35***	***56***
RAY'S AUTO SERVICE	***2039 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***I37***	***58***
U S C MEDICAL CENTER	***1910 ZONAL AVE***	***0 - 1/8 (0.000 mi.)***	***H38***	***60***
E JASPER WRECKING & TRUCKING	***2055 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***I40***	***62***
USC MEDICAL CENTER	***1240 N MISSION RD***	***NNW 0 - 1/8 (0.002 mi.)***	***K50***	***68***
MEDICAL EXAMINER - CORONER	***1104 N MISSION RD***	***WNW 0 - 1/8 (0.002 mi.)***	***D53***	***70***
MOZA AUTOMOTIVE REPAIR	***1201 MISSION RD N.***	***NW 0 - 1/8 (0.004 mi.)***	***K66***	***83***
CURRENT OCCUPANT	***1101 N MISSION RD***	***WNW 0 - 1/8 (0.005 mi.)***	***D73***	***102***
EAST LOS ANGELES OCCUP/CENTER	***2100 MARENGO ST***	***SE 0 - 1/8 (0.005 mi.)***	***M74***	***104***
STODDARD AUTOMOTIVE	***1721 WORKMAN***	***NW 0 - 1/8 (0.043 mi.)***	***P98***	***135***
PACIFIC OUTDOOR ADVERSTISING	***1731 WORKMAN ST***	***NW 0 - 1/8 (0.059 mi.)***	***P103***	***141***
CHROMAL PLATING COMPANY, INC	***1748 WORKMAN STREET***	***NW 0 - 1/8 (0.093 mi.)***	***S131***	***164***
MORTON INTERNATIONAL INC	***1021 N MISSION RD***	***W 0 - 1/8 (0.118 mi.)***	***T138***	***185***
NEWMAN NUTRITION CENTER	***2310 CHARLOTTE ST***	***ESE 1/8 - 1/4 (0.142 mi.)***	***V149***	***201***
LAC+USC MEDICAL CENTER/GENERAL	1830 N GRIFFIN AVE	NNW 1/8 - 1/4 (0.143 mi.)	W153	204
JOE'S CHEVRON	***1011 N MISSION RD***	***W 1/8 - 1/4 (0.149 mi.)***	***T167***	***216***
GANNETT OUTDOOR CO	***1016 N MISSION RD***	***W 1/8 - 1/4 (0.167 mi.)***	***T171***	***221***
MONTGOMERY WARD SERVICE STATIO	***925 RICHMOND ST***	***W 1/8 - 1/4 (0.172 mi.)***	***T177***	***229***
PETROLEUM DYNAMICS, INC	***995 N MISSION RD***	***W 1/8 - 1/4 (0.173 mi.)***	***Y180***	***231***
COAST FREIGHTWAYS INC	***2100 ALHAMBRA AVE***	***NW 1/8 - 1/4 (0.192 mi.)***	***AA191***	***240***
CENTRAL JUVENILE HALL	***1605 N EASTLAKE AVE***	***NE 1/8 - 1/4 (0.218 mi.)***	***AF223***	***276***
OAK MANUFACTURING COMPANY, INC	***650 S AVENUE 21***	***NW 1/8 - 1/4 (0.235 mi.)***	***AG228***	***282***
CARDENAS TEXACO SERVICE	***2829 N MAIN ST***	***NNW 1/8 - 1/4 (0.241 mi.)***	***AI245***	***298***

Records of Emergency Release Reports

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 10/14/2013 has revealed that there are 8 CHMIRS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported Date Completed: 08-JUN-90	2011 E. ZONAL AVENUE	ENE 0 - 1/8 (0.003 mi.)	L57	75

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1635 E. MARENGO ST	0 - 1/8 (0.000 mi.)	B2	9
LAC/USC MEDICAL CENTER	1200 N. STATE ST.	0 - 1/8 (0.000 mi.)	E14	28
Not reported	1200 N. STATE ST., LA C	0 - 1/8 (0.000 mi.)	A24	39
Not reported	1102 NORTH MISSION ROAD	WNW 0 - 1/8 (0.002 mi.)	D49	66
Not reported	LA CO USC WOMEN'S HOSPI	NNW 0 - 1/8 (0.002 mi.)	K51	68
Not reported	2322 CHARLOTTE ST	ESE 1/8 - 1/4 (0.149 mi.)	V168	217
Not reported	1849 N SICHEL ST	NNW 1/8 - 1/4 (0.193 mi.)	Z193	241
Date Completed: 23-MAY-88				

Other Ascertainable Records

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 12/31/2013 has revealed that there is 1 CONSENT site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BUILDERS HARDWARE FINISHERS	***1846 SICHEL ST***	***NNW 1/8 - 1/4 (0.191 mi.)***	***Z184***	***233***

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

A review of the TRIS list, as provided by EDR, and dated 12/31/2011 has revealed that there is 1 TRIS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHROMAL PLATING CO	***1748 WORKMAN ST***	***NW 0 - 1/8 (0.093 mi.)***	***S130***	***164***

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 13 HIST CORTESE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LINCOLN MAGNET HIGH SCHOOL-LAU	***1200 CORNWELL ST***	***ESE 0 - 1/8 (0.069 mi.)***	***O120***	***153***
ESTELLE DOHENY EYE HOSPITAL	***1537 NORFOLK ST***	***ENE 1/8 - 1/4 (0.205 mi.)***	***AC199***	***247***
MOBIL #11-KXI	***1010 SOTO ST N***	***SE 1/8 - 1/4 (0.240 mi.)***	***AH232***	***285***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA USC MEDICAL CENTER	***1200 NORTH STATE STREET***	***0 - 1/8 (0.000 mi.)***	***E9***	***15***
AL-SAL OIL #17	***1848 MARENGO ST***	***0 - 1/8 (0.000 mi.)***	***C27***	***43***
CHEVRON 93690	***1101 N MISSION***	***WNW 0 - 1/8 (0.006 mi.)***	***D79***	***108***
SHELL (FORMER)	20002012 MARENGO AVE	SSE 0 - 1/8 (0.012 mi.)	G87	128

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
STODDARD AUTOMOTIVE	***1721 WORKMAN***	***NW 0 - 1/8 (0.043 mi.)***	***P98***	***135***
CBS OUTDOOR	***1731 WORKMAN ST***	***NW 0 - 1/8 (0.059 mi.)***	***P102***	***139***
MORTON INT'L WHITTAKER CO	1021 MISSION	W 0 - 1/8 (0.118 mi.)	T133	178
NORRIS CANCER HOSPITAL	***1441 EASTLAKE AVE***	***ENE 1/8 - 1/4 (0.147 mi.)***	***X162***	***210***
SAN ANTONIO WINERY	1016 MISSION	W 1/8 - 1/4 (0.168 mi.)	T172	222
UNION RAILROAD-LA TRANS	***2100 ALHAMBRA***	***NW 1/8 - 1/4 (0.192 mi.)***	***AA186***	***236***

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, and dated 12/31/2012 has revealed that there are 96 HAZNET sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VIOLENCE INTERVENTION PROGRAM	2010 ZONAL AVE	ENE 0 - 1/8 (0.002 mi.)	L46	65
USCIMI-CALL DOC-DEPT OF MEDICI	2020 ZONAL AVE	ENE 0 - 1/8 (0.002 mi.)	L48	66
LAUSD/ BRAVO MED MAG(LINCOLN)	1200 NORTH CORNWELL STR	ESE 0 - 1/8 (0.069 mi.)	O122	158
LAUSD-BRAVO MED MAG	1200 N CORNWELL ST	ESE 0 - 1/8 (0.069 mi.)	O123	159
HAZARD PARK ARMY RESERVE CTR	1350 SAN PABLO ST	ENE 0 - 1/8 (0.085 mi.)	Q125	161
CITY OF LOS ANGELES HAZARD ARM	1350 SAN PABLO ST	ENE 0 - 1/8 (0.085 mi.)	Q126	162
UNIVERSITY OF SOUTHERN CALIFOR	1411 EASTLAKE ST	ENE 1/8 - 1/4 (0.146 mi.)	X155	204
MORLEY CONSTRUCTION	1425 SAN PABLO ST	ENE 1/8 - 1/4 (0.173 mi.)	X178	230
DOHENY EYE INSTITUTE	1450 SAN PABLO ST	ENE 1/8 - 1/4 (0.207 mi.)	AD202	249
SHELL	1203 N SOTO	ESE 1/8 - 1/4 (0.207 mi.)	AE205	257
SHELL SERVICE STATION	1203 N SOTO ST	ESE 1/8 - 1/4 (0.207 mi.)	AE207	258
RUDOLPH & SLENTTEN	1501 SAN PABLO AVE	ENE 1/8 - 1/4 (0.227 mi.)	AD224	277
OOKX1 JOSE T PELAYO	1010 NORTH SOTO STREET	SE 1/8 - 1/4 (0.240 mi.)	AH233	288
SOTO MOBILE MART	1010 N SOTO ST	SE 1/8 - 1/4 (0.240 mi.)	AH237	292
FREEWAY SERVICE CENTRE	1010 N SOTO ST	SE 1/8 - 1/4 (0.240 mi.)	AH238	292

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAC / USC IMAGING SCIENCE CTR	***1744 ZONAL AVE***	***0 - 1/8 (0.000 mi.)***	***A1***	***7***
L A CNTY USC MEDICAL CTR	1635 MARENGO AVE	0 - 1/8 (0.000 mi.)	B4	11
LA COUNTY PUBLIC WORKS	1934 HOSPITAL PLACE	0 - 1/8 (0.000 mi.)	B8	14
AL-SAL OIL CO, #17	1848 MARENGO ST	0 - 1/8 (0.000 mi.)	C10	20
LOS ANGELES COUNTY/USC MEDICAL	1200 N STATE ST	0 - 1/8 (0.000 mi.)	E16	31
L.A. CNTY/LAC-USC MED CTR	1129 N STATE ST	0 - 1/8 (0.000 mi.)	C26	41
LAC USC MEDICAL CENTER	1200 NORTH STATE STREET	0 - 1/8 (0.000 mi.)	E28	49
PLANNED PARENTHOOD LOS ANGELES	1920 MARENGO ST	0 - 1/8 (0.000 mi.)	C30	49
CLINICA MSR. OSCAR A. ROMERO	2032 MARENGO ST	0 - 1/8 (0.000 mi.)	G33	51
LOS ANGELES USC MEDICAL CENTER	1937 HOSPITAL PLACE	0 - 1/8 (0.000 mi.)	B39	61
CELL MATRIX INC	1929 ZONAL AVE	0 - 1/8 (0.000 mi.)	J41	63
LOS ANGELES COUNTY-USC MEDICAL	1100 MISSION RD	WNW 0 - 1/8 (0.002 mi.)	D47	65
LOS ANGELES CORONER	1104 N MISSION RD	WNW 0 - 1/8 (0.002 mi.)	D52	70
LOS ANGELES CORONER	1104 N MISSION RD	WNW 0 - 1/8 (0.002 mi.)	D54	71
LA COUNTY DEPT OF CORONER	1104 N MISSION RD	WNW 0 - 1/8 (0.002 mi.)	D55	72
US LABS LOS ANGELES	1640 MARENGO ST STE 600	W 0 - 1/8 (0.003 mi.)	N58	76
US LABS LOS ANGELES	1640 MARENGO ST STE 600	W 0 - 1/8 (0.003 mi.)	N59	78
RESPONCE GENETICS INC	1640 MARENGO ST STE 600	W 0 - 1/8 (0.003 mi.)	N60	78

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
MOZA'S AUTO REPAIR	1201 N MISSION RD	NW 0 - 1/8 (0.004 mi.)	K64	82
CHEVRON PRODUCTS SS#_93690	1101 N MISSION RD	WNW 0 - 1/8 (0.005 mi.)	D71	100
RAFI'S CHEVRON #4	1101 N MISSION RD	WNW 0 - 1/8 (0.005 mi.)	D72	102
LOS ANGELES USD	2100 MARENGO ST	SE 0 - 1/8 (0.005 mi.)	M76	105
LAUSD/EAST LA OCC CTR	2100 MARENGO ST	SE 0 - 1/8 (0.005 mi.)	M77	105
CHEVRON 93690	***1101 N MISSION***	***WNW 0 - 1/8 (0.006 mi.)***	***D79***	***108***
1412 LORENE CORP	2000 TO 2012 E MARENGO	SSE 0 - 1/8 (0.012 mi.)	G88	128
1412 LORENE CORPORATION	2000 E MARENGO ST	SSE 0 - 1/8 (0.012 mi.)	G89	128
LA COUNTY/USC MEDICAL CENTER	1711 GRIFFIN RD	NNW 0 - 1/8 (0.018 mi.)	90	130
CHEVRON PRODUCTS SS#_93690	1101 N MISSION	WNW 0 - 1/8 (0.025 mi.)	D91	130
STODDARD SERVICE	1721 WORKMAN ST	NW 0 - 1/8 (0.043 mi.)	P95	133
CBS OUTDOOR	1721 WORKMAN ST	NW 0 - 1/8 (0.043 mi.)	P97	135
ROSA GONZALEZ	1005 LORD ST	WSW 0 - 1/8 (0.045 mi.)	B99	137
DARIO PANTOJA	1001 LORD ST	WSW 0 - 1/8 (0.047 mi.)	B100	137
INFINITY OUTDOOR ADVERTISING	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P106	144
GANNETT OUTDOOR OF SO CAL	1731 WORKMAN STREET	NW 0 - 1/8 (0.059 mi.)	P110	146
INFINITY OUTDOOR	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P111	147
CBS OUTDOOR	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P112	149
BOB & SON	1720 WORKMAN ST	NW 0 - 1/8 (0.061 mi.)	P114	151
ELBOGEN PHOTOGRAPHY	1038 NORTH STATE STREET	SSW 0 - 1/8 (0.078 mi.)	124	160
LOS ANGELES HOUSING AUTHORITY	1030 BRITTANIA ST	SSE 0 - 1/8 (0.089 mi.)	R127	163
CITY OF LOS ANGELES/HOUSING AU	1030 BRITTANIA ST	SSE 0 - 1/8 (0.089 mi.)	R128	163
ALPHA PROPERTY MANAGEMENT	1011-1025 N CUMMINGS	SSE 0 - 1/8 (0.091 mi.)	129	163
CHROMAL PLATING COMPANY#	1748 WORKMAN ST	NW 0 - 1/8 (0.093 mi.)	S132	176
TMT PATHWAY LLC	1021 N MISSION RD	W 0 - 1/8 (0.118 mi.)	T135	182
UNION PACIFIC RAILROAD INC	1060 NORTH RICHMOND ST	WNW 0 - 1/8 (0.121 mi.)	140	191
US CEVA LOGISTICS	1041 RICHMOND ST	W 1/8 - 1/4 (0.131 mi.)	T141	192
FORMER TNT PATHWAY	1021 N MISSION RD	W 1/8 - 1/4 (0.133 mi.)	T142	193
NU-WAY PLATING CO	1805 SICHEL ST	NNW 1/8 - 1/4 (0.135 mi.)	U143	194
A & A AUTO WRECKING	1806 SICHEL ST	NNW 1/8 - 1/4 (0.136 mi.)	U145	198
GOMEZ & BROS. BODY SHOP	2307 CHARLOTTE ST	ESE 1/8 - 1/4 (0.140 mi.)	V146	198
FRANCO'S AUTO SERVICE	2307 CHARLOTTE ST	ESE 1/8 - 1/4 (0.140 mi.)	V147	199
LAUSD/ NEWMAN NUTRITION CTR	2310 CHARLOTTE ST	ESE 1/8 - 1/4 (0.142 mi.)	V148	200
USC/NORRIS CANCER HOSPITOL	1441 EASTLAKE AVE	ENE 1/8 - 1/4 (0.147 mi.)	X157	206
UNIVERSITY OF SOUTHERN CALIFOR	1441 EASTLAKE AVE	ENE 1/8 - 1/4 (0.147 mi.)	X158	208
UNIVERSITY OF SOUTHERN CALIFOR	1441 EASTLAKE AVE RM 80	ENE 1/8 - 1/4 (0.147 mi.)	X161	209
GANNETT OUTDOOR OF SO CAL	1016 N MISSION ROAD	W 1/8 - 1/4 (0.148 mi.)	Y164	213
STEVE/MADDALENA RIVOLI FAMILY	1016 MISSION RD	W 1/8 - 1/4 (0.148 mi.)	Y165	215
RUDOLPH SLEPTEN INC	1440 EASTLAKE AVE	ENE 1/8 - 1/4 (0.149 mi.)	X166	215
CENTRAL PARKING ENFORCEMENT AU	1016 N MISSION ROAD	W 1/8 - 1/4 (0.168 mi.)	T175	226
CITY OF LA GENERAL SERVICES	1016 MISSION RD	W 1/8 - 1/4 (0.168 mi.)	T176	227
SKY DROPS INC	999 N MISSION ST	W 1/8 - 1/4 (0.177 mi.)	Y181	232
CNTY LOS ANGELES USC MEDICAL C	1840 N GRIFFIN AVE	NNW 1/8 - 1/4 (0.181 mi.)	W182	233
GUADALUPE REYNA	1816 WORKMAN ST	NW 1/8 - 1/4 (0.182 mi.)	183	233
A 1 EASTERN HOMEMADE PICKLE CO	1832 JOHNSTONE ST	N 1/8 - 1/4 (0.201 mi.)	AB194	242
INTERNAL SERVICES DEPT	1601 EASTLAKE	NE 1/8 - 1/4 (0.216 mi.)	AF210	264
INTERNAL SERVICES DEPT	1601 EASTLAKE	NE 1/8 - 1/4 (0.216 mi.)	AF211	264
GRAND AUTO SERVICE	3000 A N MAIN ST.	N 1/8 - 1/4 (0.217 mi.)	AB212	265
CENTRAL EASTLAKE JUVENILE	***1605 EASTLAKE***	***NE 1/8 - 1/4 (0.218 mi.)***	***AF214***	***267***
COUNTY OF LOS ANGELES/CENTRAL	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF215	269
LOS ANGELES COUNTY HEALTH SERV	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF216	270
LOS ANGELES COUNTY HEALTH SERV	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF217	271
COUNTY OF LOS ANGELES DEPT OF	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF218	271
CENTRAL JUVENILE HALL DENTAL C	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF219	272
LA COUNTY CENTRAL JUVENILE HAL	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF220	274
CENTRAL JUVENILE HALL	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF221	274

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA JUVENILE COURT HEALTH SERVI	1605 EASTLAKE AVE	NE 1/8 - 1/4 (0.218 mi.)	AF222	275
TRAYLOR SHEA FRONTIER KENNY JV	***886 N MISSION RD***	***W 1/8 - 1/4 (0.228 mi.)***	***225***	***277***
MODERN SCREEN PRINTING	***2919 1/2 N MAIN ST***	***N 1/8 - 1/4 (0.228 mi.)***	***226***	***279***
AVERY PIX INC	650 S AVENUE 21	NW 1/8 - 1/4 (0.235 mi.)	AG227	281
PICTURES IN A ROW	650 S AVENUE 21	NW 1/8 - 1/4 (0.235 mi.)	AG229	282
SLOANS DRY CLEANERS	3001 N MAIN ST	N 1/8 - 1/4 (0.237 mi.)	AB230	283
NORTH MAIN SERVICE	2829 N MAIN ST	NNW 1/8 - 1/4 (0.241 mi.)	AI243	296

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

A review of the RGA LUST list, as provided by EDR, has revealed that there are 20 RGA LUST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LINCOLN MAGNET HIGH SCHOOL-LAU	1200 CORNWELL ST	ESE 0 - 1/8 (0.069 mi.)	O117	152
LINCOLN MAGNET HIGH SCHOOL-	1200 CORNWELL ST	ESE 0 - 1/8 (0.069 mi.)	O118	153
MAGNET HIGH SCHOOL (LAUSD)	1200 CORNWELL STREET	ESE 0 - 1/8 (0.069 mi.)	O119	153
DOHENY EYE INSTITUTE	1537 NORFOLK ST	ENE 1/8 - 1/4 (0.205 mi.)	AC197	245
ESTELLE DOHENY EYE HOSPITAL	1537 NORFOLK ST	ENE 1/8 - 1/4 (0.205 mi.)	AC201	249

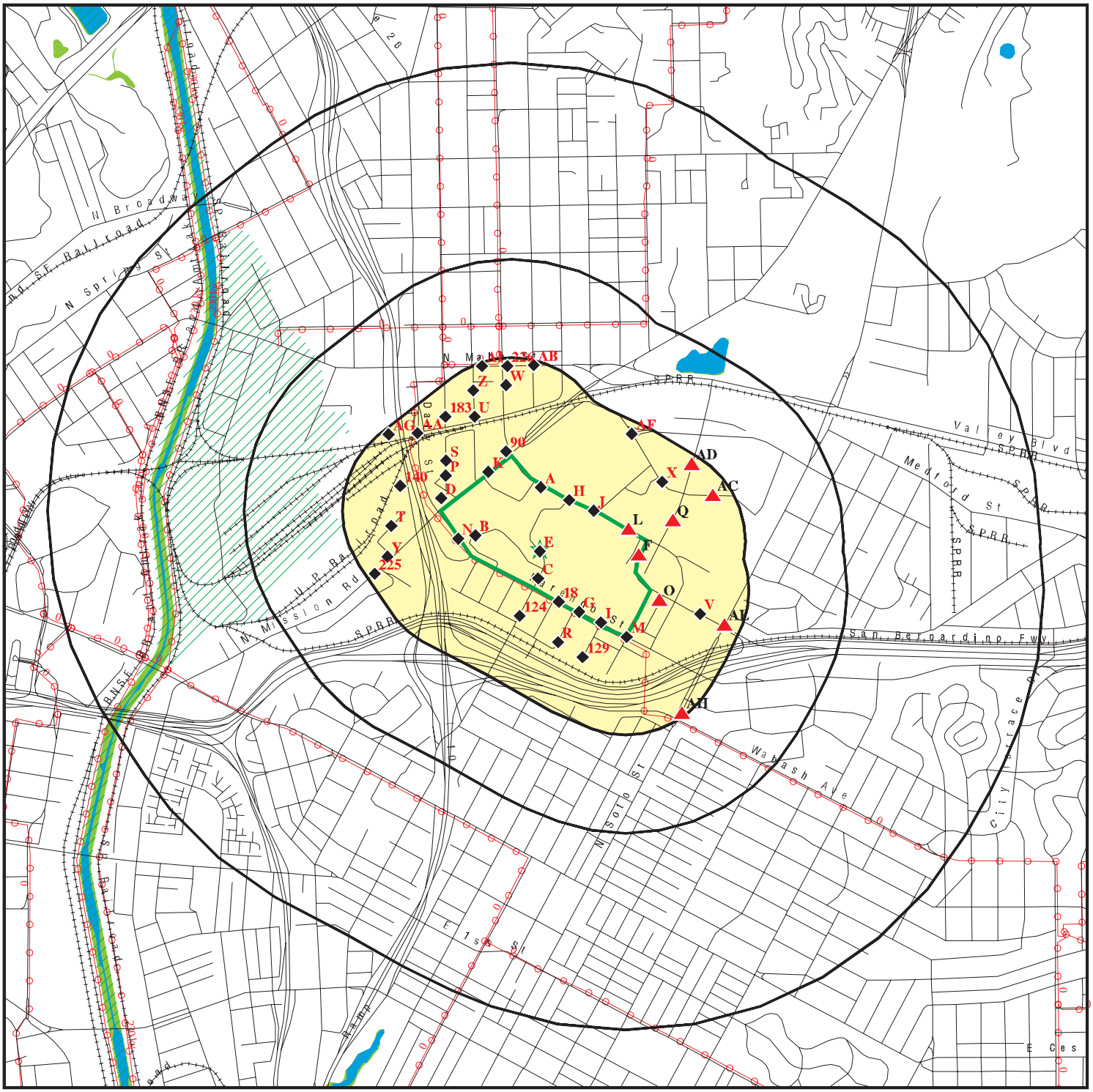
Lower Elevation	Address	Direction / Distance	Map ID	Page
AL-SAL STATION #17	1848 MARENGO ST	0 - 1/8 (0.000 mi.)	C42	64
AL-SAL OIL #17	1848 MARENGO ST	0 - 1/8 (0.000 mi.)	C43	64
SHELL (FORMER)	2000-201 MARENGO AVE	SSE 0 - 1/8 (0.012 mi.)	G84	119
SHELL (FORMER)	2000-2012 MARENGO AVE	SSE 0 - 1/8 (0.012 mi.)	G85	120
STODDARD AUTOMOTIVE	1721 WORKMAN ST	NW 0 - 1/8 (0.043 mi.)	P93	133
GANNETT OUTDOOR SYSTEMS, IN	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P107	145
GANNETT OUTDOOR	1731 WORKMAN ST.	NW 0 - 1/8 (0.059 mi.)	P108	146
GANNETT OUTDOOR	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P109	146
GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST	NW 0 - 1/8 (0.059 mi.)	P113	151
NORRIS CANCER HOSPITAL	1441 EASTLAKE AVE	ENE 1/8 - 1/4 (0.147 mi.)	X160	209
SO. PACIFIC TRANS. CO.	2100 ALHAMBRA AVE.	NW 1/8 - 1/4 (0.192 mi.)	AA185	236
SO. PACIFIC TRANS. CO.	2100 ALHAMBRA AVE	NW 1/8 - 1/4 (0.192 mi.)	AA187	238
UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE	NW 1/8 - 1/4 (0.192 mi.)	AA188	238
UNION RAILROAD-LA TRANS. CT	2100 ALHAMBRA AVE	NW 1/8 - 1/4 (0.192 mi.)	AA192	241
A-1 EASTERN HOMADE PICKLE COMP	1832 JOHNSTON STREET	N 1/8 - 1/4 (0.201 mi.)	AB196	245

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 22 records.

Site Name	Database(s)
MOBIL STATION #10-KDQ	WMUDS/SWAT, HIST CORTESE
BARLEY FLATS (CAMP 18)	HIST UST
CALTRANS D-7/ROW/EA0-20092/5513 AT	HAZNET
CALTRANS DIST 7/CONSTR/EA07-1199U4	HAZNET
CALTRANS DIST 7/CONSTR/EA07-1199U4	HAZNET
CALTRANS D-7/CONSTR/EA07-3Y3704	HAZNET
CAL TRANS	HAZNET
CALTRANS D-7/EA07-4Y3004	HAZNET
CAL TRANS	HAZNET
CALTRANS D-7/CONSTR/EA07-2411U4	HAZNET
CALTRANS D-7/CONSTR/EA07-4G3004	HAZNET
DP CONSTRUCTION INC	HAZNET
JD PAYNE DEVELOPMENT LLC	HAZNET
CALTRANS D-7-CONSTR/EA07-4L8404	HAZNET
CALTRANS D-7/EA07-00063	HAZNET
LOS ANGELES COUNTY METRO. TRANS. A	HAZNET
CALTRANS	HAZNET
LA LINCOLN AUTOMOTIVE DBA ATL INTE	HAZNET
CALTRANS DIST 7/CONSTR/EA07-243504	HAZNET
CALTRANS DIST 7	HAZNET
CALTRANS DISTRICT 7	HAZNET
CALTRANS	RCRA-SQG

OVERVIEW MAP - 3889863.2s



0 1/4 1/2 1 Miles

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

National Priority List Sites

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: North State Street	CLIENT: Ninyo & Moore
ADDRESS: North State Street Los Angeles CA 90033	CONTACT: Jonathan Johnson
LAT/LONG: 34.0592 / 118.2099	INQUIRY #: 3889863.2s DATE: March 28, 2014 2:53 pm

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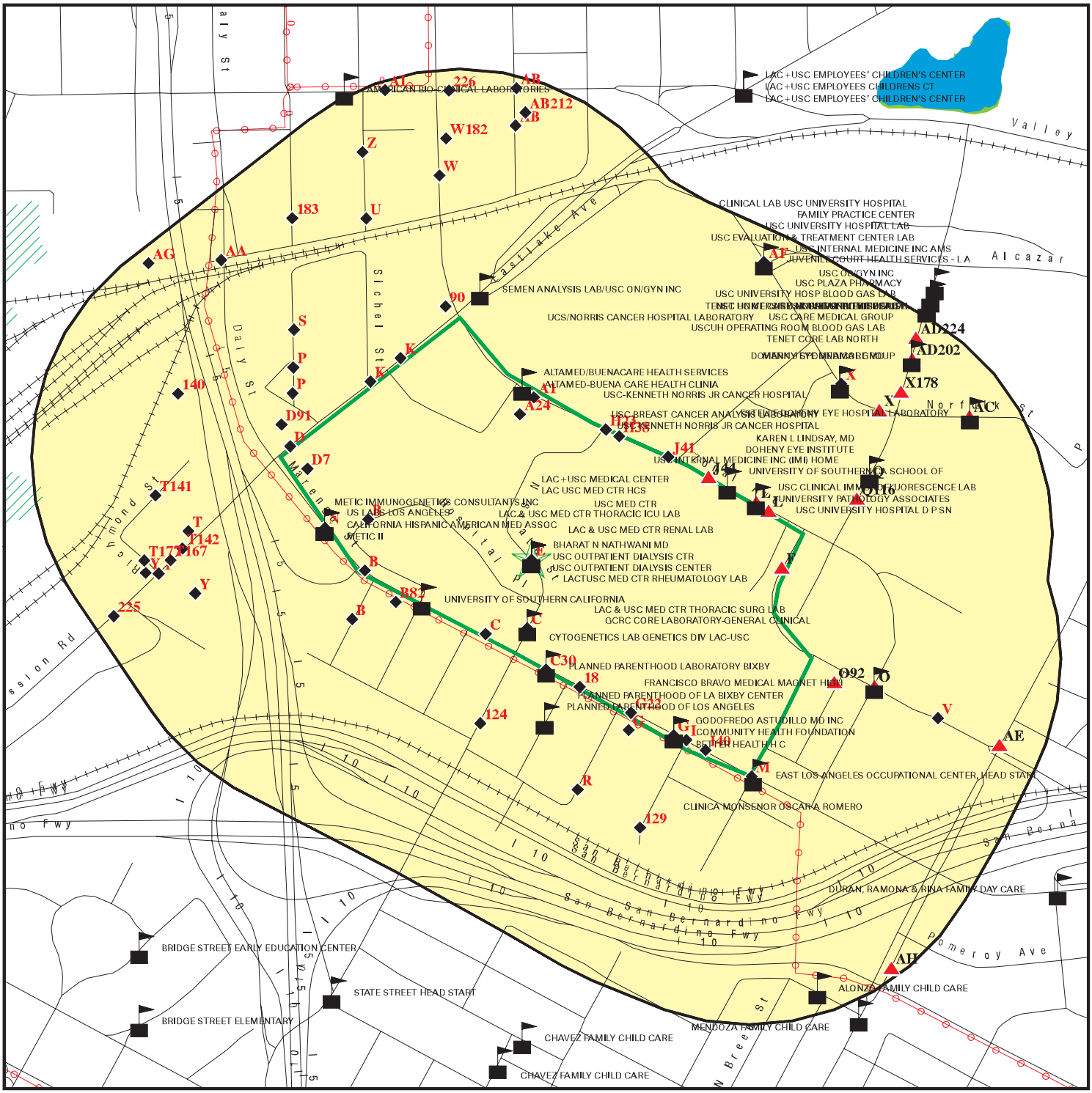
DETAIL MAP - 3889863.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Sensitive Receptors
- National Priority List Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: North State Street	CLIENT: Ninyo & Moore
ADDRESS: North State Street Los Angeles CA 90033	CONTACT: Jonathan Johnson
LAT/LONG: 34.0592 / 118.2099	INQUIRY #: 3889863.2s DATE: March 28, 2014 2:57 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	0.250		0	0	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	0.250		0	0	NR	NR	NR	0
Federal CERCLIS list								
CERCLIS	0.250		0	1	NR	NR	NR	1
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.250		0	1	NR	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	0.250		0	0	NR	NR	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		5	1	NR	NR	NR	6
RCRA-SQG	0.250		8	7	NR	NR	NR	15
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.250		0	0	NR	NR	NR	0
US INST CONTROL	0.250		0	0	NR	NR	NR	0
Federal ERNS list								
ERNS	0.250		4	1	NR	NR	NR	5
State- and tribal - equivalent NPL								
RESPONSE	0.250		0	0	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	0.250		2	1	NR	NR	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.250		0	0	NR	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.250		12	11	NR	NR	NR	23
SLIC	0.250		5	0	NR	NR	NR	5
INDIAN LUST	0.250		0	0	NR	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		12	8	NR	NR	NR	20

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.250		0	0	NR	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.250		0	0	NR	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.250		0	0	NR	NR	NR	0
SWRCY	0.250		0	0	NR	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
HIST Cal-Sites	0.250		0	0	NR	NR	NR	0
Toxic Pits	0.250		0	0	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		21	13	NR	NR	NR	34
HIST UST	0.250		11	9	NR	NR	NR	20
SWEEPS UST	0.250		23	14	NR	NR	NR	37
Local Land Records								
LIENS 2	0.250		0	0	NR	NR	NR	0
LIENS	0.250		0	0	NR	NR	NR	0
DEED	0.250		0	0	NR	NR	NR	0
Records of Emergency Release Reports								
CHMIRS	0.250		6	2	NR	NR	NR	8
Other Ascertainable Records								
CONSENT	0.250		0	1	NR	NR	NR	1
ROD	0.250		0	0	NR	NR	NR	0
TRIS	0.250		1	0	NR	NR	NR	1
CA BOND EXP. PLAN	0.250		0	0	NR	NR	NR	0
Cortese	0.250		0	0	NR	NR	NR	0
HIST CORTESE	0.250		8	5	NR	NR	NR	13
Notify 65	0.250		0	0	NR	NR	NR	0
HAZNET	0.250		50	46	NR	NR	NR	96
INDIAN RESERV	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	0.250		12	8	NR	NR	NR	20

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **LAC / USC IMAGING SCIENCE CTR** **RCRA-SQG** **1000685801**
1744 ZONAL AVE **HAZNET** **CAD983624578**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 1 of 2 in cluster A

Relative:
Lower

Actual:
321 ft.

RCRA-SQG:

Date form received by agency:	03/24/1992
Facility name:	LAC / USC IMAGING SCIENCE CTR
Facility address:	1744 ZONAL AVE LOS ANGELES, CA 90033
EPA ID:	CAD983624578
Mailing address:	ZONAL AVE LOS ANGELES, CA 90033
Contact:	LINDA NEEDHAM
Contact address:	1744 ZONAL AVE LOS ANGELES, CA 90033
Contact country:	US
Contact telephone:	(213) 221-2744
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	AMERICAN HEALTH SVC CORP
Owner/operator address:	4440 VON KARMAN STE 320 NEWPORT BEACH, CA 92660
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 476-0133
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

LAC / USC IMAGING SCIENCE CTR (Continued) **1000685801**

HAZNET:

Year:	1998
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0233
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0065
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Recycler
Tons:	.0025
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Metal sludge (Alkaline solution (pH >= 12.5) with metals)

LAC / USC IMAGING SCIENCE CTR (Continued) **1000685801**

Disposal Method:	Recycler
Tons:	.0208
Facility County:	Los Angeles
Year:	1997
Gepaid:	CAD983624578
Contact:	INSIGHT HEALTH SERVICES CORP
Telephone:	9494760733
Mailing Name:	Not reported
Mailing Address:	1744 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331045
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0208
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
9 additional CA_HAZNET: record(s) in the EDR Site Report.

B2 **CHMIRS** **S105645739**
N/A

1635 E. MARENGO ST
< 1/8 **LOS ANGELES, CA 90012**
1 ft.

Site 1 of 11 in cluster B

Relative:
Lower

Actual:
317 ft.

CHMIRS:

OES Incident Number:	013908
OES notification:	Not reported
OES Date:	5/25/1996
OES Time:	08:39:19 AM
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported

(Continued) **S105645739**

Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	YES
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	co hazmat
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1996
Agency:	la city fd
Incident Date:	2215/5-24-96
Admin Agency:	Not reported
Amount:	2 gallons
Contained:	NO
Site Type:	OTHER
E Date:	Not reported
Substance:	unknown liquid
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	NO
Number of Injuries:	NO
Number of Fatalities:	NO
Description:	substance located and reported by safety police at a local hospital.

B3 **LAC+USC MEDICAL CENTER STEAM PLANT** **UST** **U003780533**
1635 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 2 of 11 in cluster B

Relative:
Lower

Actual:
317 ft.

UST:

Facility ID:	24096
Latitude:	34.05901
Longitude:	-118.21282
Permitting Agency	LOS ANGELES, CITY OF

B4 **L A CNTY USC MEDICAL CTR** **HAZNET** **S112915783**
1635 MARENGO AVE **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 3 of 11 in cluster B

Relative: HAZNET:
Lower
Year: 2001
Gepaid: CAC002363687
Actual: Contact: INACTIVE PER FAX 12/18/01
317 ft. Telephone: 8188982436
Mailing Name: Not reported
Mailing Address: 1635 MARENGO AVE
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 1.68
Facility County: Los Angeles

C5 **LAC+USC MEDICAL CENTER** **UST** **U003780532**
1129 N STATE ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 1 of 12 in cluster C

Relative: UST:
Lower
Facility ID: 24095
Latitude: 34.05818
Actual: Longitude: -118.20997
335 ft. Permitting AgencyLOS ANGELES, CITY OF

C6 **AL - SAL STATION 17** **SWEEPS UST** **S104916144**
1848 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 2 of 12 in cluster C

Relative: SWEEPS UST:
Lower
Status: Active
Comp Number: 377
Actual: Number: 9
322 ft. Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-000377-000001
Tank Status: A
Capacity: 20000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 6

AL - SAL STATION 17 (Continued) **S104916144**

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-000377-000002
Tank Status: A
Capacity: 20000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-000377-000003
Tank Status: A
Capacity: 20000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-000377-000004
Tank Status: A
Capacity: 10000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 377
Number: 9
Board Of Equalization: 44-011139
Referral Date: 01-15-93
Action Date: 03-15-94

AL - SAL STATION 17 (Continued) **S104916144**

Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-000377-000005
Tank Status:	A
Capacity:	10000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	377
Number:	9
Board Of Equalization:	44-011139
Referral Date:	01-15-93
Action Date:	03-15-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-000377-000006
Tank Status:	A
Capacity:	10000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

D7 **MEDICAL EXAMINER - CORONER** **CA FID UST** **S101617582**
1104 MISSION RD **N/A**
< 1/8 **LOS ANGELES, CA 90063**
1 ft.

Site 1 of 15 in cluster D

Relative:
Lower

Actual:
324 ft.

CA FID UST:

Facility ID:	19055402
Regulated By:	UTNKA
Regulated ID:	00020720
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132672242
Mail To:	Not reported
Mailing Address:	1100 N EASTERN AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900630000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

B8 **LA COUNTY PUBLIC WORKS** **HAZNET** **S112866545**
1934 HOSPITAL PLACE **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 4 of 11 in cluster B

Relative:
Lower

Actual:
321 ft.

HAZNET:

Year:	2001
Gepaid:	CAC001089400
Contact:	MOHAMED FARZAN/PROJ MGR/XT285
Telephone:	3232264726
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Not reported
Disposal Method:	Disposal, Land Fill
Tons:	0
Facility County:	Los Angeles

Year:	2001
Gepaid:	CAC001089400
Contact:	MOHAMED FARZAN/PROJ MGR/XT285
Telephone:	3232264726
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	404.54
Facility County:	Los Angeles

Year:	2001
Gepaid:	CAC001089400
Contact:	MOHAMED FARZAN/PROJ MGR/XT285
Telephone:	3232264726
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Not reported
Tons:	4.8
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAC001089400
Contact:	MOHAMED FARZAN/PROJ MGR/XT285
Telephone:	3232264726
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000

LA COUNTY PUBLIC WORKS (Continued) **S112866545**

Gen County:	Not reported
TSD EPA ID:	AZD983473539
TSD County:	Not reported
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	Not reported
Tons:	0.5
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAC001089400
Contact:	MOHAMED FARZAN/PROJ MGR/XT285
Telephone:	3232264726
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	573.1
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

E9 **LA USC MEDICAL CENTER** **RCRA-SQG** **1000427580**
1200 NORTH STATE STREET **HIST CORTESE** **CAT080016892**
< 1/8 **LOS ANGELES, CA 90033** **LUST**
1 ft. **HIST UST**

Site 1 of 8 in cluster E

Relative: Lower

Actual: 354 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	LA USC MEDICAL CENTER
Facility address:	1200 NORTH STATE STREET LOS ANGELES, CA 90033
EPA ID:	CAT080016892
Mailing address:	1237 NORTH MISSION ROAD LOS ANGELES, CA 90033
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED

LA USC MEDICAL CENTER (Continued) **1000427580**

NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LOS ANGELES COUNTY
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/01/1981
Facility name: LA USC MEDICAL CENTER
Classification: Large Quantity Generator

Violation Status: No violations found

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330270

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330270
Status: Remediation Plan
Substance: Gasoline
Substance Quantity: Not reported

LA USC MEDICAL CENTER (Continued) **1000427580**

Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700846	
W Global ID:	Not reported	
Staff:	MB	
Local Agency:	19050	
Cross Street:	MARENGO	
Enforcement Type:	DLSEL	
Date Leak Discovered:	5/13/1988	
Date Leak First Reported:		11/7/1988
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		10/1/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	Corrosion	
Leak Source:	Tank	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		12580.343301261849715610186143
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		2/21/1989
Remediation Plan Submitted:		7/21/2003
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		860
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	JOHN KELLEY	
RP Address:	GENERAL HOSPITAL, RM#1112, 1200 S. STATE ST.	
Program:	LUST	
Lat/Long:	34.0596424 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	5 UST AREAS IDENTIFIED: THEY ARE MORE TANKS SHOWN ON MAP W/OSUPPORTING REMOVAL DATA. OK TO BAIL FP MONTHLY. PREPARING ; 1/12/01 ADD'L SUBSURFACE INVEST. & GW MON WELL WP; 1/22/01 QTR GW MON RPT SEPT.-JAN. 20001	

HIST UST:
Region: STATE

LA USC MEDICAL CENTER (Continued) **1000427580**

Facility ID: 00000033992
Facility Type: Other
Other Type: MEDICAL CENTER
Total Tanks: 0012
Contact Name: Not reported
Telephone: 2132266084
Owner Name: LOS ANGELES COUNTY DEPARTMENT
Owner Address: 313 NORTH FIGUEROA
Owner City,St,Zip: LOS ANGELES, CA 90012

Tank Num: 001
Container Num: G.H. #1
Year Installed: 1964
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: G.H. #2
Year Installed: 1972
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: G.H. #3
Year Installed: Not reported
Tank Capacity: 00001500
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: G.H. #4
Year Installed: Not reported
Tank Capacity: 00000300
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: OP. #5
Year Installed: 1961
Tank Capacity: 00000800
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: P-6

LA USC MEDICAL CENTER (Continued) **1000427580**

Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: PP #7
Year Installed: 1952
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 3/16 inches
Leak Detection: Stock Inventor

Tank Num: 008
Container Num: PP #8
Year Installed: 1952
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 3/16 inches
Leak Detection: Stock Inventor

Tank Num: 009
Container Num: T #9
Year Installed: 1958
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 12 gauge
Leak Detection: Stock Inventor

Tank Num: 010
Container Num: W 10
Year Installed: 1958
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 12 gauge
Leak Detection: Stock Inventor

Tank Num: 011
Container Num: W #11
Year Installed: 1958
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 12 gauge
Leak Detection: Stock Inventor

Tank Num: 012
Container Num: 12
Year Installed: 1969
Tank Capacity: 00004000
Tank Used for: PRODUCT

LA USC MEDICAL CENTER (Continued) **1000427580**

Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

C10 **AL-SAL OIL CO, #17** **HAZNET** **S113009549**
1848 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 3 of 12 in cluster C

Relative:
Lower

Actual:
322 ft.

HAZNET:

Year:	2012
Gepaid:	CAD981661929
Contact:	LISA THOMPSON
Telephone:	6262402119
Mailing Name:	Not reported
Mailing Address:	3410 E FOOTHILL BLVD
Mailing City,St,Zip:	PASADENA, CA 911070000
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.008
Facility County:	Los Angeles

Year:	2010
Gepaid:	CAD981661929
Contact:	LISA THOMPSON
Telephone:	6262402119
Mailing Name:	Not reported
Mailing Address:	3410 E FOOTHILL BLVD
Mailing City,St,Zip:	PASADENA, CA 911070000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.042
Facility County:	Los Angeles

Year:	2009
Gepaid:	CAD981661929
Contact:	LISA THOMPSON
Telephone:	6264400684
Mailing Name:	Not reported
Mailing Address:	3410 E FOOTHILL BLVD
Mailing City,St,Zip:	PASADENA, CA 911073113
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.189
Facility County:	Los Angeles

AL-SAL OIL CO, #17 (Continued) **S113009549**

Year:	2009
Gepaid:	CAD981661929
Contact:	LISA THOMPSON
Telephone:	6264400684
Mailing Name:	Not reported
Mailing Address:	3410 E FOOTHILL BLVD
Mailing City,St,Zip:	PASADENA, CA 911073113
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.0625
Facility County:	Los Angeles

Year:	2007
Gepaid:	CAD981661929
Contact:	MONTRI PHUVADAKORN/GEN MANGR
Telephone:	6264400684
Mailing Name:	Not reported
Mailing Address:	3410 E FOOTHILL BLVD
Mailing City,St,Zip:	PASADENA, CA 911073113
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.02
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
11 additional CA_HAZNET: record(s) in the EDR Site Report.

C11 **KWIK #17** **CA FID UST 1000266510**
1848 MARENGO ST **HIST UST N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 4 of 12 in cluster C

Relative:
Lower

Actual:
322 ft.

CA FID UST:

Facility ID:	19023610
Regulated By:	UTNKA
Regulated ID:	00004071
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132214016
Mail To:	Not reported
Mailing Address:	5121 SUNSET BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported

KWIK #17 (Continued) **1000266510**

Status: Active

HIST UST:
Region: STATE
Facility ID: 00000004071
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0006
Contact Name: MONTRI
Telephone: 2136664471
Owner Name: AL-SAL OIL CO.
Owner Address: 5121 SUNSET BLVD.
Owner City,St,Zip: LOS ANGELES, CA 90027

Tank Num: 001
Container Num: 7
Year Installed: 1978
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1978
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 3
Year Installed: 1978
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 1
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 2
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 1/4 inches

KWIK #17 (Continued) **1000266510**

Leak Detection: Stock Inventor, 10

Tank Num: 006
Container Num: 3
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

E12 **LA CO- USC MEDICAL** **RCRA-LQG** **1000240200**
1200 N STATE ST **CAD095615027**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 2 of 8 in cluster E

Relative: Lower

Actual: 354 ft.

RCRA-LQG:
Date form received by agency: 02/22/2012
Facility name: LAC+USC MEDICAL CENTER
Facility address: 1200 N. STATE STREET RM #128
LOS ANGELES, CA 90033
EPA ID: CAD095615027
Mailing address: N. STATE STREET RM #128
LOS ANGELES, CA 90033
Contact: STEVEN PRIETO
Contact address: N. STATE STREET
LOS ANGELES, CA 90033
Contact country: Not reported
Contact telephone: (323) 409-7485
Contact email: STPRIETO@DHS.LACOUNTY.GOV
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: LOS ANGELES COUNTY
Owner/operator address: N. STATE STREET
LOS ANGELES, CA 90033
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: County
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1934
Owner/Op end date: Not reported

LA CO- USC MEDICAL (Continued) **1000240200**

Owner/operator name: MUNICIPAL GOVERNMENT
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LOS ANGELES COUNTY
Owner/operator address: N. STATE STREET
LOS ANGELES, CA 90033
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1934
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): Yes
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

LA CO- USC MEDICAL (Continued) **1000240200**

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: No

Historical Generators:
Date form received by agency: 02/19/2008
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/23/2006
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 02/16/2004
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 08/23/2002
Facility name: LAC+USC MEDICAL CENTER
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: LAC+USC MEDICAL CENTER
Site name: LOS ANGELES COUNTY/USC MED, CENTER
Classification: Large Quantity Generator

Date form received by agency: 04/21/1999
Facility name: LAC+USC MEDICAL CENTER
Site name: LOS ANGELES COUNTY/USC MED, CENTER
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: LAC+USC MEDICAL CENTER
Site name: LA HEALTH SVC LAC USC MED CTR
Classification: Large Quantity Generator

Date form received by agency: 04/17/1981
Facility name: LAC+USC MEDICAL CENTER
Site name: LA HEALTH SVC LAC USC MED CTR
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS

LA CO- USC MEDICAL (Continued) **1000240200**

USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D009
Waste name: MERCURY

Waste code: D011
Waste name: SILVER

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: P105
Waste name: SODIUM AZIDE

Waste code: U122
Waste name: FORMALDEHYDE

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 24725.3

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

LA CO- USC MEDICAL (Continued) **1000240200**

Amount (Lbs): 1601.9

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
Amount (Lbs): 1482.9

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 406.5

Waste code: D011
Waste name: SILVER
Amount (Lbs): 13742

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 15059.9

Waste code: P105
Waste name: SODIUM AZIDE
Amount (Lbs): 1482.9

Waste code: U122
Waste name: FORMALDEHYDE
Amount (Lbs): 1482.9

Violation Status: No violations found

F13 **LAC+USC MEDICAL CENTER** **UST** **U003781132**
1175 N CUMMINGS ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 1 of 2 in cluster F

Relative:
Higher

Actual:
411 ft.

UST:
Facility ID: 24771
Latitude: 34.05909
Longitude: -118.20551
Permitting Agency LOS ANGELES, CITY OF

E14 **LAC/USC MEDICAL CENTER** **CHMIRS** **S106388992**
1200 N. STATE ST. **N/A**
< 1/8 **LOS ANGELES, CA**
1 ft.

Site 3 of 8 in cluster E

Relative:
Lower

Actual:
354 ft.

CHMIRS:

OES Incident Number:	26461	
OES notification:	Not reported	
OES Date:	1/6/1993	
OES Time:	07:10:00 PM	
Incident Date:	Not reported	
Date Completed:	**Not reported**	
Property Use:	Not reported	
Agency Id Number:	Not reported	
Agency Incident Number:	Not reported	
Time Notified:	Not reported	
Time Completed:	Not reported	
Surrounding Area:	Not reported	
Estimated Temperature:	Not reported	
Property Management:	Not reported	
Special Studies 1:	Not reported	
Special Studies 2:	Not reported	
Special Studies 3:	Not reported	
Special Studies 4:	Not reported	
Special Studies 5:	Not reported	
Special Studies 6:	Not reported	
More Than Two Substances Involved?:		Not reported
Resp Agncy Personel # Of Decontaminated:		Not reported
Responding Agency Personel # Of Injuries:		Not reported
Responding Agency Personel # Of Fatalities:		Not reported
Others Number Of Decontaminated:		Not reported
Others Number Of Injuries:		Not reported
Others Number Of Fatalities:		Not reported
Vehicle Make/year:	Not reported	
Vehicle License Number:	Not reported	
Vehicle State:	Not reported	
Vehicle Id Number:	Not reported	
CA/DOT/PUC/ICC Number:	Not reported	
Company Name:	Not reported	
Reporting Officer Name/ID:	Not reported	
Report Date:	Not reported	
Comments:	Not reported	
Facility Telephone:	Not reported	
Waterway Involved:	Not reported	
Waterway:	Not reported	
Spill Site:	Not reported	
Cleanup By:	la fd did clean up	
Containment:	Not reported	
What Happened:	Not reported	
Type:	CHEMICAL	
Measure:	Not reported	
Other:	Not reported	
Date/Time:	Not reported	
Year:	1993	
Agency:	la city fd	
Incident Date:	1619	
Admin Agency:	Not reported	
Amount:	1/4 gal	

LAC/USC MEDICAL CENTER (Continued) **S106388992**

Contained:	Not reported
Site Type:	Not reported
E Date:	Not reported
Substance:	peroxyaletic acid
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	UNKNOWN
Number of Injuries:	UNKNOWN
Number of Fatalities:	UNKNOWN
Description:	dropped by employee in hospital

OES Incident Number:	05-4036
OES notification:	07/08/2005
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported

More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported

Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported

LAC/USC MEDICAL CENTER (Continued) **S106388992**

Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	LA CO. USC Med. Center
Incident Date:	7/8/200512:00:00 AM
Admin Agency:	Los Angeles City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	School
E Date:	Not reported
Substance:	Hydraulic Oil
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	25
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	A ruptured line caused the release.

B15 **USC MEDICAL CENTER POWER PLANT** **HIST UST** **U001562388**
1635 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90063**
1 ft.

Site 5 of 11 in cluster B

Relative:
Lower

Actual:
317 ft.

HIST UST:

Region:	STATE
Facility ID:	00000020693
Facility Type:	Other
Other Type:	USC
Total Tanks:	0004
Contact Name:	L.A. COUNTY MECHANICAL DEPT.
Telephone:	2132672242
Owner Name:	LOS ANGELES COUNTY MECHANICAL
Owner Address:	1100 NORTH EASTERN AVENUE
Owner City,St,Zip:	LOS ANGELES, CA 90063

USC MEDICAL CENTER POWER PLANT (Continued) **U001562388**

Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00055000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00050000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00011000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

E16 **LOS ANGELES COUNTY/USC MEDICAL CENTER** **HAZNET** **S113002223**
1200 N STATE ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 4 of 8 in cluster E

Relative:
Lower

Actual:
354 ft.

HAZNET:

Year:	2012
Gepaid:	CAD095615027
Contact:	STEVEN PRIETO/SAFETY ASSISTANT
Telephone:	3234093036
Mailing Name:	Not reported
Mailing Address:	1200 N STATE ST RM 128
Mailing City,St,Zip:	LOS ANGELES, CA 900334525
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	7.2
Facility County:	Los Angeles

LOS ANGELES COUNTY/USC MEDICAL CENTER (Continued) **S113002223**

Year: 2012
Gepaid: CAD095615027
Contact: STEVEN PRIETO/SAFETY ASSISTANT
Telephone: 3234093036
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST RM 128
Mailing City,St,Zip: LOS ANGELES, CA 900334525
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 4.464
Facility County: Los Angeles

Year: 2012
Gepaid: CAD095615027
Contact: STEVEN PRIETO/SAFETY ASSISTANT
Telephone: 3234093036
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST RM 128
Mailing City,St,Zip: LOS ANGELES, CA 900334525
Gen County: Los Angeles
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.075
Facility County: Los Angeles

Year: 2012
Gepaid: CAD095615027
Contact: STEVEN PRIETO/SAFETY ASSISTANT
Telephone: 3234093036
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST RM 128
Mailing City,St,Zip: LOS ANGELES, CA 900334525
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.187
Facility County: Los Angeles

Year: 2012
Gepaid: CAD095615027
Contact: STEVEN PRIETO/SAFETY ASSISTANT
Telephone: 3234093036
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST RM 128
Mailing City,St,Zip: LOS ANGELES, CA 900334525
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported

LOS ANGELES COUNTY/USC MEDICAL CENTER (Continued) **S113002223**

Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 3.1845
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
829 additional CA_HAZNET: record(s) in the EDR Site Report.

C17 **AL-SAL OIL #17** **LUST** **S105051404**
1848 MARENGO ST **N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033**
1 ft.

Site 5 of 12 in cluster C

Relative: **Lower**

Actual: **322 ft.**

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330325	
Status:	Pollution Characterization	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700851	
W Global ID:	Not reported	
Staff:	AT	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	VER	
Date Leak Discovered:	11/30/1993	
Date Leak First Reported:		12/1/1993
Date Leak Record Entered:	5/30/1995	
Date Confirmation Began:	12/1/1993	
Date Leak Stopped:	11/30/1993	
Date Case Last Changed on Database:		11/13/2000
Date the Case was Closed:		Not reported
How Leak Discovered:	Tank Test	
How Leak Stopped:	Not reported	
Cause of Leak:	Other Cause	
Leak Source:	Piping	
Operator:	AL-SAL OIL CO	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		12237.2455122414369713139128
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		6/5/1996
Preliminary Site Assessment Began:		5/15/1998
Pollution Characterization Began:		8/19/2003
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		6/12/2003
Hist Max MTBE Conc in Groundwater:		130000
Hist Max MTBE Conc in Soil:		36.5
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	=	

AL-SAL OIL #17 (Continued) **S105051404**

Soil Qualifier:	=
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	MONTRI PHUVADAKORN
RP Address:	501 MAIN ST., SUITE #112B
Program:	LUST
Lat/Long:	34.0580074 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	05/15/98 - RPT ON ASSESSMENT ACTIVITIES GROUNDWATER CONTAMINATION EVIDENT, SITE HAS ONLY ONCE GW MONITORING WELL. NEEDS FURTHER ASSESSMENT. 10/14/98 - GW ASSESSMENT WORKPLAN; 11/13/00 REVISED GW ASSESSMENT WP

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18 **LAC/USC MEDICAL CENTER** **UST** **U003879609**
1950 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Relative: **Lower**

Actual: **339 ft.**

UST:

Facility ID:	25035
Latitude:	34.05732
Longitude:	-118.20907
Permitting Agency	LOS ANGELES, CITY OF

C19 **IT CORP** **CA FID UST** **S101583783**
1129 N STATE ST **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 6 of 12 in cluster C

Relative: **Lower**

Actual: **335 ft.**

CA FID UST:

Facility ID:	19006171
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	1129 N STATE ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported

IT CORP (Continued) **S101583783**

Comp Number:	7207
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	0

Status:	Active
Comp Number:	8188
Number:	4
Board Of Equalization:	Not reported
Referral Date:	06-15-93
Action Date:	06-15-93
Created Date:	06-15-93
Owner Tank Id:	8188
SWRCB Tank Id:	19-050-008188-000001
Tank Status:	A
Capacity:	2000
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	1

B20 **LAC+USC PARKING LOT 13/MEDICAL CENTER** **SWEEPS UST** **S106928456**
1635 MARENGO RD **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 6 of 11 in cluster B

Relative:
Lower

Actual:
317 ft.

SWEEPS UST:

Status:	Active
Comp Number:	8191
Number:	5
Board Of Equalization:	Not reported
Referral Date:	07-28-93
Action Date:	07-28-93
Created Date:	06-15-93
Owner Tank Id:	8191
SWRCB Tank Id:	19-050-008191-000001
Tank Status:	A
Capacity:	3000
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	1

B21 **USC MEDICAL CENTER POWER PLANT** **CA FID UST** **S101617593**
1635 MARENGO ST **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90063**
1 ft.

Site 7 of 11 in cluster B

Relative:
Lower

Actual:
317 ft.

CA FID UST:

Facility ID:	19055399
Regulated By:	UTNKA
Regulated ID:	00020693
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132672242
Mail To:	Not reported
Mailing Address:	1100 N EASTERN AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900630000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	1449
Number:	Not reported
Board Of Equalization:	44-011798
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001449-000001
Tank Status:	Not reported
Capacity:	55000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	4

Status:	Not reported
Comp Number:	1449
Number:	Not reported
Board Of Equalization:	44-011798
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001449-000002
Tank Status:	Not reported
Capacity:	50000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	Not reported

USC MEDICAL CENTER POWER PLANT (Continued) **S101617593**

Status: Not reported
Comp Number: 1449
Number: Not reported
Board Of Equalization: 44-011798
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001449-000003
Tank Status: Not reported
Capacity: 11000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 1449
Number: Not reported
Board Of Equalization: 44-011798
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001449-000004
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8192
Number: 5
Board Of Equalization: Not reported
Referral Date: 07-28-93
Action Date: 07-28-93
Created Date: 06-15-93
Owner Tank Id: 8192-1
SWRCB Tank Id: 19-050-008192-000001
Tank Status: A
Capacity: 55000
Active Date: 06-15-93
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 4

Status: Active
Comp Number: 8192
Number: 5
Board Of Equalization: Not reported
Referral Date: 07-28-93
Action Date: 07-28-93

USC MEDICAL CENTER POWER PLANT (Continued) **S101617593**

Created Date:	06-15-93
Owner Tank Id:	8192-1
SWRCB Tank Id:	19-050-008192-000002
Tank Status:	A
Capacity:	50000
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	8192
Number:	5
Board Of Equalization:	Not reported
Referral Date:	07-28-93
Action Date:	07-28-93
Created Date:	06-15-93
Owner Tank Id:	8192-1
SWRCB Tank Id:	19-050-008192-000003
Tank Status:	A
Capacity:	10000
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	8192
Number:	5
Board Of Equalization:	Not reported
Referral Date:	07-28-93
Action Date:	07-28-93
Created Date:	06-15-93
Owner Tank Id:	8192-1
SWRCB Tank Id:	19-050-008192-000003
Tank Status:	A
Capacity:	1000
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

G22 **ESTHER M HILDAGO** **CA FID UST S101587591**
2006 MARENGO ST **SWEEPS UST N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 1 of 10 in cluster G

Relative: Lower

Actual: 340 ft.

CA FID UST:

Facility ID:	19055794
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000

ESTHER M HILDAGO (Continued) **S101587591**

Mail To: Not reported
Mailing Address: 2006 MARENGO ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 4432
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

H23 **LA COUNTY USC MEDICAL CENTER-REAR OF HOSPITAL** **UST** **U003780148**
1900 ZONAL AVE **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 1 of 2 in cluster H

Relative: Lower
Actual: 331 ft.

UST:
Facility ID: 23633
Latitude: 34.06104
Longitude: -118.20851
Permitting Agency LOS ANGELES, CITY OF

A24 **CHMIRS** **S105663104**
1200 N. STATE ST., LA COUNTY USC HOSPITAL **N/A**
< 1/8 **LOS ANGELES, CA**
1 ft.

Site 2 of 2 in cluster A

Relative: Lower
Actual: 321 ft.

CHMIRS:
OES Incident Number: 99-0549
OES notification: 02/05/1999
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported

(Continued) **S105663104**

Agency Id Number:	Not reported	
Agency Incident Number:	Not reported	
Time Notified:	Not reported	
Time Completed:	Not reported	
Surrounding Area:	Not reported	
Estimated Temperature:	Not reported	
Property Management:	Not reported	
Special Studies 1:	Not reported	
Special Studies 2:	Not reported	
Special Studies 3:	Not reported	
Special Studies 4:	Not reported	
Special Studies 5:	Not reported	
Special Studies 6:	Not reported	
More Than Two Substances Involved?:		Not reported
Resp Agncy Personel # Of Decontaminated:		Not reported
Responding Agency Personel # Of Injuries:		Not reported
Responding Agency Personel # Of Fatalities:		Not reported
Others Number Of Decontaminated:		Not reported
Others Number Of Injuries:		Not reported
Others Number Of Fatalities:		Not reported
Vehicle Make/year:	Not reported	
Vehicle License Number:	Not reported	
Vehicle State:	Not reported	
Vehicle Id Number:	Not reported	
CA/DOT/PUC/ICC Number:	Not reported	
Company Name:	Not reported	
Reporting Officer Name/ID:	Not reported	
Report Date:	Not reported	
Comments:	Not reported	
Facility Telephone:	Not reported	
Waterway Involved:	No	
Waterway:	Not reported	
Spill Site:	Not reported	
Cleanup By:	Contractor	
Containment:	Not reported	
What Happened:	Not reported	
Type:	Not reported	
Measure:	Not reported	
Other:	Not reported	
Date/Time:	Not reported	
Year:	1999	
Agency:	L.A. City Fire	
Incident Date:	2/5/199912:00:00 AM	
Admin Agency:	Los Angeles City Fire Department	
Amount:	Not reported	
Contained:	Yes	
Site Type:	Other	
E Date:	Not reported	
Substance:	Formalin	
Quantity Released:	Not reported	
BBLS:	0	
Cups:	0	
CUFT:	0	
Gallons:	0	
Grams:	0	
Pounds:	0	
Liters:	0	

(Continued) **S105663104**

Ounces:	8
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Spill occurred when a beaker was dropped by a lab tech at the hospital.

C25 **AL SAL #17** **UST** **U003937471**
1848 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 7 of 12 in cluster C

Relative: UST:
Lower

Facility ID:	24191
Latitude:	34.05805
Actual: Longitude:	-118.21071
322 ft. Permitting Agency	LOS ANGELES, CITY OF

C26 **L.A. CNTY/LAC-USC MED CTR** **HAZNET** **S112894254**
1129 N STATE ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 8 of 12 in cluster C

Relative: HAZNET:
Lower

Year:	2000
Gepaid:	CAC001477304
Actual: Contact:	MOHAMMED FARZAN/PROJ MGR
335 ft. Telephone:	3232264726
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	235.98
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAC001477304
Contact:	MOHAMMED FARZAN/PROJ MGR
Telephone:	3232264726
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	CAD088504881
TSD County:	Not reported

L.A. CNTY/LAC-USC MED CTR (Continued) **S112894254**

Waste Category: Laboratory waste chemicals
Disposal Method: Transfer Station
Tons: 0.5
Facility County: Los Angeles

Year: 2000
Gepaid: CAC001477304
Contact: MOHAMMED FARZAN/PROJ MGR
Telephone: 3232264726
Mailing Name: Not reported
Mailing Address: 900 S FREMONT AVE
Mailing City,St,Zip: ALHAMBRA, CA 918030000
Gen County: Not reported
TSD EPA ID: TND000772186
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Disposal, Other
Tons: 0.5
Facility County: Los Angeles

Year: 1999
Gepaid: CAC001477304
Contact: LOS ANGELES CNTY
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 900 S FREMONT AVE
Mailing City,St,Zip: ALHAMBRA, CA 918030000
Gen County: Not reported
TSD EPA ID: AZD983473539
TSD County: Not reported
Waste Category: Polychlorinated biphenyls and material containing PCBs
Disposal Method: Recycler
Tons: 1.0000
Facility County: Los Angeles

Year: 1999
Gepaid: CAC001477304
Contact: LOS ANGELES CNTY
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 900 S FREMONT AVE
Mailing City,St,Zip: ALHAMBRA, CA 918030000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 471.9680
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

C27 **AL-SAL OIL #17** **HIST CORTESE** **S103065667**
1848 MARENGO ST **LUST** **N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033**
1 ft.

Site 9 of 12 in cluster C

Relative:
Lower

Actual:
322 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330325

LUST:

Region:	STATE
Global Id:	T0603700851
Latitude:	34.0580074
Longitude:	-118.2108131
Case Type:	LUST Cleanup Site
Status:	Open - Assessment & Interim Remedial Action
Status Date:	06/29/2009
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330325
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700851
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700851
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Status History:

Global Id:	T0603700851
Status:	Open - Case Begin Date
Status Date:	11/30/1993

Global Id:	T0603700851
Status:	Open - Site Assessment
Status Date:	12/01/1993

AL-SAL OIL #17 (Continued) **S103065667**

Global Id: T0603700851
Status: Open - Site Assessment
Status Date: 06/05/1996

Global Id: T0603700851
Status: Open - Site Assessment
Status Date: 05/15/1998

Global Id: T0603700851
Status: Open - Site Assessment
Status Date: 08/19/2003

Global Id: T0603700851
Status: Open - Assessment & Interim Remedial Action
Status Date: 06/29/2009

Regulatory Activities:

Global Id: T0603700851
Action Type: RESPONSE
Date: 08/15/2002
Action: Other Report / Document

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/18/2008
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

AL-SAL OIL #17 (Continued) **S103065667**

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 06/29/2009
Action: Staff Letter

Global Id: T0603700851
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2008
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: Other

AL-SAL OIL #17 (Continued) **S103065667**

Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 07/15/2002
Action: Staff Letter

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2008
Action: Soil and Water Investigation Workplan

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/20/2011
Action: Well Installation Workplan

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 02/09/2011
Action: Clean Up Fund - 5-Year Review Summary

AL-SAL OIL #17 (Continued) **S103065667**

Global Id: T0603700851
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2009
Action: Interim Remedial Action Plan

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/16/2009
Action: Well Installation Workplan

Global Id: T0603700851
Action Type: RESPONSE
Date: 08/19/2003
Action: Soil and Water Investigation Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2009
Action: Soil and Water Investigation Workplan

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2013
Action: Remedial Progress Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 05/13/2003
Action: * Verbal Communication

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: Other

AL-SAL OIL #17 (Continued) **S103065667**

Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700851
Action Type: ENFORCEMENT
Date: 02/04/2013
Action: Staff Letter

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: REMEDIATION
Date: 01/01/1950
Action: Free Product Removal

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700851
Action Type: RESPONSE
Date: 10/19/2005
Action: Soil and Water Investigation Report

Global Id: T0603700851
Action Type: RESPONSE
Date: 06/17/2009
Action: Clean Up Fund - 5-Year Review Summary

E28 **LAC USC MEDICAL CENTER** **HAZNET** **S113179734**
1200 NORTH STATE STREET **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 5 of 8 in cluster E

Relative: HAZNET:
Lower

Year:	1998
Gepaid:	CAT080016892
Actual: Contact:	LOS ANGELES COUNTY
354 ft. Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1237 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 900331077
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.0542
Facility County:	Los Angeles

F29 **LAC+USC MEDICAL CENTER/OUTPATIENT BUILDING** **SWEEPS UST** **S106928455**
1175 N CUMMINGS ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 2 of 2 in cluster F

Relative: SWEEPS UST:
Higher

Status:	Active
Comp Number:	8187
Actual: Number:	4
411 ft. Board Of Equalization:	Not reported
Referral Date:	06-15-93
Action Date:	06-15-93
Created Date:	06-15-93
Owner Tank Id:	8187
SWRCB Tank Id:	19-050-008187-000001
Tank Status:	A
Capacity:	500
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	1

C30 **PLANNED PARENTHOOD LOS ANGELES** **HAZNET** **S113457825**
1920 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 10 of 12 in cluster C

Relative: HAZNET:
Lower

Year:	2010
Gepaid:	CAC002649383
Actual: Contact:	LISA TURCO
335 ft. Telephone:	2132843248
Mailing Name:	Not reported

PLANNED PARENTHOOD LOS ANGELES (Continued) **S113457825**

Mailing Address: 400 W 30TH ST
Mailing City,St,Zip: LOS ANGELES, CA 900073320
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 8
Facility County: Los Angeles

E31 **LA COUNTY MEDICAL CENTER TELEPHONE EXCHANGE** **UST** **U003780447**
1200 N STATE ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 6 of 8 in cluster E

Relative: Lower
Actual: 354 ft.

UST:
Facility ID: 23998
Latitude: 34.05933
Longitude: -118.21005
Permitting Agency LOS ANGELES, CITY OF

G32 **NORTHEAST HEALTH CTR** **RCRA-SQG** **1000819389**
2032 MARENGO ST **CAD983653718**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 2 of 10 in cluster G

Relative: Lower
Actual: 341 ft.

RCRA-SQG:
Date form received by agency: 12/08/1992
Facility name: NORTHEAST HEALTH CTR
Facility address: 2032 MARENGO ST
LOS ANGELES, CA 90033
EPA ID: CAD983653718
Contact: JOHN HAMILTON
Contact address: 1435 W COVINA PKWY
WEST COVINA, CA 91790
Contact country: US
Contact telephone: (818) 813-3358
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: LOS ANGELES COUNTY
Owner/operator address: 313 N FIGUEROA ST
LOS ANGELES, CA 90012
Owner/operator country: Not reported
Owner/operator telephone: (213) 974-7591
Legal status: County

NORTHEAST HEALTH CTR (Continued) **1000819389**

Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

G33 **CLINICA MSR. OSCAR A. ROMERO** **HAZNET** **S113127951**
2032 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 3 of 10 in cluster G

Relative: Lower
Actual: 341 ft.

HAZNET:
Year: 2005
Gepaid: CAL000273806
Contact: MARIA RANGEL/COMPLIANCE COORD
Telephone: 3239871406
Mailing Name: Not reported
Mailing Address: 2032 MARENGO ST
Mailing City,St,Zip: LOS ANGELES, CA 900331319
Gen County: Not reported
TSD EPA ID: CAL000175030
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Treatment, Tank
Tons: 0.02
Facility County: Los Angeles

E34 **ISD-LAC-USC MEDICAL CENTER** **LUST** **U001562387**
1200 N STATE ST **HIST UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 7 of 8 in cluster E

Relative: Lower
Actual: 354 ft.

LUST:
Region: STATE
Global Id: T0603700846
Latitude: 34.0596424
Longitude: -118.2102981
Case Type: LUST Cleanup Site

ISD-LAC-USC MEDICAL CENTER (Continued) **U001562387**

Status:	Open - Eligible for Closure
Status Date:	02/05/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	MB
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330270
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700846
Contact Type:	Regional Board Caseworker
Contact Name:	MAGDY BAIADY
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	LOS ANGELES
Email:	mbaiady@waterboards.ca.gov
Phone Number:	2135766699

Global Id:	T0603700846
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700846
Status:	Open - Case Begin Date
Status Date:	05/13/1988

Global Id:	T0603700846
Status:	Open - Site Assessment
Status Date:	02/21/1989

Global Id:	T0603700846
Status:	Open - Remediation
Status Date:	07/21/2003

Global Id:	T0603700846
Status:	Open - Eligible for Closure
Status Date:	02/05/2013

Regulatory Activities:

Global Id:	T0603700846
Action Type:	RESPONSE
Date:	07/15/2013
Action:	Monitoring Report - Semi-Annually

Global Id:	T0603700846

ISD-LAC-USC MEDICAL CENTER (Continued) **U001562387**

Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2006

ISD-LAC-USC MEDICAL CENTER (Continued) **U001562387**

Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 04/22/2003
Action: Staff Letter

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 07/15/2002
Action: Staff Letter

ISD-LAC-USC MEDICAL CENTER (Continued) **U001562387**

Global Id: T0603700846
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700846
Action Type: RESPONSE
Date: 11/14/2005
Action: Request for Closure

Global Id: T0603700846
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700846
Action Type: ENFORCEMENT
Date: 06/28/2002
Action: Site Visit / Inspection / Sampling

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2003
Action: Soil and Water Investigation Report

Global Id: T0603700846
Action Type: RESPONSE
Date: 08/15/2002
Action: Other Report / Document

Global Id: T0603700846
Action Type: RESPONSE
Date: 07/15/2003
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0603700846
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

HIST UST:
Region: STATE
Facility ID: 00000020696
Facility Type: Other
Other Type: USC
Total Tanks: 0004
Contact Name: L. A COUNTY MECHANICAL DEPT.
Telephone: 2132672242
Owner Name: LOS ANGELES COUNTY MECHANICAL
Owner Address: 1100 NORTH EASTERN AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90063

ISD-LAC-USC MEDICAL CENTER (Continued) **U001562387**

Tank Num: 001
Container Num: #4
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: #1
Year Installed: Not reported
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: N/A
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: #3
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

E35 **LAC/USC MEDICAL CENTER** **CA FID UST** **S101582624**
1200 N STATE ST **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90063**
1 ft.

Site 8 of 8 in cluster E

Relative:
Lower

Actual:
354 ft.

CA FID UST:
Facility ID: 19000861
Regulated By: UTNKA
Regulated ID: 00020696
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132266084
Mail To: Not reported
Mailing Address: 1100 N EASTERN AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900630000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported

LAC/USC MEDICAL CENTER (Continued) **S101582624**

Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 1451
Number: 4
Board Of Equalization: 44-011805
Referral Date: 03-05-93
Action Date: 03-29-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001451-000001
Tank Status: A
Capacity: 500
Active Date: 10-09-92
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 2

Status: Active
Comp Number: 1451
Number: 4
Board Of Equalization: 44-011805
Referral Date: 03-05-93
Action Date: 03-29-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001451-000003
Tank Status: A
Capacity: 10000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

I36 **RAY'S AUTO SERVICE** **HIST UST** **U001561367**
2039 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 1 of 3 in cluster I

Relative:
Lower

Actual:
341 ft.

HIST UST:
Region: STATE
Facility ID: 00000041115
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0005
Contact Name: RAY JUAREZ
Telephone: 2132258437
Owner Name: RAMON JUAREZ
Owner Address: 2039 MARENGO ST.
Owner City,St,Zip: LOS ANGELES, CA 90033

Tank Num: 001

RAY'S AUTO SERVICE (Continued) **U001561367**

Container Num: 1
Year Installed: 1957
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: None

Tank Num: 002
Container Num: 2
Year Installed: 1957
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 3
Year Installed: 1957
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: None

Tank Num: 004
Container Num: 4
Year Installed: 1957
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: None

Tank Num: 005
Container Num: 5
Year Installed: 1957
Tank Capacity: 00000200
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

I37 **RAY'S AUTO SERVICE** **CA FID UST S101617370**
2039 MARENGO ST **SWEEPS UST N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 2 of 3 in cluster I

Relative: Lower

Actual: 341 ft.

CA FID UST:
Facility ID: 19055476
Regulated By: UTNKA
Regulated ID: 00041115
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132258437
Mail To: Not reported

RAY'S AUTO SERVICE (Continued) **S101617370**

Mailing Address: 2039 MARENGO ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 2176
Number: Not reported
Board Of Equalization: 44-012159
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-002176-000001
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 5

Status: Not reported
Comp Number: 2176
Number: Not reported
Board Of Equalization: 44-012159
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-002176-000002
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 2176
Number: Not reported
Board Of Equalization: 44-012159
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-002176-000003
Tank Status: Not reported
Capacity: 4000

RAY'S AUTO SERVICE (Continued) **S101617370**

Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	2176
Number:	Not reported
Board Of Equalization:	44-012159
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002176-000004
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	2176
Number:	Not reported
Board Of Equalization:	44-012159
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002176-000005
Tank Status:	Not reported
Capacity:	200
Active Date:	Not reported
Tank Use:	OIL
STG:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported

H38 **U S C MEDICAL CENTER** **CA FID UST S101588219**
1910 ZONAL AVE **SWEEPS UST N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 2 of 2 in cluster H

Relative:
Lower

Actual:
334 ft.

CA FID UST:

Facility ID:	19056459
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	1910 ZONAL AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported

U S C MEDICAL CENTER (Continued) **S101588219**

Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 7211
Number: 9
Board Of Equalization: Not reported
Referral Date: 01-11-93
Action Date: 01-11-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

B39 **LOS ANGELES USC MEDICAL CENTER** **HAZNET** **S112907488**
1937 HOSPITAL PLACE **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 8 of 11 in cluster B

Relative:
Lower

Actual:
321 ft.

HAZNET:
Year: 2001
Gepaid: CAC002252801
Contact: MOHAMMAD FARZAN-PROJECT MGR
Telephone: 3232264726
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 202.27
Facility County: Los Angeles

Year: 2001
Gepaid: CAC002252801
Contact: MOHAMMAD FARZAN-PROJECT MGR
Telephone: 3232264726
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported

LOS ANGELES USC MEDICAL CENTER (Continued) **S112907488**

Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 134.84
Facility County: Los Angeles

Year: 2000
Gepaid: CAC002252801
Contact: MOHAMMAD FARZAN-PROJECT MGR
Telephone: 3232264726
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 33.71
Facility County: Los Angeles

I40 **E JASPER WRECKING & TRUCKING** **CA FID UST** **S101588114**
2055 MARENGO ST **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 3 of 3 in cluster I

Relative:
Lower

Actual:
341 ft.

CA FID UST:
Facility ID: 19056349
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 2055 MARENGO ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 6792
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported

E JASPER WRECKING & TRUCKING (Continued) **S101588114**

Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

J41 **CELL MATRIX INC** **HAZNET** **S113109511**
1929 ZONAL AVE **N/A**
< 1/8 **LOS ANGELES, CA 90033**
1 ft.

Site 1 of 2 in cluster J

Relative:
Lower

Actual:
348 ft.

HAZNET:

Year:	2002
Gepaid:	CAL000216647
Contact:	KATHRYN CARNER
Telephone:	3233438500
Mailing Name:	Not reported
Mailing Address:	1929 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	AZD980892731
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Not reported
Tons:	0.1
Facility County:	Los Angeles

Year:	2002
Gepaid:	CAL000216647
Contact:	KATHRYN CARNER
Telephone:	3233438500
Mailing Name:	Not reported
Mailing Address:	1929 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	AZD980892731
TSD County:	Not reported
Waste Category:	Liquids with mercury >= 20 Mg./L
Disposal Method:	Not reported
Tons:	0
Facility County:	Los Angeles

Year:	2002
Gepaid:	CAL000216647
Contact:	KATHRYN CARNER
Telephone:	3233438500
Mailing Name:	Not reported
Mailing Address:	1929 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	AZD980892731
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Not reported
Tons:	0.16
Facility County:	Los Angeles

C42 **AL-SAL STATION #17** **RGA LUST** **S114569474**
1848 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA**
0.000 mi.
2 ft. **Site 11 of 12 in cluster C**

Relative:
Lower

RGA LUST:
1995 AL-SAL STATION #17 1848 MARENGO ST

Actual:
322 ft.

C43 **AL-SAL OIL #17** **RGA LUST** **S114569443**
1848 MARENGO ST **N/A**
< 1/8 **LOS ANGELES, CA**
0.000 mi.
2 ft. **Site 12 of 12 in cluster C**

Relative:
Lower

RGA LUST:
2004 AL-SAL OIL #17 1848 MARENGO ST

Actual:
322 ft.

J44 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101588299**
1969 ZONAL AVE **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.001 mi.
5 ft. **Site 2 of 2 in cluster J**

Relative:
Higher

Actual:
356 ft.

CA FID UST:

Facility ID:	19056545
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	UNK
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	7951
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported

UNIVERSITY OF SO CALIFORNIA (Continued) **S101588299**

Content: Not reported
Number Of Tanks: Not reported

K45 **ERNS** **94365591**
NNW **1240 NORTH MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.002 mi.
8 ft. **Site 1 of 8 in cluster K**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
328 ft.

L46 **VIOLENCE INTERVENTION PROGRAM COMMUNITY MENTAL HEALTH CENTER** **HAZNET** **S112979054**
ENE **2010 ZONAL AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.002 mi.
9 ft. **Site 1 of 6 in cluster L**

Relative:
Higher

Actual:
375 ft.

HAZNET:

Year:	2009
Gepaid:	CAC002644157
Contact:	ASTRID HEGER/EXEC DIR
Telephone:	3232262095
Mailing Name:	Not reported
Mailing Address:	1721 GRIFFIN AVE
Mailing City,St,Zip:	LOS ANGELES, CA 90031
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2
Facility County:	Los Angeles

D47 **LOS ANGELES COUNTY-USC MEDICAL CENTER** **HAZNET** **S112915011**
WNW **1100 MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.002 mi.
10 ft. **Site 2 of 15 in cluster D**

Relative:
Lower

Actual:
331 ft.

HAZNET:

Year:	2001
Gepaid:	CAC002354943
Contact:	ANTOINE ATALLAH/ PROJ MGR
Telephone:	6263003270
Mailing Name:	Not reported
Mailing Address:	900 S FREMONT AVE
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Tons:	0.1

LOS ANGELES COUNTY-USC MEDICAL CENTER (Continued) **S112915011**

Facility County: Los Angeles

L48 **USCIMI-CALL DOC-DEPT OF MEDICINE** **HAZNET** **S113075250**
ENE **2020 ZONAL AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.002 mi.
12 ft. **Site 2 of 6 in cluster L**

Relative:
Higher

Actual:
378 ft.

HAZNET:

Year:	2005
Gepaid:	CAL000137879
Contact:	NATALIE HEIMBACH-ADMIN
Telephone:	2132267591
Mailing Name:	Not reported
Mailing Address:	2020 ZONAL AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331080
Gen County:	Not reported
TSD EPA ID:	CAD980887418
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	0.52
Facility County:	Los Angeles

D49 **CHMIRS** **S105668267**
WNW **1102 NORTH MISSION ROAD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.002 mi.
12 ft. **Site 3 of 15 in cluster D**

Relative:
Lower

Actual:
333 ft.

CHMIRS:

OES Incident Number:	00-1464
OES notification:	03/29/2000
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported

(Continued) **S105668267**

Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Co. HazMat
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2000
Agency:	LA City FD
Incident Date:	3/29/200012:00:00 AM
Admin Agency:	Los Angeles City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	organic phosphate
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	1
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Evacuations:	15
Number of Injuries:	7
Number of Fatalities:	0
Description:	Sprayed in a basement of the county coroner’s office for pest control. 7 persons treated and released at the incident for eye and throat irritation.

K50 **USC MEDICAL CENTER** **CA FID UST** **S101583782**
NNW **1240 N MISSION RD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.002 mi.
12 ft. **Site 2 of 8 in cluster K**

Relative:
Lower

Actual:
328 ft.

CA FID UST:

Facility ID:	19006170
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	1240 N MISSION RD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	8189
Number:	4
Board Of Equalization:	Not reported
Referral Date:	06-15-93
Action Date:	06-15-93
Created Date:	06-15-93
Owner Tank Id:	8189
SWRCB Tank Id:	19-050-008189-000001
Tank Status:	A
Capacity:	2000
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	1

K51 **CHMIRS** **S110422500**
NNW **LA CO USC WOMEN'S HOSPITAL 1240 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.002 mi.
12 ft. **Site 3 of 8 in cluster K**

Relative:
Lower

Actual:
328 ft.

CHMIRS:

OES Incident Number:	'08-5587
OES notification:	07/31/2008
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported

(Continued) **S110422500**

Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Other
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	N/A
Other:	Not reported
Date/Time:	2117
Year:	2008
Agency:	Los Angeles City Fire
Incident Date:	7/31/2008
Admin Agency:	Los Angeles City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Ifosfamide (Chemotherapy Drug) #3778-73-2
Quantity Released:	50
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported

(Continued) **S110422500**

Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Substance was accidentally spilled by a hospital employee in a patients room.

D52 **LOS ANGELES CORONER** **HAZNET** **S112975002**
WNW **1104 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.002 mi.
13 ft. **Site 4 of 15 in cluster D**

Relative:
Lower

Actual:
334 ft.

HAZNET:

Year:	2008
Gepaid:	CAC002637859
Contact:	DAVE MORELI
Telephone:	8184022675
Mailing Name:	Not reported
Mailing Address:	1104 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 90033
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Facility County:	Los Angeles

D53 **MEDICAL EXAMINER - CORONER** **UST** **U001562339**
WNW **1104 N MISSION RD** **HIST UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033** **SWEEPS UST**
0.002 mi.
13 ft. **Site 5 of 15 in cluster D**

Relative:
Lower

Actual:
334 ft.

UST:

Facility ID:	24760
Latitude:	34.0608
Longitude:	-118.21415
Permitting Agency	LOS ANGELES, CITY OF

HIST UST:

Region:	STATE
Facility ID:	00000020720
Facility Type:	Other
Other Type:	CORONER
Total Tanks:	0001
Contact Name:	L.A. COUNTY MECHANICAL DEPT.
Telephone:	2132672242
Owner Name:	LOS ANGELES COUNTY MECHANICAL
Owner Address:	1100 NORTH EASTERN AVENUE
Owner City,St,Zip:	LOS ANGELES, CA 90063

MEDICAL EXAMINER - CORONER (Continued) **U001562339**

Tank Num: 001
Container Num: TANK #1
Year Installed: Not reported
Tank Capacity: 00001500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 1463
Number: 4
Board Of Equalization: 44-011798
Referral Date: 09-24-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001463-000001
Tank Status: A
Capacity: 1500
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 1

D54 **LOS ANGELES CORONER** **HAZNET** **S112980100**
WNW **1104 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.002 mi.
13 ft. **Site 6 of 15 in cluster D**

Relative:
Lower

Actual:
334 ft.

HAZNET:
Year: 2009
Gepaid: CAC002645817
Contact: P ROHTRER
Telephone: 6264585100
Mailing Name: Not reported
Mailing Address: 1104 N MISSION RD
Mailing City,St,Zip: LOS ANGELES, CA 90033
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Facility County: Los Angeles

D55 **LA COUNTY DEPT OF CORONER** **HAZNET** **S113078894**
WNW **1104 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.002 mi.
13 ft. **Site 7 of 15 in cluster D**

Relative:
Lower

Actual:
334 ft.

HAZNET:

Year:	2012
Gepaid:	CAL000143799
Contact:	JOSEPH MUTO
Telephone:	3233430530
Mailing Name:	Not reported
Mailing Address:	1104 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 900331017
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.8
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000143799
Contact:	JOSEPH MUTO
Telephone:	3233430530
Mailing Name:	Not reported
Mailing Address:	1104 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 900331017
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.25
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000143799
Contact:	JOSEPH MUTO
Telephone:	3233430530
Mailing Name:	Not reported
Mailing Address:	1104 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 900331017
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.25
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000143799
Contact:	JOSEPH MUTO
Telephone:	3233430530

LA COUNTY DEPT OF CORONER (Continued) **S113078894**

Mailing Name:	Not reported
Mailing Address:	1104 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 900331017
Gen County:	Los Angeles
TSD EPA ID:	CAT000613893
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.24
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000143799
Contact:	JOSEPH MUTO
Telephone:	3233430530
Mailing Name:	Not reported
Mailing Address:	1104 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 900331017
Gen County:	Los Angeles
TSD EPA ID:	CAT000613893
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.24
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
55 additional CA_HAZNET: record(s) in the EDR Site Report.

M56 **CENTRAL REGION HIGH SCHOOL #15** **ENVIROSTOR** **S107770251**
SE **MARENGO STREET / CHICAGO STREET** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.003 mi.
14 ft. **Site 1 of 6 in cluster M**

Relative:
Lower

Actual:
342 ft.

ENVIROSTOR:

Site Type:	School Investigation
Site Type Detailed:	School
Acres:	10.67
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Amit Pathak
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Facility ID:	60000303
Site Code:	304530
Assembly:	51
Senate:	24
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	02/26/2008
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	School District
Latitude:	34.05607

CENTRAL REGION HIGH SCHOOL #15 (Continued) **S107770251**

Longitude: -118.2058
APN: NONE SPECIFIED
Past Use: DRY CLEANING, MACHINE SHOP
Potential COC: Chlordane, Lead, Polychlorinated biphenyls (PCBs, TPH-MOTOR OIL
Confirmed COC: Chlordane, Lead, Polychlorinated biphenyls (PCBs, TPH-MOTOR OIL, 30018-NO, 30004-NO, 30013-NO, 3002502-NO
Potential Description: SOIL
Alias Name: Los Angeles Unified School District
Alias Type: Alternate Name
Alias Name: 304530
Alias Type: Project Code (Site Code)
Alias Name: 60000303
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/26/2008
Comments: DTSC prepared a Cost Recovery Unit project close out memorandum. LAUSD decided not to proceed with this Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 07/21/2006
Comments: Accepted the scoping document for field work activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/23/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 06/29/2007
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

L57 **CHMIRS** **S100279847**
ENE **2011 E. ZONAL AVENUE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.003 mi.
14 ft. **Site 3 of 6 in cluster L**

Relative:
Higher

Actual:
376 ft.

CHMIRS:

OES Incident Number:	9011321	
OES notification:	Not reported	
OES Date:	Not reported	
OES Time:	Not reported	
Incident Date:	08-JUN-90	
Date Completed:	**08-JUN-90**	
Property Use:	200	
Agency Id Number:	19105	
Agency Incident Number:	820	
Time Notified:	1915	
Time Completed:	2115	
Surrounding Area:	200	
Estimated Temperature:	86	
Property Management:	S	
Special Studies 1:	Not reported	
Special Studies 2:	Not reported	
Special Studies 3:	Not reported	
Special Studies 4:	Not reported	
Special Studies 5:	Not reported	
Special Studies 6:	Not reported	
More Than Two Substances Involved?:		N
Resp Agncy Personel # Of Decontaminated:		0
Responding Agency Personel # Of Injuries:		0
Responding Agency Personel # Of Fatalities:		0
Others Number Of Decontaminated:		1
Others Number Of Injuries:		1
Others Number Of Fatalities:		0
Vehicle Make/year:	Not reported	
Vehicle License Number:	Not reported	
Vehicle State:	Not reported	
Vehicle Id Number:	Not reported	
CA/DOT/PUC/ICC Number:	Not reported	
Company Name:	Not reported	
Reporting Officer Name/ID:	GREGORY E. NEWLAND GN 0168 FS4C	
Report Date:	08-JUN-90	
Comments:	Y	
Facility Telephone:	213 485-6003	
Waterway Involved:	Not reported	
Waterway:	Not reported	
Spill Site:	Not reported	
Cleanup By:	Not reported	
Containment:	Not reported	
What Happened:	Not reported	
Type:	Not reported	
Measure:	Not reported	
Other:	Not reported	
Date/Time:	Not reported	
Year:	88-92	
Agency:	Not reported	
Incident Date:	Not reported	
Admin Agency:	Not reported	
Amount:	Not reported	

(Continued) **S100279847**

Contained:	Not reported
Site Type:	Not reported
E Date:	17-MAY-91
Substance:	Not reported
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Not reported

N58 **US LABS LOS ANGELES** **HAZNET** **S113174992**
West **1640 MARENGO ST STE 600** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.003 mi.
15 ft. **Site 1 of 4 in cluster N**

Relative:
Lower

Actual:
321 ft.

HAZNET:

Year:	2002
Gepaid:	CAR000073999
Contact:	--
Telephone:	9497889115
Mailing Name:	Not reported
Mailing Address:	1640 MARENGO ST STE 600
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Transfer Station
Tons:	0.22
Facility County:	Los Angeles

Year:	2001
Gepaid:	CAR000073999
Contact:	--
Telephone:	9497889115
Mailing Name:	Not reported
Mailing Address:	1640 MARENGO ST STE 600
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Transfer Station
Tons:	0

US LABS LOS ANGELES (Continued) **S113174992**

Facility County: Los Angeles

Year: 2001
Gepaid: CAR000073999
Contact: --
Telephone: 9497889115
Mailing Name: Not reported
Mailing Address: 1640 MARENGO ST STE 600
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD050806850
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Transfer Station
Tons: 1.45
Facility County: Los Angeles

Year: 2001
Gepaid: CAR000073999
Contact: --
Telephone: 9497889115
Mailing Name: Not reported
Mailing Address: 1640 MARENGO ST STE 600
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD050806850
TSD County: Not reported
Waste Category: Liquids with pH <= 2
Disposal Method: Transfer Station
Tons: 0
Facility County: Los Angeles

Year: 2000
Gepaid: CAR000073999
Contact: --
Telephone: 9497889115
Mailing Name: Not reported
Mailing Address: 1640 MARENGO ST STE 600
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD050806850
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Transfer Station
Tons: 2.02
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

N59 **US LABS LOS ANGELES** **HAZNET** **S113109042**
West **1640 MARENGO ST STE 600** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.003 mi.
15 ft. **Site 2 of 4 in cluster N**

Relative: HAZNET:
Lower

Year:	2000
Gepaid:	CAL000215096
Actual: Contact:	JOHN JIMENEZ CQI/COMP COORD
321 ft. Telephone:	9494500145
Mailing Name:	Not reported
Mailing Address:	2601 CAMPUS DRIVE
Mailing City,St,Zip:	IRVINE, CA 926120000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Transfer Station
Tons:	4.18
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAL000215096
Contact:	JOHN JIMENEZ CQI/COMP COORD
Telephone:	9494500145
Mailing Name:	Not reported
Mailing Address:	2601 CAMPUS DRIVE
Mailing City,St,Zip:	IRVINE, CA 926120000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Transfer Station
Tons:	0.2
Facility County:	Los Angeles

N60 **RESPONCE GENETICS INC** **HAZNET** **S113121035**
West **1640 MARENGO ST STE 600** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.003 mi.
15 ft. **Site 3 of 4 in cluster N**

Relative: HAZNET:
Lower

Year:	2012
Gepaid:	CAL000256445
Actual: Contact:	EFREN HAAS/DIRECTOR OF QA/RA
321 ft. Telephone:	3232243900
Mailing Name:	Not reported
Mailing Address:	1640 MARENGO ST STE 620
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.05
Facility County:	Los Angeles

RESPONCE GENETICS INC (Continued) **S113121035**

Year:	2012
Gepaid:	CAL000256445
Contact:	EFREN HAAS/DIRECTOR OF QA/RA
Telephone:	3232243900
Mailing Name:	Not reported
Mailing Address:	1640 MARENGO ST STE 620
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.05
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000256445
Contact:	EFREN HAAS/DIRECTOR OF QA/RA
Telephone:	3232243900
Mailing Name:	Not reported
Mailing Address:	1640 MARENGO ST STE 620
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.2175
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000256445
Contact:	EFREN HAAS/DIRECTOR OF QA/RA
Telephone:	3232243900
Mailing Name:	Not reported
Mailing Address:	1640 MARENGO ST STE 620
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.2175
Facility County:	Los Angeles

Year:	2011
Gepaid:	CAL000256445
Contact:	JANINE COOC Q&A SUPERVISOR
Telephone:	3232243900
Mailing Name:	Not reported
Mailing Address:	1640 MARENGO ST STE 620
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD044429835

RESPONCE GENETICS INC (Continued) **S113121035**

TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.625
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
41 additional CA_HAZNET: record(s) in the EDR Site Report.

L61 **ERNS** **90170170**
ENE **2011 E. ZONAL AVENUE** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.003 mi.
18 ft. **Site 4 of 6 in cluster L**

Relative:
Higher

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

Actual:
374 ft.

L62 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101588300**
ENE **2011 ZONAL AVE** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.003 mi.
18 ft. **Site 5 of 6 in cluster L**

Relative:
Higher

Actual:
374 ft.

CA FID UST:
Facility ID: 19056546
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: UNK
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900310000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 7952
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported

UNIVERSITY OF SO CALIFORNIA (Continued) **S101588300**

Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

K63 **TEXACO CO.** **HIST UST** **U001561371**
NW **1201 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.004 mi.
21 ft. **Site 4 of 8 in cluster K**

Relative:
Lower

Actual:
330 ft.

HIST UST:
Region: STATE
Facility ID: 00000017365
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0003
Contact Name: TONY BRISTOL
Telephone: 2132252820
Owner Name: SUNSET-FIGUEROA OIL CORPORATIO
Owner Address: 840 NORTH BROADWAY
Owner City,St,Zip: LOS ANGELES, CA 90012

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 002
Container Num: 0000000001
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

K64 **MOZA'S AUTO REPAIR** **HAZNET** **S113113082**
NW **1201 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.004 mi.
21 ft. **Site 5 of 8 in cluster K**

Relative:
Lower

Actual:
330 ft.

HAZNET:

Year:	2001
Gepaid:	CAL000224088
Contact:	DAVID DE JESUS MOZA/ OWNER
Telephone:	3232225172
Mailing Name:	Not reported
Mailing Address:	1201 N MISSION RD
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Transfer Station
Tons:	2.22
Facility County:	Los Angeles

K65 **ROBIN OIL CO. #29** **HIST UST** **U001561297**
NW **1201 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.004 mi.
21 ft. **Site 6 of 8 in cluster K**

Relative:
Lower

Actual:
330 ft.

HIST UST:

Region:	STATE
Facility ID:	00000005314
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0003
Contact Name:	TONY BRISTOL
Telephone:	8184441898
Owner Name:	HIRAM KWAN
Owner Address:	840 N. BROADWAY
Owner City,St,Zip:	LOS ANGELES, CA 90012
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, 10
Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00007000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3

ROBIN OIL CO. #29 (Continued) **U001561297**

Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

K66 **MOZA AUTOMOTIVE REPAIR** **LUST** **S101586263**
NW **1201 MISSION RD N.** **CA FID UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033** **SWEEPS UST**
0.004 mi.
21 ft. **Site 7 of 8 in cluster K**

Relative:
Lower

Actual:
330 ft.

LUST:

Region:	STATE
Global Id:	T0603717863
Latitude:	34.062218
Longitude:	-118.212499
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	02/19/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330370
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply, Soil
Potential Contaminants of Concern:	Gasoline, Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603717863
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603717863
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Status History:

Global Id:	T0603717863
Status:	Open - Case Begin Date
Status Date:	04/04/2002

Global Id:	T0603717863

MOZA AUTOMOTIVE REPAIR (Continued) **S101586263**

Status: Open - Site Assessment
Status Date: 08/05/2002

Global Id: T0603717863
Status: Open - Site Assessment
Status Date: 02/21/2003

Global Id: T0603717863
Status: Open - Site Assessment
Status Date: 12/29/2008

Global Id: T0603717863
Status: Open - Remediation
Status Date: 04/20/2011

Global Id: T0603717863
Status: Open - Remediation
Status Date: 02/19/2013

Regulatory Activities:
Global Id: T0603717863
Action Type: RESPONSE
Date: 07/17/2013
Action: Remedial Progress Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 12/07/2005
Action: Staff Letter

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2009
Action: Preliminary Site Assessment Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603717863
Action Type: REMEDIATION
Date: 01/01/1950
Action: Free Product Removal

Global Id: T0603717863
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603717863
Action Type: ENFORCEMENT

MOZA AUTOMOTIVE REPAIR (Continued) **S101586263**

Date: 04/20/2011
Action: Staff Letter

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 09/16/2008
Action: Notice to Comply

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 10/29/2008
Action: Staff Letter

Global Id: T0603717863
Action Type: RESPONSE
Date: 09/26/2008
Action: Soil and Water Investigation Workplan

Global Id: T0603717863
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 04/16/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 03/17/2003
Action: Staff Letter

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 02/19/2013
Action: Staff Letter

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2011
Action: Interim Remedial Action Plan

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

MOZA AUTOMOTIVE REPAIR (Continued) **S101586263**

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2011
Action: Interim Remedial Action Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2010
Action: Remedial Progress Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/18/2011
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2013
Action: Pilot Study/ Treatability Report

Global Id: T0603717863
Action Type: ENFORCEMENT
Date: 03/16/2003
Action: File review

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/15/2010
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603717863
Action Type: RESPONSE

MOZA AUTOMOTIVE REPAIR (Continued) **S101586263**

Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: REMEDIATION
Date: 01/01/1950
Action: Pump & Treat (P&T) Groundwater

Global Id: T0603717863
Action Type: RESPONSE
Date: 02/21/2003
Action: Soil and Water Investigation Workplan

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603717863
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 12/14/2011
Action: Remedial Progress Report

Global Id: T0603717863
Action Type: RESPONSE
Date: 04/19/2003
Action: Other Report / Document

Global Id: T0603717863
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603717863
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603717863
Action Type: RESPONSE
Date: 12/15/2005
Action: Other Report / Document

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330370
Status: Preliminary site assessment workplan submitted
Substance: Gasoline
Substance Quantity: Not reported

MOZA AUTOMOTIVE REPAIR (Continued) **S101586263**

Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603717863	
W Global ID:	Not reported	
Staff:	AT	
Local Agency:	19050	
Cross Street:	ZONAL AVE.	
Enforcement Type:	TA-GEN	
Date Leak Discovered:	4/4/2002	
Date Leak First Reported:		8/30/2002
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	4/4/2002	
Date Case Last Changed on Database:		Not reported
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Close Tank	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		Not reported
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		8/5/2002
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		404
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	JAMES CANTORE	
RP Address:	1528 SUGARLOAF DR.	
Program:	LUST	
Lat/Long:	0 / 0	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

CA FID UST:

Facility ID:	19042496
Regulated By:	UTNKA
Regulated ID:	00017365
Cortese Code:	Not reported

MOZA AUTOMOTIVE REPAIR (Continued) **S101586263**

SIC Code: Not reported
Facility Phone: 2132224909
Mail To: Not reported
Mailing Address: 840 N BROADWAY
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 1186
Number: 2
Board Of Equalization: 44-011649
Referral Date: 08-30-93
Action Date: 08-30-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001186-000001
Tank Status: A
Capacity: Not reported
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: 3

Status: Active
Comp Number: 1186
Number: 2
Board Of Equalization: 44-011649
Referral Date: 08-30-93
Action Date: 08-30-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001186-000002
Tank Status: A
Capacity: Not reported
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1186
Number: 2
Board Of Equalization: 44-011649
Referral Date: 08-30-93
Action Date: 08-30-93
Created Date: 02-29-88
Owner Tank Id: Not reported

MOZA AUTOMOTIVE REPAIR (Continued) **S101586263**

SWRCB Tank Id: 19-050-001186-000003
Tank Status: A
Capacity: Not reported
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

N67 **U S LABS LOS ANGELES** **RCRA-SQG** **1004675524**
West **1640 MARENGO ST STE 600** **CAR000073999**
< 1/8 **LOS ANGELES, CA**
0.004 mi.
22 ft. **Site 4 of 4 in cluster N**

Relative:
Lower

Actual:
321 ft.

RCRA-SQG:
Date form received by agency: 05/25/2000
Facility name: U S LABS LOS ANGELES
Facility address: 1640 MARENGO ST STE 600
LOS ANGELES, CA 90033
EPA ID: CAR000073999
Mailing address: 16255 LAGUNA CANYON RD
IRVINE, CA 92618
Contact: ROBERT MOVERLY
Contact address: 16255 LAGUNA CANYON RD
IRVINE, CA 92618
Contact country: US
Contact telephone: (949) 788-9115
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: MICHAEL DANZI
Owner/operator address: 16255 LAGUNA CANYON RD
IRVINE, CA 92618
Owner/operator country: Not reported
Owner/operator telephone: (949) 450-0145
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No

U S LABS LOS ANGELES (Continued) **1004675524**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

K68 **ERNS** **94401101**
NNW **1237 NORTH MISSION ROAD** **N/A**
< 1/8 **LOS ANGELES, CA 90001**
0.004 mi.
22 ft. **Site 8 of 8 in cluster K**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
329 ft.

L69 **UNIVERSITY OF SOUTHERN CALIFORNIA, HSC** **RCRA-LQG** **1000431649**
East **1540 ALCAZAR ST. CHP 148** **CAT000617597**
< 1/8 **LOS ANGELES, CA 90033**
0.004 mi.
23 ft. **Site 6 of 6 in cluster L**

Relative:
Higher

Actual:
379 ft.

RCRA-LQG:
Date form received by agency: 03/16/2012
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Facility address: 1540 ALCAZAR ST. CHP 148
LOS ANGELES, CA 90033
EPA ID: CAT000617597
Mailing address: ALCAZAR ST. CHP 148
LOS ANGELES, CA 90033
Contact: MICHELLE LEE
Contact address: ALCAZAR ST. CHP 148
LOS ANGELES, CA 90033
Contact country: Not reported
Contact telephone: (323) 864-3188
Contact email: MLEE@CAPS.USC.EDU
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	UNIVERSITY OF SOUTHERN CALIFORNIA
Owner/operator address:	ALCAZAR ST. CHP 148 LOS ANGELES, CA 90033
Owner/operator country:	US
Owner/operator telephone:	(323) 442-2200
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	07/01/1976
Owner/Op end date:	Not reported

Owner/operator name:	UNIVERSITY OF SOUTHERN CALIFORNIA
Owner/operator address:	ALCAZAR ST. CHP 148 LOS ANGELES, CA 90033
Owner/operator country:	Not reported
Owner/operator telephone:	(323) 442-2200
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	07/01/1976
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Universal Waste Summary:

Waste type:	A
Accumulated waste on-site:	Yes
Generated waste on-site:	No

Waste type:	C
Accumulated waste on-site:	Yes
Generated waste on-site:	No

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste type: E
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: No

Historical Generators:

Date form received by agency: 06/17/2010
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Classification: Large Quantity Generator

Date form received by agency: 02/01/2008
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Classification: Large Quantity Generator

Date form received by agency: 02/16/2006
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

Date form received by agency: 02/05/2004
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

Date form received by agency: 02/19/2002
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: USC HSC
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Classification: Large Quantity Generator

Date form received by agency: 03/26/1996
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA - HSC
Classification: Large Quantity Generator

Date form received by agency: 03/28/1994
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: USC HEALTH SCIENCES CAMPUS
Classification: Large Quantity Generator

Date form received by agency: 02/20/1992
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFOR
Classification: Large Quantity Generator

Date form received by agency: 04/16/1990
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY SOUTHERN CALIFORNIA
Classification: Large Quantity Generator

Date form received by agency: 08/14/1980
Facility name: UNIVERSITY OF SOUTHERN CALIFORNIA, HSC
Site name: UNIVERSITY OF SOUTHERN CALIFORNIA
Classification: Large Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D004
Waste name: ARSENIC

Waste code: D005

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D010
Waste name: SELENIUM

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: D019
Waste name: CARBON TETRACHLORIDE

Waste code: D021
Waste name: CHLOROBENZENE

Waste code: D022
Waste name: CHLOROFORM

Waste code: D024
Waste name: M-CRESOL

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: D038
Waste name: PYRIDINE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: P003
Waste name: ACROLEIN

Waste code: P005
Waste name: ALLYL ALCOHOL

Waste code: P022
Waste name: CARBON DISULFIDE

Waste code: P028
Waste name: BENZENE, (CHLOROMETHYL)-

Waste code: P075
Waste name: NICOTINE, & SALTS

Waste code: P087
Waste name: OSMIUM OXIDE OSO4, (T-4)-

Waste code: P098
Waste name: POTASSIUM CYANIDE

Waste code: P105
Waste name: SODIUM AZIDE

Waste code: P120
Waste name: VANADIUM OXIDE V2O5

Waste code: U001
Waste name: ACETALDEHYDE (I)

Waste code: U003
Waste name: ACETONITRILE (I,T)

Waste code: U007
Waste name: ACRYLAMIDE

Waste code: U019
Waste name: BENZENE (I,T)

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste code: U020
Waste name: BENZENESULFONIC ACID CHLORIDE (C,R)

Waste code: U021
Waste name: BENZIDINE

Waste code: U052
Waste name: CRESOL (CRESYLIC ACID)

Waste code: U103
Waste name: DIMETHYL SULFATE

Waste code: U133
Waste name: HYDRAZINE (R,T)

Waste code: U134
Waste name: HYDROFLUORIC ACID (C,T)

Waste code: U136
Waste name: ARSINIC ACID, DIMETHYL-

Waste code: U138
Waste name: METHANE, IODO-

Waste code: U147
Waste name: 2,5-FURANDIONE

Waste code: U162
Waste name: METHYL METHACRYLATE (I,T)

Waste code: U165
Waste name: NAPHTHALENE

Waste code: U188
Waste name: PHENOL

Waste code: U194
Waste name: 1-PROPANAMINE (I,T)

Waste code: U196
Waste name: PYRIDINE

Waste code: U204
Waste name: SELENIOUS ACID

Waste code: U211
Waste name: CARBON TETRACHLORIDE

Waste code: U219
Waste name: THIOUREA

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 33150

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 19000

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 9450

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 9450

Waste code: D008
Waste name: LEAD
Amount (Lbs): 950

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 8500

Waste code: D010
Waste name: SELENIUM
Amount (Lbs): 950

Waste code: D011
Waste name: SILVER
Amount (Lbs): 8500

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 8500

Waste code: D022
Waste name: CHLOROFORM
Amount (Lbs): 38000

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 13100

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 13900

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 58100

Waste code: P075
Waste name: NICOTINE, & SALTS
Amount (Lbs): 950

Waste code: P087
Waste name: OSMIUM OXIDE OSO4, (T-4)-
Amount (Lbs): 950

Waste code: P098
Waste name: POTASSIUM CYANIDE
Amount (Lbs): 950

Waste code: P105
Waste name: SODIUM AZIDE
Amount (Lbs): 950

Waste code: P120
Waste name: VANADIUM OXIDE V2O5
Amount (Lbs): 950

Waste code: U019
Waste name: BENZENE (I,T)
Amount (Lbs): 8500

Waste code: U133
Waste name: HYDRAZINE (R,T)
Amount (Lbs): 8500

Waste code: U136
Waste name: ARSINIC ACID, DIMETHYL-
Amount (Lbs): 8500

Waste code: U162
Waste name: METHYL METHACRYLATE (I,T)
Amount (Lbs): 8500

UNIVERSITY OF SOUTHERN CALIFORNIA, HSC (Continued) **1000431649**

Waste code: U165
Waste name: NAPHTHALENE
Amount (Lbs): 8500

Waste code: U188
Waste name: PHENOL
Amount (Lbs): 8500

Waste code: U204
Waste name: SELENIOUS ACID
Amount (Lbs): 950

Waste code: U211
Waste name: CARBON TETRACHLORIDE
Amount (Lbs): 8500

Waste code: U219
Waste name: THIOUREA
Amount (Lbs): 8500

Violation Status: No violations found

D70 **CHEVRON STATION #9-3690** **UST** **U003938963**
WNW **1101 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 8 of 15 in cluster D**

Relative:
Lower

Actual:
332 ft.

UST:
Facility ID: 23745
Latitude: 34.06065
Longitude: -118.21441
Permitting Agency LOS ANGELES, CITY OF

D71 **CHEVRON PRODUCTS SS#_93690** **HAZNET** **S113796487**
WNW **1101 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 9 of 15 in cluster D**

Relative:
Lower

Actual:
332 ft.

HAZNET:
Year: 2012
Gepaid: CAL000169575
Contact: KATHY NORRIS-SLUSHER
Telephone: 8773866044
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.0068
Facility County: Los Angeles

CHEVRON PRODUCTS SS#_93690 (Continued) **S113796487**

Year: 2012
Gepaid: CAL000169575
Contact: KATHY NORRIS-SLUSHER
Telephone: 8773866044
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.0204
Facility County: Los Angeles

Year: 1999
Gepaid: CAL000169575
Contact: CHEVRON USA
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: .0417
Facility County: Los Angeles

Year: 1999
Gepaid: CAL000169575
Contact: CHEVRON USA
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Tons: .1251
Facility County: Los Angeles

Year: 1997
Gepaid: CAL000169575
Contact: CHEVRON USA
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler

CHEVRON PRODUCTS SS#_93690 (Continued) **S113796487**

Tons: .1668
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

D72 **RAFI'S CHEVRON #4** **HAZNET** **S112928223**
WNW **1101 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 10 of 15 in cluster D**

Relative:
Lower

Actual:
332 ft.

HAZNET:
Year: 2003
Gepaid: CAC002562439
Contact: RAFI SALIB
Telephone: 3232276500
Mailing Name: Not reported
Mailing Address: 1101 N MISSION RD
Mailing City,St,Zip: LOS ANGELES, CA 90033
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Tons: 0.45
Facility County: Los Angeles

D73 **CURRENT OCCUPANT** **HIST UST** **U001561337**
WNW **1101 N MISSION RD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 11 of 15 in cluster D**

Relative:
Lower

Actual:
332 ft.

HIST UST:
Region: STATE
Facility ID: 00000062486
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Contact Name: HAJJ,JOSEPH G
Telephone: 2132276500
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 0000370 unknown
Leak Detection: Stock Inventor

Tank Num: 002

CURRENT OCCUPANT (Continued) **U001561337**

Container Num: 2
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000370 unknown
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000370 unknown
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000370 unknown
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 3550
Number: 9
Board Of Equalization: 44-013095
Referral Date: 02-25-93
Action Date: 04-22-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-003550-000001
Tank Status: A
Capacity: 1000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: 3

Status: Active
Comp Number: 3550
Number: 9
Board Of Equalization: 44-013095
Referral Date: 02-25-93
Action Date: 04-22-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-003550-000002
Tank Status: A
Capacity: 10000
Active Date: 04-20-88
Tank Use: CHEMICAL

CURRENT OCCUPANT (Continued) **U001561337**

STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	3550
Number:	9
Board Of Equalization:	44-013095
Referral Date:	02-25-93
Action Date:	04-22-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-003550-000003
Tank Status:	A
Capacity:	10000
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

M74 **EAST LOS ANGELES OCCUP/CENTER** **UST** **U003879471**
SE **2100 MARENGO ST** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 2 of 6 in cluster M**

Relative:
Lower

Actual:
342 ft.

UST:

Facility ID:	25057
Latitude:	34.05597
Longitude:	-118.20595
Permitting Agency	LOS ANGELES, CITY OF

SWEEPS UST:

Status:	Active
Comp Number:	5972
Number:	4
Board Of Equalization:	Not reported
Referral Date:	03-04-93
Action Date:	03-04-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

M75 **EAST LOS ANGELES OCCUP/CENTER** **CA FID UST** **S101585313**
SE **2100 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 3 of 6 in cluster M**

Relative:
Lower

Actual:
342 ft.

CA FID UST:

Facility ID:	19022608
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	0007427590
Mail To:	Not reported
Mailing Address:	2100 MARENGO ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

M76 **LOS ANGELES USD** **HAZNET** **S112945184**
SE **2100 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 4 of 6 in cluster M**

Relative:
Lower

Actual:
342 ft.

HAZNET:

Year:	2005
Gepaid:	CAC002589855
Contact:	EDWIN DUPA
Telephone:	2132072300
Mailing Name:	Not reported
Mailing Address:	1548 WILSHIRE BLVD
Mailing City,St,Zip:	LOS ANGELES, CA 90017
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	29.49
Facility County:	Los Angeles

M77 **LAUSD/EAST LA OCC CTR** **HAZNET** **S113008151**
SE **2100 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 5 of 6 in cluster M**

Relative:
Lower

Actual:
342 ft.

HAZNET:

Year:	2012
Gepaid:	CAD981625684
Contact:	SOE AUNG
Telephone:	2137455939

LAUSD/EAST LA OCC CTR (Continued) **S113008151**

Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	AZR000501510
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.09
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD981625684
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	1.9
Facility County:	Los Angeles

Year:	2011
Gepaid:	CAD981625684
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE FL 27
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	5.32
Facility County:	Los Angeles

Year:	2010
Gepaid:	CAD981625684
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

LAUSD/EAST LA OCC CTR (Continued) **S113008151**

Tons: Not reported
Facility County: Los Angeles

Year: 2009
Gepaid: CAD981625684
Contact: SOE AUNG / ECM
Telephone: 2132413199
Mailing Name: Not reported
Mailing Address: 333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 17.514
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
52 additional CA_HAZNET: record(s) in the EDR Site Report.

M78 **ELA OCCUPATIONAL CENTER** **RCRA-SQG** **1000125374**
SE **2100 MARENGO ST** **CAD981625684**
< 1/8 **LOS ANGELES, CA 90033**
0.005 mi.
25 ft. **Site 6 of 6 in cluster M**

Relative:
Lower

Actual:
342 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: ELA OCCUPATIONAL CENTER
Facility address: 2100 MARENGO ST
LOS ANGELES, CA 90033
EPA ID: CAD981625684
Mailing address: MARENGO ST
LOS ANGELES, CA 90033
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private

ELA OCCUPATIONAL CENTER (Continued) **1000125374**

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LAUSD
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

D79 **CHEVRON 93690** **RCRA-LQG** **1000686568**
WNW **1101 N MISSION** **HIST CORTESE** **CAD983638925**
< 1/8 **LOS ANGELES, CA 90033** **HAZNET**
0.006 mi.
34 ft. **Site 12 of 15 in cluster D**

Relative:
Lower

Actual:
331 ft.

RCRA-LQG:
Date form received by agency: 03/05/2012
Facility name: CHEVRON 93690
Facility address: 1101 N MISSION
LOS ANGELES, CA 90033
EPA ID: CAD983638925
Mailing address: PO BOX 6004
SAN RAMON, CA 94583
Contact: KATHY L NORRIS
Contact address: PO BOX 6004
SAN RAMON, CA 94583
Contact country: US
Contact telephone: 877-386-6044
Contact email: NAWTDESK@CHEVRON.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any

CHEVRON 93690 (Continued) **1000686568**

residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	RAFAT A SALIB AND SUZAN SALIB
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/09/2001
Owner/Op end date:	Not reported

Owner/operator name:	RAFAT A SALIB AND SUZAN SALIB
Owner/operator address:	1101 N MISSION
	LOS ANGELES, CA 90033
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/09/2001
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	06/02/1992
Facility name:	CHEVRON 93690
Site name:	CHEVRON STATION 9 3690
Classification:	Small Quantity Generator

Hazardous Waste Summary:

CHEVRON 93690 (Continued) **1000686568**

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Violation Status: No violations found

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330089

HAZNET:
Year: 1997
Gepaid: CAD983638925
Contact: CHERVON PRODUCTS CO
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: .3336
Facility County: Los Angeles

Year: 1997
Gepaid: CAD983638925
Contact: CHERVON PRODUCTS CO
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Not reported
Tons: .3336
Facility County: Los Angeles

Year: 1997
Gepaid: CAD983638925
Contact: CHERVON PRODUCTS CO
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004

CHEVRON 93690 (Continued) **1000686568**

Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Empty containers less than 30 gallons
Disposal Method:	Disposal, Other
Tons:	.2500
Facility County:	Los Angeles

Year:	1996
Gepaid:	CAD983638925
Contact:	CHERVON PRODUCTS CO
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAT080010101
TSD County:	Not reported
Waste Category:	Invalid waste code
Disposal Method:	Transfer Station
Tons:	.1251
Facility County:	Los Angeles

Year:	1996
Gepaid:	CAD983638925
Contact:	CHERVON PRODUCTS CO
Telephone:	9258425931
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	Not reported
TSD EPA ID:	CAD008302903
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	.1668
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

D80 **CHEVRON #9-3690** **LUST** **S105051300**
WNW **1101 MISSION RD N** **N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033**
0.007 mi.
39 ft. **Site 13 of 15 in cluster D**

Relative:
Lower

Actual:
331 ft.

LUST:

Region:	STATE
Global Id:	T0603700831
Latitude:	34.0607724
Longitude:	-118.2145292
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	10/22/2007
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT

CHEVRON #9-3690 (Continued) **S105051300**

Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900330089
LOC Case Number: Not reported
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700831
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Global Id: T0603700831
Contact Type: Regional Board Caseworker
Contact Name: ARMAN TOUMARI
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: atoumari@waterboards.ca.gov
Phone Number: 2135766708

Status History:
Global Id: T0603700831
Status: Open - Case Begin Date
Status Date: 07/14/1986

Global Id: T0603700831
Status: Open - Site Assessment
Status Date: 12/24/1991

Global Id: T0603700831
Status: Open - Remediation
Status Date: 12/23/1992

Global Id: T0603700831
Status: Open - Remediation
Status Date: 12/20/1996

Global Id: T0603700831
Status: Open - Remediation
Status Date: 10/22/2007

Regulatory Activities:
Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831

CHEVRON #9-3690 (Continued) **S105051300**

Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: ENFORCEMENT
Date: 12/03/2002
Action: * No Action

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 02/13/2008
Action: Interim Remedial Action Report

Global Id: T0603700831
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/30/2006
Action: Interim Remedial Action Plan

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2003

CHEVRON #9-3690 (Continued) **S105051300**

Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 09/19/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

CHEVRON #9-3690 (Continued) **S105051300**

Global Id: T0603700831
Action Type: RESPONSE
Date: 04/15/2011
Action: Remedial Progress Report

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE

CHEVRON #9-3690 (Continued) **S105051300**

Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700831
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2007
Action: Remedial Progress Report

Global Id: T0603700831
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330089
Status: Remedial action (cleanup) Underway
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Remove Free Product
Global ID: T0603700831
W Global ID: W0605100649
Staff: AT
Local Agency: 19050
Cross Street: DALY ST
Enforcement Type: None Taken
Date Leak Discovered: 7/14/1986

CHEVRON #9-3690 (Continued) **S105051300**

Date Leak First Reported:		2/28/1996
Date Leak Record Entered:	8/11/1987	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		9/19/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Other Source	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8398.341541556254853991755184
Source of Cleanup Funding:		Other Source
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		12/24/1991
Remediation Plan Submitted:		12/23/1992
Remedial Action Underway:		12/20/1996
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		18700
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	Y. M. TUAN	
RP Address:	P.O. BOX 2833	
Program:	LUST	
Lat/Long:	34.0607724 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	FP RECOVERY-3 WELLS ; MW-5,6-7 SLOTTED BELOW TOP OF GW; 6/9/00 2ND QTR GW MON RPT 2000; 11/27/00 3RD QTR GW MON RPT 2000; 1/22/01 4TH QTR GW MON RPT 2000; 4/18/01 1ST QTR GW MON RPT 2001	

D81 **93690** **CA FID UST** **S101617354**
WNW **1101 N MISSION** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.007 mi.
39 ft. **Site 14 of 15 in cluster D**

Relative:
Lower

Actual:
331 ft.

CA FID UST:

Facility ID:	19001247
Regulated By:	UTNKA
Regulated ID:	00062486
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132276500
Mail To:	Not reported

93690 (Continued) **S101617354**

Mailing Address: 575 MARKET
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

B82 **ERNS** **93319788**
WSW **LORD ST AND MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.009 mi.
49 ft. **Site 9 of 11 in cluster B**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
317 ft.

G83 **LAC - USC MEDICAL CENTER REPLACEMENT PROJECT** **SLIC** **S104404878**
SSE **2000 MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.012 mi.
63 ft. **Site 4 of 10 in cluster G**

Relative:
Lower

Actual:
337 ft.

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 01/27/2010
Global Id: SL2046W1657
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number: Not reported
Latitude: 34.057032
Longitude: -118.208399
Case Type: Cleanup Program Site
Case Worker: BA
Local Agency: Not reported
RB Case Number: 0861
File Location: Regional Board
Potential Media Affected: Aquifer used for drinking water supply, Soil, Soil Vapor
Potential Contaminants of Concern: Benzene, Xylene, Lead, Crude Oil, Diesel, MTBE / TBA / Other Fuel Oxygenates, Gasoline, Methane
Site History: The Site is located approximately 2.4 miles northeast of downtown Los Angeles near the Interstate 10 (I-10) and Interstate 5 (I-5) Freeways interchange. It is approximately 15 acres and is bounded by State Street to the west, Chicago Street to the east, Marengo street to the south and existing LAC-USC Medical Center buildings to the north. The Site is part of the 80-acre LAC-USC Medical Center property enclosed between Mission Road, Chicago and Marengo Streets and Zonal Avenue. The purpose of the Replacement Project was to remove the old buildings and construct new medical facilities to replace the old facilities. The construction of the replacement facilities was completed at the end of 2008 and the facilities have since been opened for service. The new medical facilities include a 600-bed inpatient tower, a diagnostic/treatment facility, an outpatient clinic building and a central energy plant. Most portion of the Site

LAC - USC MEDICAL CENTER REPLACEMENT PROJECT (Continued) **S104404878**

was historically used as a medical facility. Historical information about the LAC-USC Medical Center property indicates that the first building for the hospital was constructed in approximately 1878. However, two gas stations once operated in adjacent parcels at different periods of time in the southeast part of the site between the former Cummings Street and Chicago Street north of Marengo Street. The Richfield Oil Company (ARCO) gas station operated from approximately 1960 to 1985 and the Standard Oil Company gas station was in operation from approximately 1965 to 1974. Both parcels were later redeveloped into a strip mall and a Burger King Restaurant, after the gas stations were demolished. In 1995 and 1996, the County of Los Angeles purchased this portion of the Site as part of the Replacement Project for construction of the New Central Energy Plant. Environmental impact investigations were conducted at the Site in 1993, 1995, 1999, and 2000 that involved soil gas surveys, soil borings for collection and analysis of soil samples, installation of groundwater monitoring wells, and the collection and analysis of groundwater samples. A Phase I Environmental Site Assessment (ESA) was conducted in 1999 to identify various Areas of Concerns (AOCs) related to historical and current operations. The site assessments indicated the soil and groundwater beneath the former location of the gas stations are contaminated with total petroleum hydrocarbons (TPH) and aromatic volatile organic compounds (VOCs) such as benzene, toluene, ethylbenzene and xylenes. Remedial measures involving excavation of contaminated soil and pumping and treating contaminated groundwater were implemented between April 2003 and Septemeber 2004 in conjuction with the construction work. Approximately 18,706 tons of VOC/fuel impacted soils were removed from the site between June and September 2003 and approximately 1,724,000 gallons of groundwater were pumped and treated. In October 2008 and 2009, confirmation soil, soil vapor and groundwater sampling was conducted onsite and offsite to verify the remedial work completed which was implemented voluntarily without the Regional Board oversight and to assess the full extent of the soil and groundwater contamination onsite and offsite. Based upon the information submitted, the Regional Board issued a no further requirements (NFR) letter on January 27, 2010 for soils and groundwater at the Site. The case is closed.

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:
Region: 4
Facility Status: Site Assessment
SLIC: 0861
Substance: TPH
Staff: SSH

G84 **SHELL (FORMER)** **RGA LUST** **S114686602**
SSE **2000-201 MARENGO AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.012 mi.
63 ft. **Site 5 of 10 in cluster G**

Relative:
Lower

RGA LUST:

2004	SHELL (FORMER)	2000-201 MARENGO AVE	

Actual:
337 ft.

G85 **SHELL (FORMER)** **RGA LUST** **S114686603**
SSE **2000-2012 MARENGO AVE** **N/A**
< 1/8 **LOS ANGELES, CA**
0.012 mi.
63 ft. **Site 6 of 10 in cluster G**

Relative: **Lower**

Actual: **337 ft.**

RGA LUST:

2012	SHELL (FORMER)	2000-2012 MARENGO AVE
2011	SHELL (FORMER)	2000-2012 MARENGO AVE
2010	SHELL (FORMER)	2000-2012 MARENGO AVE
2009	SHELL (FORMER)	2000-2012 MARENGO AVE
2008	SHELL (FORMER)	2000-2012 MARENGO AVE
2007	SHELL (FORMER)	2000-2012 MARENGO AVE
2006	SHELL (FORMER)	2000-2012 MARENGO AVE
2005	SHELL (FORMER)	2000-2012 MARENGO AVE
2003	SHELL (FORMER)	2000-2012 MARENGO AVE
2001	SHELL (FORMER)	2000-2012 MARENGO AVE
2000	SHELL (FORMER)	2000-2012 MARENGO AVE

G86 **SHELL (FORMER)** **LUST** **S104025564**
SSE **2000-2012 MARENGO AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.012 mi.
63 ft. **Site 7 of 10 in cluster G**

Relative: **Lower**

Actual: **337 ft.**

LUST:

Region:	STATE
Global Id:	T0603700854
Latitude:	34.0569435
Longitude:	-118.208379
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/02/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	JW
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330352
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700854
Contact Type:	Regional Board Caseworker
Contact Name:	JIMMIE WOO
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	jwoo@waterboards.ca.gov
Phone Number:	2135766600

Global Id:	T0603700854
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780

SHELL (FORMER) (Continued) **S104025564**

City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700854
Status: Open - Case Begin Date
Status Date: 05/28/1998

Global Id: T0603700854
Status: Open - Site Assessment
Status Date: 05/28/1998

Global Id: T0603700854
Status: Open - Verification Monitoring
Status Date: 05/28/1998

Global Id: T0603700854
Status: Open - Site Assessment
Status Date: 10/22/2001

Global Id: T0603700854
Status: Open - Site Assessment
Status Date: 09/26/2005

Global Id: T0603700854
Status: Open - Remediation
Status Date: 05/30/2008

Global Id: T0603700854
Status: Open - Eligible for Closure
Status Date: 12/05/2012

Global Id: T0603700854
Status: Completed - Case Closed
Status Date: 01/02/2013

Regulatory Activities:
Global Id: T0603700854
Action Type: REMEDIATION
Date: 01/01/1950
Action: Other (Use Description Field)

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2012

SHELL (FORMER) (Continued) **S104025564**

Action: Monitoring Report - Semi-Annually

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 01/02/2012
Action: Closure/No Further Action Letter

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 10/26/2012
Action: Notification - Preclosure

Global Id: T0603700854
Action Type: RESPONSE
Date: 09/28/2009
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 10/20/2011
Action: Staff Letter

Global Id: T0603700854
Action Type: REMEDIATION
Date: 01/01/1950
Action: Free Product Removal

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 09/06/2002
Action: Staff Letter

Global Id: T0603700854
Action Type: RESPONSE
Date: 02/23/2009
Action: Interim Remedial Action Plan

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

SHELL (FORMER) (Continued) **S104025564**

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/15/2008
Action: Remedial Progress Report

Global Id: T0603700854
Action Type: RESPONSE
Date: 08/20/2012
Action: Interim Remedial Action Report

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 01/02/2013
Action: Closure/No Further Action Letter

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 10/22/2001
Action: Staff Letter

Global Id: T0603700854
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE

SHELL (FORMER) (Continued) **S104025564**

Date: 03/28/2008
Action: Interim Remedial Action Plan

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700854
Action Type: RESPONSE
Date: 03/07/2011
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603700854
Action Type: RESPONSE
Date: 03/29/2013
Action: Well Destruction Report

Global Id: T0603700854
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 05/29/2008
Action: Staff Letter

SHELL (FORMER) (Continued) **S104025564**

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 08/23/2011
Action: Staff Letter

Global Id: T0603700854
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 05/03/2002
Action: Soil and Water Investigation Report

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/15/2011
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 09/26/2005
Action: Soil and Water Investigation Workplan

Global Id: T0603700854
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700854
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700854
Action Type: RESPONSE

SHELL (FORMER) (Continued) **S104025564**

Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700854
Action Type: ENFORCEMENT
Date: 02/20/2008
Action: Staff Letter

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 10/13/2006
Action: Soil and Water Investigation Report

Global Id: T0603700854
Action Type: RESPONSE
Date: 11/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 07/09/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700854
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330352
Status: Pollution Characterization
Substance: Gasoline
Substance Quantity: Not reported

SHELL (FORMER) (Continued) **S104025564**

Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700854	
W Global ID:	Not reported	
Staff:	JW	
Local Agency:	19050	
Cross Street:	BRITTANIA	
Enforcement Type:	SEL	
Date Leak Discovered:	5/28/1998	
Date Leak First Reported:		5/28/1998
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/3/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		11457.1400022059876345753952 12
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		5/28/1998
Preliminary Site Assessment Began:		5/28/1998
Pollution Characterization Began:		10/22/2001
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		5/28/1998
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		10200
Hist Max MTBE Conc in Soil:		360
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	WILBERT GASTON	
RP Address:	800 W. 6TH ST., FL. 6TH	
Program:	LUST	
Lat/Long:	34.0569435 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	6/15/00 WP TO EVALUATE THE PRESENCE OF HYDROCARBON	

G87 **SHELL (FORMER)** **HIST CORTESE** **S105024734**
SSE **20002012 MARENGO AVE** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.012 mi.
63 ft. **Site 8 of 10 in cluster G**

Relative:
Lower

Actual:
337 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330352

G88 **1412 LORENE CORP** **HAZNET** **S112922701**
SSE **2000 TO 2012 E MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.012 mi.
63 ft. **Site 9 of 10 in cluster G**

Relative:
Lower

Actual:
337 ft.

HAZNET:

Year:	2002
Gepaid:	CAC002552924
Contact:	CHARLES E WHISONANT
Telephone:	9492630500
Mailing Name:	Not reported
Mailing Address:	1201 DOVE ST STE 370
Mailing City,St,Zip:	NEWPORT BEACH, CA 92260
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	0.2
Facility County:	Los Angeles

G89 **1412 LORENE CORPORATION** **HAZNET** **S113127972**
SSE **2000 E MARENGO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.012 mi.
63 ft. **Site 10 of 10 in cluster G**

Relative:
Lower

Actual:
337 ft.

HAZNET:

Year:	2011
Gepaid:	CAL000273843
Contact:	CHARLES E. WHISONANT, ATTORNEY
Telephone:	9492630500
Mailing Name:	Not reported
Mailing Address:	620 NEWPORT CENTER DR FL 11
Mailing City,St,Zip:	NEWPORT BEACH, CA 926606420
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.35
Facility County:	Los Angeles
Year:	2009

1412 LORENE CORPORATION (Continued) **S113127972**

Gepaid:	CAL000273843
Contact:	CHARLES E. WHISONANT, ATTORNEY
Telephone:	9492630500
Mailing Name:	Not reported
Mailing Address:	620 NEWPORT CENTER DR FL 11
Mailing City,St,Zip:	NEWPORT BEACH, CA 926606420
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	2.4
Facility County:	Los Angeles

Year:	2009
Gepaid:	CAL000273843
Contact:	CHARLES E. WHISONANT, ATTORNEY
Telephone:	9492630500
Mailing Name:	Not reported
Mailing Address:	620 NEWPORT CENTER DR FL 11
Mailing City,St,Zip:	NEWPORT BEACH, CA 926606420
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	2.76
Facility County:	Los Angeles

Year:	2008
Gepaid:	CAL000273843
Contact:	CHARLES E. WHISONANT, ATTORNEY
Telephone:	9492630500
Mailing Name:	Not reported
Mailing Address:	620 NEWPORT CENTER DR FL 11
Mailing City,St,Zip:	NEWPORT BEACH, CA 926606420
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.231
Facility County:	Los Angeles

Year:	2007
Gepaid:	CAL000273843
Contact:	CHARLES E. WHISONANT, ATTORNEY
Telephone:	9492630500
Mailing Name:	Not reported
Mailing Address:	620 NEWPORT CENTER DR FL 11
Mailing City,St,Zip:	NEWPORT BEACH, CA 926606420
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent

1412 LORENE CORPORATION (Continued) **S113127972**

Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.1
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

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90 **LA COUNTY/USC MEDICAL CENTER** **HAZNET** **S112906774**
NNW **1711 GRIFFIN RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.018 mi.
94 ft.

Relative:
Lower

Actual:
329 ft.

HAZNET:
Year: 2000
Gepaid: CAC002245049
Contact: MOHAMMAD FARZAN-PROJECT MGR
Telephone: 3232264726
Mailing Name: Not reported
Mailing Address: 1200 N STATE ST PO BOX 121
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 33.71
Facility County: Los Angeles

D91 **CHEVRON PRODUCTS SS#_93690** **HAZNET** **S113088909**
WNW **1101 N MISSION** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.025 mi.
132 ft. **Site 15 of 15 in cluster D**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 2012
Gepaid: CAL000169575
Contact: KATHY NORRIS-SLUSHER
Telephone: 8773866044
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.0068
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000169575
Contact: KATHY NORRIS-SLUSHER

CHEVRON PRODUCTS SS#_93690 (Continued) **S113088909**

Telephone: 8773866044
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.0204
Facility County: Los Angeles

Year: 1999
Gepaid: CAL000169575
Contact: CHEVRON USA
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: .0417
Facility County: Los Angeles

Year: 1999
Gepaid: CAL000169575
Contact: CHEVRON USA
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Tons: .1251
Facility County: Los Angeles

Year: 1997
Gepaid: CAL000169575
Contact: CHEVRON USA
Telephone: 9258425931
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 945830000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: .1668
Facility County: Los Angeles

CHEVRON PRODUCTS SS#_93690 (Continued) **S113088909**

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

O92 **LOS ANGELES CITY SCHOOL** **CA FID UST** **S101587719**
ESE **1204 N CORNWELL** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.031 mi.
163 ft. **Site 1 of 8 in cluster O**

Relative:
Higher

Actual:
391 ft.

CA FID UST:

Facility ID:	19055926
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	1204 N CORNWELL
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	4939
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

P93 **STODDARD AUTOMOTIVE** **RGA LUST** **S114696322**
NW **1721 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.043 mi.
227 ft. **Site 1 of 21 in cluster P**

Relative: **Lower**

Actual: **338 ft.**

RGA LUST:

2012	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2011	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2010	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2009	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2008	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2007	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2006	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2005	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2004	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2003	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2002	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2001	STODDARD AUTOMOTIVE	1721 WORKMAN ST
2000	STODDARD AUTOMOTIVE	1721 WORKMAN ST
1998	STODDARD AUTOMOTIVE	1721 WORKMAN ST

P94 **STODDARD SERRVICE** **CA FID UST** **S101586023**
NW **1721 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.043 mi.
227 ft. **Site 2 of 21 in cluster P**

Relative: **Lower**

Actual: **338 ft.**

CA FID UST:

Facility ID:	19036552
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132258224
Mail To:	Not reported
Mailing Address:	1721 WORKMAN ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

P95 **STODDARD SERVICE** **HAZNET** **S113022262**
NW **1721 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.043 mi.
227 ft. **Site 3 of 21 in cluster P**

Relative: **Lower**

Actual: **338 ft.**

HAZNET:

Year:	1993
Gepaid:	CAL000001759
Contact:	STODDARD HAL
Telephone:	0000000000

STODDARD SERVICE (Continued) **S113022262**

Mailing Name: Not reported
Mailing Address: 1721 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Not reported
Tons: 2.71050000000
Facility County: Los Angeles

P96 **STODDARD AUTOMOTIVE** **LUST** **S103281981**
NW **1721 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.043 mi.
227 ft. **Site 4 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900310316	
Status:	Case Closed	
Substance:	1	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700812	
W Global ID:	W0605100649	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		8/19/1993
Date Leak Record Entered:	2/9/1998	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/17/1998
Date the Case was Closed:		7/17/1998
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8586.1072565741750750119577 56
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported

STODDARD AUTOMOTIVE (Continued) **S103281981**

Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: STODDARD AUTOMOTIVE
RP Address: 1721 WORKMAN ST., LOS ANGELES, CA 90031
Program: LUST
Lat/Long: 34.0636082 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: 2600649-001GEN
Summary: Not reported

P97 **CBS OUTDOOR** **HAZNET** **S112981057**
NW **1721 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.043 mi.
227 ft. **Site 5 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

HAZNET:
Year: 2009
Gepaid: CAC002647458
Contact: RUTH BRENNEMAN
Telephone: 6022469569
Mailing Name: Not reported
Mailing Address: 3150 S 48TH ST STE 200
Mailing City,St,Zip: PHOENIX, AZ 850401724
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 8
Facility County: Los Angeles

P98 **STODDARD AUTOMOTIVE** **HIST CORTESE** **S100875104**
NW **1721 WORKMAN** **LUST** **N/A**
< 1/8 **LOS ANGELES, CA 90031** **SWEEPS UST**
0.043 mi.
227 ft. **Site 6 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900310316

LUST:
Region: STATE

STODDARD AUTOMOTIVE (Continued) **S100875104**

Global Id:	T0603700812
Latitude:	34.061726
Longitude:	-118.214281
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/17/1998
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310316
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Aviation
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700812
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700812
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700812
Status:	Open - Case Begin Date
Status Date:	08/19/1993

Global Id:	T0603700812
Status:	Completed - Case Closed
Status Date:	07/17/1998

Regulatory Activities:

Global Id:	T0603700812
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

SWEEPS UST:

Status:	Not reported
Comp Number:	4032

STODDARD AUTOMOTIVE (Continued) **S100875104**

Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

B99 **ROSA GONZALEZ** **HAZNET** **S112937111**
WSW **1005 LORD ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.045 mi.
237 ft. **Site 10 of 11 in cluster B**

Relative: **Lower**

Actual: **314 ft.**

HAZNET:

Year:	2004
Gepaid:	CAC002576830
Contact:	ROSA
Telephone:	3232260385
Mailing Name:	Not reported
Mailing Address:	1005 LORD ST
Mailing City,St,Zip:	LOS ANGELES, CA 900331313
Gen County:	Not reported
TSD EPA ID:	CAD088504881
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Transfer Station
Tons:	0.12
Facility County:	Los Angeles

B100 **DARIO PANTOJA** **HAZNET** **S112941877**
WSW **1001 LORD ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.047 mi.
246 ft. **Site 11 of 11 in cluster B**

Relative: **Lower**

Actual: **314 ft.**

HAZNET:

Year:	2004
Gepaid:	CAC002584482
Contact:	DARIO
Telephone:	3233420939
Mailing Name:	Not reported
Mailing Address:	1001 LORD ST
Mailing City,St,Zip:	LOS ANGELES, CA 90033
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill

DARIO PANTOJA (Continued) **S112941877**

Tons: 0.4
Facility County: Los Angeles

P101 **CBS OUTDOOR** **RCRA-SQG** **1010313321**
NW **1731 WORKMAN ST.** **CAL000286770**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 7 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

RCRA-SQG:
Date form received by agency: 05/02/2006
Facility name: CBS OUTDOOR
Facility address: 1731 WORKMAN ST.
LOS ANGELES, CA 90031
EPA ID: CAL000286770
Mailing address: 1731 WORKMAN ST
LOS ANGELES, CA 90031
Contact: ALLEN A ROSSI
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: (323) 276-7264
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CBS OUTDOOR
Owner/operator address: 1731 WORKMAN ST.
LOS ANGELES, CA 90031
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2001
Owner/Op end date: Not reported

Owner/operator name: CBS OUTDOOR
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2001
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No

CBS OUTDOOR (Continued) **1010313321**

Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	05/02/2006
Facility name:	CBS OUTDOOR
Classification:	Large Quantity Generator

Hazardous Waste Summary:

Waste code:	134
Waste name:	134
Waste code:	D007
Waste name:	CHROMIUM
Violation Status:	No violations found

P102 **CBS OUTDOOR** **HIST CORTESE** **S103066160**
NW **1731 WORKMAN ST** **SLIC** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 8 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900310143

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	11/05/1998
Global Id:	T0603700795
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0621933
Longitude:	-118.2142652
Case Type:	Cleanup Program Site
Case Worker:	BA
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	1072
File Location:	Not reported
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

CBS OUTDOOR (Continued) **S103066160**

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	09/17/2001
Global Id:	SLT43704702
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0624013046696
Longitude:	-118.214349746704
Case Type:	Cleanup Program Site
Case Worker:	BA
Local Agency:	Not reported
RB Case Number:	1072
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern:	1,1,1-Trichloroethane (TCA), Other Solvent or Non-Petroleum Hydrocarbon, Tetrachloroethylene (PCE), Trichloroethylene (TCE)
Site History:	The CBS Outdoor Inc. (COI) facility is located in the City of Los Angeles and is primarily used for billboard fabrication and maintenance. In 1992 the Gannett Company, owner and operator of the facility at that time, removed five (5) USTs that contained gasoline, diesel, and waste oil. The facility, then known as Outdoor Systems, Inc. and later as Infinity Outdoor, Inc., was purchased in July of 1996 by Viacom. On January 1, 2006, Viacom split into two entities, Viacom and CBS Corporation. CBS Corporation acquired the assets associated with the Outdoor business and the new entity was renamed CBS Outdoor Inc. Previous investigations conducted at the site in 1993 indicated that soil and groundwater had been impacted by gasoline. In addition, halogenated volatile organic compounds (HVOCs) were detected in groundwater at the site but not in soil.Hexavalent chromium and total chromium were detected for the first time in groundwater samples collected from all of the wells at the COI facility during the first quarter 2001 groundwater sampling event. Maximum concentrations of hexavalent chromium were detected from wells MW-2 and MW-3 at concentrations of 300 mg/L and 270 mg/L, respectively. Active remediation began at the site using soil vapor extraction (SVE) technology in November 1998 in accordance with the Regional Boards request to address the source area contamination in soils and free product in groundwater. The SVE system was operated for about a year and 5 months and removed an estimated 6,300 lbs of volatile petroleum hydrocarbons. The influent hydrocarbon concentrations decreased from an initial high of approximately 3,200 parts per million by volume (ppmv) to a constant influent of about 50 ppmv (%10 ppmv) in the last six months of operation. Semi-annual groundwater monitoring is being conducted. Site assessment and remediation are still underway.

Click here to access the California GeoTracker records for this facility:

P103 **PACIFIC OUTDOOR ADVERSTISING** **CA FID UST** **S101583426**
NW **1731 WORKMAN ST** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 9 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

CA FID UST:

Facility ID:	19003711
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132227171
Mail To:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	5865
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

P104 **GANNETT OUTDOOR SYSTEMS, INC.** **LUST** **S103281857**
NW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 10 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	900310143
Status:	Remedial action (cleanup) Underway
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Groundwater

GANNETT OUTDOOR SYSTEMS, INC. (Continued) **S103281857**

Abatement Method Used at the Site:		Remove Free Product
Global ID:	T0603700795	
W Global ID:	W0605100649	
Staff:	AT	
Local Agency:	19050	
Cross Street:	MISSION	
Enforcement Type:	EF	
Date Leak Discovered:	7/31/1992	
Date Leak First Reported:		7/31/1992
Date Leak Record Entered:	8/8/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/9/2001
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	ALLEN ROSSI	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8500.085521658377026104414844
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		7/31/1992
Pollution Characterization Began:		2/4/1997
Remediation Plan Submitted:		8/12/1998
Remedial Action Underway:		11/5/1998
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		8/25/1999
Historical Max MTBE Date:		11/18/1998
Hist Max MTBE Conc in Groundwater:		9200
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	JOAN B. SISINE	
RP Address:	191 PEACHTREE ST., NORTHEAST, 16TH FL,	
Program:	LUST	
Lat/Long:	34.0621933 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	091	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	APPROVED WP TO CONDUCT SVE PILOT TEST; 7/11/00 2ND QTR GW MON RPT 2000; 10/15/00 3RD QTR GW MON RPT 2000; 1/15/01 4TH QTR GW MON RPT 2000; 3/27/01 1ST QTR GW MON RPT 2001	

P105 **VIACOM OUTDOOR** **RCRA-SQG** **1004676491**
NW **1731 WORKMAN ST** **CAR000085951**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 11 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

RCRA-SQG:

Date form received by agency:	12/20/2001
Facility name:	VIACOM OUTDOOR
Facility address:	1731 WORKMAN ST LOS ANGELES, CA 90031
EPA ID:	CAR000085951
Contact:	DOUG KAWAGUCHI
Contact address:	1731 WORKMAN ST LOS ANGELES, CA 90031
Contact country:	US
Contact telephone:	(323) 276-7247
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	VIACOM OUTDOOR INC
Owner/operator address:	1731 WORKMAN ST LOS ANGELES, CA 90031
Owner/operator country:	Not reported
Owner/operator telephone:	(323) 276-7247
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	D000
Waste name:	Not Defined

VIACOM OUTDOOR (Continued) **1004676491**

Waste code: D009
Waste name: MERCURY

Waste code: D018
Waste name: BENZENE

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Violation Status: No violations found

P106 **INFINITY OUTDOOR ADVERTISING** **HAZNET** **S113175434**
NW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 12 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

HAZNET:

Year:	2004
Gepaid:	CAR000085951
Contact:	--
Telephone:	3232767247
Mailing Name:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Not reported
Tons:	6.25
Facility County:	Los Angeles

Year:	2003
Gepaid:	CAR000085951
Contact:	--
Telephone:	3232767247
Mailing Name:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	5.42
Facility County:	Los Angeles

Year:	2003
Gepaid:	CAR000085951
Contact:	--
Telephone:	3232767247
Mailing Name:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported

INFINITY OUTDOOR ADVERTISING (Continued) **S113175434**

TSD EPA ID: CAD982411993
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: 0.25
Facility County: Los Angeles

Year: 2003
Gepaid: CAR000085951
Contact: --
Telephone: 3232767247
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAD982411993
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 0.16
Facility County: Los Angeles

Year: 2002
Gepaid: CAR000085951
Contact: --
Telephone: 3232767247
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 0.1
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
8 additional CA_HAZNET: record(s) in the EDR Site Report.

P107 **GANNETT OUTDOOR SYSTEMS, IN** **RGA LUST** **S114625475**
NW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.059 mi.
311 ft. **Site 13 of 21 in cluster P**

Relative: RGA LUST:
Lower

2004 GANNETT OUTDOOR SYSTEMS, IN 1731 WORKMAN ST

Actual:
338 ft.

P108 **GANNETT OUTDOOR** **RGA LUST** **S114625478**
NW **1731 WORKMAN ST.** **N/A**
< 1/8 **LOS ANGELES, CA**
0.059 mi.
311 ft. **Site 14 of 21 in cluster P**

Relative: RGA LUST:
Lower

1994	GANNETT OUTDOOR	1731 WORKMAN ST.
1993	GANNETT OUTDOOR	1731 WORKMAN ST.

Actual:
338 ft.

P109 **GANNETT OUTDOOR** **RGA LUST** **S114625479**
NW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.059 mi.
311 ft. **Site 15 of 21 in cluster P**

Relative: RGA LUST:
Lower

1995	GANNETT OUTDOOR	1731 WORKMAN ST

Actual:
338 ft.

P110 **GANNETT OUTDOOR OF SO CAL** **HAZNET** **S113027204**
NW **1731 WORKMAN STREET** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 16 of 21 in cluster P**

Relative: HAZNET:
Lower

Year:	2003
Gepaid:	CAL000015995
Contact:	TONI LOPEZ
Telephone:	3232767264
Mailing Name:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900313334
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified aqueous solution
Disposal Method:	Transfer Station
Tons:	1.6
Facility County:	Los Angeles

Actual:
338 ft.

Year:	2002
Gepaid:	CAL000015995
Contact:	TONI LOPEZ
Telephone:	3232767264
Mailing Name:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900313334
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Transfer Station
Tons:	0.22
Facility County:	Los Angeles

Year:	2002
Gepaid:	CAL000015995

GANNETT OUTDOOR OF SO CAL (Continued) **S113027204**

Contact: TONI LOPEZ
Telephone: 3232767264
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Transfer Station
Tons: 2.75
Facility County: Los Angeles

Year: 2001
Gepaid: CAL000015995
Contact: TONI LOPEZ
Telephone: 3232767264
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Transfer Station
Tons: 4.19
Facility County: Los Angeles

Year: 2000
Gepaid: CAL000015995
Contact: TONI LOPEZ
Telephone: 3232767264
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAT000613935
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.67
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

P111 **INFINITY OUTDOOR** **HAZNET** **S113102349**
NW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 17 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

HAZNET:
Year: 2000
Gepaid: CAL000196388
Contact: ALLEN ROSSI\\ OPER MGR
Telephone: 3232767264
Mailing Name: Not reported

INFINITY OUTDOOR (Continued) **S113102349**

Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: 0.22
Facility County: Los Angeles

Year: 2000
Gepaid: CAL000196388
Contact: ALLEN ROSSI\\ OPER MGR
Telephone: 3232767264
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: SCD070375985
TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Not reported
Tons: 0
Facility County: Los Angeles

Year: 2000
Gepaid: CAL000196388
Contact: ALLEN ROSSI\\ OPER MGR
Telephone: 3232767264
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT000613935
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.18
Facility County: Los Angeles

Year: 1999
Gepaid: CAL000196388
Contact: OUTDOOR SYSTEMS INC
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: SCD070375985
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported
Tons: .0150
Facility County: Los Angeles

Year: 1999
Gepaid: CAL000196388

INFINITY OUTDOOR (Continued) **S113102349**

Contact:	OUTDOOR SYSTEMS INC
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	SCD070375985
TSD County:	Not reported
Waste Category:	Not reported
Disposal Method:	Not reported
Tons:	.0375
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

P112 **CBS OUTDOOR** **HAZNET** **S113134076**
NW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.059 mi.
311 ft. **Site 18 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

HAZNET:

Year:	2012
Gepaid:	CAL000286770
Contact:	MARK MONROE / OPER MGR
Telephone:	5592928300
Mailing Name:	Not reported
Mailing Address:	5678 E SHIELDS AVE
Mailing City,St,Zip:	FRESNO, CA 93727
Gen County:	Los Angeles
TSD EPA ID:	CAD097030993
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	3.339
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000286770
Contact:	MARK MONROE / OPER MGR
Telephone:	5592928300
Mailing Name:	Not reported
Mailing Address:	5678 E SHIELDS AVE
Mailing City,St,Zip:	FRESNO, CA 93727
Gen County:	Los Angeles
TSD EPA ID:	CAD097030993
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	3.339
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000286770
Contact:	MARK MONROE / OPER MGR

CBS OUTDOOR (Continued) **S113134076**

Telephone: 5592928300
Mailing Name: Not reported
Mailing Address: 5678 E SHIELDS AVE
Mailing City,St,Zip: FRESNO, CA 93727
Gen County: Los Angeles
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 52
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000286770
Contact: MARK MONROE / OPER MGR
Telephone: 5592928300
Mailing Name: Not reported
Mailing Address: 5678 E SHIELDS AVE
Mailing City,St,Zip: FRESNO, CA 93727
Gen County: Los Angeles
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 52
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000286770
Contact: MARK MONROE / OPER MGR
Telephone: 5592928300
Mailing Name: Not reported
Mailing Address: 5678 E SHIELDS AVE
Mailing City,St,Zip: FRESNO, CA 93727
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 1.0425
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
29 additional CA_HAZNET: record(s) in the EDR Site Report.

P113 **GANNETT OUTDOOR SYSTEMS, INC.** **RGA LUST** **S114625476**
NW **1731 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.059 mi.
311 ft. **Site 19 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

RGA LUST:

2008	GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST
2007	GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST
2006	GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST
2005	GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST
2003	GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST
2001	GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST
2000	GANNETT OUTDOOR SYSTEMS, INC.	1731 WORKMAN ST

P114 **BOB & SON** **HAZNET** **S113046816**
NW **1720 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.061 mi.
324 ft. **Site 20 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

HAZNET:

Year:	2000
Gepaid:	CAL000064999
Contact:	RAUL PEREZ/OWNER
Telephone:	2132232421
Mailing Name:	Not reported
Mailing Address:	1720 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAT000613976
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	0.05
Facility County:	Los Angeles

P115 **INFINITY OUTDOOR** **SLIC** **S105219918**
NW **1731 WORKMAN** **N/A**
< 1/8 **LOS ANGELES, CA 90013**
0.063 mi.
333 ft. **Site 21 of 21 in cluster P**

Relative:
Lower

Actual:
338 ft.

SLIC REG 4:

Region:	4
Facility Status:	Site Assessment
SLIC:	1072
Substance:	Chromium
Staff:	AH

Q116 **UNIVERSITY OF SO CALIFORNIA** **CA FID UST** **S101586999**
East **1333 SAN PABLO ST** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.065 mi.
341 ft. **Site 1 of 3 in cluster Q**

Relative:
Higher

Actual:
403 ft.

CA FID UST:

Facility ID:	19054693
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	UNK
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	7991
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	0

O117 **LINCOLN MAGNET HIGH SCHOOL-LAU** **RGA LUST** **S114644128**
ESE **1200 CORNWELL ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.069 mi.
364 ft. **Site 2 of 8 in cluster O**

Relative:
Higher

Actual:
374 ft.

RGA LUST:

1995	LINCOLN MAGNET HIGH SCHOOL-LAU	1200 CORNWELL ST

O118 **LINCOLN MAGNET HIGH SCHOOL-** **RGA LUST** **S114644126**
ESE **1200 CORNWELL ST** **N/A**
< 1/8 **LOS ANGELES, CA**
0.069 mi.
364 ft. **Site 3 of 8 in cluster O**

Relative:
Higher

RGA LUST:

2004	LINCOLN MAGNET HIGH SCHOOL-	1200 CORNWELL ST

Actual:
374 ft.

O119 **MAGNET HIGH SCHOOL (LAUSD)** **RGA LUST** **S114646713**
ESE **1200 CORNWELL STREET** **N/A**
< 1/8 **LOS ANGELES, CA**
0.069 mi.
364 ft. **Site 4 of 8 in cluster O**

Relative:
Higher

RGA LUST:

1994	MAGNET HIGH SCHOOL (LAUSD)	1200 CORNWELL STREET
1993	MAGNET HIGH SCHOOL (LAUSD)	1200 CORNWELL STREET

Actual:
374 ft.

O120 **LINCOLN MAGNET HIGH SCHOOL-LAU** **HIST CORTESE** **S102432645**
ESE **1200 CORNWELL ST** **LUST** **N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033** **ENVIROSTOR**
0.069 mi.
364 ft. **Site 5 of 8 in cluster O**

Relative:
Higher

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330061

Actual:
374 ft.

LUST:

Region:	STATE
Global Id:	T0603700829
Latitude:	34.0573104
Longitude:	-118.2038188
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/27/1995
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330061
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700829
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles

LINCOLN MAGNET HIGH SCHOOL-LAU (Continued) **S102432645**

Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700829
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700829
Status: Open - Case Begin Date
Status Date: 03/15/1988

Global Id: T0603700829
Status: Open - Remediation
Status Date: 04/08/1988

Global Id: T0603700829
Status: Completed - Case Closed
Status Date: 07/27/1995

Regulatory Activities:
Global Id: T0603700829
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700829
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330061
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: GTVS
Global ID: T0603700829
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: CHARLOTTE
Enforcement Type: Not reported
Date Leak Discovered: 3/15/1988
Date Leak First Reported: 4/8/1988

LINCOLN MAGNET HIGH SCHOOL-LAU (Continued) **S102432645**

Date Leak Record Entered: 4/21/1988
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 7/27/1995
Date the Case was Closed: 7/27/1995
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Tank
Operator: LAUSD
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 10707.381993030499705321111278
Source of Cleanup Funding: Tank
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: 4/8/1988
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: LOS ANGELES UNIFIED SCHOOL DIS
RP Address: 1425 S. SAN PEDRO STREET, LOS ANGELES, CA 90051
Program: LUST
Lat/Long: 34.0573104 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: TANKS WERE REMOVED IN EARLY '80S.

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19000013
Site Code: 300794
Assembly: 53
Senate: 30
Special Program: Not reported
Status: Inactive - Needs Evaluation

LINCOLN MAGNET HIGH SCHOOL-LAU (Continued) **S102432645**

Status Date: 11/22/2005
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.05227
Longitude: -118.2527
APN: NONE SPECIFIED
Past Use: * UNKNOWN
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: FRANCISCO BRAVO MEDICAL MAGNET
Alias Type: Alternate Name
Alias Name: FRANCISCO BRAVO MEDICAL MAGNET
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 300794
Alias Type: Project Code (Site Code)
Alias Name: 19000013
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

O121 **BRAVO MED MAG** **RCRA-LQG** **1011488218**
ESE **1200 N CORNWELL ST** **CAR000193748**
< 1/8 **LOS ANGELES, CA 90033**
0.069 mi.
364 ft. **Site 6 of 8 in cluster O**

Relative:
Higher

Actual:
374 ft.

RCRA-LQG:
Date form received by agency: 07/10/2008
Facility name: BRAVO MED MAG
Facility address: 1200 N CORNWELL ST
LOS ANGELES, CA 90033
EPA ID: CAR000193748
Mailing address: 333 S BEAUDRY AVE
LAUSD OEHS 20TH FL
LOS ANGELES, CA 90017
Contact: SOE AUNG
Contact address: 333 S BEAUDRY AVE LAUSD OEHS 20TH FL
LOS ANGELES, CA 90017
Contact country: US

BRAVO MED MAG (Continued) **1011488218**

Contact telephone: 213-241-3904
Contact email: SOE.AUNG@LAUSD.NET
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: LOS ANGELES UNIFIED SCHOOL DIST
Owner/operator address: 333 S BEAUDRY AVE
LOS ANGELES, CA 90017
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: District
Owner/Operator Type: Owner
Owner/Op start date: 06/25/1991
Owner/Op end date: Not reported

Owner/operator name: BRAVO MED MAG
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: District
Owner/Operator Type: Operator
Owner/Op start date: 06/25/1991
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

BRAVO MED MAG (Continued) **1011488218**

Hazardous Waste Summary:
Waste code: D008
Waste name: LEAD

Violation Status: No violations found

O122 **LAUSD/ BRAVO MED MAG(LINCOLN)** **HAZNET** **S113041401**
ESE **1200 NORTH CORNWELL STREET** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.069 mi.
364 ft. **Site 7 of 8 in cluster O**

Relative:
Higher

Actual:
374 ft.

HAZNET:

Year:	2000
Gepaid:	CAL000048197
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD008364432
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Treatment, Tank
Tons:	0.6
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAL000048197
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD008364432
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Treatment, Incineration
Tons:	0.8
Facility County:	Los Angeles

Year:	1999
Gepaid:	CAL000048197
Contact:	LOS ANGELES USD
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Treatment, Tank
Tons:	2.5020
Facility County:	Los Angeles

O123 **LAUSD-BRAVO MED MAG** **HAZNET** **S113178656**
ESE **1200 N CORNWELL ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.069 mi.
364 ft. **Site 8 of 8 in cluster O**

Relative:
Higher

Actual:
374 ft.

HAZNET:

Year:	2012
Gepaid:	CAR000193748
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.02
Facility County:	Los Angeles

Year:	2010
Gepaid:	CAR000193748
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.07
Facility County:	Los Angeles

Year:	2009
Gepaid:	CAR000193748
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	1.52
Facility County:	Los Angeles

124
SSW
< 1/8
0.078 mi.
414 ft.

ELBOGEN PHOTOGRAPHY **HAZNET** **S113070494**
1038 NORTH STATE STREET **N/A**
LOS ANGELES, CA 90033

Relative:
Lower

Actual:
325 ft.

HAZNET:

Year:	1997
Gepaid:	CAL000124889
Contact:	MARTIN M ELBOGEN
Telephone:	2132255500
Mailing Name:	Not reported
Mailing Address:	1038 N STATE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900331333
Gen County:	Not reported
TSD EPA ID:	CAD108040858
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.1251
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAL000124889
Contact:	MARTIN M ELBOGEN
Telephone:	2132255500
Mailing Name:	Not reported
Mailing Address:	1038 N STATE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900331333
Gen County:	Not reported
TSD EPA ID:	CAD108040858
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.1251
Facility County:	Los Angeles

Year:	1995
Gepaid:	CAL000124889
Contact:	MARTIN M ELBOGEN
Telephone:	2132255500
Mailing Name:	Not reported
Mailing Address:	1038 N STATE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900331333
Gen County:	Not reported
TSD EPA ID:	CAD108040858
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0625
Facility County:	Los Angeles

Year:	1995
Gepaid:	CAL000124889
Contact:	MARTIN M ELBOGEN
Telephone:	2132255500
Mailing Name:	Not reported
Mailing Address:	1038 N STATE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900331333

ELBOGEN PHOTOGRAPHY (Continued) **S113070494**

Gen County: Not reported
TSD EPA ID: CAD108040858
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: .0625
Facility County: Los Angeles

Q125 **HAZARD PARK ARMY RESERVE CTR** **HAZNET** **S112836506**
ENE **1350 SAN PABLO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.085 mi.
449 ft. **Site 2 of 3 in cluster Q**

Relative:
Higher

Actual:
401 ft.

HAZNET:
Year: 2006
Gepaid: CA4210490377
Contact: MRS SANTOS, DARLENE
Telephone: 3234411803
Mailing Name: Not reported
Mailing Address: 1350 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Tons: 0.06
Facility County: Los Angeles

Year: 2006
Gepaid: CA4210490377
Contact: MRS SANTOS, DARLENE
Telephone: 3234411803
Mailing Name: Not reported
Mailing Address: 1350 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Disposal, Land Fill
Tons: 0.06
Facility County: Los Angeles

Year: 2006
Gepaid: CA4210490377
Contact: MRS SANTOS, DARLENE
Telephone: 3234411803
Mailing Name: Not reported
Mailing Address: 1350 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Transfer Station
Tons: 0.01

HAZARD PARK ARMY RESERVE CTR (Continued) **S112836506**

Facility County: Los Angeles

Year: 2006
Gepaid: CA4210490377
Contact: MRS SANTOS, DARLENE
Telephone: 3234411803
Mailing Name: Not reported
Mailing Address: 1350 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Treatment, Tank
Tons: 0
Facility County: Los Angeles

Year: 2006
Gepaid: CA4210490377
Contact: MRS SANTOS, DARLENE
Telephone: 3234411803
Mailing Name: Not reported
Mailing Address: 1350 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Tons: 0
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
33 additional CA_HAZNET: record(s) in the EDR Site Report.

Q126 **CITY OF LOS ANGELES HAZARD ARMORY** **HAZNET** **S113774266**
ENE **1350 SAN PABLO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.085 mi.
449 ft. **Site 3 of 3 in cluster Q**

Relative:
Higher

Actual:
401 ft.

HAZNET:
Year: 2012
Gepaid: CAC002686836
Contact: DAVID ATTAWAY
Telephone: 2132022660
Mailing Name: Not reported
Mailing Address: 221 N FIGUEROA ST STE 100
Mailing City,St,Zip: LOS ANGELES, CA 900122639
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.625
Facility County: Los Angeles

R127
SSE
< 1/8
0.089 mi.
470 ft.

LOS ANGELES HOUSING AUTHORITY
1030 BRITTANIA ST
LOS ANGELES, CA 90033

Site 1 of 2 in cluster R

HAZNET **S112903711**
N/A

Relative:
Lower

Actual:
322 ft.

HAZNET:

Year:	2000
Gepaid:	CAC002206097
Contact:	NANCY MAZZIE
Telephone:	2132524271
Mailing Name:	Not reported
Mailing Address:	2500 WILSHIRE BLVD 13TH FLR #A
Mailing City,St,Zip:	LOS ANGELES, CA 900570000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	19.38
Facility County:	Los Angeles

R128
SSE
< 1/8
0.089 mi.
470 ft.

CITY OF LOS ANGELES/HOUSING AUTHORITY
1030 BRITTANIA ST
LOS ANGELES, CA 90033

Site 2 of 2 in cluster R

HAZNET **S112870355**
N/A

Relative:
Lower

Actual:
322 ft.

HAZNET:

Year:	1997
Gepaid:	CAC001159176
Contact:	CITY OF LOS ANGELES
Telephone:	2132524271
Mailing Name:	Not reported
Mailing Address:	PO BOX 17157
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	8.4280
Facility County:	Los Angeles

129
SSE
< 1/8
0.091 mi.
479 ft.

ALPHA PROPERTY MANAGEMENT
1011-1025 N CUMMINGS
LOS ANGELES, CA 90033

HAZNET **S112912141**
N/A

Relative:
Lower

Actual:
319 ft.

HAZNET:

Year:	2005
Gepaid:	CAC002321889
Contact:	SCOTT MANSON / DIR OF OPERATIO
Telephone:	3232314174
Mailing Name:	Not reported
Mailing Address:	1755 EAST MARTIN LUTHER KING BLVD
Mailing City,St,Zip:	LOS ANGELES, CA 900580000

ALPHA PROPERTY MANAGEMENT (Continued) **S112912141**

Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.6
Facility County: Los Angeles

S130 **CHROMAL PLATING CO** **TRIS 1006815991**
NW **1748 WORKMAN ST** **UST 90031CHRML1748W**
< 1/8 **LOS ANGELES, CA 90031**
0.093 mi.
489 ft. **Site 1 of 3 in cluster S**

Relative:
Lower

Actual:
335 ft.

TRIS:

Click this hyperlink while viewing on your computer to access
1 additional US_TRIS: record(s) in the EDR Site Report.

UST:
Facility ID: 25008
Latitude: 34.06256
Longitude: -118.21406
Permitting Agency LOS ANGELES, CITY OF

S131 **CHROMAL PLATING COMPANY, INC** **RCRA-LQG 1000334315**
NW **1748 WORKMAN STREET** **CA FID UST CAD008314163**
< 1/8 **LOS ANGELES, CA 90031** **SLIC**
0.093 mi. **HIST UST**
489 ft. **Site 2 of 3 in cluster S** **SWEEPS UST**

Relative:
Lower

Actual:
335 ft.

RCRA-LQG:
Date form received by agency: 05/04/2010
Facility name: CHROMAL PLATING COMPANY, INC
Facility address: 1748 WORKMAN STREET
LOS ANGELES, CA 900313395
EPA ID: CAD008314163
Mailing address: WORKMAN ST
LOS ANGELES, CA 90031
Contact: RAY F BOKELMAN
Contact address: WORKMAN ST
LOS ANGELES, CA 90031
Contact country: US
Contact telephone: (323) 225-6121
Contact email: RAY@CHROMAL.COM
EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	CHROMAL PLATING CO, INC
Owner/operator address:	WORKMAN STREET
	LOS ANGELES, CA 90031
Owner/operator country:	Not reported
Owner/operator telephone:	(323) 225-6121
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	10/10/1952
Owner/Op end date:	Not reported
Owner/operator name:	RAY BOKELMAN
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	07/01/1984
Owner/Op end date:	Not reported
Owner/operator name:	CHROMAL PLATING CO INC
Owner/operator address:	SAME
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	12/08/1949
Owner/Op end date:	Not reported
Owner/operator name:	CHROMAL PLATING COMPANY A CORPORATION
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	RAY BOKELMAN
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	07/01/1984
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/01/2008
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING COMPANY INC
Classification: Large Quantity Generator

Date form received by agency: 04/20/2006
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO. INC.
Classification: Small Quantity Generator

Date form received by agency: 04/20/2006
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO. INC.
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO
Classification: Small Quantity Generator

Date form received by agency: 07/14/1980
Facility name: CHROMAL PLATING COMPANY, INC
Site name: CHROMAL PLATING CO
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: 135
Waste name: 135

Waste code: 181

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Waste name: 181

Waste code: 214
Waste name: 214

Waste code: 223
Waste name: 223

Waste code: 791
Waste name: 791

Waste code: 792
Waste name: 792

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D007
Waste name: CHROMIUM

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D007
Waste name: CHROMIUM

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: TSD IS-Preparedness and Prevention
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Preparedness and Prevention
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 03/20/2009
Date achieved compliance: 06/25/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/08/2009
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/25/2009
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/14/1994
Date achieved compliance: 06/14/1999
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 03/20/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Preparedness and Prevention
Date achieved compliance: 06/25/2009
Evaluation lead agency: EPA

Evaluation date: 03/20/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 06/25/2009
Evaluation lead agency: EPA

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Evaluation date: 03/24/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/14/1999
Evaluation lead agency: State Contractor/Grantee

CA FID UST:
Facility ID: 19028346
Regulated By: UTNKA
Regulated ID: 00016814
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132256121
Mail To: Not reported
Mailing Address: 1748 WORKMAN ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900310000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SLIC:
Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 05/12/2004
Global Id: SL0603764270
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number: Not reported
Latitude: 34.0625435136517
Longitude: -118.213813304901
Case Type: Cleanup Program Site
Case Worker: BA
Local Agency: Not reported
RB Case Number: 1159
File Location: Regional Board
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Chromium
Site History: Chromal Plating Inc. has operated on the site since the 1960s. It refurbishes new and used parts for the aerospace industry by machining, grinding and plating to return parts to original specifications. Chrome plating is conducted with various plating tanks with depths ranging from 8 feet to 24 feet. Site assessments began in 2005 after the Regional Board staff conducted a site inspection on September 30, 2004 of the facility and sent a directive letter, based on the site inspection and site assessment results from the downgradient CBS site which is also under Regional Board's oversight. The Site assessments indicated that the soil and

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

groundwater were contaminated with chromium, including hexavalent chromium. Site assessment is still underway.

Click here to access the California GeoTracker records for this facility:

HIST UST:

Region:	STATE
Facility ID:	00000016814
Facility Type:	Other
Other Type:	HARD CHROME PLATING
Total Tanks:	0012
Contact Name:	RAYMOND BOKELMAN
Telephone:	2132256121
Owner Name:	CHROMAL PLATINE COMPANY, A COR
Owner Address:	1748 WORKMAN ST.
Owner City,St,Zip:	LOS ANGELES, CA 90031
Tank Num:	001
Container Num:	1
Year Installed:	1979
Tank Capacity:	00002400
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	1/4 inches
Leak Detection:	Visual, Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1979
Tank Capacity:	00001500
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	1/4 inches
Leak Detection:	Visual, Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1979
Tank Capacity:	00006900
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	1/4 inches
Leak Detection:	Visual, Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1979
Tank Capacity:	00003300
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	1/4" inches
Leak Detection:	Visual, Stock Inventor
Tank Num:	005
Container Num:	5
Year Installed:	1979
Tank Capacity:	00002500

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4" inches
Leak Detection: Visual, Stock Inventor

Tank Num: 006
Container Num: 6
Year Installed: 1979
Tank Capacity: 00002700
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4" inches
Leak Detection: Visual

Tank Num: 007
Container Num: 8
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 008
Container Num: 9
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 009
Container Num: 10
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 11/4 inches
Leak Detection: Visual, Stock Inventor

Tank Num: 010
Container Num: 11
Year Installed: 1979
Tank Capacity: 00000300
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/8 inches
Leak Detection: Visual

Tank Num: 011
Container Num: 12
Year Installed: 1979
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 1/8 inches

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Leak Detection: Visual

Tank Num: 012
Container Num: 13
Year Installed: 1979
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001006-000001
Tank Status: A
Capacity: 2400
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: 12

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001006-000002
Tank Status: A
Capacity: 1500
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001006-000003
Tank Status: A
Capacity: 6900

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001006-000004
Tank Status:	A
Capacity:	3300
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001006-000005
Tank Status:	A
Capacity:	2500
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001006-000006
Tank Status:	A
Capacity:	2700
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001006-000007
Tank Status: A
Capacity: 500
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001006-000008
Tank Status: A
Capacity: 500
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001006-000009
Tank Status: A
Capacity: 500
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1006
Number: 9
Board Of Equalization: 44-011528
Referral Date: 01-20-93
Action Date: 03-16-94

CHROMAL PLATING COMPANY, INC (Continued) **1000334315**

Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001006-000010
Tank Status:	A
Capacity:	300
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001006-000011
Tank Status:	A
Capacity:	1000
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1006
Number:	9
Board Of Equalization:	44-011528
Referral Date:	01-20-93
Action Date:	03-16-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001006-000012
Tank Status:	A
Capacity:	8000
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

S132 **CHROMAL PLATING COMPANY#** **HAZNET** **S112999273**
NW **1748 WORKMAN ST** **N/A**
< 1/8 **LOS ANGELES, CA 90031**
0.093 mi.
489 ft. **Site 3 of 3 in cluster S**

Relative:
Lower

Actual:
335 ft.

HAZNET:

Year:	2012
Gepaid:	CAD008314163
Contact:	ROBIN OSBORN
Telephone:	3232256121
Mailing Name:	Not reported
Mailing Address:	1748 WORKMAN ST

CHROMAL PLATING COMPANY# (Continued) **S112999273**

Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.22935
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD008314163
Contact:	ROBIN OSBORN
Telephone:	3232256121
Mailing Name:	Not reported
Mailing Address:	1748 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.98
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD008314163
Contact:	ROBIN OSBORN
Telephone:	3232256121
Mailing Name:	Not reported
Mailing Address:	1748 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.68805
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD008314163
Contact:	ROBIN OSBORN
Telephone:	3232256121
Mailing Name:	Not reported
Mailing Address:	1748 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	3.6
Facility County:	Los Angeles

CHROMAL PLATING COMPANY# (Continued) **S112999273**

Year:	2011
Gepaid:	CAD008314163
Contact:	ROBIN OSBORN
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1748 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.89
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
110 additional CA_HAZNET: record(s) in the EDR Site Report.

T133 **MORTON INT'L WHITTAKER CO** **HIST CORTESE** **S104406291**
West **1021 MISSION** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.118 mi.
625 ft. **Site 1 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330043

T134 **FORMER TMT PATHWAY** **RCRA-SQG** **1000421643**
West **1021 N MISSION ROAD** **CAD083024141**
< 1/8 **LOS ANGELES, CA 90033**
0.118 mi.
625 ft. **Site 2 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

RCRA-SQG:

Date form received by agency:	09/14/2011
Facility name:	FORMER TMT PATHWAY
Facility address:	1021 N MISSION ROAD LOS ANGELES, CA 90033 1218
EPA ID:	CAD083024141
Mailing address:	3100 STATE RD DOW ENGINEERING SVCS CROYDON, PA 19021
Contact:	ROBERT L CASSELBERRY JR
Contact address:	3100 STATE RD DOW ENGINEERING SVCS CROYDON, PA 19021
Contact country:	US
Contact telephone:	215-785-7917
Contact email:	RCASSELBERRY@DOW.COM
EPA Region:	09
Land type:	Private
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous

FORMER TMT PATHWAY (Continued) **1000421643**

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	THE DOW CHEMICAL COMPANY
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	04/29/2001
Owner/Op end date:	Not reported
Owner/operator name:	ARARAT MISSION LLC
Owner/operator address:	1021 N MSSION RD
	LOS ANGELES, CA 90033
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	10/10/2007
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	07/18/2006
Facility name:	FORMER TMT PATHWAY
Site name:	TMT PATHWAY
Classification:	Conditionally Exempt Small Quantity Generator
Date form received by agency:	05/15/2002
Facility name:	FORMER TMT PATHWAY
Site name:	TMT - PATHWAY, LLC
Classification:	Small Quantity Generator
Date form received by agency:	05/15/2002
Facility name:	FORMER TMT PATHWAY

FORMER TMT PATHWAY (Continued) **1000421643**

Site name: TMT - PATHWAY, LLC
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: FORMER TMT PATHWAY
Site name: TMT-PATHWAY, LLC
Classification: Large Quantity Generator

Date form received by agency: 05/19/1999
Facility name: FORMER TMT PATHWAY
Site name: T M T PATHWAY L L C
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL, INC.
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: FORMER TMT PATHWAY
Site name: T M T PATHWAY L L C
Classification: Large Quantity Generator

Date form received by agency: 03/28/1996
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL, INC.
Classification: Large Quantity Generator

Date form received by agency: 03/29/1994
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL, INC./BAUER
Classification: Large Quantity Generator

Date form received by agency: 03/09/1992
Facility name: FORMER TMT PATHWAY
Site name: MORTON INTERNATIONAL BAUER COATINGS
Classification: Large Quantity Generator

Date form received by agency: 04/10/1990
Facility name: FORMER TMT PATHWAY
Site name: WHITTAKER CORP. BAUER COATINGS DIV
Classification: Large Quantity Generator

Date form received by agency: 08/15/1980
Facility name: FORMER TMT PATHWAY
Site name: T M T PATHWAY L L C
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

FORMER TMT PATHWAY (Continued) **1000421643**

Waste code: D018
Waste name: BENZENE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/14/1994
Date achieved compliance: 07/07/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/12/1991
Date achieved compliance: 05/26/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 07/24/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: Local

Evaluation date: 04/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/07/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/12/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/26/1992
Evaluation lead agency: State Contractor/Grantee

T135
West
< 1/8
0.118 mi.
625 ft.

TMT PATHWAY LLC
1021 N MISSION RD
LOS ANGELES, CA 90033

Site 3 of 18 in cluster T

HAZNET **S113001950**
N/A

Relative:
Lower

Actual:
320 ft.

HAZNET:

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported
Mailing Address:	3100 STATE RD
Mailing City,St,Zip:	CROYDON, PA 19021
Gen County:	Los Angeles
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.11
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported
Mailing Address:	3100 STATE RD
Mailing City,St,Zip:	CROYDON, PA 19021
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.3
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported
Mailing Address:	3100 STATE RD
Mailing City,St,Zip:	CROYDON, PA 19021
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.3
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported

TMT PATHWAY LLC (Continued) **S113001950**

Mailing Address: 3100 STATE RD
Mailing City,St,Zip: CROYDON, PA 19021
Gen County: Los Angeles
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.74
Facility County: Los Angeles

Year: 2012
Gepaid: CAD083024141
Contact: ROBERT CASSELBERRY JR
Telephone: 2157857917
Mailing Name: Not reported
Mailing Address: 3100 STATE RD
Mailing City,St,Zip: CROYDON, PA 19021
Gen County: Los Angeles
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.74
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
149 additional CA_HAZNET: record(s) in the EDR Site Report.

T136 **TMT-PATHWAY, LLC** **UST** **U003780087**
West **1021 N MISSION RD** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.118 mi.
625 ft. **Site 4 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

UST:
Facility ID: 23560
Latitude: 34.05936
Longitude: -118.21597
Permitting Agency LOS ANGELES, CITY OF

T137 **MORTON INT'L WHITTAKER CORP.** **LUST** **S104916136**
West **1021 MISSION RD N** **SLIC** **N/A**
< 1/8 **BOYLE HEIGHTS, CA 90033**
0.118 mi.
625 ft. **Site 5 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330043
Status: Remedial action (cleanup) Underway
Substance: Solvents
Substance Quantity: Not reported

MORTON INT'L WHITTAKER CORP. (Continued) **S104916136**

Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		EDFP
Global ID:	T0603700828	
W Global ID:	W0605100649	
Staff:	TOX	
Local Agency:	19050	
Cross Street:	MARENGO	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		5/21/1986
Date Leak Record Entered:	9/9/1987	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		2/15/1991
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Tank	
Operator:	Not reported	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7904.700531523642228216880 1593
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		4/15/1988
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MBR CONSTRUCTION	
RP Address:	1301 E. SPRING PO BOX 7917, LONG BEACH, CA 90807	
Program:	SLIC	
Lat/Long:	34.0593994 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	PRODUCT RECOVERY UNDERWAY. OFFSITE INVESTIGATION IN PROGRESSSOLVENTS. RCRA CASE	

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	04/15/1988

MORTON INT'L WHITTAKER CORP. (Continued) **S104916136**

Global Id:	T0603700828
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.0593994
Longitude:	-118.2161952
Case Type:	Cleanup Program Site
Case Worker:	DDD
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330043
File Location:	Not reported
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	* Solvents
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

T138 **MORTON INTERNATIONAL INC** **CA FID UST** **S101617358**
West **1021 N MISSION RD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90033**
0.118 mi.
625 ft. **Site 6 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

CA FID UST:

Facility ID:	19001414
Regulated By:	UTNKA
Regulated ID:	00017014
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132254154
Mail To:	Not reported
Mailing Address:	10880 WILSHIRE BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	1070
Number:	3
Board Of Equalization:	44-011574
Referral Date:	02-24-93
Action Date:	02-24-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001070-000001
Tank Status:	A
Capacity:	2000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED

MORTON INTERNATIONAL INC (Continued) **S101617358**

Number Of Tanks: 11

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000002
Tank Status: A
Capacity: 2000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000003
Tank Status: A
Capacity: 2000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000004
Tank Status: A
Capacity: 7500
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574

MORTON INTERNATIONAL INC (Continued) **S101617358**

Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000005
Tank Status: A
Capacity: 10000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000006
Tank Status: A
Capacity: 75000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000007
Tank Status: A
Capacity: 5000
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000008
Tank Status: A

MORTON INTERNATIONAL INC (Continued) **S101617358**

Capacity: 10000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000009
Tank Status: A
Capacity: 10000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000010
Tank Status: A
Capacity: 10000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Active
Comp Number: 1070
Number: 3
Board Of Equalization: 44-011574
Referral Date: 02-24-93
Action Date: 02-24-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001070-000011
Tank Status: A
Capacity: 10000
Active Date: 04-20-88
Tank Use: CHEMICAL
STG: P
Content: UNKNOWN
Number Of Tanks: Not reported

T139
West
< 1/8
0.118 mi.
625 ft.

BAUER COATINGS
1021 N MISSION RD
LOS ANGELES, CA 90033

Site 7 of 18 in cluster T

HIST UST **U001561342**
N/A

Relative:
Lower

Actual:
320 ft.

HIST UST:

Region:	STATE
Facility ID:	00000017014
Facility Type:	Other
Other Type:	PAINT FACTORY
Total Tanks:	0011
Contact Name:	FRED KING
Telephone:	2132254154
Owner Name:	WITTHAKER COPRORATION
Owner Address:	10880 WILSHIRE BLVD.
Owner City,St,Zip:	LOS ANGELES, CA 90024

Tank Num:	001
Container Num:	1
Year Installed:	1964
Tank Capacity:	00002000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, 10

Tank Num:	002
Container Num:	2
Year Installed:	1964
Tank Capacity:	00002000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, 10

Tank Num:	003
Container Num:	3
Year Installed:	1964
Tank Capacity:	00002000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	5 unknown
Leak Detection:	Stock Inventor, 10

Tank Num:	004
Container Num:	4
Year Installed:	1964
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, 10

Tank Num:	005
Container Num:	5
Year Installed:	1964
Tank Capacity:	00010000
Tank Used for:	PRODUCT

BAUER COATINGS (Continued) **U001561342**

Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 006
Container Num: 6
Year Installed: 1964
Tank Capacity: 00075000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 007
Container Num: 7
Year Installed: 1974
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 008
Container Num: 8
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 009
Container Num: 9
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 010
Container Num: 10
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 011
Container Num: 11
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Stock Inventor

140
WNW
< 1/8
0.121 mi.
639 ft.

UNION PACIFIC RAILROAD INC
1060 NORTH RICHMOND ST
LOS ANGELES, CA 90031

HAZNET **S112910243**
N/A

Relative:
Lower

Actual:
322 ft.

HAZNET:

Year:	2002
Gepaid:	CAC002294097
Contact:	MITCH DUGGER/SITE MGR
Telephone:	9098796339
Mailing Name:	Not reported
Mailing Address:	19100 SLOVER AVE
Mailing City,St,Zip:	BLOOMINGTON, CA 923160000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	0.22
Facility County:	Los Angeles

Year:	2001
Gepaid:	CAC002294097
Contact:	MITCH DUGGER/SITE MGR
Telephone:	9098796339
Mailing Name:	Not reported
Mailing Address:	19100 SLOVER AVE
Mailing City,St,Zip:	BLOOMINGTON, CA 923160000
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Unspecified sludge waste
Disposal Method:	Disposal, Land Fill
Tons:	0.2
Facility County:	Los Angeles

Year:	2001
Gepaid:	CAC002294097
Contact:	MITCH DUGGER/SITE MGR
Telephone:	9098796339
Mailing Name:	Not reported
Mailing Address:	19100 SLOVER AVE
Mailing City,St,Zip:	BLOOMINGTON, CA 923160000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	0.33
Facility County:	Los Angeles

Year:	2001
Gepaid:	CAC002294097
Contact:	MITCH DUGGER/SITE MGR
Telephone:	9098796339
Mailing Name:	Not reported
Mailing Address:	19100 SLOVER AVE
Mailing City,St,Zip:	BLOOMINGTON, CA 923160000

UNION PACIFIC RAILROAD INC (Continued) **S112910243**

Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Disposal, Land Fill
Tons: 0.45
Facility County: Los Angeles

Year: 2000
Gepaid: CAC002294097
Contact: MITCH DUGGER/SITE MGR
Telephone: 9098796339
Mailing Name: Not reported
Mailing Address: 19100 SLOVER AVE
Mailing City,St,Zip: BLOOMINGTON, CA 923160000
Gen County: Not reported
TSD EPA ID: UTC093012201
TSD County: Not reported
Waste Category: Invalid waste code
Disposal Method: Disposal, Land Fill
Tons: 0
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

T141 **US CEVA LOGISTICS** **HAZNET** **S113152497**
West **1041 RICHMOND ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.131 mi.
693 ft. **Site 8 of 18 in cluster T**

Relative:
Lower

Actual:
317 ft.

HAZNET:
Year: 2008
Gepaid: CAL000332190
Contact: KEN JOHNSON
Telephone: 9162570092
Mailing Name: Not reported
Mailing Address: 1600 VERNON ST
Mailing City,St,Zip: ROSEVILLE, CA 956783951
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.45
Facility County: Los Angeles

T142 **FORMER TNT PATHWAY** **HAZNET** **S113795858**
West **1021 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.133 mi.
702 ft. **Site 9 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

HAZNET:

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported
Mailing Address:	3100 STATE RD
Mailing City,St,Zip:	CROYDON, PA 19021
Gen County:	Los Angeles
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.11
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported
Mailing Address:	3100 STATE RD
Mailing City,St,Zip:	CROYDON, PA 19021
Gen County:	Los Angeles
TSD EPA ID:	UTD981552177
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.3125
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported
Mailing Address:	3100 STATE RD
Mailing City,St,Zip:	CROYDON, PA 19021
Gen County:	Los Angeles
TSD EPA ID:	CAD980675276
TSD County:	Kern
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.74
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAD083024141
Contact:	ROBERT CASSELBERRY JR
Telephone:	2157857917
Mailing Name:	Not reported
Mailing Address:	3100 STATE RD

FORMER TNT PATHWAY (Continued) **S113795858**

Mailing City,St,Zip: CROYDON, PA 19021
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.3
Facility County: Los Angeles

Year: 2011
Gepaid: CAD083024141
Contact: ALBERTO MEJIA
Telephone: 3236878992
Mailing Name: Not reported
Mailing Address: 1021 N MISSION RD
Mailing City,St,Zip: LOS ANGELES, CA 900331218
Gen County: Not reported
TSD EPA ID: CAD980675276
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 1.9
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
72 additional CA_HAZNET: record(s) in the EDR Site Report.

U143 **NU-WAY PLATING CO** **HAZNET** **S112999270**
NNW **1805 SICHEL ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.135 mi.
711 ft. **Site 1 of 3 in cluster U**

Relative:
Lower

Actual:
324 ft.

HAZNET:
Year: 1995
Gepaid: CAD008309890
Contact: CARLOS S SIMENTAL
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1805 SICHEL ST
Mailing City,St,Zip: LOS ANGELES, CA 900313330
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Recycler
Tons: 10.4250
Facility County: Los Angeles

Year: 1995
Gepaid: CAD008309890
Contact: CARLOS S SIMENTAL
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1805 SICHEL ST
Mailing City,St,Zip: LOS ANGELES, CA 900313330

NU-WAY PLATING CO (Continued) **S112999270**

Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: .2500
Facility County: Los Angeles

Year: 1995
Gepaid: CAD008309890
Contact: CARLOS S SIMENTAL
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1805 SICHEL ST
Mailing City,St,Zip: LOS ANGELES, CA 900313330
Gen County: Not reported
TSD EPA ID: NVT33001000
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Not reported
Tons: 16.0000
Facility County: Los Angeles

Year: 1995
Gepaid: CAD008309890
Contact: CARLOS S SIMENTAL
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1805 SICHEL ST
Mailing City,St,Zip: LOS ANGELES, CA 900313330
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Not reported
Tons: 338.7898
Facility County: Los Angeles

Year: 1995
Gepaid: CAD008309890
Contact: CARLOS S SIMENTAL
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1805 SICHEL ST
Mailing City,St,Zip: LOS ANGELES, CA 900313330
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Polychlorinated biphenyls and material containing PCBs
Disposal Method: Not reported
Tons: .3306
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
13 additional CA_HAZNET: record(s) in the EDR Site Report.

U144 **NU WAY PLATING CO** **CERCLIS** **1000435845**
NNW **1805 SICHEL ST** **CAD008309890**
1/8-1/4 **LOS ANGELES, CA 90031**
0.135 mi.
711 ft. **Site 2 of 3 in cluster U**

Relative:
Lower

Actual:
324 ft.

CERCLIS:

Site ID:	0905156
EPA ID:	CAD008309890
Facility County:	LOS ANGELES
Short Name:	NU-WAY PLATING
Congressional District:	30
IFMS ID:	09AY
SMSA Number:	4480
USGC Hydro Unit:	18070105
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.90000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	O
EPA Region:	09
Classification:	Abandoned
Site Settings Code:	Not reported
NPL Status:	Not on the NPL
DMNSN Unit Code:	ACRE
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Removal Only Site (No Site Assessment Work Needed)
Non NPL Status Date:	/ /
Site Fips Code:	06037
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	9000068.00000
Contact Name:	Tom J. Dunkelman
Contact Tel:	(415) 972-3044
Contact Title:	On-Scene Coordinator (OSC)
Contact Email:	Not reported
Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez
Contact Tel:	(415) 972-3978
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13003858.00000
Contact Name:	Sharon Murray
Contact Tel:	(415) 972-4250
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13004003.00000

NU WAY PLATING CO (Continued) **1000435845**

Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Alias Comments: Not reported
Site Description: AN ABANDONED ELECTROPLATING FACILITY SITUATED IN LOS ANGELES, CALIFORNIA.

CERCLIS Assessment History:

Action Code: 001
Action: Notice Letters Issued
Date Started: / /
Date Completed: 01/12/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL NEGOTIATIONS
Date Started: 01/12/95
Date Completed: 01/30/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 01/30/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ADMINISTRATIVE RECORDS
Date Started: 04/03/95
Date Completed: 04/03/95
Priority Level: Admin Record Compiled for a Removal Event
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

NU WAY PLATING CO (Continued) **1000435845**

Action Code:	001
Action:	POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started:	03/01/95
Date Completed:	08/30/95
Priority Level:	Cleaned up
Operable Unit:	SITEWIDE
Primary Responsibility:	Responsible Party
Planning Status:	Primary
Urgency Indicator:	Time Critical
Action Anomaly:	Not reported

U145 **A & A AUTO WRECKING** **HAZNET** **S113091061**
NNW **1806 SICHEL ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.136 mi.
720 ft. **Site 3 of 3 in cluster U**

Relative:
Lower

Actual:
324 ft.

HAZNET:

Year:	2005
Gepaid:	CAL000173167
Contact:	ROBERT VEGA/OWNER
Telephone:	3232239481
Mailing Name:	Not reported
Mailing Address:	1806 SICHEL ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	0.58
Facility County:	Los Angeles

V146 **GOMEZ & BROS. BODY SHOP** **HAZNET** **S113058619**
ESE **2307 CHARLOTTE ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.140 mi.
739 ft. **Site 1 of 9 in cluster V**

Relative:
Lower

Actual:
351 ft.

HAZNET:

Year:	1996
Gepaid:	CAL000096595
Contact:	MARIA CORONA GOMEZ
Telephone:	2132211100
Mailing Name:	Not reported
Mailing Address:	14702 ARROW HWY
Mailing City,St,Zip:	BALDWIN PARK, CA 917061734
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Recycler
Tons:	.2668
Facility County:	Los Angeles

V147
ESE
1/8-1/4
0.140 mi.
739 ft.

FRANCO'S AUTO SERVICE
2307 CHARLOTTE ST
LOS ANGELES, CA 90033

Site 2 of 9 in cluster V

HAZNET **S113093155**
N/A

Relative:
Lower

Actual:
351 ft.

HAZNET:

Year:	2009
Gepaid:	CAL000176545
Contact:	RAMIRO FRANCO, OWNER
Telephone:	3232217406
Mailing Name:	Not reported
Mailing Address:	2307 CHARLOTTE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.1251
Facility County:	Los Angeles

Year:	2009
Gepaid:	CAL000176545
Contact:	RAMIRO FRANCO, OWNER
Telephone:	3232217406
Mailing Name:	Not reported
Mailing Address:	2307 CHARLOTTE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.1251
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAL000176545
Contact:	REBECCA FRANCO
Telephone:	3232217406
Mailing Name:	Not reported
Mailing Address:	2307 CHARLOTTE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Recycler
Tons:	0.23
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAL000176545
Contact:	REBECCA FRANCO
Telephone:	3232217406
Mailing Name:	Not reported

FRANCO'S AUTO SERVICE (Continued) **S113093155**

Mailing Address: 2307 CHARLOTTE ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: 0.23
Facility County: Los Angeles

Year: 1999
Gepaid: CAL000176545
Contact: RAMIRO FRANCO
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 2307 CHARLOTTE ST
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: .1084
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
5 additional CA_HAZNET: record(s) in the EDR Site Report.

V148 **LAUSD/ NEWMAN NUTRITION CTR** **HAZNET** **S113012607**
ESE **2310 CHARLOTTE ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.142 mi.
751 ft. **Site 3 of 9 in cluster V**

Relative:
Lower

Actual:
352 ft.

HAZNET:
Year: 2009
Gepaid: CAD982022576
Contact: SOE AUNG / ECM
Telephone: 2132413199
Mailing Name: Not reported
Mailing Address: 333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 2.919
Facility County: Los Angeles

Year: 2006
Gepaid: CAD982022576
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000

LAUSD/ NEWMAN NUTRITION CTR (Continued) **S113012607**

Gen County: Not reported
TSD EPA ID: CAD980884183
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Tons: 0.22
Facility County: Los Angeles

V149 **NEWMAN NUTRITION CENTER** **UST** **U003879713**
ESE **2310 CHARLOTTE ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.142 mi.
751 ft. **Site 4 of 9 in cluster V**

Relative:
Lower

Actual:
352 ft.

UST:
Facility ID: 25083
Latitude: 34.05677
Longitude: -118.20268
Permitting Agency LOS ANGELES, CITY OF

SWEEPS UST:
Status: Active
Comp Number: 5977
Number: 4
Board Of Equalization: Not reported
Referral Date: 03-04-93
Action Date: 03-04-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

V150 **LOS ANGELES USD NEWMAN NUTRITION CENTER** **RCRA-SQG** **1000102132**
ESE **2310 CHARLOTTE ST** **CAD982022576**
1/8-1/4 **LOS ANGELES, CA**
0.142 mi.
751 ft. **Site 5 of 9 in cluster V**

Relative:
Lower

Actual:
352 ft.

RCRA-SQG:
Date form received by agency: 08/07/1987
Facility name: LOS ANGELES USD NEWMAN NUTRITION CENTER
Facility address: 2310 CHARLOTTE ST
LOS ANGELES, CA 90033
EPA ID: CAD982022576
Mailing address: 1425 S SAN PEDRO ST ROOM 215
LOS ANGELES, CA 90015
Contact: ENVIRONMENTAL MANAGER
Contact address: 2310 CHARLOTTE ST
LOS ANGELES, CA 90033
Contact country: US

LOS ANGELES USD NEWMAN NUTRITION CENTER (Continued) **1000102132**

Contact telephone: (213) 742-7371
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

V151 **NEWMAN NUTRITION CENTER** **CA FID UST** **S101617367**
ESE **2310 CHARLOTTE ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.142 mi.
751 ft. **Site 6 of 9 in cluster V**

Relative:
Lower

Actual:
352 ft.

CA FID UST:

Facility ID:	19030951
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2137427590
Mail To:	Not reported
Mailing Address:	2310 CHARLOTTE ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

V152 **NEWMAN NTURITION CENTER** **HIST UST** **U001561364**
ESE **2310 CHARLOTTE ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.142 mi.
751 ft. **Site 7 of 9 in cluster V**

Relative:
Lower

Actual:
352 ft.

HIST UST:

Region:	STATE
Facility ID:	00000068260
Facility Type:	Other
Other Type:	SCHOOL DISTRICT
Total Tanks:	0001
Contact Name:	CARLOS MORENO ASSISTANT MAINT.
Telephone:	2137427586
Owner Name:	LOS ANGELES UNIFIED SCHOOL DIS
Owner Address:	1425 SOUTH SAN PEDRO ST.-RM.30
Owner City,St,Zip:	LOS ANGELES, CA 90015
Tank Num:	001
Container Num:	49
Year Installed:	Not reported
Tank Capacity:	00008000
Tank Used for:	WASTE
Type of Fuel:	4
Tank Construction:	Unkown centimeters
Leak Detection:	None

W153 **LAC+USC MEDICAL CENTER/GENERAL STORAGE AREA** **SWEEPS UST** **S106928454**
NNW **1830 N GRIFFIN AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.143 mi.
755 ft. **Site 1 of 3 in cluster W**

Relative:
Lower

Actual:
328 ft.

SWEEPS UST:

Status:	Active
Comp Number:	8190
Number:	4
Board Of Equalization:	Not reported
Referral Date:	06-15-93
Action Date:	06-15-93
Created Date:	06-15-93
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-008190-008190
Tank Status:	A
Capacity:	4000
Active Date:	06-15-93
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	1

W154 **LAC+USC MEDICAL CENTER** **UST** **U003781332**
NNW **1830 GRIFFIN AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.144 mi.
762 ft. **Site 2 of 3 in cluster W**

Relative:
Lower

Actual:
328 ft.

UST:

Facility ID:	25017
Latitude:	34.06482
Longitude:	-118.21151
Permitting Agency	LOS ANGELES, CITY OF

X155 **UNIVERSITY OF SOUTHERN CALIFORNIA** **HAZNET** **S113179355**
ENE **1411 EASTLAKE ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.146 mi.
771 ft. **Site 1 of 11 in cluster X**

Relative:
Higher

Actual:
371 ft.

HAZNET:

Year:	2012
Gepaid:	CAT000617597
Contact:	MICHELLE LEE ENV SFTY OFCR
Telephone:	3238643188
Mailing Name:	Not reported
Mailing Address:	1540 ALCAZAR ST STE 148
Mailing City,St,Zip:	LOS ANGELES, CA 900890080
Gen County:	Los Angeles
TSD EPA ID:	ARD069748192
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.2
Facility County:	Los Angeles

UNIVERSITY OF SOUTHERN CALIFORNIA (Continued) **S113179355**

Year: 2012
Gepaid: CAT000617597
Contact: MICHELLE LEE ENV SFTY OFCR
Telephone: 3238643188
Mailing Name: Not reported
Mailing Address: 1540 ALCAZAR ST STE 148
Mailing City,St,Zip: LOS ANGELES, CA 900890080
Gen County: Los Angeles
TSD EPA ID: ARD069748192
TSD County: 99
Waste Category: Not reported
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 3.8
Facility County: Los Angeles

Year: 2012
Gepaid: CAT000617597
Contact: MICHELLE LEE ENV SFTY OFCR
Telephone: 3238643188
Mailing Name: Not reported
Mailing Address: 1540 ALCAZAR ST STE 148
Mailing City,St,Zip: LOS ANGELES, CA 900890080
Gen County: Los Angeles
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 2.34
Facility County: Los Angeles

Year: 2012
Gepaid: CAT000617597
Contact: MICHELLE LEE ENV SFTY OFCR
Telephone: 3238643188
Mailing Name: Not reported
Mailing Address: 1540 ALCAZAR ST STE 148
Mailing City,St,Zip: LOS ANGELES, CA 900890080
Gen County: Los Angeles
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 2.34
Facility County: Los Angeles

Year: 2012
Gepaid: CAT000617597
Contact: MICHELLE LEE ENV SFTY OFCR
Telephone: 3238643188
Mailing Name: Not reported
Mailing Address: 1540 ALCAZAR ST STE 148
Mailing City,St,Zip: LOS ANGELES, CA 900890080
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

UNIVERSITY OF SOUTHERN CALIFORNIA (Continued) **S113179355**

(H010-H129) Or (H131-H135)
Tons: 1.4595
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
835 additional CA_HAZNET: record(s) in the EDR Site Report.

X156 **KENNETH NORRIS JR. CANCER/HOSPITAL/UNIVERSITY OF SO. CAL** **SWEEPS UST** **S106928146**
ENE **1411 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.146 mi.
771 ft. **Site 2 of 11 in cluster X**

Relative:
Higher

Actual:
371 ft.

SWEEPS UST:
Status: Active
Comp Number: 5124
Number: 1
Board Of Equalization: Not reported
Referral Date: 09-17-93
Action Date: 03-01-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

X157 **USC/NORRIS CANCER HOSPITOL** **HAZNET** **S113143805**
ENE **1441 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90089**
0.147 mi.
778 ft. **Site 3 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

HAZNET:
Year: 2012
Gepaid: CAL000309829
Contact: MARVIN GRANADOS
Telephone: 3238653428
Mailing Name: Not reported
Mailing Address: 1441 EASTLAKE AVE
Mailing City,St,Zip: LOS ANGELES, CA 900899171
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.386
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000309829

USC/NORRIS CANCER HOSPITOL (Continued) **S113143805**

Contact:	MARVIN GRANADOS
Telephone:	3238653428
Mailing Name:	Not reported
Mailing Address:	1441 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900899171
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.386
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000309829
Contact:	MARVIN GRANADOS
Telephone:	3238653428
Mailing Name:	Not reported
Mailing Address:	1441 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900899171
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.752
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000309829
Contact:	MARVIN GRANADOS
Telephone:	3238653428
Mailing Name:	Not reported
Mailing Address:	1441 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900899171
Gen County:	Los Angeles
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.752
Facility County:	Los Angeles

Year:	2012
Gepaid:	CAL000309829
Contact:	MARVIN GRANADOS
Telephone:	3238653428
Mailing Name:	Not reported
Mailing Address:	1441 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900899171
Gen County:	Los Angeles
TSD EPA ID:	ARD069748192
TSD County:	99
Waste Category:	Not reported

USC/NORRIS CANCER HOSPITOL (Continued) **S113143805**

Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.0035
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
143 additional CA_HAZNET: record(s) in the EDR Site Report.

X158 **UNIVERSITY OF SOUTHERN CALIFORNIA** **HAZNET** **S112860699**
ENE **1441 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.147 mi.
778 ft. **Site 4 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

HAZNET:
Year: 1994
Gepaid: CAC001021608
Contact: UNIV OF SOUTHERN CALIF
Telephone: 2132246461
Mailing Name: Not reported
Mailing Address: 1441 EASTLAKE AVE
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD009452708
TSD County: Not reported
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: .1668
Facility County: Los Angeles

X159 **KEN NORRIS JR CANCER HOSP/RESE** **CA FID UST** **S101585584**
ENE **1441 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.147 mi.
778 ft. **Site 5 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

CA FID UST:
Facility ID: 19025776
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2137437743
Mail To: Not reported
Mailing Address: 1441 EASTLAKE AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

X160 **NORRIS CANCER HOSPITAL** **RGA LUST** **S114661339**
ENE **1441 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.147 mi.
778 ft. **Site 6 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

RGA LUST:

2004	NORRIS CANCER HOSPITAL	1441 EASTLAKE AVE
1996	NORRIS CANCER HOSPITAL	1441 EASTLAKE AVE

X161 **UNIVERSITY OF SOUTHERN CALIFORNIA** **HAZNET** **S113072077**
ENE **1441 EASTLAKE AVE RM 800** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.147 mi.
778 ft. **Site 7 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

HAZNET:

Year:	1999
Gepaid:	CAL000127287
Contact:	UNIV OF SO CAL LEO WADE JR PHD
Telephone:	2137406448
Mailing Name:	Not reported
Mailing Address:	1540 ALCAZAR ST #148
Mailing City,St,Zip:	LOS ANGELES, CA 900334500
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.2919
Facility County:	Los Angeles

Year:	1998
Gepaid:	CAL000127287
Contact:	UNIV OF SO CAL LEO WADE JR PHD
Telephone:	2137406448
Mailing Name:	Not reported
Mailing Address:	1540 ALCAZAR ST #148
Mailing City,St,Zip:	LOS ANGELES, CA 900334500
Gen County:	Not reported
TSD EPA ID:	CAT080025711
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Not reported
Tons:	.2085
Facility County:	Los Angeles

Year:	1997
Gepaid:	CAL000127287
Contact:	UNIV OF SO CAL LEO WADE JR PHD
Telephone:	2137406448
Mailing Name:	Not reported
Mailing Address:	1540 ALCAZAR ST #148
Mailing City,St,Zip:	LOS ANGELES, CA 900334500
Gen County:	Not reported
TSD EPA ID:	CAT080025711
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	.1668

UNIVERSITY OF SOUTHERN CALIFORNIA (Continued) **S113072077**

Facility County: Los Angeles

Year: 1996
Gepaid: CAL000127287
Contact: UNIV OF SO CAL LEO WADE JR PHD
Telephone: 2137406448
Mailing Name: Not reported
Mailing Address: 1540 ALCAZAR ST #148
Mailing City,St,Zip: LOS ANGELES, CA 900334500
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Recycler
Tons: .0208
Facility County: Los Angeles

Year: 1995
Gepaid: CAL000127287
Contact: UNIV OF SO CAL LEO WADE JR PHD
Telephone: 2137406448
Mailing Name: Not reported
Mailing Address: 1540 ALCAZAR ST #148
Mailing City,St,Zip: LOS ANGELES, CA 900334500
Gen County: Not reported
TSD EPA ID: CAD099452708
TSD County: Not reported
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: .1042
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

X162 **NORRIS CANCER HOSPITAL** **HIST CORTESE** **S103065269**
ENE **1441 EASTLAKE AVE** **LUST** **N/A**
1/8-1/4 **BOYLE HEIGHTS, CA 90033**
0.147 mi.
778 ft. **Site 8 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330261

Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330343

LUST:
Region: STATE
Global Id: T0603700853
Latitude: 34.0618532
Longitude: -118.2047929

NORRIS CANCER HOSPITAL (Continued) **S103065269**

Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/11/2011
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330343
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700853
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700853
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603700853
Status:	Open - Case Begin Date
Status Date:	06/02/1994

Global Id:	T0603700853
Status:	Open - Site Assessment
Status Date:	07/05/1994

Global Id:	T0603700853
Status:	Open - Site Assessment
Status Date:	09/14/1994

Global Id:	T0603700853
Status:	Completed - Case Closed
Status Date:	10/11/2011

Regulatory Activities:

Global Id:	T0603700853
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

NORRIS CANCER HOSPITAL (Continued) **S103065269**

Global Id: T0603700853
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700853
Action Type: RESPONSE
Date: 09/14/1994
Action: Final Remedial Action Report / Corrective Action Report

Global Id: T0603700853
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900330343
Status: Leak being confirmed
Substance: Diesel
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603700853
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: PABLO ST
Enforcement Type: Not reported
Date Leak Discovered: 6/2/1994
Date Leak First Reported: 7/5/1994
Date Leak Record Entered: 4/15/1996
Date Confirmation Began: 7/5/1994
Date Leak Stopped: 6/2/1994
Date Case Last Changed on Database: 7/5/1994
Date the Case was Closed: Not reported
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: Structure Failure
Leak Source: Piping
Operator: USC OLD CASE #960415-04
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 12249.614996741089747160485286
Source of Cleanup Funding: Piping
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported

NORRIS CANCER HOSPITAL (Continued) **S103065269**

Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: UNIVERSITY OF SOUTHERN CA
RP Address: 941 W 35TH ST., LA CA 90089-0681
Program: LUST
Lat/Long: 34.0618532 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: CONTAMINATED SOIL EXCAVATED AND PENDING DISPOSAL OFFSITE

X163 **UNIV. OF SO. CAL/NORRIS HOSP.** **UST** **U003781734**
ENE **1441 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.147 mi.
778 ft. **Site 9 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

UST:
Facility ID: 25513
Latitude: 34.06166
Longitude: -118.20445
Permitting Agency: LOS ANGELES, CITY OF

Y164 **GANNETT OUTDOOR OF SO CAL** **HAZNET** **S113027203**
West **1016 N MISSION ROAD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.148 mi.
779 ft. **Site 1 of 5 in cluster Y**

Relative:
Lower

Actual:
323 ft.

HAZNET:
Year: 1996
Gepaid: CAL000015994
Contact: GANNETT INC
Telephone: 7032846000
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 1.8348
Facility County: Los Angeles

Year: 1994
Gepaid: CAL000015994
Contact: GANNETT INC

GANNETT OUTDOOR OF SO CAL (Continued) **S113027203**

Telephone: 7032846000
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 2.3143
Facility County: Los Angeles

Year: 1994
Gepaid: CAL000015994
Contact: GANNETT INC
Telephone: 7032846000
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Recycler
Tons: .2293
Facility County: Los Angeles

Year: 1994
Gepaid: CAL000015994
Contact: GANNETT INC
Telephone: 7032846000
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Oil/water separation sludge
Disposal Method: Not reported
Tons: .7506
Facility County: Los Angeles

Year: 1994
Gepaid: CAL000015994
Contact: GANNETT INC
Telephone: 7032846000
Mailing Name: Not reported
Mailing Address: 1731 WORKMAN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313334
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 1.9500
Facility County: Los Angeles

GANNETT OUTDOOR OF SO CAL (Continued) **S113027203**

Click this hyperlink while viewing on your computer to access
16 additional CA_HAZNET: record(s) in the EDR Site Report.

Y165 **STEVE/MADDALENA RIVOLI FAMILY TRUST** **HAZNET** **S112842019**
West **1016 MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.148 mi.
779 ft. **Site 2 of 5 in cluster Y**

Relative:
Lower

Actual:
323 ft.

HAZNET:

Year:	1997
Gepaid:	CAC000741888
Contact:	STEVE/MADDALENA RIVOLI FAMILY
Telephone:	3103274428
Mailing Name:	Not reported
Mailing Address:	737 LAMAR ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.8340
Facility County:	Los Angeles

X166 **RUDOLPH SLEPTEN INC** **HAZNET** **S112964312**
ENE **1440 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.149 mi.
787 ft. **Site 10 of 11 in cluster X**

Relative:
Lower

Actual:
355 ft.

HAZNET:

Year:	2007
Gepaid:	CAC002621167
Contact:	FRANK COMTE
Telephone:	7143336903
Mailing Name:	Not reported
Mailing Address:	16851 HALE AVE
Mailing City,St,Zip:	IRVINE, CA 926065020
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.01
Facility County:	Los Angeles

Year:	2007
Gepaid:	CAC002621167
Contact:	FRANK COMTE
Telephone:	7143336903
Mailing Name:	Not reported
Mailing Address:	16851 HALE AVE
Mailing City,St,Zip:	IRVINE, CA 926065020
Gen County:	Not reported
TSD EPA ID:	CAD028409019

RUDOLPH SLEPTEN INC (Continued) **S112964312**

TSD County: Not reported
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.22
Facility County: Los Angeles

T167 **JOE'S CHEVRON** **CA FID UST** **S101587920**
West **1011 N MISSION RD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.149 mi.
789 ft. **Site 10 of 18 in cluster T**

Relative:
Lower

Actual:
319 ft.

CA FID UST:
Facility ID: 19056145
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132276500
Mail To: Not reported
Mailing Address: 1011 N MISSION RD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 5890
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

V168 **CHMIRS** **S111757900**
ESE **2322 CHARLOTTE ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.149 mi.
789 ft. **Site 8 of 9 in cluster V**

Relative:
Lower

Actual:
354 ft.

CHMIRS:

OES Incident Number:	11-6519	
OES notification:	11/01/2011	
OES Date:	Not reported	
OES Time:	Not reported	
Incident Date:	Not reported	
Date Completed:	**Not reported**	
Property Use:	Not reported	
Agency Id Number:	Not reported	
Agency Incident Number:	Not reported	
Time Notified:	Not reported	
Time Completed:	Not reported	
Surrounding Area:	Not reported	
Estimated Temperature:	Not reported	
Property Management:	Not reported	
Special Studies 1:	Not reported	
Special Studies 2:	Not reported	
Special Studies 3:	Not reported	
Special Studies 4:	Not reported	
Special Studies 5:	Not reported	
Special Studies 6:	Not reported	
More Than Two Substances Involved?:		Not reported
Resp Agncy Personel # Of Decontaminated:		Not reported
Responding Agency Personel # Of Injuries:		Not reported
Responding Agency Personel # Of Fatalities:		Not reported
Others Number Of Decontaminated:		Not reported
Others Number Of Injuries:		Not reported
Others Number Of Fatalities:		Not reported
Vehicle Make/year:	Not reported	
Vehicle License Number:	Not reported	
Vehicle State:	Not reported	
Vehicle Id Number:	Not reported	
CA/DOT/PUC/ICC Number:	Not reported	
Company Name:	Not reported	
Reporting Officer Name/ID:	Not reported	
Report Date:	Not reported	
Comments:	Not reported	
Facility Telephone:	Not reported	
Waterway Involved:	Yes	
Waterway:	Storm Drain to the LA River	
Spill Site:	Merchant/Business	
Cleanup By:	Responsible Party	
Containment:	Not reported	
What Happened:	Not reported	
Type:	Not reported	
Measure:	Gal(s)	
Other:	Not reported	
Date/Time:	943	
Year:	2011	
Agency:	City of Los Angeles	
Incident Date:	11/1/2011	
Admin Agency:	Los Angeles City Fire Department	
Amount:	Not reported	

(Continued) **S111757900**

Contained:	Yes
Site Type:	Storm Drain to the LA River
E Date:	Not reported
Substance:	Sewage
Quantity Released:	125
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Debris blockage caused this release to a storm drain which flows to the Los Angeles River.

V169 **ERNS** **2011994240**
ESE **2322 CHARLOTTE ST.** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.149 mi.
789 ft. **Site 9 of 9 in cluster V**

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
354 ft.

T170 **SAN ANTONIO WINERY** **LUST** **S103281890**
West **1016 MISSION RD N** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.167 mi.
881 ft. **Site 11 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

LUST:

Region:	STATE
Global Id:	T0603700843
Latitude:	34.059277
Longitude:	-118.215707
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/22/1998
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	AT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330243
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

SAN ANTONIO WINERY (Continued) **S103281890**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700843
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708

Global Id:	T0603700843
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700843
Status:	Open - Case Begin Date
Status Date:	07/31/1992

Global Id:	T0603700843
Status:	Open - Site Assessment
Status Date:	09/14/1992

Global Id:	T0603700843
Status:	Open - Site Assessment
Status Date:	02/10/1994

Global Id:	T0603700843
Status:	Open - Site Assessment
Status Date:	07/13/1995

Global Id:	T0603700843
Status:	Completed - Case Closed
Status Date:	01/22/1998

Regulatory Activities:

Global Id:	T0603700843
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0603700843
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

LUST REG 4:

SAN ANTONIO WINERY (Continued) **S103281890**

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330243	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700843	
W Global ID:	W0605100649	
Staff:	AT	
Local Agency:	19050	
Cross Street:	FWY 5	
Enforcement Type:	Not reported	
Date Leak Discovered:	7/31/1992	
Date Leak First Reported:		7/31/1992
Date Leak Record Entered:	12/22/1992	
Date Confirmation Began:	9/14/1992	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		4/1/1998
Date the Case was Closed:		1/22/1998
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	Corrosion	
Leak Source:	Tank	
Operator:	RIPP, BILL	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7949.505466087510032822041858
Source of Cleanup Funding:		Tank
Preliminary Site Assessment Workplan Submitted:		2/10/1994
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		7/13/1995
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	SAN ANTONIO WINERY	
RP Address:	737 LAMAR ST., LOS ANGELES, CA 90031	
Program:	LUST	
Lat/Long:	34.0591944 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	

SAN ANTONIO WINERY (Continued) **S103281890**

Summary: 4/1/98 DOCUMENTATION FOR WELL DECOMMISSIONING ACTIVITIES

T171 **GANNETT OUTDOOR CO** **CA FID UST** **S101583985**
West **1016 N MISSION RD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.167 mi.
881 ft. **Site 12 of 18 in cluster T**

Relative:
Lower

Actual:
320 ft.

CA FID UST:

Facility ID:	19007776
Regulated By:	UTNKA
Regulated ID:	00029591
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132227171
Mail To:	Not reported
Mailing Address:	1731 WORKMAN ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	1838
Number:	1
Board Of Equalization:	44-012006
Referral Date:	06-07-93
Action Date:	04-07-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001838-000005
Tank Status:	A
Capacity:	10000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	2

Status:	Active
Comp Number:	1838
Number:	1
Board Of Equalization:	44-012006
Referral Date:	06-07-93
Action Date:	04-07-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001838-000007
Tank Status:	A
Capacity:	25000
Active Date:	04-20-88

GANNETT OUTDOOR CO (Continued) **S101583985**

Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

T172 **SAN ANTONIO WINERY** **HIST CORTESE** **S103989470**
West **1016 MISSION** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.168 mi.
888 ft. **Site 13 of 18 in cluster T**

Relative:
Lower

Actual:
319 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900330243

T173 **GANNETT OUTDOOR CO., INC. OF S** **HIST UST** **U001561350**
West **1016 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.168 mi.
888 ft. **Site 14 of 18 in cluster T**

Relative:
Lower

Actual:
319 ft.

HIST UST:
Region: STATE
Facility ID: 00000029591
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0007
Contact Name: Not reported
Telephone: 2132227171
Owner Name: GANNETT OUTDOOR CO., INC. OF S
Owner Address: 1731 WORKMAN STREET
Owner City,St,Zip: LOS ANGELES, CA 90031

Tank Num: 001
Container Num: #5
Year Installed: Not reported
Tank Capacity: 00007500
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: #6
Year Installed: 1970
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .25 inches
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: #10
Year Installed: 1978

GANNETT OUTDOOR CO., INC. OF S (Continued) **U001561350**

Tank Capacity: 00025000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: #1
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: #2
Year Installed: 1976
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: #3
Year Installed: Not reported
Tank Capacity: 00007500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: .5 inches
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: #9
Year Installed: 1980
Tank Capacity: 00025000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: .5 inches
Leak Detection: Stock Inventor

T174 **CENTRAL PARKING ENFORCEMENT REPAIR SHOP** **RCRA-LQG** **1000314427**
West **1016 NORTH MISSION ROAD** **CAD982462194**
1/8-1/4 **LOS ANGELES, CA 90023**
0.168 mi.
888 ft. **Site 15 of 18 in cluster T**

Relative:
Lower

Actual:
319 ft.

RCRA-LQG:
Date form received by agency: 07/15/2010
Facility name: CENTRAL PARKING ENFORCEMENT REPAIR SHOP
Facility address: 1016 NORTH MISSION ROAD
LOS ANGELES, CA 90023
EPA ID: CAD982462194
Mailing address: EAST FIRST STREET
ROOM 600
LOS ANGELES, CA 90012
Contact: EMMANUEL AMESI

CENTRAL PARKING ENFORCEMENT REPAIR SHOP (Continued) **1000314427**

Contact address: EAST FIRST STREET ROOM 600
LOS ANGELES, CA 90012
Contact country: Not reported
Contact telephone: (213) 978-3798
Contact email: EMMANUEL.AMESI@LACITY.ORG
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: CITY OF LOS ANGELES, DEPT OF GEN SVC
Owner/operator address: Not reported
90012
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1950
Owner/Op end date: Not reported

Owner/operator name: GANNETT INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CITY OF LOS ANGELES
Owner/operator address: NORTH MAIN STREET ROOM 709
LOS ANGELES, CA 90012
Owner/operator country: Not reported
Owner/operator telephone: (213) 978-3798
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1950
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private

CENTRAL PARKING ENFORCEMENT REPAIR SHOP (Continued) **1000314427**

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 10/05/2005
Facility name: CENTRAL PARKING ENFORCEMENT REPAIR SHOP
Site name: CENTRAL PARKING ENFORCEMENT AUTO REPAIR
Classification: Small Quantity Generator

Date form received by agency: 12/31/1988
Facility name: CENTRAL PARKING ENFORCEMENT REPAIR SHOP
Site name: GANNETT OUTDOOR OF SO CA
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: P051
Waste name: 2,7:3,6-DIMETHANONAPHTH [2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA,2BETA,2ABETA,3ALPHA,6ALPHA,6ABETA,7BETA, 7AALPHA)-, & METABOLITES

Waste code: P123
Waste name: TOXAPHENE

Waste code: U002
Waste name: ACETONE (I)

Waste code: U036
Waste name: CHLORDANE, ALPHA & GAMMA ISOMERS

Waste code: U070
Waste name: BENZENE, 1,2-DICHLORO-

Violation Status: No violations found

T175
West
1/8-1/4
0.168 mi.
888 ft.

CENTRAL PARKING ENFORCEMENT AUTO REPAIR
1016 N MISSION ROAD
LOS ANGELES, CA 90033

Site 16 of 18 in cluster T

HAZNET | **S113016238** | **N/A**

Relative:
Lower

Actual:
319 ft.

HAZNET:

Year:	2010
Gepaid:	CAD982462194
Contact:	Emmanuel Amesi, MGMT. ANALYST II
Telephone:	2139783798
Mailing Name:	Not reported
Mailing Address:	111 E 1ST ST RM 600
Mailing City,St,Zip:	LOS ANGELES, CA 900120000
Gen County:	Not reported
TSD EPA ID:	CAT000613935
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.071
Facility County:	Los Angeles

Year:	2009
Gepaid:	CAD982462194
Contact:	H.E. MAXWELL, MGMT. ANALYST
Telephone:	2139783791
Mailing Name:	Not reported
Mailing Address:	111 E. 1ST ST RM 600
Mailing City,St,Zip:	LOS ANGELES, CA 900120000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.76
Facility County:	Los Angeles

Year:	2009
Gepaid:	CAD982462194
Contact:	H.E. MAXWELL, MGMT. ANALYST
Telephone:	2139783791
Mailing Name:	Not reported
Mailing Address:	111 E. 1ST ST RM 600
Mailing City,St,Zip:	LOS ANGELES, CA 900120000
Gen County:	Not reported
TSD EPA ID:	TXD077603371
TSD County:	Not reported
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0575
Facility County:	Los Angeles

Year:	2009
Gepaid:	CAD982462194
Contact:	H.E. MAXWELL, MGMT. ANALYST
Telephone:	2139783791

CENTRAL PARKING ENFORCEMENT AUTO REPAIR (Continued) **S113016238**

Mailing Name: Not reported
Mailing Address: 111 E. 1ST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Not reported
TSD EPA ID: CAT000613935
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.722
Facility County: Los Angeles

Year: 2008
Gepaid: CAD982462194
Contact: H.E. MAXWELL, MGMT. ANALYST
Telephone: 2139783791
Mailing Name: Not reported
Mailing Address: 111 E. 1ST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Not reported
TSD EPA ID: CAT000613935
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.659
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
10 additional CA_HAZNET: record(s) in the EDR Site Report.

T176 **CITY OF LA GENERAL SERVICES** **HAZNET** **S113107433**
West **1016 MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.168 mi.
888 ft. **Site 17 of 18 in cluster T**

Relative:
Lower

Actual:
319 ft.

HAZNET:
Year: 2012
Gepaid: CAL000212325
Contact: EMMANUEL AMESI
Telephone: 2139783798
Mailing Name: Not reported
Mailing Address: 111 E FIRST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.25
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000212325
Contact: EMMANUEL AMESI
Telephone: 2139783798

CITY OF LA GENERAL SERVICES (Continued) **S113107433**

Mailing Name: Not reported
Mailing Address: 111 E FIRST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1375
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000212325
Contact: EMMANUEL AMESI
Telephone: 2139783798
Mailing Name: Not reported
Mailing Address: 111 E FIRST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 3.04
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000212325
Contact: EMMANUEL AMESI
Telephone: 2139783798
Mailing Name: Not reported
Mailing Address: 111 E FIRST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Los Angeles
TSD EPA ID: TXD055141378
TSD County: 99
Waste Category: Not reported
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.05
Facility County: Los Angeles

Year: 2011
Gepaid: CAL000212325
Contact: H.E. MAXWELL, MGMT. ANALYST
Telephone: 2139783791
Mailing Name: Not reported
Mailing Address: 111 E 1ST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 3.42

CITY OF LA GENERAL SERVICES (Continued) **S113107433**

Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
33 additional CA_HAZNET: record(s) in the EDR Site Report.

T177 **MONTGOMERY WARD SERVICE STATION** **CA FID UST** **S101585690**
West **925 RICHMOND ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.172 mi.
906 ft. **Site 18 of 18 in cluster T**

Relative:
Lower

Actual:
322 ft.

CA FID UST:

Facility ID:	19027645
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	925 RICHMOND ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	6998
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	0

X178 **MORLEY CONSTRUCTION** **HAZNET** **S112996330**
ENE **1425 SAN PABLO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.173 mi.
915 ft. **Site 11 of 11 in cluster X**

Relative:
Higher

Actual:
360 ft.

HAZNET:

Year:	2011
Gepaid:	CAC002679631
Contact:	LEE CASTLEBERRY
Telephone:	3103991600
Mailing Name:	Not reported
Mailing Address:	2901 28TH ST STE 100
Mailing City,St,Zip:	SANTA MONICA, CA 90405
Gen County:	Not reported
TSD EPA ID:	AZR000501510
TSD County:	Not reported
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0
Facility County:	Los Angeles

Year:	2011
Gepaid:	CAC002679631
Contact:	LEE CASTLEBERRY
Telephone:	3103991600
Mailing Name:	Not reported
Mailing Address:	2901 28TH ST STE 100
Mailing City,St,Zip:	SANTA MONICA, CA 90405
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.09
Facility County:	Los Angeles

Year:	2011
Gepaid:	CAC002679631
Contact:	LEE CASTLEBERRY
Telephone:	3103991600
Mailing Name:	Not reported
Mailing Address:	2901 28TH ST STE 100
Mailing City,St,Zip:	SANTA MONICA, CA 90405
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.09
Facility County:	Los Angeles

Year:	2011
Gepaid:	CAC002679631
Contact:	LEE CASTLEBERRY
Telephone:	3103991600

MORLEY CONSTRUCTION (Continued) **S112996330**

Mailing Name: Not reported
Mailing Address: 2901 28TH ST STE 100
Mailing City,St,Zip: SANTA MONICA, CA 90405
Gen County: Not reported
TSD EPA ID: AZR000501510
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0
Facility County: Los Angeles

Y179 **PETROLEUM DYNAMICS INC** **HIST UST** **U001561365**
West **995 N MISSION RD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.173 mi.
916 ft. **Site 3 of 5 in cluster Y**

Relative:
Lower

Actual:
320 ft.

HIST UST:
Region: STATE
Facility ID: 00000005272
Facility Type: Other
Other Type: Not reported
Total Tanks: 0001
Contact Name: Not reported
Telephone: 2132211167
Owner Name: PETROLEUM DYNAMICS, INC.
Owner Address: 995 NO. MISSION ROAD
Owner City,St,Zip: LOS ANGELES, CA 90033

Tank Num: 001
Container Num: 0016
Year Installed: 1974
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

Y180 **PETROLEUM DYNAMICS, INC** **CA FID UST** **S101617368**
West **995 N MISSION RD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.173 mi.
916 ft. **Site 4 of 5 in cluster Y**

Relative:
Lower

Actual:
320 ft.

CA FID UST:
Facility ID: 19008205
Regulated By: UTNKI
Regulated ID: 00005272
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132211167
Mail To: Not reported
Mailing Address: 995 N MISSION RD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000

PETROLEUM DYNAMICS, INC (Continued) **S101617368**

Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 561
Number: Not reported
Board Of Equalization: 44-011276
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-000561-000001
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

Y181 **SKY DROPS INC** **HAZNET** **S113076693**
West **999 N MISSION ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.177 mi.
937 ft. **Site 5 of 5 in cluster Y**

Relative:
Lower

Actual:
323 ft.

HAZNET:
Year: 1998
Gepaid: CAL000140244
Contact: SKY DROPS INC
Telephone: 2134667557
Mailing Name: Not reported
Mailing Address: 956 N SEWARD RM 136
Mailing City,St,Zip: HOLLYWOOD, CA 900380000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: .2293
Facility County: Los Angeles

W182 **CNTY LOS ANGELES USC MEDICAL CENTER** **HAZNET** **S112887299**
NNW **1840 N GRIFFIN AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.181 mi.
954 ft. **Site 3 of 3 in cluster W**

Relative:
Lower

Actual:
328 ft.

HAZNET:

Year:	1998
Gepaid:	CAC001389928
Contact:	LOS ANGELES COUNTY
Telephone:	2132267036
Mailing Name:	Not reported
Mailing Address:	1200 STATE ST
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	1.1259
Facility County:	Los Angeles

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183 **GUADALUPE REYNA** **HAZNET** **S112917514**
NW **1816 WORKMAN ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.182 mi.
960 ft.

Relative:
Lower

Actual:
323 ft.

HAZNET:

Year:	2001
Gepaid:	CAC002383490
Contact:	IRMA REYNA
Telephone:	6263009277
Mailing Name:	Not reported
Mailing Address:	1816 WORKMAN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAD088504881
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Transfer Station
Tons:	0.84
Facility County:	Los Angeles

Z184 **BUILDERS HARDWARE FINISHERS** **CERC-NFRAP** **1000278696**
NNW **1846 SICHEL ST** **RCRA-SQG** **CAD020155461**
1/8-1/4 **LOS ANGELES, CA** **CONSENT**
0.191 mi.
1010 ft. **Site 1 of 2 in cluster Z**

Relative:
Lower

Actual:
325 ft.

CERC-NFRAP:

Site ID:	0900183
Federal Facility:	Not a Federal Facility
NPL Status:	Not on the NPL
Non NPL Status:	Removal Only Site (No Site Assessment Work Needed)

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID:	13290309.00000

BUILDERS HARDWARE FINISHERS (Continued) **1000278696**

Person ID: 13003854.00000

Contact Sequence ID: 13295904.00000
Person ID: 13003858.00000

Contact Sequence ID: 13301762.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: BHFI
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:
Action: JUDICIAL/CIVIL JUDGMENT
Date Started: / /
Date Completed: 01/02/92
Priority Level: Not reported

Action: REMOVAL
Date Started: 05/23/88
Date Completed: 07/18/88
Priority Level: Cleaned up

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

Action: ADMINISTRATIVE RECORDS
Date Started: 04/24/89
Date Completed: 04/24/89
Priority Level: Admin Record Compiled for a Removal Event

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 01/26/90
Priority Level: Not reported

Action: CONSENT DECREE
Date Started: 05/14/90
Date Completed: 10/31/90
Priority Level: Not reported

Action: SECTION 107 LITIGATION
Date Started: 09/29/89
Date Completed: 10/31/90
Priority Level: Not reported

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: BUILDERS HARDWARE FINISHERS
Facility address: 1846 SICHEL ST
LOS ANGELES, CA 90031
EPA ID: CAD020155461
Mailing address: SICHEL ST

BUILDERS HARDWARE FINISHERS (Continued) **1000278696**

LOS ANGELES, CA 90031
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: JOE DURAN
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

CONSENT:
EPA ID: CAD020155461

BUILDERS HARDWARE FINISHERS (Continued) **1000278696**

Site ID: Not reported
Case Title: U.S. V BUILDER'S HARDWARE FINISHERS, INC.
Court Num: 90-5428
District: California, Cent
Entered Date: 19901031
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

AA185 **SO. PACIFIC TRANS. CO.** **RGA LUST** **S114692677**
NW **2100 ALHAMBRA AVE.** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.192 mi.
1016 ft. **Site 1 of 8 in cluster AA**

Relative:
Lower

RGA LUST:
1993 SO. PACIFIC TRANS. CO. 2100 ALHAMBRA AVE.

Actual:
322 ft.

AA186 **UNION RAILROAD-LA TRANS** **HIST CORTESE** **S101296870**
NW **2100 ALHAMBRA** **LUST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90032**
0.192 mi.
1016 ft. **Site 2 of 8 in cluster AA**

Relative:
Lower

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Actual:
322 ft.
Reg By: LTNKA
Reg Id: 900310198

LUST:
Region: STATE
Global Id: T0603700800
Latitude: 34.0635657
Longitude: -118.2151535
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 01/22/1998
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: AT
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900310198
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700800
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780

UNION RAILROAD-LA TRANS (Continued) **S101296870**

City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Global Id: T0603700800
Contact Type: Regional Board Caseworker
Contact Name: ARMAN TOUMARI
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: atoumari@waterboards.ca.gov
Phone Number: 2135766708

Status History:
Global Id: T0603700800
Status: Open - Case Begin Date
Status Date: 05/10/1991

Global Id: T0603700800
Status: Open - Site Assessment
Status Date: 07/11/1991

Global Id: T0603700800
Status: Open - Site Assessment
Status Date: 04/27/1992

Global Id: T0603700800
Status: Open - Site Assessment
Status Date: 09/02/1997

Global Id: T0603700800
Status: Completed - Case Closed
Status Date: 01/22/1998

Regulatory Activities:
Global Id: T0603700800
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603700800
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700800
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

AA187 **SO. PACIFIC TRANS. CO.** **RGA LUST** **S114692678**
NW **2100 ALHAMBRA AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.192 mi.
1016 ft. **Site 3 of 8 in cluster AA**

Relative: RGA LUST:
Lower

1997	SO. PACIFIC TRANS. CO.	2100 ALHAMBRA AVE
1996	SO. PACIFIC TRANS. CO.	2100 ALHAMBRA AVE
1995	SO. PACIFIC TRANS. CO.	2100 ALHAMBRA AVE
1994	SO. PACIFIC TRANS. CO.	2100 ALHAMBRA AVE

Actual:
322 ft.

AA188 **UNION RAILROAD-LA TRANS. CTR.** **RGA LUST** **S114709426**
NW **2100 ALHAMBRA AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.192 mi.
1016 ft. **Site 4 of 8 in cluster AA**

Relative: RGA LUST:
Lower

2012	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2011	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2010	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2009	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2008	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2007	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2006	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2005	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2003	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2002	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2001	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
2000	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE
1998	UNION RAILROAD-LA TRANS. CTR.	2100 ALHAMBRA AVE

Actual:
322 ft.

AA189 **UNION RAILROAD-LA TRANS. CTR.** **LUST** **S103281867**
NW **2100 ALHAMBRA AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.192 mi.
1016 ft. **Site 5 of 8 in cluster AA**

Relative: LUST REG 4:
Lower

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900310198	
Status:	Case Closed	
Substance:	Hydrocarbons	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Excavate and Dispose
Global ID:	T0603700800	
W Global ID:	W0605100649	
Staff:	AT	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	5/10/1991	
Date Leak First Reported:		7/11/1991

Actual:
322 ft.

UNION RAILROAD-LA TRANS. CTR. (Continued) **S103281867**

Date Leak Record Entered:	7/6/1991	
Date Confirmation Began:	7/11/1991	
Date Leak Stopped:	5/10/1991	
Date Case Last Changed on Database:		2/24/1998
Date the Case was Closed:		1/22/1998
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Piping	
Operator:	OLD CASE #071991-01	
Water System:	DAVE GRIFFITH L A D W P	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8057.432851381311242960834619
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		4/27/1992
Pollution Characterization Began:		9/2/1997
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	UNION PACIFIC RAILROADS	
RP Address:	ONE MARKET PLAZA, SAN FRANCISCO, CA 94105	
Program:	LUST	
Lat/Long:	34.0635112 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	2600649-001GEN	
Summary:	09/02/97 - WP FOR INSTALL & SAMPLING GW; 11/17/97 - MEETING TO DISCUSS WP; 01/12/98 - FIELD INVESTIGATION RPT; 02/24/98 - ABANDONMENT OF GW MONITORING WELLS	

AA190 **COAST FREIGHTWAYS, INC.** **HIST UST** **U001561270**
NW **2100 ALHAMBRA AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.192 mi.
1016 ft. **Site 6 of 8 in cluster AA**

Relative:
Lower

Actual:
322 ft.

HIST UST:

Region:	STATE
Facility ID:	00000017574
Facility Type:	Other
Other Type:	FREIGHT FORWARDER
Total Tanks:	0001
Contact Name:	BYRNE MILLER
Telephone:	2132251331
Owner Name:	COAST FREIGHTWAYS, INC.

COAST FREIGHTWAYS, INC. (Continued) **U001561270**

Owner Address: 2100 ALHAMBRA AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90031

Tank Num: 001
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00009940
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual, Pressure Test

AA191 **COAST FREIGHTWAYS INC** **CA FID UST** **S101617330**
NW **2100 ALHAMBRA AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.192 mi.
1016 ft. **Site 7 of 8 in cluster AA**

Relative:
Lower

Actual:
322 ft.

CA FID UST:
Facility ID: 19003142
Regulated By: UTNKA
Regulated ID: 00017574
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132251331
Mail To: Not reported
Mailing Address: 2100 ALHAMBRA AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900310000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 1280
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001280-000001
Tank Status: Not reported
Capacity: 9940
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

AA192 **UNION RAILROAD-LA TRANS. CT** **RGA LUST** **S114709425**
NW **2100 ALHAMBRA AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.192 mi.
1016 ft. **Site 8 of 8 in cluster AA**

Relative: RGA LUST:
Lower 2004 UNION RAILROAD-LA TRANS. CT 2100 ALHAMBRA AVE

Actual:
322 ft.

Z193 **CHMIRS** **S100278827**
NNW **1849 N SICHEL ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.193 mi.
1019 ft. **Site 2 of 2 in cluster Z**

Relative: CHMIRS:
Lower

Actual:
325 ft.

OES Incident Number:	8801556
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	23-MAY-88
Date Completed:	**23-MAY-88**
Property Use:	700
Agency Id Number:	19105
Agency Incident Number:	108
Time Notified:	418
Time Completed:	1500
Surrounding Area:	400
Estimated Temperature:	60
Property Management:	P
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Y
Resp Agncy Personel # Of Decontaminated:	15
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	ALVIN BARNHART AB7044 FS-4B
Report Date:	26-MAY-88
Comments:	Y
Facility Telephone:	213 485-7480
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported

(Continued) **S100278827**

Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	Not reported
Substance:	Not reported
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Not reported

AB194 **A 1 EASTERN HOMEMADE PICKLE CO INC** **HAZNET** **S112945045**
North **1832 JOHNSTONE ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.201 mi.
1062 ft. **Site 1 of 6 in cluster AB**

Relative:
Lower

Actual:
331 ft.

HAZNET:

Year:	2005
Gepaid:	CAC002589621
Contact:	MURRAY BERGER/SEC TREA
Telephone:	3232231141
Mailing Name:	Not reported
Mailing Address:	1832 JOHNSTONE ST
Mailing City,St,Zip:	LOS ANGELES, CA 90031
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Tank bottom waste
Disposal Method:	Recycler
Tons:	6.67
Facility County:	Los Angeles

AB195 **A-1 EASTERN HOMADE PICKLE COMPANY** **LUST** **S107619717**
North **1832 JOHNSTON STREET** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.201 mi.
1062 ft. **Site 2 of 6 in cluster AB**

Relative:
Lower

Actual:
331 ft.

LUST:

Region:	STATE
Global Id:	T0603719830
Latitude:	34.065414
Longitude:	-118.210192
Case Type:	LUST Cleanup Site
Status:	Open - Site Assessment
Status Date:	08/15/2008
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	JW
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900310370
LOC Case Number:	2444
File Location:	Regional Board
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline, MTBE / TBA / Other Fuel Oxygenates
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603719830
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603719830
Contact Type:	Regional Board Caseworker
Contact Name:	JIMMIE WOO
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	jwoo@waterboards.ca.gov
Phone Number:	2135766600

Status History:

Global Id:	T0603719830
Status:	Open - Case Begin Date
Status Date:	04/28/2005

Global Id:	T0603719830
Status:	Open - Site Assessment
Status Date:	03/02/2006

Global Id:	T0603719830
Status:	Open - Referred
Status Date:	09/11/2006

Global Id:	T0603719830

A-1 EASTERN HOMADE PICKLE COMPANY (Continued) **S107619717**

Status: Open - Site Assessment
Status Date: 08/02/2007

Global Id: T0603719830
Status: Open - Site Assessment
Status Date: 02/25/2008

Global Id: T0603719830
Status: Open - Site Assessment
Status Date: 08/15/2008

Regulatory Activities:
Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603719830
Action Type: RESPONSE
Date: 11/30/2006
Action: Other Report / Document

Global Id: T0603719830
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603719830
Action Type: RESPONSE
Date: 01/15/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0603719830
Action Type: RESPONSE
Date: 11/13/2013
Action: Request for Closure

Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2008
Action: Well Installation Report

Global Id: T0603719830
Action Type: ENFORCEMENT
Date: 10/18/2006
Action: Staff Letter

Global Id: T0603719830
Action Type: RESPONSE
Date: 10/15/2007
Action: Soil and Water Investigation Workplan

A-1 EASTERN HOMADE PICKLE COMPANY (Continued) **S107619717**

Global Id: T0603719830
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603719830
Action Type: ENFORCEMENT
Date: 08/15/2008
Action: Staff Letter

Global Id: T0603719830
Action Type: ENFORCEMENT
Date: 08/02/2007
Action: Staff Letter

Global Id: T0603719830
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

AB196 **A-1 EASTERN HOMADE PICKLE COMPANY** **RGA LUST** **S114567724**
North **1832 JOHNSTON STREET** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.201 mi.
1062 ft. **Site 3 of 6 in cluster AB**

Relative:
Lower

Actual:
331 ft.

RGA LUST:

2012	A-1 EASTERN HOMADE PICKLE COMPANY	1832 JOHNSTON STREET
2011	A-1 EASTERN HOMADE PICKLE COMPANY	1832 JOHNSTON STREET
2010	A-1 EASTERN HOMADE PICKLE COMPANY	1832 JOHNSTON STREET
2009	A-1 EASTERN HOMADE PICKLE COMPANY	1832 JOHNSTON STREET
2008	A-1 EASTERN HOMADE PICKLE COMPANY	1832 JOHNSTON STREET
2007	A-1 EASTERN HOMADE PICKLE COMPANY	1832 JOHNSTON STREET
2006	A-1 EASTERN HOMADE PICKLE COMPANY	1832 JOHNSTON STREET

AC197 **DOHENY EYE INSTITUTE** **RGA LUST** **S114611325**
ENE **1537 NORFOLK ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.205 mi.
1080 ft. **Site 1 of 5 in cluster AC**

Relative:
Higher

Actual:
376 ft.

RGA LUST:

1995	DOHENY EYE INSTITUTE	1537 NORFOLK ST
1994	DOHENY EYE INSTITUTE	1537 NORFOLK ST
1993	DOHENY EYE INSTITUTE	1537 NORFOLK ST

AC198 **ESTELLE DOHENY EYE HOSPITAL** **LUST** **S105051373**
ENE **1537 NORFOLK ST** **N/A**
1/8-1/4 **BOYLE HEIGHTS, CA 90033**
0.205 mi.
1080 ft. **Site 2 of 5 in cluster AC**

Relative:
Higher

Actual:
376 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330098	
Status:	Case Closed	
Substance:	Hydrocarbons	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700832	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	SAN PABLO ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		5/6/1992
Date Leak Record Entered:	5/7/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		9/27/1992
Date the Case was Closed:		7/19/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		11899.069023478985580072393205
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		5/6/1992
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ESTELLE DOHENY EYE HOSPITAL	
RP Address:	1537 NORFOLK ST, LOS ANGELES, CA 90033-1059	
Program:	LUST	
Lat/Long:	34.0613962 / -1	
Local Agency Staff:	PEJ	

ESTELLE DOHENY EYE HOSPITAL (Continued) **S105051373**

Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

AC199 **ESTELLE DOHENY EYE HOSPITAL** **HIST CORTESE** **S101583361**
ENE **1537 NORFOLK ST** **LUST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033** **CA FID UST**
0.205 mi.
1080 ft. **Site 3 of 5 in cluster AC**

Relative:
Higher

Actual:
376 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330098

LUST:

Region:	STATE
Global Id:	T0603700832
Latitude:	34.0613962
Longitude:	-118.2034668
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/19/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330098
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700832
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700832
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

ESTELLE DOHENY EYE HOSPITAL (Continued) **S101583361**

Status History:
Global Id: T0603700832
Status: Open - Case Begin Date
Status Date: 05/06/1992

Global Id: T0603700832
Status: Open - Site Assessment
Status Date: 05/06/1992

Global Id: T0603700832
Status: Completed - Case Closed
Status Date: 07/19/1996

Regulatory Activities:
Global Id: T0603700832
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

CA FID UST:
Facility ID: 19003530
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2133426513
Mail To: Not reported
Mailing Address: 1537 NORFOLK ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900330000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

AC200 **ESTELLE DOHENY EYE HOSPITAL** **UST U003780491**
ENE **1537 NORFOLK ST** **SWEEPS UST N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.205 mi.
1080 ft. **Site 4 of 5 in cluster AC**

Relative:
Higher

Actual:
376 ft.

UST:
Facility ID: 24053
Latitude: 34.06128
Longitude: -118.20225
Permitting Agency LOS ANGELES, CITY OF

SWEEPS UST:
Status: Active
Comp Number: 5121
Number: 9
Board Of Equalization: Not reported

ESTELLE DOHENY EYE HOSPITAL (Continued) **U003780491**

Referral Date:	11-21-92
Action Date:	11-21-92
Created Date:	02-29-88
Owner Tank Id:	0000005121
SWRCB Tank Id:	19-050-005121-000001
Tank Status:	A
Capacity:	6000
Active Date:	11-21-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	1

AC201 **ESTELLE DOHENY EYE HOSPITAL** **RGA LUST** **S114615275**
ENE **1537 NORFOLK ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.205 mi.
1080 ft. **Site 5 of 5 in cluster AC**

Relative:
Higher

RGA LUST:

2004 ESTELLE DOHENY EYE HOSPITAL 1537 NORFOLK ST

Actual:
376 ft.

AD202 **DOHENY EYE INSTITUTE** **HAZNET** **S113168094**
ENE **1450 SAN PABLO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.207 mi.
1091 ft. **Site 1 of 2 in cluster AD**

Relative:
Higher

Actual:
360 ft.

HAZNET:

Year:	2008
Gepaid:	CAL922914410
Contact:	ANDY TURNER
Telephone:	3234426511
Mailing Name:	Not reported
Mailing Address:	1450 SAN PABLO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900334500
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.35445
Facility County:	Los Angeles

Year:	2006
Gepaid:	CAL922914410
Contact:	ANDY TURNER DIR FAC MGT
Telephone:	3234426513
Mailing Name:	Not reported
Mailing Address:	1450 SAN PABLO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900334615
Gen County:	Not reported
TSD EPA ID:	CAD981402522
TSD County:	Not reported
Waste Category:	Not reported

DOHENY EYE INSTITUTE (Continued) **S113168094**

Disposal Method: Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Tons: 0.12
Facility County: Los Angeles

Year: 2005
Gepaid: CAL922914410
Contact: ANDY TURNER DIR FAC MGT
Telephone: 3234426513
Mailing Name: Not reported
Mailing Address: 1450 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900334615
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.12
Facility County: Los Angeles

Year: 2004
Gepaid: CAL922914410
Contact: ANDY TURNER DIR FAC MGT
Telephone: 3234426513
Mailing Name: Not reported
Mailing Address: 1450 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900334615
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: 0.06
Facility County: Los Angeles

Year: 2003
Gepaid: CAL922914410
Contact: ANDY TURNER DIR FAC MGT
Telephone: 3234426513
Mailing Name: Not reported
Mailing Address: 1450 SAN PABLO ST
Mailing City,St,Zip: LOS ANGELES, CA 900334615
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: 0.06
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
10 additional CA_HAZNET: record(s) in the EDR Site Report.

AE203 **MACK'S SHELL** **UST** **U003970920**
ESE **1203 N SOTO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.207 mi.
1094 ft. **Site 1 of 7 in cluster AE**

Relative:
Higher

Actual:
358 ft.

UST:
Facility ID: 24774
Latitude: 34.05644
Longitude: -118.20172
Permitting Agency LOS ANGELES, CITY OF

AE204 **SHELL** **LUST** **S106116262**
ESE **1203 SOTO ST.** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.207 mi.
1094 ft. **Site 2 of 7 in cluster AE**

Relative:
Higher

Actual:
358 ft.

LUST:

Region:	STATE
Global Id:	T0603769038
Latitude:	34.056472
Longitude:	-118.201684
Case Type:	LUST Cleanup Site
Status:	Open - Site Assessment
Status Date:	08/10/2006
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	MT
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330261A
LOC Case Number:	30363
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603769038
Contact Type:	Regional Board Caseworker
Contact Name:	MARYAM TAIDY
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	LOS ANGELES
Email:	mtaidy@waterboards.ca.gov
Phone Number:	2135766741

Global Id:	T0603769038
Contact Type:	Local Agency Caseworker
Contact Name:	ANNA OLEKSZYK
Organization Name:	LOS ANGELES, CITY OF
Address:	200 N. MAIN ST. RM. 970
City:	LOS ANGELES
Email:	Not reported
Phone Number:	2139783686

Status History:

Global Id:	T0603769038
Status:	Open - Case Begin Date

SHELL (Continued) **S106116262**

Status Date: 02/17/2003

Global Id: T0603769038
Status: Open - Site Assessment
Status Date: 02/17/2003

Global Id: T0603769038
Status: Open - Site Assessment
Status Date: 08/13/2004

Global Id: T0603769038
Status: Open - Site Assessment
Status Date: 10/12/2004

Global Id: T0603769038
Status: Open - Site Assessment
Status Date: 08/10/2006

Regulatory Activities:
Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2011
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: ENFORCEMENT
Date: 08/13/2004
Action: Staff Letter

Global Id: T0603769038
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 07/15/2005
Action: Soil and Water Investigation Report

Global Id: T0603769038
Action Type: REMEDIATION
Date: 01/01/1950

SHELL (Continued) **S106116262**

Action: Other (Use Description Field)

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2013
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/07/2009
Action: Site Assessment Report

Global Id: T0603769038
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

Global Id: T0603769038
Action Type: RESPONSE
Date: 02/26/2009
Action: Soil and Water Investigation Workplan

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603769038
Action Type: RESPONSE
Date: 02/22/2010
Action: Soil and Water Investigation Workplan

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

SHELL (Continued) **S106116262**

Global Id: T0603769038
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/06/2007
Action: Soil and Water Investigation Report

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2003
Action: Other Report / Document

Global Id: T0603769038
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: ENFORCEMENT
Date: 09/15/2003
Action: Staff Letter

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603769038
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE

SHELL (Continued) **S106116262**

Date: 06/08/2011
Action: Site Assessment Report

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/12/2004
Action: Soil and Water Investigation Workplan

Global Id: T0603769038
Action Type: RESPONSE
Date: 08/10/2006
Action: Soil and Water Investigation Workplan

Global Id: T0603769038
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603769038
Action Type: RESPONSE
Date: 08/15/2004
Action: Tank Removal Report / UST Sampling Report

Global Id: T0603769038
Action Type: RESPONSE
Date: 02/01/2012
Action: Soil Vapor Intrusion Investigation Workplan

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2013
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 03/11/2008
Action: Conceptual Site Model

Global Id: T0603769038
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

SHELL (Continued) **S106116262**

Global Id: T0603769038
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603769038
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330261A	
Status:	Preliminary site assessment underway	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	30363	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603769038	
W Global ID:	Not reported	
Staff:	CEC	
Local Agency:	19050	
Cross Street:	CHARLOTTE	
Enforcement Type:	SEL	
Date Leak Discovered:	2/17/2003	
Date Leak First Reported:		8/7/2003
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		Not reported
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		Not reported
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		2/17/2003
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	

SHELL (Continued) **S106116262**

Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	EDWARD PADEN
RP Address:	2255 N. ONTARIO ST.
Program:	LUST
Lat/Long:	0 / 0
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

AE205 **SHELL** **HAZNET** **S113086885**
ESE **1203 N SOTO** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.207 mi.
1094 ft. **Site 3 of 7 in cluster AE**

Relative: **Higher**

Actual: **358 ft.**

HAZNET:

Year:	1998
Gepaid:	CAL000162425
Contact:	EQUILON ENTERPRISES LLC
Telephone:	7132412258
Mailing Name:	Not reported
Mailing Address:	P O BOX 4453
Mailing City,St,Zip:	HOUSTON, TX 772104453
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Empty containers less than 30 gallons
Disposal Method:	Not reported
Tons:	.0750
Facility County:	Los Angeles

AE206 **SHELL OIL COMPANY** **CA FID UST** **S101583600**
ESE **1203 N SOTO ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.207 mi.
1094 ft. **Site 4 of 7 in cluster AE**

Relative: **Higher**

Actual: **358 ft.**

CA FID UST:

Facility ID:	19004834
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132210623
Mail To:	Not reported
Mailing Address:	1203 N SOTO ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported

SHELL OIL COMPANY (Continued) **S101583600**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 4709
Number: 1
Board Of Equalization: Not reported
Referral Date: 02-25-93
Action Date: 03-07-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

AE207 **SHELL SERVICE STATION** **HAZNET** **S113176873**
ESE **1203 N SOTO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.207 mi.
1094 ft. **Site 5 of 7 in cluster AE**

Relative:
Higher

Actual:
358 ft.

HAZNET:
Year: 2011
Gepaid: CAR000126540
Contact: J. Traylor/ENV REPORTING ANALYST
Telephone: 7132416992
Mailing Name: Not reported
Mailing Address: PO Box 3127
Mailing City,St,Zip: HOUSTON, TX 772530000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.0042
Facility County: Los Angeles

Year: 2003
Gepaid: CAR000126540
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent

SHELL SERVICE STATION (Continued) **S113176873**

Disposal Method: Recycler
Tons: 7.08
Facility County: Los Angeles

Year: 2003
Gepaid: CAR000126540
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 0.01
Facility County: Los Angeles

Year: 2003
Gepaid: CAR000126540
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD982484933
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Disposal, Other
Tons: 13.25
Facility County: Los Angeles

Year: 2002
Gepaid: CAR000126540
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Treatment, Tank
Tons: 0.2
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

AE208
ESE
1/8-1/4
0.207 mi.
1094 ft.

SHELL SERVICE STATION
1203 N SOTO / CHARLOTTE
LOS ANGELES, CA 90033

Site 6 of 7 in cluster AE

RCRA-SQG **1006805392**
CAR000126540

Relative:
Higher

Actual:
358 ft.

RCRA-SQG:

Date form received by agency:	02/26/2004
Facility name:	SHELL SERVICE STATION
Facility address:	1203 N SOTO / CHARLOTTE SAP #135537 LOS ANGELES, CA 90033
EPA ID:	CAR000126540
Mailing address:	SHELL OIL PRODUCTS US 12700 NORTHBOROUGH DR MFT240G HOUSTON, TX 770672508
Contact:	FERYAL F SARRAFIAN
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(310) 816-2216
Contact email:	FSARRAFIAN@SHELLOPUS.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	EQUILON ENTERPRISES LLC
Owner/operator address:	PO BOX 2648 HOUSTON, TX 77252
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	08/01/1998
Owner/Op end date:	Not reported

Owner/operator name:	SHELL OIL PRODUCTS US
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	08/01/1998
Owner/Op end date:	Not reported

Owner/operator name:	EQUILON ENTERPRISES L L C
Owner/operator address:	P O BOX 2648 HOUSTON, TX 77252
Owner/operator country:	Not reported
Owner/operator telephone:	(713) 241-5036
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported

SHELL SERVICE STATION (Continued) **1006805392**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/26/2004
Facility name: SHELL SERVICE STATION
Classification: Large Quantity Generator

Date form received by agency: 08/16/2002
Facility name: SHELL SERVICE STATION
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Violation Status: No violations found

AE209 **SHELL/SOTO-CHARLOTTE** **LUST** **S102437455**
ESE **1203 SOTO ST N** **N/A**
1/8-1/4 **BOYLE HEIGHTS, CA 90033**
0.209 mi.
1104 ft. **Site 7 of 7 in cluster AE**

Relative:
Higher

Actual:
359 ft.

LUST:

Region:	STATE
Global Id:	T0603700845
Latitude:	34.0558675
Longitude:	-118.2022308
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/01/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330261
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Aviation
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700845
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700845
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700845
Status:	Open - Case Begin Date
Status Date:	11/02/1987

Global Id:	T0603700845
Status:	Completed - Case Closed
Status Date:	08/01/1996

Regulatory Activities:

Global Id:	T0603700845
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

SHELL/SOTO-CHARLOTTE (Continued) **S102437455**

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330261	
Status:	Case Closed	
Substance:	1	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700845	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	CHARLOTTE	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		11/2/1987
Date Leak Record Entered:	1/13/1997	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		8/1/1996
Date the Case was Closed:		8/1/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		10001.465624958214457734994852
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	SHELL OIL CO	
RP Address:	511 BROOKHURST ST. N., ANAHEIM CA 92803	
Program:	LUST	
Lat/Long:	34.0558675 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	

SHELL/SOTO-CHARLOTTE (Continued) **S102437455**

Assigned Name: Not reported
Summary: Not reported

AF210 **INTERNAL SERVICES DEPT** **HAZNET** **S112872164**
NE **1601 EASTLAKE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.216 mi.
1143 ft. **Site 1 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 1999
Gepaid: CAC001178280
Contact: ISD STATE OF CALIFORNIA
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 550 S VERMONT
Mailing City,St,Zip: LOS ANGELES, CA 900200000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 25.2840
Facility County: Los Angeles

AF211 **INTERNAL SERVICES DEPT** **HAZNET** **S112873631**
NE **1601 EASTLAKE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.216 mi.
1143 ft. **Site 2 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 1996
Gepaid: CAC001202056
Contact: ISD STATE OF CALIFORNIA
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 550 S VERMONT
Mailing City,St,Zip: LOS ANGELES, CA 900200000
Gen County: Not reported
TSD EPA ID: CAD067786749
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: .5899
Facility County: Los Angeles

Year: 1995
Gepaid: CAC001202056
Contact: ISD STATE OF CALIFORNIA
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 550 S VERMONT
Mailing City,St,Zip: LOS ANGELES, CA 900200000
Gen County: Not reported
TSD EPA ID: CAD009007626

INTERNAL SERVICES DEPT (Continued) **S112873631**

TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: .1685
Facility County: Los Angeles

AB212 **GRAND AUTO SERVICE** **HAZNET** **S113059208**
North **3000 A N MAIN ST.** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.217 mi.
1144 ft. **Site 4 of 6 in cluster AB**

Relative:
Lower

Actual:
331 ft.

HAZNET:
Year: 2012
Gepaid: CAL000098215
Contact: GERMAN SALAZAR
Telephone: 3232220046
Mailing Name: Not reported
Mailing Address: 3000 N MAIN ST STE A
Mailing City,St,Zip: LOS ANGELES, CA 900313433
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.95
Facility County: Los Angeles

Year: 2012
Gepaid: CAL000098215
Contact: GERMAN SALAZAR
Telephone: 3232220046
Mailing Name: Not reported
Mailing Address: 3000 N MAIN ST STE A
Mailing City,St,Zip: LOS ANGELES, CA 900313433
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.95
Facility County: Los Angeles

Year: 2011
Gepaid: CAL000098215
Contact: GERMAN SALAZAR
Telephone: 3232220046
Mailing Name: Not reported
Mailing Address: 3000 N MAIN ST STE A
Mailing City,St,Zip: LOS ANGELES, CA 900313433
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect

GRAND AUTO SERVICE (Continued) **S113059208**

Tons: 2.755
Facility County: Los Angeles

Year: 2011
Gepaid: CAL000098215
Contact: GERMAN SALAZAR
Telephone: 3232220046
Mailing Name: Not reported
Mailing Address: 3000 N MAIN ST STE A
Mailing City,St,Zip: LOS ANGELES, CA 900313433
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 2.755
Facility County: Los Angeles

Year: 2010
Gepaid: CAL000098215
Contact: GERMAN SALAZAR
Telephone: 3232220046
Mailing Name: Not reported
Mailing Address: 3000 N MAIN ST STE A
Mailing City,St,Zip: LOS ANGELES, CA 900313433
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 1.767
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

AF213 **CENTRAL JUVENILE HALL** **UST** **U001562241**
NE **1605 EASTLAKE AVE** **HIST UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 3 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

UST:
Facility ID: 24982
Latitude: 34.06353
Longitude: -118.20585
Permitting Agency: LOS ANGELES, CITY OF

HIST UST:
Region: STATE
Facility ID: 00000020736
Facility Type: Other
Other Type: COUNTY
Total Tanks: 0001
Contact Name: L.A. COUNTY MECHANICAL DEPT.

CENTRAL JUVENILE HALL (Continued) **U001562241**

Telephone: 2132672242
Owner Name: LOS ANGELES COUNTY MECHANICAL
Owner Address: 1100 NORTH EASTERN AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90063

Tank Num: 001
Container Num: TANK #1
Year Installed: Not reported
Tank Capacity: 00000550
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

AF214 **CENTRAL EASTLAKE JUVENILE** **RCRA-SQG** **1004675544**
NE **1605 EASTLAKE** **HAZNET** **CAR000074336**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 4 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

RCRA-SQG:
Date form received by agency: 06/01/2000
Facility name: CENTRAL EASTLAKE JUVENILE
Facility address: 1605 EASTLAKE
LOS ANGELES, CA 90033
EPA ID: CAR000074336
Contact: TANYA FIELDS
Contact address: 1605 EASTLAKE
LOS ANGELES, CA 90033
Contact country: US
Contact telephone: (323) 226-8671
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: L A COUNTY
Owner/operator address: 1605 EASTLAKE
LOS ANGELES, CA 90033
Owner/operator country: Not reported
Owner/operator telephone: (323) 226-8671
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No

CENTRAL EASTLAKE JUVENILE (Continued) **1004675544**

Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	D001
Waste name:	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

HAZNET:

Year:	2001
Gepaid:	CAR000074336
Contact:	TANYA FIELDS
Telephone:	3232268671
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAL000827758
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Not reported
Tons:	0.4
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAR000074336
Contact:	TANYA FIELDS
Telephone:	3232268671
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Transfer Station
Tons:	0.27
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAR000074336
Contact:	TANYA FIELDS

CENTRAL EASTLAKE JUVENILE (Continued) **1004675544**

Telephone: 3232268671
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 3.33
Facility County: Los Angeles

Year: 2000
Gepaid: CAR000074336
Contact: TANYA FIELDS
Telephone: 3232268671
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Transfer Station
Tons: 4.72
Facility County: Los Angeles

Year: 2000
Gepaid: CAR000074336
Contact: TANYA FIELDS
Telephone: 3232268671
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE
Mailing City,St,Zip: LOS ANGELES, CA 900330000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Transfer Station
Tons: 0.22
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

AF215 **COUNTY OF LOS ANGELES/CENTRAL JUV HALL** **HAZNET** **S112849989**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 5 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 1994
Gepaid: CAC000885240
Contact: COUNTY OF LOS ANGELES
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1100 NORTH EASTERN AVE

COUNTY OF LOS ANGELES/CENTRAL JUV HALL (Continued) **S112849989**

Mailing City,St,Zip: LOS ANGELES, CA 900630000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 3.3712
Facility County: Los Angeles

Year: 1994
Gepaid: CAC000885240
Contact: COUNTY OF LOS ANGELES
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1100 NORTH EASTERN AVE
Mailing City,St,Zip: LOS ANGELES, CA 900630000
Gen County: Not reported
TSD EPA ID: CAD981388952
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Not reported
Tons: 3.2450
Facility County: Los Angeles

AF216 **LOS ANGELES COUNTY HEALTH SERVICES** **HAZNET** **S112981865**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 6 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 2011
Gepaid: CAC002651924
Contact: ANWAR ISMAIL
Telephone: 3232268859
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE AVE
Mailing City,St,Zip: LOS ANGELES, CA 900331009
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Pharmaceutical waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1125
Facility County: Los Angeles

Year: 2010
Gepaid: CAC002651924
Contact: ANWAR ISMAIL
Telephone: 3232268859
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE AVE
Mailing City,St,Zip: LOS ANGELES, CA 900331009
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Pharmaceutical waste

LOS ANGELES COUNTY HEALTH SERVICES (Continued) **S112981865**

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.36265
Facility County: Los Angeles

AF217 **LOS ANGELES COUNTY HEALTH SERVICES PROBATION PHARMACY** **HAZNET** **S112989033**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 7 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 2011
Gepaid: CAC002670261
Contact: TRANY HUYNH
Telephone: 3232268859
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE AVE
Mailing City,St,Zip: LOS ANGELES, CA 900331009
Gen County: Not reported
TSD EPA ID: CAD982042475
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Facility County: Los Angeles

Year: 2011
Gepaid: CAC002670261
Contact: TRANY HUYNH
Telephone: 3232268859
Mailing Name: Not reported
Mailing Address: 1605 EASTLAKE AVE
Mailing City,St,Zip: LOS ANGELES, CA 900331009
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Pharmaceutical waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.2502
Facility County: Los Angeles

AF218 **COUNTY OF LOS ANGELES DEPT OF INTERNAL SERVICES** **HAZNET** **S112982342**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 8 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 2011
Gepaid: CAC002661024
Contact: STEVEN BARON
Telephone: 3234965806
Mailing Name: Not reported

COUNTY OF LOS ANGELES DEPT OF INTERNAL SERVICES (Continued) **S112982342**

Mailing Address: 1100 N EASTERN AVE RM 225
Mailing City,St,Zip: LOS ANGELES, CA 900633200
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Facility County: Los Angeles

Year: 2010
Gepaid: CAC002661024
Contact: STEVEN BARON
Telephone: 3234965806
Mailing Name: Not reported
Mailing Address: 1100 N EASTERN AVE RM 225
Mailing City,St,Zip: LOS ANGELES, CA 900633200
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 2.4
Facility County: Los Angeles

AF219 **CENTRAL JUVENILE HALL DENTAL CLINIC** **HAZNET** **S113145117**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 9 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:
Year: 2012
Gepaid: CAL000313353
Contact: JON OU, DMD
Telephone: 3232268723
Mailing Name: Not reported
Mailing Address: 1925 DALY ST
Mailing City,St,Zip: LOS ANGELES, CA 900313309
Gen County: Los Angeles
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Not reported
Tons: 0.017
Facility County: Los Angeles

Year: 2011
Gepaid: CAL000313353
Contact: JON OU, DMD
Telephone: 3232268723
Mailing Name: Not reported
Mailing Address: 1925 DALY ST
Mailing City,St,Zip: LOS ANGELES, CA 900313309
Gen County: Not reported
TSD EPA ID: CAD044429835

CENTRAL JUVENILE HALL DENTAL CLINIC (Continued) **S113145117**

TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.017
Facility County: Los Angeles

Year: 2010
Gepaid: CAL000313353
Contact: JON OU, DMD
Telephone: 3232268723
Mailing Name: Not reported
Mailing Address: 1925 DALY ST
Mailing City,St,Zip: LOS ANGELES, CA 900313309
Gen County: Not reported
TSD EPA ID: CAD044429835
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Not reported
Tons: Not reported
Facility County: Los Angeles

Year: 2010
Gepaid: CAL000313353
Contact: JON OU, DMD
Telephone: 3232268723
Mailing Name: Not reported
Mailing Address: 1925 DALY ST
Mailing City,St,Zip: LOS ANGELES, CA 900313309
Gen County: Not reported
TSD EPA ID: CAD044429835
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.017
Facility County: Los Angeles

Year: 2010
Gepaid: CAL000313353
Contact: JON OU, DMD
Telephone: 3232268723
Mailing Name: Not reported
Mailing Address: 1925 DALY ST
Mailing City,St,Zip: LOS ANGELES, CA 900313309
Gen County: Not reported
TSD EPA ID: CAD044429835
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: Not reported
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

AF220 **LA COUNTY CENTRAL JUVENILE HALL** **HAZNET** **S113080937**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 10 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:

Year:	1999
Gepaid:	CAL000147175
Contact:	LOS ANGELES COUNTY
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1000 SO FREMONT AVE BLDG A-93
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Not reported
Tons:	45.5112
Facility County:	Los Angeles

Year:	1998
Gepaid:	CAL000147175
Contact:	LOS ANGELES COUNTY
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1000 SO FREMONT AVE BLDG A-93
Mailing City,St,Zip:	ALHAMBRA, CA 918030000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	42.5614
Facility County:	Los Angeles

AF221 **CENTRAL JUVENILE HALL** **HAZNET** **S113050277**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 11 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:

Year:	2010
Gepaid:	CAL000314667
Contact:	BELINDA RAMIREZ
Telephone:	5629403673
Mailing Name:	Not reported
Mailing Address:	9150 IMPERIAL HWY RM C-68
Mailing City,St,Zip:	DOWNEY, CA 902422809
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.19
Facility County:	Los Angeles

CENTRAL JUVENILE HALL (Continued) **S113050277**

Year:	1997
Gepaid:	CAL000074942
Contact:	LOS ANGELES COUNTY
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331009
Gen County:	Not reported
TSD EPA ID:	CAL000027741
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	1.0535
Facility County:	Los Angeles

Year:	1994
Gepaid:	CAL000074942
Contact:	LOS ANGELES COUNTY
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331009
Gen County:	Not reported
TSD EPA ID:	AZT050010180
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Not reported
Tons:	.0025
Facility County:	Los Angeles

Year:	1994
Gepaid:	CAL000074942
Contact:	LOS ANGELES COUNTY
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900331009
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	3.7926
Facility County:	Los Angeles

AF222 **LA JUVENILE COURT HEALTH SERVICES PHARMACY** **HAZNET** **S113162503**
NE **1605 EASTLAKE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.218 mi.
1150 ft. **Site 12 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

HAZNET:

Year:	2012
Gepaid:	CAL000368689
Contact:	NELSON RAMORAN/SUPERVISOR
Telephone:	3232268859
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE AVE

LA JUVENILE COURT HEALTH SERVICES PHARMACY (Continued) **S113162503**

Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Los Angeles
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.77935
Facility County:	Los Angeles
Year:	2011
Gepaid:	CAL000368689
Contact:	TRAMY HUYNH
Telephone:	3232268859
Mailing Name:	Not reported
Mailing Address:	1605 EASTLAKE AVE
Mailing City,St,Zip:	LOS ANGELES, CA 90033
Gen County:	Not reported
TSD EPA ID:	CAD008364432
TSD County:	Not reported
Waste Category:	Pharmaceutical waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.13755
Facility County:	Los Angeles

AF223 **CENTRAL JUVENILE HALL** **CA FID UST** **S101617572**
NE **1605 N EASTLAKE AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90063**
0.218 mi.
1151 ft. **Site 13 of 13 in cluster AF**

Relative:
Lower

Actual:
339 ft.

CA FID UST:

Facility ID:	19044678
Regulated By:	UTNKA
Regulated ID:	00020736
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132672242
Mail To:	Not reported
Mailing Address:	1100 N EASTERN AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900630000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	1465
Number:	4
Board Of Equalization:	44-011798
Referral Date:	01-22-93

CENTRAL JUVENILE HALL (Continued) **S101617572**

Action Date:	03-16-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001465-000001
Tank Status:	A
Capacity:	550
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	1

AD224 **RUDOLPH & SLENTTEN** **HAZNET** **S112914131**
ENE **1501 SAN PABLO AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.227 mi.
1200 ft. **Site 2 of 2 in cluster AD**

Relative:
Higher

Actual:
359 ft.

HAZNET:

Year:	2001
Gepaid:	CAC002347591
Contact:	JAMES BINGHAM
Telephone:	3232760305
Mailing Name:	Not reported
Mailing Address:	1501 SAN PABLO AVE
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAD089446710
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Recycler
Tons:	0.07
Facility County:	Los Angeles

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225 **TRAYLOR SHEA FRONTIER KENNY JV RICHMOND** **RCRA-SQG** **1007091420**
West **886 N MISSION RD** **HAZNET** **CAR000149203**
1/8-1/4 **LOS ANGELES, CA 90033**
0.228 mi.
1204 ft.

Relative:
Lower

Actual:
322 ft.

RCRA-SQG:

Date form received by agency:	10/30/2003
Facility name:	TRAYLOR SHEA FRONTIER KENNY JV RICHMOND
Facility address:	886 N MISSION RD LOS ANGELES, CA 90033
EPA ID:	CAR000149203
Mailing address:	2155 E 7 STREET STE 100 LOS ANGELES, CA 90023
Contact:	JOHN F MCDONALD
Contact address:	2155 E 7 STREET STE 100 LOS ANGELES, CA 90023
Contact country:	US
Contact telephone:	323-261-0444
Contact email:	Not reported
EPA Region:	09

TRAYLOR SHEA FRONTIER KENNY JV RICHMOND (Continued) **1007091420**

Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: JOHN F MCDONALD
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 07/23/2002
Owner/Op end date: Not reported

Owner/operator name: CITY OF LA
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 06/01/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018

TRAYLOR SHEA FRONTIER KENNY JV RICHMOND (Continued) **1007091420**

Waste name: BENZENE

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

HAZNET:
Year: 2005
Gepaid: CAR000149203
Contact: GLENN MAGLEY
Telephone: 3232610444
Mailing Name: Not reported
Mailing Address: 886 N MISSION RD
Mailing City,St,Zip: LOS ANGELES, CA 90033
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.33
Facility County: Los Angeles

226
North
1/8-1/4
0.228 mi.
1206 ft.

MODERN SCREEN PRINTING **RCRA-SQG 1004676489**
2919 1/2 N MAIN ST **HAZNET CAR000085936**
LOS ANGELES, CA 90031

Relative:
Lower

Actual:
328 ft.

RCRA-SQG:
Date form received by agency: 10/31/2000
Facility name: MODERN SCREEN PRINTING
Facility address: 2919 1/2 N MAIN ST
LOS ANGELES, CA 90031
EPA ID: CAR000085936
Contact: KEVIN LENH
Contact address: 2919 1/2 N MAIN ST
LOS ANGELES, CA 90031
Contact country: US
Contact telephone: (323) 343-8177
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: MODERN SCREEN PRINTING
Owner/operator address: 2919 1/2 N MAIN ST
LOS ANGELES, CA 90031
Owner/operator country: Not reported
Owner/operator telephone: (323) 343-8177
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported

MODERN SCREEN PRINTING (Continued) **1004676489**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Violation Status: No violations found

HAZNET:
Year: 2002
Gepaid: CAR000085936
Contact: ENVIRONMENTAL MGR
Telephone: 3233438711
Mailing Name: Not reported
Mailing Address: 2919 1/2 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 0.31
Facility County: Los Angeles

Year: 2001

MODERN SCREEN PRINTING (Continued) **1004676489**

Gepaid:	CAR000085936
Contact:	ENVIRONMENTAL MGR
Telephone:	3233438711
Mailing Name:	Not reported
Mailing Address:	2919 1/2 N MAIN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAT000613976
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	0.35
Facility County:	Los Angeles

Year:	2000
Gepaid:	CAR000085936
Contact:	ENVIRONMENTAL MGR
Telephone:	3233438711
Mailing Name:	Not reported
Mailing Address:	2919 1/2 N MAIN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900310000
Gen County:	Not reported
TSD EPA ID:	CAT000613976
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	0.06
Facility County:	Los Angeles

AG227 **AVERY PIX INC** **HAZNET** **S112963763**
NW **650 S AVENUE 21** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.235 mi.
1241 ft. **Site 1 of 3 in cluster AG**

Relative:
Lower

Actual:
320 ft.

HAZNET:

Year:	2007
Gepaid:	CAC002620341
Contact:	BROOKE HOPKINS
Telephone:	3109676769
Mailing Name:	Not reported
Mailing Address:	825 N SAN VICENTE BLVD
Mailing City,St,Zip:	LOS ANGELES, CA 900694505
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues 10 percent or more
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.22
Facility County:	Los Angeles

AG228 **OAK MANUFACTURING COMPANY, INC** **CA FID UST** **S101583926**
NW **650 S AVENUE 21** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.235 mi.
1241 ft. **Site 2 of 3 in cluster AG**

Relative:
Lower

Actual:
320 ft.

CA FID UST:

Facility ID:	19007409
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	650 S AVENUE 21
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900310000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	4764
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	0

AG229 **PICTURES IN A ROW** **HAZNET** **S112911787**
NW **650 S AVENUE 21** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.235 mi.
1241 ft. **Site 3 of 3 in cluster AG**

Relative:
Lower

Actual:
320 ft.

HAZNET:

Year:	2000
Gepaid:	CAC002317873
Contact:	ROBERT MCENTEE
Telephone:	2139990234
Mailing Name:	Not reported
Mailing Address:	6525 SUNSET BLVD 9TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900280000
Gen County:	Not reported
TSD EPA ID:	CAD008252405

PICTURES IN A ROW (Continued) **S112911787**

TSD County: Not reported
Waste Category: Paint sludge
Disposal Method: Recycler
Tons: 0.06
Facility County: Los Angeles

AB230 **SLOANS DRY CLEANERS** **HAZNET** **S113009842**
North **3001 N MAIN ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.237 mi.
1254 ft. **Site 5 of 6 in cluster AB**

Relative:
Lower

Actual:
331 ft.

HAZNET:
Year: 2008
Gepaid: CAD981671662
Contact: EDWARD SLOAN/PRES
Telephone: 3232235358
Mailing Name: Not reported
Mailing Address: 3001 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313432
Gen County: Not reported
TSD EPA ID: NVR000076158
TSD County: Not reported
Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: Solvents Recovery
Tons: 0.1251
Facility County: Los Angeles

Year: 2008
Gepaid: CAD981671662
Contact: EDWARD SLOAN/PRES
Telephone: 3232235358
Mailing Name: Not reported
Mailing Address: 3001 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313432
Gen County: Not reported
TSD EPA ID: NVR000076158
TSD County: Not reported
Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: Solvents Recovery
Tons: 0.1251
Facility County: Los Angeles

Year: 2007
Gepaid: CAD981671662
Contact: EDWARD SLOAN/PRES
Telephone: 3232235358
Mailing Name: Not reported
Mailing Address: 3001 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900313432
Gen County: Not reported
TSD EPA ID: NVR000076158
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Solvents Recovery
Tons: Not reported

SLOANS DRY CLEANERS (Continued) **S113009842**

Facility County:	Los Angeles
Year:	2007
Gepaid:	CAD981671662
Contact:	EDWARD SLOAN/PRES
Telephone:	3232235358
Mailing Name:	Not reported
Mailing Address:	3001 N MAIN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900313432
Gen County:	Not reported
TSD EPA ID:	NVR000076158
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Solvents Recovery
Tons:	Not reported
Facility County:	Los Angeles
Year:	2007
Gepaid:	CAD981671662
Contact:	EDWARD SLOAN/PRES
Telephone:	3232235358
Mailing Name:	Not reported
Mailing Address:	3001 N MAIN ST
Mailing City,St,Zip:	LOS ANGELES, CA 900313432
Gen County:	Not reported
TSD EPA ID:	NVR000076158
TSD County:	Not reported
Waste Category:	Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	Solvents Recovery
Tons:	0.37
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
37 additional CA_HAZNET: record(s) in the EDR Site Report.

AB231 **SLOANS** **RCRA-SQG** **1000153057**
North **3001 N MAIN** **CAD981671662**
1/8-1/4 **LOS ANGELES, CA 90031**
0.237 mi.
1254 ft. **Site 6 of 6 in cluster AB**

Relative:
Lower

Actual:
331 ft.

RCRA-SQG:

Date form received by agency:	11/05/1986
Facility name:	SLOANS
Facility address:	3001 N MAIN LOS ANGELES, CA 90031
EPA ID:	CAD981671662
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3001 N MAIN LOS ANGELES, CA 90031
Contact country:	US
Contact telephone:	(213) 225-1303
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of

SLOANS (Continued) **1000153057**

hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	EDWARD SLOAN
Owner/operator address:	3001 N MAIN
	LOS ANGELES, CA 90031
Owner/operator country:	Not reported
Owner/operator telephone:	(213) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

AH232 **MOBIL #11-KXI** **HIST CORTESE S104406292**
SE **1010 SOTO ST N** **LUST N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.240 mi.
1266 ft. **Site 1 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900330234

LUST:

MOBIL #11-KXI (Continued) **S104406292**

Region:	STATE
Global Id:	T0603700842
Latitude:	34.0534864
Longitude:	-118.2035231
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/11/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900330234
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700842
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700842
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700842
Status:	Open - Case Begin Date
Status Date:	04/04/1991

Global Id:	T0603700842
Status:	Open - Site Assessment
Status Date:	04/04/1991

Global Id:	T0603700842
Status:	Open - Remediation
Status Date:	07/22/1992

Global Id:	T0603700842
Status:	Open - Remediation
Status Date:	03/26/1996

Global Id:	T0603700842
Status:	Completed - Case Closed

MOBIL #11-KXI (Continued) **S104406292**

Status Date: 10/11/1996

Regulatory Activities:
Global Id: T0603700842
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700842
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900330234	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700842	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	WABASH AVE	
Enforcement Type:	Not reported	
Date Leak Discovered:	4/4/1991	
Date Leak First Reported:		4/4/1991
Date Leak Record Entered:	12/4/1991	
Date Confirmation Began:	4/4/1991	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		12/2/1996
Date the Case was Closed:		10/11/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	UNK	
Operator:	OLD CASE #120691-04	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		9482.45653259638951255398334
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		7/22/1992
Remedial Action Underway:		3/26/1996
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		75

MOBIL #11-KXI (Continued) **S104406292**

Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	MOBIL BUSINESS RESOURCES CORP
RP Address:	3700 W 190TH ST, TORRANCE CA 90509-2929
Program:	LUST
Lat/Long:	34.0531746 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	11/04/96 - 4 QUARTER PROGRESS REPORT & MTBE DATA INCLUDED 12/02/96 - 4 QUARTER PROGRESS REPORT

AH233 **OOKX1 JOSE T PELAYO** **HAZNET** **S113042427**
SE **1010 NORTH SOTO STREET** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.240 mi.
1268 ft. **Site 2 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

HAZNET:

Year:	1995
Gepaid:	CAL000050449
Contact:	MOBIL
Telephone:	7038465734
Mailing Name:	Not reported
Mailing Address:	PO BOX 142667
Mailing City,St,Zip:	AUSTIN, TX 787142667
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Treatment, Tank
Tons:	1.6680
Facility County:	Los Angeles

Year:	1993
Gepaid:	CAL000050449
Contact:	MOBIL
Telephone:	7038465734
Mailing Name:	Not reported
Mailing Address:	PO BOX 142667
Mailing City,St,Zip:	AUSTIN, TX 787142667
Gen County:	Not reported
TSD EPA ID:	CAT080011059
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Not reported
Tons:	0.27100000000
Facility County:	Los Angeles

Year:	1993
Gepaid:	CAL000050449

OOKX1 JOSE T PELAYO (Continued) **S113042427**

Contact:	MOBIL
Telephone:	7038465734
Mailing Name:	Not reported
Mailing Address:	PO BOX 142667
Mailing City,St,Zip:	AUSTIN, TX 787142667
Gen County:	Not reported
TSD EPA ID:	CAT080011059
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues 10 percent or more
Disposal Method:	Recycler
Tons:	6.66999999999
Facility County:	Los Angeles

AH234 **SOTO MOBIL MART, INC.** **UST** **U004021637**
SE **1010 N SOTO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.240 mi.
1268 ft. **Site 3 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

UST:

Facility ID:	24004
Latitude:	34.05323
Longitude:	-118.20359
Permitting Agency	LOS ANGELES, CITY OF

AH235 **MOBIL OIL CORP** **CA FID UST** **S101617365**
SE **1010 N SOTO ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.240 mi.
1268 ft. **Site 4 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

CA FID UST:

Facility ID:	19003251
Regulated By:	UTNKA
Regulated ID:	00039854
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2132666648
Mail To:	Not reported
Mailing Address:	612 S FLOWER ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900330000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	2073
Number:	1
Board Of Equalization:	44-000400
Referral Date:	04-10-93

MOBIL OIL CORP (Continued) **S101617365**

Action Date:	04-07-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002073-000001
Tank Status:	A
Capacity:	10000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	4

Status:	Active
Comp Number:	2073
Number:	1
Board Of Equalization:	44-000400
Referral Date:	04-10-93
Action Date:	04-07-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002073-000002
Tank Status:	A
Capacity:	10000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	2073
Number:	1
Board Of Equalization:	44-000400
Referral Date:	04-10-93
Action Date:	04-07-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002073-000003
Tank Status:	A
Capacity:	6000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	2073
Number:	1
Board Of Equalization:	44-000400
Referral Date:	04-10-93
Action Date:	04-07-94
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-002073-000004
Tank Status:	A
Capacity:	8000

MOBIL OIL CORP (Continued) **S101617365**

Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

AH236 **SOTO STREET** **ENVIROSTOR** **S103620300**
SE **1010 SOTO STREET** **N/A**
1/8-1/4 **LOS ANGELES, CA 90023**
0.240 mi.
1268 ft. **Site 5 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 4.35
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19000004
Site Code: 304173
Assembly: 53
Senate: 32
Special Program: Not reported
Status: Inactive - Action Required
Status Date: 05/30/2000
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.0319
Longitude: -118.2161
APN: NONE SPECIFIED
Past Use: * UNKNOWN, NURSERY
Potential COC: Arsenic, Chlordane, DDD, DDE, DDT
Confirmed COC: Arsenic, Chlordane, DDD, DDE, DDT, 30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO
Potential Description: SOIL
Alias Name: LA USD-SOTO ST.SCHOOL/CDE
Alias Type: Alternate Name
Alias Name: SOTO STREET SCHOOL (PROPOSED)
Alias Type: Alternate Name
Alias Name: 304173
Alias Type: Project Code (Site Code)
Alias Name: 19000004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/30/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

SOTO STREET (Continued) **S103620300**

Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AH237 **SOTO MOBILE MART** **HAZNET** **S112929537**
SE **1010 N SOTO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.240 mi.
1268 ft. **Site 6 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

HAZNET:

Year:	2003
Gepaid:	CAC002564747
Contact:	SAX ENDO
Telephone:	5627772200
Mailing Name:	Not reported
Mailing Address:	1010 N SOTO ST
Mailing City,St,Zip:	LOS ANGELES, CA 90033
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	2.08
Facility County:	Los Angeles

AH238 **FREEWAY SERVICE CENTRE** **HAZNET** **S113041538**
SE **1010 N SOTO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.240 mi.
1268 ft. **Site 7 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

HAZNET:

Year:	1996
Gepaid:	CAL000048517
Contact:	PELAYO J TRINIDAD
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	1010 N SOTO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900330000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.2502

FREEWAY SERVICE CENTRE (Continued) **S113041538**

Facility County: Los Angeles

AH239 **JOSE T. PELAYO** **HIST UST** **U001561357**
SE **1010 N SOTO ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90033**
0.240 mi.
1268 ft. **Site 8 of 8 in cluster AH**

Relative:
Higher

Actual:
358 ft.

HIST UST:

Region:	STATE
Facility ID:	00000039854
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	SAME
Telephone:	2132666648
Owner Name:	MOBIL OIL CORP
Owner Address:	612 S. FLOWER ST
Owner City,St,Zip:	LOS ANGELES, CA 90017

Tank Num:	001
Container Num:	4
Year Installed:	1983
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	3
Year Installed:	1983
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	2
Year Installed:	1983
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	Stock Inventor

AI240 **MOBIL - CARDENAS,RICHARD** **LUST** **S109117676**
NNW **2829 MAIN ST N** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.240 mi.
1269 ft. **Site 1 of 7 in cluster AI**

Relative:
Lower

Actual:
323 ft.

LUST:

Region:	STATE
Global Id:	T0603710593
Latitude:	34.066314
Longitude:	-118.211961
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/17/2011
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	XS0000624
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603710593
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603710593
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603710593
Status:	Open - Case Begin Date
Status Date:	01/14/1991

Global Id:	T0603710593
Status:	Open - Site Assessment
Status Date:	02/26/1991

Global Id:	T0603710593
Status:	Completed - Case Closed
Status Date:	10/17/2011

MOBIL - CARDENAS,RICHARD (Continued) **S109117676**

Regulatory Activities:

Global Id:	T0603710593
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Global Id:	T0603710593
Action Type:	RESPONSE
Date:	02/25/1991
Action:	Final Remedial Action Report / Corrective Action Report
Global Id:	T0603710593
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

AI241 **C & J GASOLINE** **UST** **U003938561**
NNW **2829 N MAIN ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.241 mi.
1271 ft. **Site 2 of 7 in cluster AI**

Relative:
Lower

Actual:
323 ft.

UST:

Facility ID:	25498
Latitude:	34.06602
Longitude:	-118.21243
Permitting Agency	LOS ANGELES, CITY OF

AI242 **CARDENAS SERVICE** **HIST UST** **U001561267**
NNW **2829 N MAIN ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.241 mi.
1271 ft. **Site 3 of 7 in cluster AI**

Relative:
Lower

Actual:
323 ft.

HIST UST:

Region:	STATE
Facility ID:	00000060900
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	RICHARD CARDENAS
Telephone:	2132213501
Owner Name:	RICHARD CARDENAS
Owner Address:	2829 N. MAIN ST.
Owner City,St,Zip:	LOS ANGELES, CA 90031
Tank Num:	001
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, Sensor Instrument, Pressure Test

CARDENAS SERVICE (Continued) **U001561267**

Tank Num: 002
Container Num: THIRD
Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor, Sensor Instrument, Pressure Test

Tank Num: 003
Container Num: TWO
Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor, Sensor Instrument, Pressure Test

Tank Num: 004
Container Num: ONE
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor, Sensor Instrument, Pressure Test

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AI243 **NORTH MAIN SERVICE** **HAZNET** **S113076461**
NNW **2829 N MAIN ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.241 mi.
1271 ft. **Site 4 of 7 in cluster AI**

Relative:
Lower

Actual:
323 ft.

HAZNET:
Year: 2007
Gepaid: CAL000139847
Contact: JESUS CARDENAS-OWNER
Telephone: 2132213501
Mailing Name: Not reported
Mailing Address: 2829 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAD981696420
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.76
Facility County: Los Angeles

Year: 2000
Gepaid: CAL000139847
Contact: JESUS CARDENAS-OWNER
Telephone: 2132213501
Mailing Name: Not reported
Mailing Address: 2829 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported

NORTH MAIN SERVICE (Continued) **S113076461**

TSD EPA ID: CAD099452708
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: 0.2
Facility County: Los Angeles

Year: 2000
Gepaid: CAL000139847
Contact: JESUS CARDENAS-OWNER
Telephone: 2132213501
Mailing Name: Not reported
Mailing Address: 2829 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAD099452708
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.75
Facility County: Los Angeles

Year: 1998
Gepaid: CAL000139847
Contact: JESUS CARDENAS
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 2829 N MAIN ST
Mailing City,St,Zip: LOS ANGELES, CA 900310000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: .4586
Facility County: Los Angeles

AI244 **NASSIM B HANNA** **HIST UST** **U001561292**
NNW **2829 N MAIN ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.241 mi.
1271 ft. **Site 5 of 7 in cluster AI**

Relative:
Lower

Actual:
323 ft.

HIST UST:
Region: STATE
Facility ID: 00000019055
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0005
Contact Name: SAME
Telephone: 2132213501
Owner Name: SHELL OIL COMPANY
Owner Address: PO BOX 4848
Owner City,St,Zip: ANAHEIM, CA 92803

Tank Num: 001
Container Num: 1
Year Installed: 1965

NASSIM B HANNA (Continued) **U001561292**

Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1965
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 3
Year Installed: 1965
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 4
Year Installed: 1970
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 5
Year Installed: 1965
Tank Capacity: 00000550
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: 12 gauge
Leak Detection: Stock Inventor, 10

AI245 **CARDENAS TEXACO SERVICE** **CA FID UST** **S101617328**
NNW **2829 N MAIN ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.241 mi.
1271 ft. **Site 6 of 7 in cluster AI**

Relative:
Lower

Actual:
323 ft.

CA FID UST:
Facility ID: 19051878
Regulated By: UTNKA
Regulated ID: 00060900
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2132213501
Mail To: Not reported
Mailing Address: 2829 N MAIN ST
Mailing Address 2: Not reported

CARDENAS TEXACO SERVICE (Continued) **S101617328**

Mailing City,St,Zip: LOS ANGELES 900310000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 3247
Number: Not reported
Board Of Equalization: 44-012887
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-003247-000001
Tank Status: Not reported
Capacity: 8000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 4

Status: Not reported
Comp Number: 3247
Number: Not reported
Board Of Equalization: 44-012887
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-003247-000002
Tank Status: Not reported
Capacity: 5000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 3247
Number: Not reported
Board Of Equalization: 44-012887
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-003247-000003
Tank Status: Not reported
Capacity: 5000
Active Date: Not reported
Tank Use: M.V. FUEL

CARDENAS TEXACO SERVICE (Continued) **S101617328**

STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 3247
Number: Not reported
Board Of Equalization: 44-012887
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-003247-000004
Tank Status: Not reported
Capacity: 8000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 3247
Number: 9
Board Of Equalization: 44-012887
Referral Date: 03-10-93
Action Date: 04-19-94
Created Date: 02-29-88
Owner Tank Id: 0000003247
SWRCB Tank Id: 19-050-003247-000005
Tank Status: A
Capacity: 10000
Active Date: 10-31-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 3247
Number: 9
Board Of Equalization: 44-012887
Referral Date: 03-10-93
Action Date: 04-19-94
Created Date: 02-29-88
Owner Tank Id: 0000003247
SWRCB Tank Id: 19-050-003247-000006
Tank Status: A
Capacity: 10000
Active Date: 10-31-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 3247

CARDENAS TEXACO SERVICE (Continued) **S101617328**

Number:	9
Board Of Equalization:	44-012887
Referral Date:	03-10-93
Action Date:	04-19-94
Created Date:	02-29-88
Owner Tank Id:	0000003247
SWRCB Tank Id:	19-050-003247-000007
Tank Status:	A
Capacity:	10000
Active Date:	10-31-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

AI246 **CARDENAS SERVICE** **HIST UST** **U001561268**
NNW **2829 N MAIN ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90031**
0.241 mi.
1271 ft. **Site 7 of 7 in cluster AI**

Relative:
Lower

Actual:
323 ft.

HIST UST:

Region:	STATE
Facility ID:	00000063824
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0005
Contact Name:	RICHARD CARDENAS
Telephone:	2132213501
Owner Name:	CARDENAS RICHARD
Owner Address:	2829 N. MAIN ST.
Owner City,St,Zip:	LOS ANGELES, CA 90031
Tank Num:	001
Container Num:	I
Year Installed:	Not reported
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	Visual, Stock Inventor, Sensor Instrument
Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	Visual, Stock Inventor, Sensor Instrument
Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	Not reported

CARDENAS SERVICE (Continued) **U001561268**

Leak Detection: None

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 005
Container Num: 5
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

Count: 22 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EL SERENO	S113459939	CALTRANS D-7/ROW/EA0-20092/5513 AT	RTE 710 NB/SB PM 29.10	90032	HAZNET
LA CANADA	U001562226	BARLEY FLATS (CAMP 18)	STAR ROUTE	90063	HIST UST
LOS ANGELES	S112950551	CALTRANS DIST 7/CONSTR/EA07-1199U4	KP 0.64 SB 101 ALAMEDA OFF RAM	90012	HAZNET
LOS ANGELES	S112942967	CALTRANS DIST 7/CONSTR/EA07-1199U4	KP 0.64 SB 101 ALAMEDA OFF RAM	90012	HAZNET
LOS ANGELES	S113461981	CALTRANS D-7/CONSTR/EA07-3Y3704	RTE 10 EB/WB PM 17.2-28.5	90012	HAZNET
LOS ANGELES	S113171444	CAL TRANS	RTE 10 OVERCROSS BTWN CESAR CH	90031	HAZNET
LOS ANGELES	S113770810	CALTRANS D-7/EA07-4Y3004	HIGHWAY 101 NB & SB PM 02/11.5	90012	HAZNET
LOS ANGELES	S112860175	CAL TRANS	HWY 101 BETWEEN 3RD & 6TH ST	90012	HAZNET
LOS ANGELES	S113459462	CALTRANS D-7/CONSTR/EA07-2411U4	RTE 110 NB/ PM 21.44-23.09	90012	HAZNET
LOS ANGELES	S112969088	CALTRANS D-7/CONSTR/EA07-4G3004	RTE 110 NB PM 39.8-41.0	90012	HAZNET
LOS ANGELES	S103441660	MOBIL STATION #10-KDQ	HWY 126		WMUDS/SWAT, HIST CORTESE
LOS ANGELES	S112961384	DP CONSTRUCTION INC	HWY 134 PM 8.3	90012	HAZNET
LOS ANGELES	1000985012	CALTRANS	RTE 134 BETWEEN 0.5 MI E OF	90012	RCRA-SQG
LOS ANGELES	S112968491	JD PAYNE DEVELOPMENT LLC	2401 & 2403 POMEROY AVE	90033	HAZNET
LOS ANGELES	S112976354	CALTRANS D-7-CONSTR/EA07-4L8404	RTE 60 EB/WB PM 0.4-R4.1	90063	HAZNET
LOS ANGELES	S113788173	CALTRANS D-7/EA07-00063	RTE 710 PM 28.4	90032	HAZNET
LOS ANGELES	S112859098	LOS ANGELES COUNTY METRO. TRANS. A	3300 NORTH ARTESIAN	90031	HAZNET
LOS ANGELES	S112923221	CALTRANS	INTERCHANGE BTWN W RTE 10 & S	90012	HAZNET
LOS ANGELES	S113142124	LA LINCOLN AUTOMOTIVE DBA ATL INTE	3754 N MISSION RD UNIT A & B	90031	HAZNET
LOS ANGELES	S112956039	CALTRANS DIST 7/CONSTR/EA07-243504	RTE NB 110 FWY KP 39.5-41.0	90012	HAZNET
LOS ANGELES	S112927981	CALTRANS DIST 7	STAR RTE 60 PM R1.0-PM R2.4 BE	90063	HAZNET
LOS ANGELES	S112866214	CALTRANS DISTRICT 7	555 W TEMPLE ST & HWY 1	90012	HAZNET

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/21/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/09/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/09/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 02/28/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 02/28/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/17/2013
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/17/2013
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 66

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 02/07/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/06/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/06/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/14/2014
Date Data Arrived at EDR: 02/18/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 28

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/18/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/16/2014
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/13/2014
Date Data Arrived at EDR: 02/14/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 10
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 11/26/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 90
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 29
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 02/21/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 08/27/2013
Date Data Arrived at EDR: 08/27/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 66
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 11/26/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/13/2014
Date Data Arrived at EDR: 02/14/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 10

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 01/29/2014
Date Data Arrived at EDR: 01/29/2014
Date Made Active in Reports: 03/12/2014
Number of Days to Update: 42

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/29/2013
Date Data Arrived at EDR: 08/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 92

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 07/29/2013
Date Data Arrived at EDR: 07/30/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 129

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/06/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/24/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/20/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/18/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

Local Lists of Hazardous waste / Contaminated Sites

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8
Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 04/25/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 01/17/2014
Date Data Arrived at EDR: 01/21/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 21
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/09/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 24

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/11/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/14/2013
Date Data Arrived at EDR: 10/30/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 34

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

Other Ascertainable Records

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/11/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/26/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/28/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/30/2013
Date Data Arrived at EDR: 12/31/2013
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 42

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/31/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: No Update Planned

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/16/2013
Date Made Active in Reports: 08/26/2013
Number of Days to Update: 41

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/17/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: N/A

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/22/2014
Date Data Arrived at EDR: 01/23/2014
Date Made Active in Reports: 02/12/2014
Number of Days to Update: 20

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/20/2014
Date Data Arrived at EDR: 01/21/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 21

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/21/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/10/2014
Date Data Arrived at EDR: 02/12/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 33

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/15/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 08/20/2013
Number of Days to Update: 33

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/03/2014
Date Data Arrived at EDR: 01/09/2014
Date Made Active in Reports: 02/12/2014
Number of Days to Update: 34

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/06/2014
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/13/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 33

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2014
Date Data Arrived at EDR: 02/12/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 34

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/14/2014
Date Data Arrived at EDR: 01/15/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/02/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/14/2014
Date Data Arrived at EDR: 01/15/2014
Date Made Active in Reports: 02/12/2014
Number of Days to Update: 28

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 01/09/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/06/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2013
Date Data Arrived at EDR: 11/19/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 42

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/18/2013
Date Data Arrived at EDR: 12/19/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 20

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/18/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/19/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 20

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/03/2014
Date Data Arrived at EDR: 01/03/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 39
Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/10/2013
Date Data Arrived at EDR: 12/11/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 24
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/17/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2013
Date Data Arrived at EDR: 12/18/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 21
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/18/2013
Date Data Arrived at EDR: 12/24/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 15
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/21/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/17/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 11/18/2013
Number of Days to Update: 11

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 03/12/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/19/2013
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/05/2013
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 08/09/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 49

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

NORTH STATE STREET
NORTH STATE STREET
LOS ANGELES, CA 90033

TARGET PROPERTY COORDINATES

Latitude (North):	34.0592 - 34° 3' 33.12''
Longitude (West):	118.2099 - 118° 12' 35.64''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	388340.3
UTM Y (Meters):	3769185.8
Elevation:	356 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	34118-A2 LOS ANGELES, CA
Most Recent Revision:	1994

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

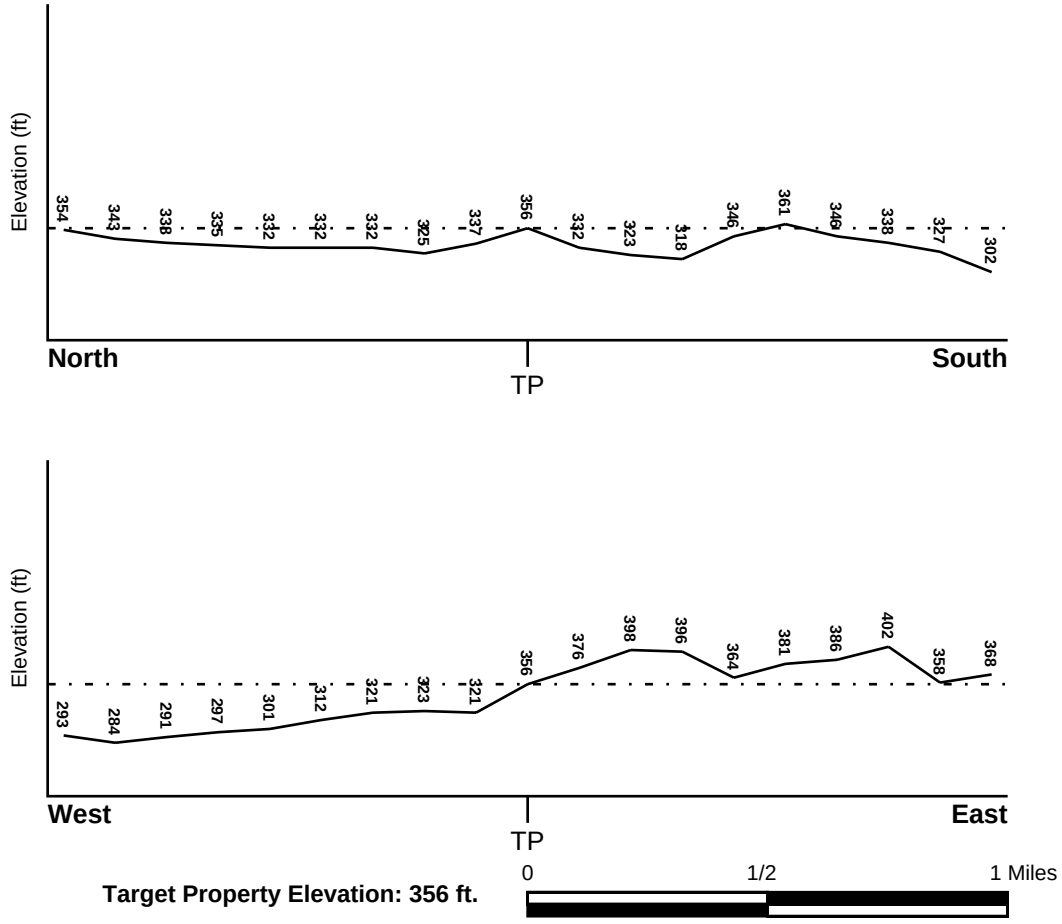
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
LOS ANGELES	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1 - 2 Miles West
Site Name:	Van Der Horst Corporation Of America
Site EPA ID Number:	CAD020159166
Surficial Aquifer Flow Dir.:	VARIABLE. A FLOW TO THE S AND SE HAS BEEN IDENTIFIED DURING FORMER INVESTIGATIONS. MORE RECENT INVESTIGATIONS IDENTIFIED A FLOW TO THE E.
Measured Depth to Water:	28 feet to 38 feet.
Hydraulic Connection:	Aquifer interconnections exist within 2 miles of the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
2	1/4 - 1/2 Mile WNW	Not Reported

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
A3	1/2 - 1 Mile SE	Not Reported
A4	1/2 - 1 Mile SE	Not Reported
A5	1/2 - 1 Mile SE	W
6	1/2 - 1 Mile NNW	Not Reported
B7	1/2 - 1 Mile SW	SW
B8	1/2 - 1 Mile SW	Not Reported

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	HAMBRIGHT
Soil Surface Texture:	gravelly - loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 10 inches
Depth to Bedrock Max:	> 20 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	7 inches	gravelly - loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 2.00 Min: 0.60	Max: 7.30 Min: 6.10
2	7 inches	16 inches	very gravelly - loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 6.10
3	16 inches	20 inches	unweathered bedrock	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
silty clay loam
shaly - clay loam
sandy loam
clay
loamy sand
clay loam

Surficial Soil Types: loam
silty clay loam
shaly - clay loam
sandy loam
clay
loamy sand
clay loam

Shallow Soil Types: silty clay

Deeper Soil Types: weathered bedrock
clay loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	0.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	0.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

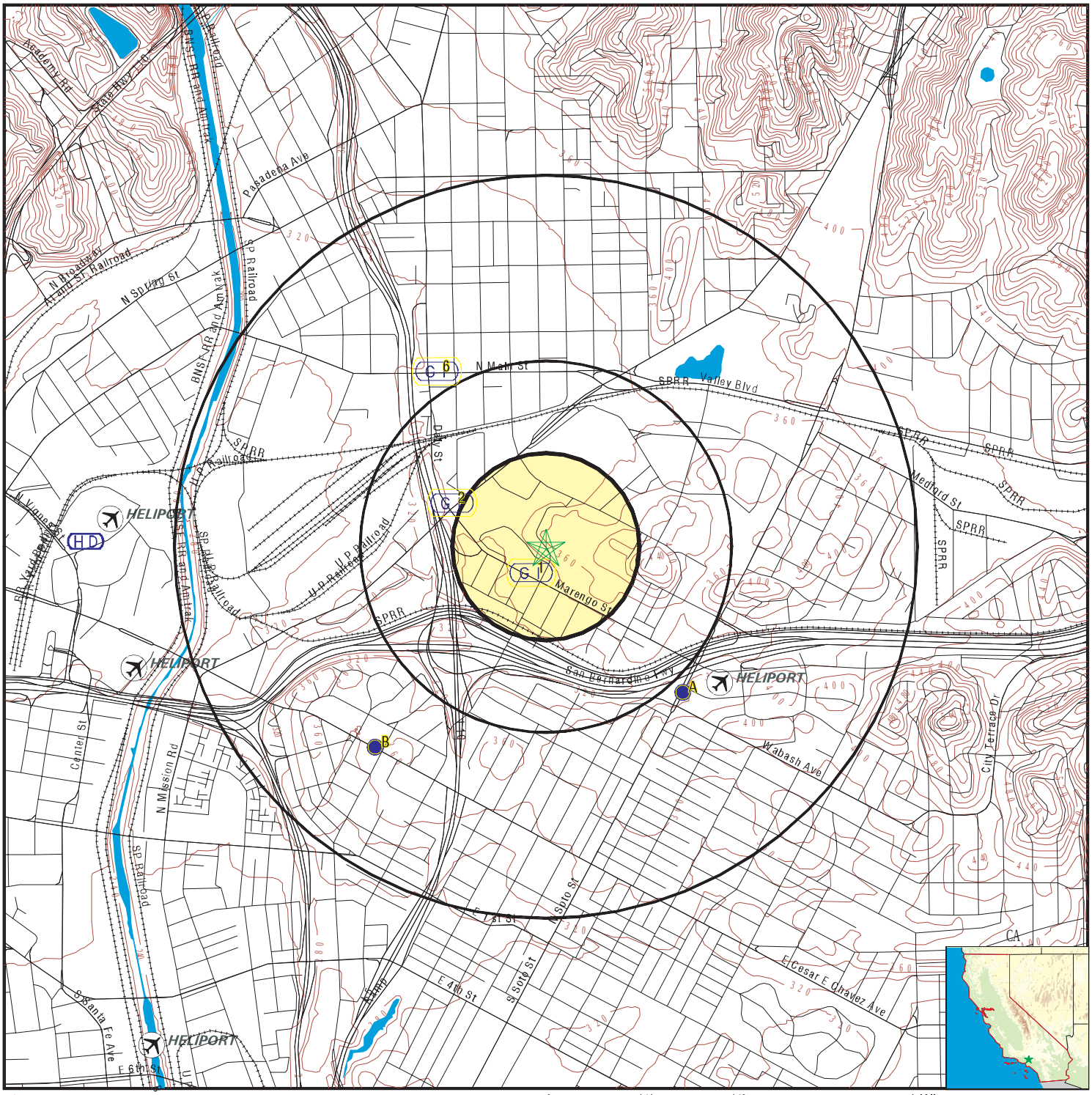
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 3889863.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data

SITE NAME: North State Street	CLIENT: Ninyo & Moore
ADDRESS: North State Street Los Angeles CA 90033	CONTACT: Jonathan Johnson
LAT/LONG: 34.0592 / 118.2099	INQUIRY #: 3889863.2s DATE: March 28, 2014 2:57 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 **SSW** **0 - 1/8 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330325 Not Reported Not Reported Not Reported 33 10/14/1998	**AQUIFLOW**	**38069**
2 **WNW** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330089 Not Reported 38'8" 39'5" Not Reported 05/06/1992	**AQUIFLOW**	**38065**
A3 **SE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900570061 Not Reported 8.37 12 Not Reported 08/07/1996	**AQUIFLOW**	**55186**
A4 **SE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330152 Not Reported 25 32 Not Reported 10/23/1990	**AQUIFLOW**	**38063**
A5 **SE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330234 W Not Reported Not Reported 20.1 11/04/1996	**AQUIFLOW**	**69670**
6 **NNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900310225 Not Reported Not Reported Not Reported 35 07/11/1991	**AQUIFLOW**	**69668**
B7 **SW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	900330189 SW 25.59 30.09 Not Reported 05/26/1993	**AQUIFLOW**	**38076**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
B8 **SW** **1/2 - 1 Mile** **Lower**	Site ID:	900330225	**AQUIFLOW**	**38178**
	Groundwater Flow:	Not Reported		
	Shallow Water Depth:	40		
	Deep Water Depth:	50		
	Average Water Depth:	Not Reported		
	Date:	11/19/1997		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
90033	4	0

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix F
Memorandum of Water Resources and Hydrology Sections of LAC+USC Medical Center EIR and Memorandum of Hydrology Modeling Results

MEMORANDUM OF WATER RESOURCES AND HYDROLOGY SECTIONS OF LAC+USC MEDICAL CENTER EIR

Project: **LAC+USC Medical Center EIR**
Client: ICF International/Los Angeles County
Prepared By: Jennifer J. Walker, P.E., D.WRE, CFM, QSD
Date: 7/24/2014
Purpose: Memorandum of Water Resources and Hydrology Sections of EIR

Note: Draft memorandum released under the authority of Jennifer J. Walker, P.E. (C77079), D.WRE, CFM on 7/24/2014 and should not be used for design or construction.

This memorandum documents water resources and hydrology portions related to ultimate build-out of the LAC+USC Medical Center project as described in the October, 2013 *LAC+USC Master Plan*.

HYDROLOGY AND WATER QUALITY

This section of the Environmental Impact Report (EIR) addresses existing conditions, proposed conditions, impacts, and cumulative impacts of the LAC+USC Medical Center project related to hydrology and water quality. The impacts are related to ultimate build-out of the planned facilities from the October, 2013 *LAC+USC Master Plan* (*Master Plan*) and cumulative impacts addresses the adjacent University of Southern California (USC) Health Sciences Center (HSC) project based on the Addendum to the EIR for that project included in Appendix A. Appendix B includes a separate hydrology memorandum prepared by Watearth, Inc. for the project. Because a detailed plan has not been developed, impacts and hydrologic analyses are based on the general concept and layout described in the Master Plan rather than a detailed, fixed plan.

SETTING/EXISTING CONDITIONS

Existing conditions at the LAC+USC Medical Center Campus (project site) are described based on evaluation of prior reports, available data, and results of the site reconnaissance. As shown on Exhibit 1, the project site is located just north of Interstate Highway (IH) 10 and just east of IH-5. The site is bounded by Cornwell to the east, Zonal to the north, Marengo to the south, and North Mission to the west. Three additional tracts are located at northeast, northwest, and southwest corners of the intersection of Zonal and North Mission. Existing conditions are discussed in the sections below for the following categories:

- Surface Water Quality
- Groundwater
- Hydrology
- Hydraulics
- Flooding and Hazards

Surface Water Quality

The project site is currently fully developed and land cover consists primarily of buildings and pavement with an existing impervious cover of 95% (Exhibit 2). While limited, vegetation on the site includes trees, shrubs, and turf grass scattered within the project site and dense plantings of trees and groundcovers within the northeastern portion of the site ("the hill"). Photos are included in Appendix C. Land use at the site includes a mix of commercial, transportation, institutional, and landscape.

As is typical with the period of construction, the existing site does not appear to include water quality or stormwater controls, such as stormwater Best Management Practices (BMPs), Low Impact Development (LID) features, or hydromodification management facilities. Additionally, stormwater detention and other flood control features were not observed on-site. Instead, the existing site manages rainfall and stormwater runoff with vertical roof drains, catch basins and drain inlets, underground reinforced concrete pipe (RCP), curbs, gutters, overland sheet flow, driveways, and other means of conveyance into the on-site and off-site storm drain system.

Typical Pollutants from Project Site

Stormwater runoff from the existing site is typical of urbanized areas and includes pollutants from motor vehicles and transportation land uses (parking and driving), such as sediment, hydrocarbons, oil, grease, and heavy metals. Additionally, nutrients from fertilizers as well as herbicides and pesticides associated with landscape maintenance are also likely to be present in stormwater runoff from the existing site.

While vegetative cover of soil is established throughout the site, there is potential for erosion and sedimentation within the northeastern portion of the site ("the hill") due to the steep slopes and presence of unvegetated land. Additionally, concrete-lined conveyance swales along the upper perimeter of "the hill" concentrate and direct runoff perpendicular to the natural slope of the land with the potential for increased runoff rates, and associated erosion at the outlet. Due to the steep slope, there is also potential to convey organic debris from leaves and vegetation, sediment, and other pollutants bound to the sediment, such as heavy metals,

Due to the high volume of visitors to the LA+USC Medical Center, pedestrians, and adjacent bus stops, trash is also expected to be a potential pollutant. As shown in the photos included in Appendix C, many of the drainage inlets in roadways adjacent to the site include screens or grates to prevent or limit trash from entering the storm drain system and discharging to the receiving water (Los Angeles River). Fecal coliform bacteria and other pollutants are also typically found in stormwater runoff from land uses similar to those at the site.

Table 1 summarizes typical pollutants of concern based on land use. The majority of the pollutants are from the February, 2014 County of Los Angeles Department of Public Works *Low Impact Development Standards Manual*. Also included in this table are other pollutants that the U.S. EPA recognizes to be typically associated with land use present on the project site.

TABLE 1: POLLUTANTS OF CONCERN BY LAND USE

Land Use	Pollutants of Concern													
	Suspended Solids[2]	Total Phosphorus[2]	Total Nitrogen[2]	Total Kjedahl Nitrogen[2]	Cadmium, Total[2]	Chromium, Total[2]	Copper Total[2]	Lead Total[2]	Zinc, Total[2]	Biological Oxygen Demand (BOD)[5]	Chemical Oxygen Demand (COD)[5]	Fecal Coliform[5]	Hydrocarbons[5]	Trash[5]
Commercial	X	X	X	X	[4]	[4]	X	X	X					
Industrial	X	X	X	X	[4]	[4]	X	X	X					
Transportation (streets, roads)	X	X	X	X	[4]	[4]	X	X	X					
Institutional (educational facilities)	X				[4]	[4]	X		X					
Project Site	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[1] Adapted from Table A-3 of the *Technical manual for Stormwater Best Management Practices in the County of Los Angeles* (February 2004) and the Southern California Coastal Water Research Project Land Use Specific Storm Water Monitoring Data. X= exceedance of "standard" by observed median/average concentration; blank = no exceedance of "standard" by observed median/average concentration.
[2] Derived from Table 11 of the 2012 Los Angeles County MS4 Permit (page 104).
[3] Critical facilities include automobile dismantling (SIC 50xx), automobile repair (SIC 75xx), metal fabrication (SIC 34xx), motor freight (SIC 42xx), automobile dealerships (SIC 55xx), chemical manufacturing (SIC 28xx), and machinery manufacturing (SIC 35xx).
[4] No available date to determine if these pollutants of concern originate from this land use. Pollutant is assumed to be produced by this land use unless otherwise proven by the project applicant.
[5] Based on 2006 U.S. EPA *Guide to Stormwater Pollutant Concentrations*.

Pollutants of Concern Based on Receiving Water Impairment

The Clean Water Act (CWA) requires that states adopt water quality standards for receiving waters. Water quality standards designate beneficial uses for the receiving water and include criteria required to support those beneficial uses. Water quality criteria are either narrative statements related to the quality of water to support a particular use or maximum concentrations of levels of pollutants (i.e., bacteria, etc.). As part of the CWA, when monitoring data indicates that a pollutant is exceeded, the receiving water is classified as impaired and placed on the *CWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLs* (303(d) List). A Total Maximum Daily Load (TMDL) is then developed for the pollutant(s) causing the impairment.

The purpose of the TMDL is to limit the amount of pollutant(s) discharged to the receiving water from all sources (i.e., stormwater runoff, wastewater, agriculture).

There are several pollutants of concern related to the receiving body of water and include those pollutants with a developed TMDL requirement, other pollutants listed on the 303(d) List, and pollutants of concern for the Los Angeles River watershed management area. The project site is located between Carson and Figueroa Street within Reach 2 of the Los Angeles River. Data from the State Water Resources Control Board (SWRCB) in Table 2 for Reach 2 of the Los Angeles River is based on the combined California 2010 303(d) List and includes pollutants that have a completed TMDL, pollutants that require development of a TMDL, and pollutants that are being addressed by actions other than a TMDL.

TABLE 2: LOS ANGELES RIVER REACH 2 303(d) LIST

Pollutant	Pollutant Category	Potential Source	Source Category
Ammonia	Nutrients	Point Source	Unspecified Point source
Ammonia	Nutrients	Non-Point Source	Unspecified Non-Point Source
Coliform Bacteria	Pathogens	Point Source	Unspecified Point Source
Coliform Bacteria	Pathogens	Non-Point Source	Unspecified Non-Point Source
Copper	Metals/Metalloids	Source Unknown	Source Unknown
Lead	Metals/Metalloids	Point Source	Unspecified Point Source
Lead	Metals/Metalloids	Non-Point Source	Unspecified Non-Point Source
Nutrients (Algae)	Nutrients	Point Source	Unspecified Non-Point Source
Nutrients (Algae)	Nutrients	Non-Point Source	Unspecified Non-Point Source

Appendix D includes a map obtained from the SWRCB that illustrates the TMDLs that are in effect for Los Angeles County as of October 2013. Multiple TMDLs are in effect for the Los Angeles River for the following pollutants:

- Bacteria
- Metals
- Trash
- Nutrients

Table 3 and Appendix D list the pollutants of concern for the Los Angeles River watershed management area, which the project site falls within.

TABLE 3: TIER 3 POLLUTANTS OF CONCERN FOR THE LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Total Dissolved Solids
E. *coli* Bacteria	Turbidity
Total Coliform Bacteria [1]	Aluminum, Total Recoverable
Fecal Coliform Bacteria[1]	Cyanide, Total Recoverable
Enterococcus Bacteria [1]	Copper, Total Recoverable
Chloride	Mercury, Total Recoverable
Nitrite Nitrogen, Total (as N)	Selenium, Total Recoverable
Sulfate	

[1] Apply only to discharges to the estuary and the ocean

Summary

Table 4 summaries potential pollutants from the site based on land use along with pollutants of concern from the various sources described above.

TABLE 4: SUMMARY OF POTENTIAL POLLUTANTS AND POLLUTATIONS OF CONCERN

Nutrients	Metals	Organics	Other	Pathogens	Sediment/Solids
Algae	Aluminum	BOD	Chloride	Coliform Bacteria	Suspended Solids
Ammonia	Cadmium	COD	Hydrocarbons		Total Dissolved Solids
Kjedahl Nitrogen	Chromium		pH		Turbidity
Total Nitrogen	Copper		Sulfate		
Total Phosphorous	Cyanide		Trash		
	Lead				
	Mercury				
	Selenium				
	Zinc				

Groundwater

As indicated on the groundwater basin exhibit (Exhibit 6), the project site is located within the along the northern edge of the Los Angeles Forebay of the Central Basin, which is a sub-basin of the Los Angeles Coastal Plain. It is located a significant distance from existing stormwater spreading grounds shown in Exhibit 5. As such, stormwater runoff from the site will not provide recharge into existing stormwater spreading grounds or introduce pollutants into these spreading grounds.

Based on information from the *LAC+USC Medical Center Replacement Project Environmental Assessment/EIR Seismic Hazard Mitigation Program for Hospitals* (*LAC+USC Medical Center Seismic EIR)*, "within the forebay the site is situation along the southern edge of the Elysian Park-Repetto Hills, which are bisected by Los Angeles Narrows, a north-south trending valley underlain by Quaternary age alluvium deposited by the Los Angeles River. Quaternary age water-bearing deposits of the forebay area pinch out northward against Tertiary age sedimentary, including the Puente Formation". The groundwater flow in the vicinity of the site is generally towards the southwest.

The approximate location of the historic underground Arroyo De La Pasa River is depicted in Exhibit 35 (Appendix E) from the *LAC+USC Medical Center Seismic EIR.* The river flowed approximately southwesterly from the existing Clinical Research building south to the area near the existing Central Stream Plant and Central Laboratory buildings.

Water Supply

Based on preliminary utility research presented in the *Master Plan*, water service for LAC+USC is provided by the City of Los Angeles Department of Water and Power (LADWP). From the *LAC+USC Medical Center Building & Site Assessment Report*, existing water use is approximately 100,980 gallons/year from the Los Angeles County Utility System Billing summary from 9/20/2011 through 8/20/2011. These dates appear to be incorrect and seem to be intended to cover an approximately one-year time-period. Reclaimed water does not appear to be used at the site currently and irrigation demand is not separated from the overall demand from the entire campus.

According to the Water Quality section of the LADWP's website, approximately 15% of the water is obtained from groundwater from the San Fernando basin, which is partially shown on Exhibit 6. Remaining water supply sources includes approximately 60% from the Eastern Sierra via the Los Angeles Aqueduct system and from the Metropolitan Water District's Colorado and Feather River supplies.

Depth to Groundwater

As part of the October, 2013 *Phase I Environmental Site Assessment* prepared by Kimley Horn & Associates, Inc. for 1744 Zonal Avenue within the project site, it was noted that water table depths greater than six feet (ft) are common. This report also stated that "Liquefaction played a significant role in the damage sustained by the Medical Center during the Northridge earthquake.

Wherever water table levels are less than 10 feet, the potential for liquefaction is high. Conversely, where the water table is greater than 30 feet below land surface, the risk for liquefaction is low." This statement seems to imply that the depth to groundwater may be less than 30 ft below the land surface in parts of the project site.

The *LAC+USC Medical Center Seismic EIR* references subsurface borings where groundwater was encountered at depths ranging from approximately 20 to 45 ft at most borings on the site. It was also noted that groundwater was found in the underlying bedrock and alluvial units. Groundwater was typically encountered in steeply dipping sandstone beds under the semi-confined conditions of the bedrock. Based on the geotechnical study for that project, seepage of groundwater was found at depths ranging from 12 to 14 ft below natural ground in a portion of the site. In a prior geotechnical study in 2002, groundwater seepage was also found between 5 and 14.5 below natural ground. The *EIR* also references the *California Geotechnical Survey Seismic Hazard Zone* report, which indicates the historically highest groundwater level at the site is approximately 25 ft below natural ground.

Recharge

Soils within the project site are generally classified as loam or clay loam (Exhibit 7). These soil textures are typically placed within the Type C soil group (U.S. EPA EISA, 2009). Soils within these classifications typically have low saturated hydraulic conductivity rates in the range of 0.04 to 0.13 inches/hour (in/hr) (U.S. EPA SUSTAIN, 2009). Since the existing site has an impervious cover of approximately 95%, minimal recharge occurs into the Central Basin and does not contribute to supplies within the San Fernando Basin.

Contamination

Based on an October, 2013 *Phase I Environmental Site Assessment* prepared by Kimley Horn & Associates, Inc. for 1744 Zonal Avenue within the project site, two locations with petroleum contamination of groundwater were found within the greater LAC+USC Medical Center site. Locations are shown as Sites 4 and 5 on Figure 6 from that study (Appendix F).

No other sources or locations of groundwater contamination were found as part of the data review for this project.

Hydrology

Elevations within the LAC+USC Medical Center campus range from a low of approximately 320 ft in the southwestern portion of the site to a high of approximately 450 ft in the northeastern portion of the site (Exhibit 8). Overland flow within the site is generally from the northeast to the southwest. The northeastern corner of the site includes "the hill", which is vegetated with a mix of trees and understory vegetation, and also drains from north to south. Off-site flows into or through the site are minimal.

Slopes within the three "off-site" tracts located at the intersection of North Mission Road and Zonal Avenue are relatively flat with elevations of approximately 330 ft and overland flow is generally directed towards the adjacent roadways.

The Los Angeles River is located approximately one-mile west of the project site and overland flow in the vicinity is generally to the west towards the Los Angeles River. Surface water drainage in the site vicinity is generally towards the Los Angeles River. Extreme event stormwater runoff that exceeds the capacity of the on-site and public storm drain systems flows to the west/southwest towards the Los Angeles River. The confluence of the Rio Hondo River with the Los Angeles River is located approximately one-mile west of the project site.

As discussed, the existing site does not appear to include water quality or stormwater controls, such as stormwater BMPs, LID features, or hydromodification management facilities. Additionally, stormwater detention and other flood control features were not observed on-site. Instead, the existing site manages rainfall and stormwater runoff with vertical roof drains, catch basins and drain inlets, underground storm drain systems, curbs, gutters, overland sheet flow, driveways, and other means of conveyance into the on-site and off-site storm drain system.

As discussed previously, impervious cover at the existing site is approximately 95-percent (Exhibit 2) and stormwater management and runoff is typical of urbanized runoff from other sites with a similar period of construction. With the exception of "the hill", land use on the majority of the site consists of buildings and pavement. Because of the high level of impervious cover and improved conveyance system, peak flows and runoff volumes are significantly higher than from the same site in a natural or undeveloped condition.

In a similarly undeveloped site, the water budget would include much higher amounts of infiltration and evapotranspiration due to naturally vegetated (pervious areas) with depressions and other low spots for temporary rainfall ponding. The character of runoff due to the high amount of impervious cover and improved conveyance system has resulted in stormwater runoff from the existing site that would contribute to hydromodification within natural receiving systems. Since the Los Angeles River is concrete-lined in the vicinity of the site, hydromodification due to the existing site is limited. However, changes in the water budget due to the existing site may have impacted areas further downstream with sediment deposits and other natural features that can be disturbed by increases in flows or changes in the flow regime.

Stormwater runoff from the project site in assumed undeveloped conditions is estimated at 46.6 in (1.3 in/year [yr]), based on continuous simulation analysis of the period of record from 1970 – 2006. For existing conditions, stormwater runoff is 494.9 in (13.4 in/yr) for the same time-frame due to the high-level of impervious cover. Appendix B includes a hydrology memorandum prepared by Watearth, Inc. for the project and additional details on runoff rates and modeling assumptions are included in this memorandum.

While minimal erosion is expected from the majority of the site due to the high-level of impervious cover, there is potential for erosion and sedimentation within the northeastern portion of the site ("the hill") due to the steep slopes and presence of unvegetated land. Additionally, concrete-lined conveyance swales along the upper perimeter of "the hill" concentrate and direct runoff perpendicular to the natural slope of the land with the potential for increased runoff rates, and associated erosion at the outlet.

Hydraulics

From the *Master Plan* and visual observations during site reconnaissance, the existing storm drain system for the LAC+USC Medical Center campus utilizes vertical roof drains, underground storm drain pipes, overland sheet flow, curbs, gutters, catch basins, and driveways to convey stormwater runoff to the existing public system owned and operated by Los Angeles County Flood Control District (LACFCD). It is further stated in the *Master Plan* that the existing system is at the end of the expected life-cycle and is rated to be in Poor Condition.

As shown in the Existing Storm Drain Conveyance Concept Plan exhibit and summary table from the *Master Plan* (Appendices G and H), the eastern and southern portion of the campus is served by a private system of isolated storm drain laterals ranging in size from six-inch lines to an 11-x18-inch corrugated metal pipe (CMP) box. These small diameter storm drain systems discharge into a 36-inch RCP along the northern right-of-way (ROW) of Marengo Street, which is a public storm drain system.

The private system of storm drain laterals in the north-central portion of the campus range in size from 10-inch to 18-inch RCP and discharge into an existing public system within Zonal Avenue with diameters ranging from 18 to 36 in. The Zonal Avenue system then flows to west and discharges into an existing on-site, public storm drain system. The 4.5'-foot x 4-foot reinforced concrete box (RCB) flows from north to south through the western portion of the campus and is located between State Street and North Mission Road.

The western portion of the campus drains through a private system of storm drain laterals ranging from 4 to 6 in into an existing on-site, public 8-foot x 2-foot, 9-inch RCB, which flows from north to south through the western portion of the campus between State Street and North Mission Road and is parallel to and east of the 4.5-foot x 4-foot RCB. Both on-site, public RCBs eventually join together offsite, south of the IH-10 freeway and convey stormwater runoff to the Los Angeles River.

The Los Angeles River in the vicinity of the site consists of a concrete-lined trapezoidal channel with a low-flow section (photos 1-4, Appendix C). The configuration of the river in the vicinity of the site outfall provides an efficient conveyance system with minimal flood plain storage, habitat /ecology, recreational, or aesthetic benefits.

In the event that sheet flow leaves the project site, inlets are regularly spaced within the public roadways bordering the campus. As shown in the photos included in Appendix C, some of these inlets include the benefits provided by grates that help prevent trash from entering the storm drain system and the Los Angeles River watershed.

Flooding and Hazards

100-Year Flood Plain

As shown on Exhibit 3, the project site is located in Zone X outside of the regulatory 100-year flood plain of the Los Angeles River. The Flood Insurance Rate Map (FIRM) Panels shown in this exhibit include 06037C1628F, 06037C1629F, 06037C1636F, and 06037C1637F. These panels were updated on September 6, 2008. While the 100-year flood plain extends into the left overbank in the general region of the project site, it is located entirely west of IH-5.

There is no flood plain or floodway fill proposed as part of this project and no houses or other structures will be placed within the regulatory 100-year flood plain.

Dam Failure and Other Hazards

As shown in the Dam Hazard Inundation map included in Appendix I from the City of Los Angeles *Hazard Mitigation Plan*, dated January, 2011 and adopted July, 2011, the project site is not located within a potential inundation area for dam failure. Similarly, the project site is not located within a potential tsunami inundation area or seiche or landslide/mudslide hazard zone (see exhibits in Appendix I).

IMPACT ANALYSIS

The impact analysis is based on ultimate build-out of the LAC+USC Medical Center as described in the *Master Plan*. A brief summary of hydrology and water quality impacts of the adjacent University of Southern California (USC) Health Sciences Center (HSC) project is also included in this section for reference. Finally, cumulative hydrology and water quality impacts considering both projects are presented.

LAC+USC Medical Center Impacts

This section addresses impacts to surface water quality, groundwater, hydrology, and flooding/hazards related solely to ultimate build-out of the LA+USC Medical Center as described in the *Master Plan*.

LAC+USC Medical Center Surface Water Quality Impacts

Because of the changing nature of potential pollutants in the various stages of a project, impacts to surface water quality are discussed under the categories or Construction, Operations, and Operations/Maintenance of LID Features in the following sections.

Construction

During construction, site grading activities and exposed soil could temporarily increase the amount of suspended solids (sediment) in sheet flow or runoff into the existing storm drain system. Thus, surface water quality could potentially be temporarily affected by construction

activities. However, the project would be required to obtain and comply with the Construction General Permit (CGP) through the SWRCB. This permit and associated National Pollutant Discharge Elimination System (NPDES) requirements include development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) with associated monitoring and reporting. Stormwater BMPs are required to control erosion, minimize sedimentation, and control stormwater runoff water quality during construction activities. Additional source control BMPs would also be required to prevent contamination of runoff by potentially hazardous materials and eliminate non-storm water discharges.

Compliance with the CGP, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles regional water quality control board or other regulatory agencies or impair the beneficial uses of the receiving waters. Construction would not result in a violation of any water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality. Construction-related impacts to surface water quality would be **less than significant** when in compliance with the above requirements and any other applicable regulations.

Operations

Based on the *Master Plan*, emphasis on the use of drought-tolerant and California native plants is planned for the site and the pervious area is anticipated to increase substantially. Additionally, proposed stormwater and LID features (bioretention and wetlands/detention) would include vegetation. While proposed lawn areas are limited in area, agricultural crops are encouraged and a green roof is proposed as an urban farm. The use of plant species with high-moderate water needs by Water Use Classifications of Landscape Species (WUCOLS) III will be limited in quantity and restricted to a similar water-use area.

Further, lower maintenance vegetation is planned and maintenance is anticipated to be performed by staff that is well-trained in California native landscapes. The *Master Plan* also states that the use of pollutants, chemicals, or soil amendments that can harm human or ecological health will be avoided. While not implicitly stated, this seems to imply that organic maintenance methods or Integrated Pest Management (IPM) will be used.

The *Master Plan* also indicates that vegetation and materials will be composted on-site for use as a soil amendment and that degraded soils will be improved. This practice would enhance the infiltration and storage capacity of soils thus reducing runoff. Provided that animal manure and animal products are not included in the mulch or compost used on-site, use of these materials will have a positive impact on runoff from the site.

Standard Urban Stormwater Mitigation Plan (SUSMP) requirements would be implemented and include source control BMPs, treatment control BMPs, and requirements regarding erosion control. Non-structural BMPs may include: providing storm drain stenciling and signage, containing properly designed outdoor materials storage areas, containing properly designed trash storage areas, providing proof of on-going BMP maintenance, and other items relevant to operations of the site.

Similar to existing conditions, stormwater runoff from the proposed site would be typical of urbanized areas and includes pollutants, such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. The typical pollutants of concern for the existing site based on land use (Table 1) are similar for the proposed site.

LID features are also planned to meet requirements in the Los Angeles County *Low Impact Development Standards Manual*. Details are included in the hydrology memorandum prepared by Watearth, Inc. (Appendix B). The quality of surface water runoff is improved by infiltration of stormwater runoff and associated pollutants whereby the runoff and pollutants do not reach the receiving waters (Los Angeles River). Additionally, the LID features provide treatment control through physical, biological, and chemical processes to remove pollutants from the stormwater runoff. An important consideration in the design of bioretention is leaching of nutrients from the growing media into the stormwater runoff. Because nutrients are pollutants of concern for discharge from the site, the design of bioretention features on-site must include modifications to address potential leaching of nutrients.

Provided that design of LID features (especially bioretention) include modifications to address potential leaching of nutrients, compliance with the LA County LID criteria and other state and local regulations that require post-construction BMPs would ensure that operation of the site would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles regional water quality control board or other regulatory agencies or impair the beneficial uses of the receiving waters. Operation of the site would not result in a violation of any water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality. Operation-related impacts to surface water quality would be **less than significant**.

Operations/Maintenance of LID Features

On-going Operations and Maintenance (O&M) activities for the proposed LID features at the site are summarized below and example O&M Fact Sheets are included in Appendix J. These O&M Fact Sheets are for reference only and should not be used for this project. While the Proposed Stormwater Conveyance Concept Plan exhibit from the *Master Plan* (Appendix K) includes only bioretention, permeable pavement, and wetlands/detention, other LID features mentioned in the *Master Plan* include infiltration trenches and cisterns for stormwater harvesting and use. For most LID features, sediment removal is one of the most important and significant maintenance activities to extend the life-cycle and effectiveness of the LID feature. Once LID features clog or reach the end of their life-cycle, major rehabilitation or reconstruction may be needed. Regular inspection of LID features is also a key component of a successful O&M Plan.

Bioretention maintenance requirements include removing sediment, trash, and debris to maintain the infiltration capacity. Additionally, shredded hardwood mulch should be removed and replaced annually to remove sediment and any accumulated metals captured by the mulch. Vegetation may require pruning as well as replanting of dead vegetation. Additionally, irrigation is typically required during the summer months. Because bioretention provides stormwater quality benefits, weeding should be done by hand and fertilizers, pesticides, and herbicides should not be used. Additionally, mulch and compost should not contain any manure or other animal products that may contribute nutrients to the stormwater runoff.

Maintenance requirements for wetlands/detention are similar to those for bioretention except the stormwater facility is larger and may include areas requiring mowing. For centralized detention, sediment removal may be required less frequently.

The primary maintenance requirement for infiltration trenches is removal of trash, debris, and sediment. Weeds and unwanted vegetation should be removed by hand and herbicides should not be used. With minor clogging, the surface layer of the pea gravel or rocks may need to be removed and replaced.

Typical maintenance activities for cisterns or stormwater harvesting system include checking and confirming the system operates as planned. Removal of sediment is also required when sediment accumulates to specified levels in the system. For cisterns or systems that include roofs in the catchment area, leaf debris and organic litter should be removed from inlets, downspouts, and leaf screens. The irrigation system, if included, also requires on-going maintenance typical of irrigation systems.

The maintenance activities associated with permeable pavement are geared towards removal of sediment and debris that may clog the pavement. Sweeping of leaf litter, debris, and sediment is needed to prevent organic materials from decomposing and clogging the pavement. For minor clogging, pressure washing may be used, while vacuum sweeping is recommended twice annually or more for areas with high sediment loads. Any weeds within the permeable pavement should be removed manually and herbicides should not be used.

An O&M Plan should be developed for LID features at the site and must consider impacts to water quality, including those discussed above (i.e., no fertilizers, pesticides, or herbicides and no animal manure or products in the compost or mulch) as well as other considerations. Development of and compliance with an O&M Plan would ensure that O&M of LID features at the site would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles regional water quality control board or other regulatory agencies or impair the beneficial uses of the receiving waters. O&M of LID features at the site would not result in a violation of any water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality. O&M of LID features results in impacts to surface water quality that would be **less than significant**.

LAC+USC Medical Center Groundwater Impacts

As indicated in the *Master Plan* and the *Building and Site Assessment Report*, water demands are projected to increase at the site. While not specifically stated, the increase is likely due to increased utilization of facilities at the LAC+USC Medical Center as well as an increase in irrigation demand due to increased landscape areas.

Overall regional water demand is primarily a function of population growth. Although the project would likely lead to increases in indoor water demand at the site, it would not increase overall population within the region. Additionally, indoor fixtures would be required to comply with City ordinances in the Los Angeles Municipal Code (LAMC) related to reducing indoor water consumption. The City of Los Angeles Plumbing Code (Chapter IX, Article 4, of the LAMC) references the California Plumbing Code, which establishes maximum flow rates for indoor water fixtures. City Ordinance No. 180,822 further establishes water efficiency requirements for renovation, redevelopment, and new development and mandates installation of high efficiency plumbing fixtures in residential and commercial buildings (City of Los Angeles Municipal Code, April 2012). These requirements would reduce potential increases in indoor water usage at the project site.

As indicated, impervious area would decrease significantly and landscaped areas would increase as a result of the project. While multiple design and maintenance principles to reduce the use of potable water for irrigation are planned and discussed below, increased landscape areas at the site are likely to result in an increased use of groundwater for irrigation. While infiltration and groundwater recharge at the site are expected to increase by approximately 657% (see hydrology memorandum by Watearth, Inc. in Appendix B) due to increased pervious areas and incorporation of LID features, recharge is into the Central Basin and groundwater supplies are obtained from the San Fernando basin.

Even with substantial increases in infiltration, groundwater contamination is not likely to occur due to typical depths to groundwater at the site found in previous studies referenced in the Settings/Existing Conditions section. Additionally, landscape maintenance methods used for the project would avoid the use of pollutants, chemicals, or soil amendments that can harm human and ecological health.

Based on the General Landscape Guidelines contained in the *Master Plan*, reclaimed water will be used for irrigation if available. If not available, use of an onsite reclaimed water treatment system will be investigated. Although the Master Plan states that use of captured rainwater (stormwater) or gray water shall be considered where appropriate, percentages or amounts of irrigation to be met by these sustainable alternatives to potable water are not specified. Wasted irrigation water is planned to be reduced through proactive maintenance of the irrigation system and best irrigation practices, such as seasonally reprogramming the system and irrigating at appropriate times of the day are planned.

Based on the *Master Plan*, emphasis on the use of drought-tolerant and California native plants is planned for the site. The use of plant species with high-moderate water needs by WUCOLS III will be limited in quantity and restricted to a similar water-use area. While proposed lawn areas

are limited in area, agricultural crops are encouraged. Further, lower maintenance vegetation is planned and maintenance is anticipated to be performed by staff that is well-trained in California native landscapes. The use of compost, soil amendments, and mulch is also planned to enhance infiltration and storage of stormwater runoff within the landscape, thus reducing reliance on irrigation.

Water use would increase during project operation due to the increased number of persons utilizing the LAC+USC Medical Center facilities and for landscape maintenance. While the project would increase indoor water demand at the site, it would not lead to a significant increase in demand for potable water for indoor use in the region. The project would increase use of potable water and groundwater for irrigation demands. By incorporating reclaimed water, gray water, and harvested rainwater as planned for irrigation, the increased demand for groundwater for irrigation can be reduced.

For these reasons, the water demand associated with the proposed project would not appear to substantially deplete groundwater supplies. The project would increase groundwater recharge and would not interfere substantially with groundwater recharge. Impacts during operation would be **less than significant with mitigation incorporated.** Mitigation measures are described below in the Recommended Mitigation Measures section.

Construction activities could require excavation below normal or seasonally high ground water levels. It is also possible that seepage may be encountered due to groundwater depths on the site and dewatering may be necessary. However, seepage encountered during construction could be mitigated as needed by constructing small drainage swales from the base of the excavations to temporary sump pits or stormwater/LID features on-site.

Any discharge of groundwater during construction would be required to comply with applicable NPDES permit requirements. The project would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to effectively reduce the potential for the construction of the project to release contaminants into groundwater. Thus, construction activities would not degrade groundwater quality or interfere with recharge. Water use may be increased on a limited, temporary extent during the construction-phase and construction-phase impacts would be **less than significant**.

LAC+USC Medical Center Hydrology Impacts

As part of the project, impervious surfaces are proposed to be reduced from approximately to 95% to 75% or less. Existing impervious surfaces will be replaced with new impervious surfaces and additional landscape areas. While general sheet flow patterns and existing slopes will generally be maintained, the existing slope of "the hill" area is planned to be lessened to provide an accessible route. Vegetation within the site is planned to consist of forested areas, lawns, and native and drought-tolerant vegetation. Agricultural land use is encouraged in the form of a community garden and a community farm located on top of a proposed parking structure (i.e., a green roof).

LID features are also planned to meet requirements in the Los Angeles County *Low Impact Development Standards Manual*. The goal of the LID features is to provide stormwater quality benefits and to more closely mimic undeveloped site hydrology. LID features are required to retain 100-percent of the SWQDv on-site through a combination of infiltration, evapotranspiration, and stormwater harvest and use unless it is demonstrated that it is technically infeasible to do so. For this project, the SWQDv is 0.95 in and details are included in the hydrology memorandum prepared by Watearth, Inc. (Appendix B).

Based on the LID features illustrated in the Proposed Stormwater Conveyance Concept Plan exhibit from the *Master Plan* (Appendix K) and assumed configurations documented in the hydrology memorandum (Appendix B), the proposed LID features seem adequate to meet SWQDv requirements assuming storage within the growing media and drain rock layers is considered. Without these layers, additional LID features may be needed to meet requirements. Regardless, the proposed site will be required to meet SWQDv requirements and the LID extent may be increased as needed or stormwater harvesting and use may be incorporated. The project is likely to be exempt from hydromodification management requirements as it is a redevelopment project anticipated to result in less impervious cover than existing conditions.

The proposed impervious cover and LID features illustrated on the Proposed Stormwater Conveyance Concept Plan exhibit from the *Master Plan* (Appendix K) result in lower peak flows in proposed conditions than existing conditions for both the 10-year, 24-hour (206 cubic feet per second [cfs] for existing and 155 cfs for proposed) and 100-year, 24-hour (328 cfs for existing and 253 cfs for proposed) design storm events, which are representative of storm drain sizing and flood control events, respectively.

A continuous simulation analysis of undeveloped, existing, and proposed conditions at the project site is performed for the period of rainfall record from 1970 – 2006 with a total rainfall depth of 571 in. Based on these results, the water budget is more similar to an undeveloped site (46.6 in of total runoff with 521.5 in or infiltration and 2.9 in of evaporation) in proposed conditions than existing conditions. Surface runoff from the site in existing conditions is 494.9 in and reduced to 323.4 in proposed conditions. Existing conditions infiltration and evaporation are 25.4 in and 51.5, respectively. Proposed conditions with the planned LID features results in infiltration and evaporation of 192.3 in and 56.7 in, respectively, over the 37 –year period of analysis. Modeling details and results are reported in the hydrologic analysis memorandum prepared by Watearth, Inc. and included in Appendix B.

In addition to the LID features, drainage from the proposed site improvements will be handled through a new storm drain system sized for proposed stormwater runoff from the site. The on-site storm drain system will drain into proposed detention/retention areas located approximately at the center of new development on the west campus (Appendix K). These basins will discharge into the public storm drain systems. Peak flow rates and runoff volumes discharged from the campus will be the same or lower than existing conditions and will not affect the capacity or hydraulic integrity of the existing public storm drain system.

Peak flow rates and runoff volumes of stormwater during construction would generally be less than occurs under existing conditions, since the existing site is 95% impervious cover and drains directly through improved conveyance systems into the storm drain system and receiving waters (Los Angeles River). The impervious cover would not increase during construction and at various stages of construction would be less than the existing impervious cover.

There is no evidence of substantial erosion problems onsite and none would be expected as a result of the proposed project post-construction. During the construction phase of the project, standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance associated with construction of the project. Standard construction practices relating to erosion and sediment controls will be required as part of the permitting process.

The project does not substantially alter the existing drainage pattern of the site, area, or receiving waters, or result in substantial erosion or siltation on- or off-site. With the increased pervious (landscape) areas and use of LID features, the amount of stormwater runoff via surface sheet flow and storm drain system is anticipated to decrease as a result of the project. As such, the project will not result in a substantial increase in the rate or amount of surface runoff or result in flooding on- or off-site. Impacts would be **less than significant**.

LAC+USC Medical Center Flooding and Hazards Impacts

As shown on Exhibit 3, the project site is located in Zone X outside of the regulatory 100-year flood plain of the Los Angeles River. The Flood Insurance Rate Map (FIRM) Panels shown in this exhibit include 06037C1628F, 06037C1629F, 06037C1636F, and 06037C1637F. These panels were updated on September 6, 2008. There is no flood plain or floodway fill proposed as part of this project and no houses or other structures will be placed within the regulatory 100-year flood plain. As such, there is **no impact** to the effective (existing) levels of flood plain storage or conveyance of flood flows by the Los Angeles River. The site is not located within a potential inundation area for dam failure (City of Los Angeles, January, 2011). Therefore, there is no potential for inundation at the site as a result of an earthquake-induced dam failure. **No impact** would occur.

The project site is not located within a tsunami hazard zone (City of Los Angeles, January, 2011). **No impact** would occur**.** The project site is not located within a seiche or landslide/mudslide hazard zone (City of Los Angeles, January, 2011). **No impact** would occur**.**

USC Health Sciences Center Impacts

The modified project impacts for the USC HSC described in the *Addendum to the EIR* are less than significant for hydrology, surface water quality, and groundwater. The potential for impacts in each of these areas is summarized in the following sections.

Hydrology Impacts of Adjacent USC HSC

Existing impervious surfaces will be replaced with new impervious surfaces and additional landscaping. With the additional landscaping, the rate and amount of storm water runoff would decrease slightly compared to the original project and would continue to be captured by the existing storm drain infrastructure or any new drainage system installed as part of the project. The amount of surface runoff would not substantially increase and the existing drainage pattern of the site would not be altered

Development of the modified project would not result in an increase of the amount of impervious surface that could contribute additional runoff. The original project is not located within a 1OO-year flood plain or within an inundation area associated with the failure of a levee or dam. Therefore the project would result in less than significant impacts to hydrology.

Surface Water Quality Impacts of Adjacent USC HSC

Compliance with NPDES requirements and local criteria for stormwater BMPs would ensure that construction activities would not impair the beneficial uses of the receiving waters or degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles regional water quality control board. The existing drainage pattern of the site would not be altered and the amount of surface runoff would not substantially increase during construction. Activities during construction would not result in a violation of any water quality standards or waste discharge requirements and would not substantially degrade water quality. Construction-related impacts to surface water quality would be less than significant.

Typical urban pollutants, including oil and grease, metals, fertilizers, pesticides, dirt from landscaped areas, and litter would be produced during the operation of the site. However, with the proposed additional landscaping, the amount of pervious area within the HSC would be increased and result in a reduced potential for urban pollutants to enter the storm drain system. SUSMP requirements would be implemented and include source control BMPs, treatment control BMPs, and requirements regarding erosion control. By complying with these requirements, impacts to surface water quality during operation would be less than significant.

Groundwater Impacts of Adjacent USC HSC

The project would replace existing primarily impervious surfaces with new impervious surfaces and additional landscaping and would not result in an increase of impervious cover. Impacts to groundwater hydrology would be less than significant.

Based on the geotechnical study, minor to moderate seepage of groundwater was found at depths ranging from 12 to 14 ft below natural ground. In a prior geotechnical study in 2002, groundwater seepage was also found between 5 and 14.5 ft below natural ground. The *California Geotechnical Survey Seismic Hazard Zone* report indicates the historically highest groundwater level at the site is approximately 25 ft below natural ground.

While seepage may be encountered during construction as excavation may be required up to 30 ft below natural ground and dewatering may be necessary, any discharge of groundwater during construction would comply with the applicable NPDES permit requirements. The project would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for groundwater contamination during construction. Construction activities would not degrade groundwater quality and impacts would be less than significant.

Cumulative Impacts

Surface Water Quality Cumulative Impacts

For both projects, compliance with the CGP, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles regional water quality control board or other regulatory agencies or impair the beneficial uses of the receiving waters. Construction would not result in a violation of any water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality. Construction-related impacts to surface water quality would be **less than significant** when in compliance with the above requirements and any other applicable regulations.

The proposed project includes a reduction in impervious area and LID features for stormwater quality treatment. As discussed in the hydrology memorandum (Appendix B), proposed stormwater discharges would be less than existing for design storm events and the historical period of record from 1970 – 2006. The reduction in runoff also leads to a reduction in pollutants discharged from the site.

Similar to existing conditions, stormwater runoff from the proposed site would be typical of urbanized areas and includes pollutants, such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. The *Master Plan* indicates that the use of pollutants, chemicals, or soil amendments that can harm human or ecological health will be avoided.

Provided that design and O&M of LID features address potential leaching of nutrients, compliance with the LA County LID criteria and other state and local regulations that require post-construction BMPs would ensure that operation of both sites would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles regional water quality control board or other regulatory agencies or impair the beneficial uses of the receiving waters. Operation of both sites would not result in a violation of any water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality. Operation-related impacts to surface water quality from both sites would be **less than significant**.

Groundwater Cumulative Impacts

For both projects, seepage encountered during construction may require mitigation through dewatering and temporary construction of drainage features or direction of seepage water to stormwater/LID features on-site. Both projects would be required to comply with applicable NPDES permit requirements for any discharge of groundwater. Both projects would also be required to comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to effectively reduce the potential for the construction of the project to release contaminants into groundwater. Thus, construction activities at both sites would not degrade groundwater quality or interfere with recharge. Water use may be increased on a limited, temporary extent during the construction-phase and construction-phase impacts would be **less than significant** for both sites.

Water demand is not expected to increase significantly as a result of the USC HSC. While water use would increase during project operation at the LAC+USC Medical Center facilities, it would not lead to a significant increase in demand for potable water for indoor use in the region. The LAC+USC Medical Center project would incorporate alternative and sustainable water supply sources (i.e., reclaimed water, gray water, and harvested rainwater) to help meet increased irrigation demands.

For these reasons, the water demand associated with the proposed projects would not appear to substantially deplete groundwater supplies. The projects would increase groundwater recharge and would not interfere substantially with groundwater recharge. Impacts during operation of both sites would be **less than significant with mitigation incorporated.** Mitigation measures are described below in the Recommended Mitigation Measures section.

Hydrology Cumulative Impacts

The proposed impervious cover is less than the existing impervious cover for the LAC+USC Medical Center and the adjacent USC HSC projects. Additional landscaping (pervious areas) is planned for both projects and the LAC+USC Medical Center would incorporate LID features to further reduce the stormwater runoff (peak flows and volume) from the site. Further, the LID features will shift the water budget at the site closer to the historical, undeveloped water budget as compared with existing conditions. With the LID features and increased landscape areas, higher infiltration levels and lower runoff will occur than under existing conditions. Details of the hydrology and LID modeling are included in the hydrology memorandum by Watearth, Inc. (Appendix B).

For both projects, compliance with construction-phase permits and standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance associated with construction of the project. Stormwater runoff is also anticipated to be less than or equal to existing conditions runoff during construction. Therefore the cumulative effects of both projects would result in **less than significant impacts** to hydrology.

Flooding and Hazards Cumulative Impacts

Both the LAC+USC Medical Center and USC HSC projects are located outside of the regulatory 100-year flood plain of the Los Angeles River and outside of potential inundation area for dam failure. Neither project includes flood plain or structures within the regulatory 100-year flood plain. **No impact** would occur.

Both the LAC+USC Medical Center and USC HSC sites are located outside of a tsunami hazard zone and **no impact** would occur. Neither site is located within a seiche or landslide/mudslide hazard zone. **No impact** would occur**.**

RECOMMENDED MITIGATION MEASURES

Impacts to surface water quality and hydrology would be less than significant for the LAC+USC Medical Center and the cumulative impacts considering the adjacent USC HSC would also be less than significant. No additional mitigation measures other than those mentioned above and summarize below are required, provided that applicable permits and criteria are complied with at the time of development:

1. During each phase of construction, the County shall require the contractor(s) to develop a SWPPP and erosion/sediment control plan and submit their plan for approval to the governing regulatory agency. The contractor's erosion control plan must comply with the California *Stormwater Best Management Practices Handbook* and meet requirements of the Statewide CGP.

2. Alternative water supply sources for irrigation should be maximized to reduce potable water use for irrigation and approximate existing irrigation demands. Alternative water supply sources include, but are not limited to: reclaimed water, gray water, harvested rainwater (stormwater), and air conditioning condensate (while not specifically mentioned in the *Master Plan*, this could represent a significant source of clean irrigation water).

3. Where groundwater seepage is expected, permanent monitoring wells shall be installed during construction within and around the perimeter of each building to monitor the groundwater level and evaluate the performance of the dewatering system. Before starting dewatering operations, a baseline conditions survey shall be made of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures and all signs of existing distress shall be recorded.

4. During and post-construction, positive drainage should be provided away from buildings and foundations. Where positive drainage is not provided, area drains should be used to drain depressions or low spots that are not part of designed LID features. Area drains should not be placed next to or in contact with buildings. All area drains and LID features should be located a minimum of 8 feet away from building foundations or as directed in the International Building Code (IBC) or other regulatory requirements. Roof drainage should be controlled and directed to proper drainage devices in an acceptable manner or directed into LID features.

5. LID features shall be designed to improve water quality and minimize leaching of nutrients from growing media. Best design practices based on the latest monitoring and research recommendations should be incorporated. In addition to avoiding use of growing media, mulch, and compost containing animal products that may leach nutrients, other design modifications may include incorporating an internal storage zone (IST). With an IST, the underdrain is elevated and anaerobic conditions are created causing denitrification to occur provided that a carbon food source is provided for the denitrifying bacteria. Additionally, if Phosphorous is a concern secondary treatment may be required or use of a specialized growing media to avoid leaching of this nutrient. While these practices apply specifically to bioretention, they should also be considered for other landscape-based LID features that are included in the final design.

6. An O&M Plan should be developed for LID features at the site and must consider impacts to water quality. The O&M Plan should specifically address the use of IPM or organic maintenance practices, including hand weeding. Fertilizers, pesticides, herbicides, and products containing animal manure or products should be avoided.

REFERENCES

City of Los Angeles. *Hazard Mitigation Plan*. January, 2011. Adopted July, 2011.

City of Los Angeles. *Municipal Code*. April, 2012.

County of Los Angeles Department of Public Works *Low Impact Development Standards Manual*, February, 2014.

Environmental Science Associates. *LAC+USC Medical Center Replacement Project Environmental Assessment/EIR Seismic Hazard Mitigation Program for Hospitals*. June, 2000.

Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map (FIRM) Panel Nos 06037C1628F, 06037C1629F, 06037C1636F, and 06037C1637F. September 6, 2008.

Kimley Horn & Associates, Inc. *Phase I Environmental Site Assessment 1744 Zonal Avenue, Los Angeles, California*. October, 2013.

Lee, Burkhart, Liu, Inc. *LAC+USC Medical Center Building & Site Assessment Report.* November, 2013.

Lee, Burkhart, Liu, Inc. *LAC+USC Medical Center Master Plan.* October, 2013.

Los Angeles City Planning Department. *Addendum to the Environmental Impact Report for the USC Health Sciences Campus Project*. March, 2013.

Los Angeles City Planning Department. Addendum to the Environmental Impact Report for the USC Health Sciences Campus Project. March, 2013.

Los Angeles Department of Water and Power.
http://wsoweb.ladwp.com/Aqueduct/historyoflaa/waterquality.htm

State Water Resources Control Board. 303(d)-listed water bodies.
http://www.waterboards.ca.gov/losangeles/water_issues/programs/303d_list.shtml.

State Water Resources Control Board. List of Adopted TMDLs.
http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/.

U.S. Environmental Protection Agency (EPA). *Guide to Stormwater Pollutant Concentrations*. 2006.

U.S. EPA. *SUSTAIN* - A Framework for Placement of Best Management Practices in Urban Watersheds to Protect Water Quality Report. September, 2009.

U.S. EPA. *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*. December, 2009.

EXHIBITS

Exhibit 1 – Vicinity Map
Exhibit 2 – Aerial Photograph
Exhibit 3 – FIRM Panels 06037C1628F, 06037C1629F, 06037C1636F, and 06037C1637F
Exhibit 4 – Subwatershed Boundaries
Exhibit 5 – Stormwater Spreading Grounds
Exhibit 6 – Groundwater Basins
Exhibit 7 – Soil Types
Exhibit 8 – Topographic Map

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Appendix E – Location of Historic Underground Arroyo De La Pasa River
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Appendix H – Table of Existing Storm Drain Systems from Master Plan
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Appendix J – Example O&M Fact Sheets for LID Features Anticipated at Site
Appendix K – Proposed Stormwater Features Plan from Master Plan

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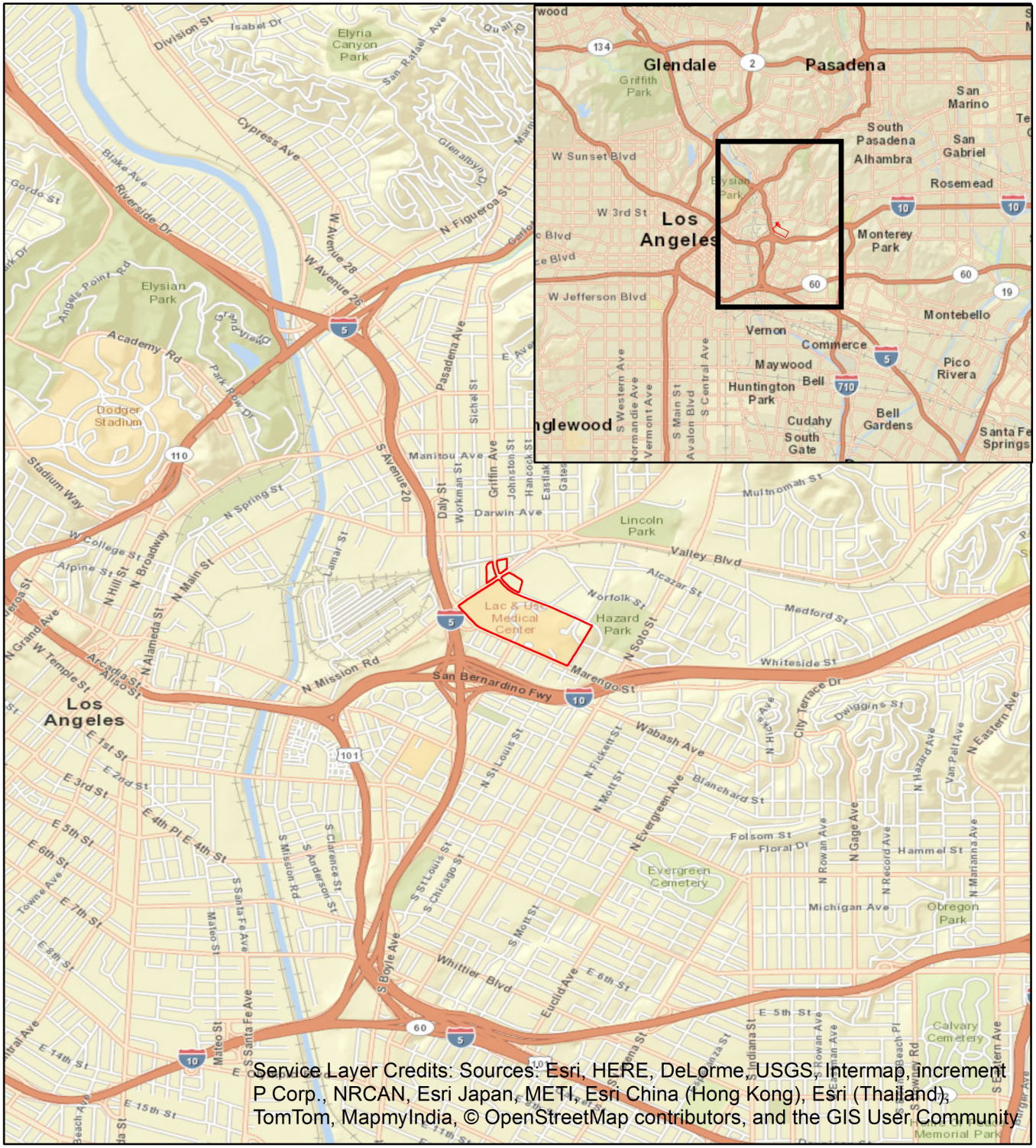
Water Resources + Green Infrastructure

APPENDIX A - EXHIBITS



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

North

0 2,500 5,000 10,000 Feet

1 inch = 4,000 feet

Legend

Project Boundary

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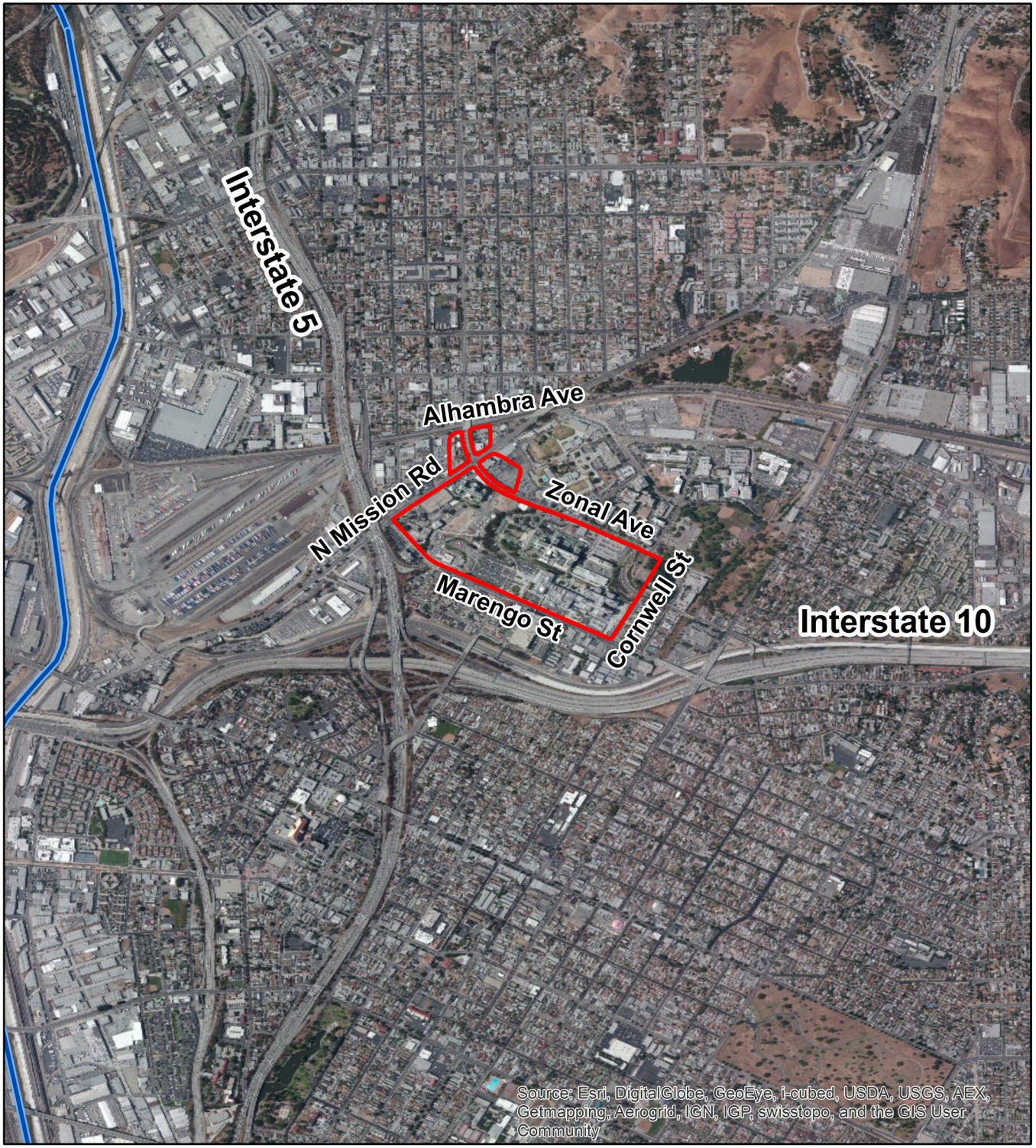
LA+USC Medical Center Master Plan EIR

EXHIBIT 1
VICINITY MAP



North

Feet

0 1,250 2,500 5,000

1 inch = 2,000 feet

Legend

- Los Angeles River
- Project Boundary

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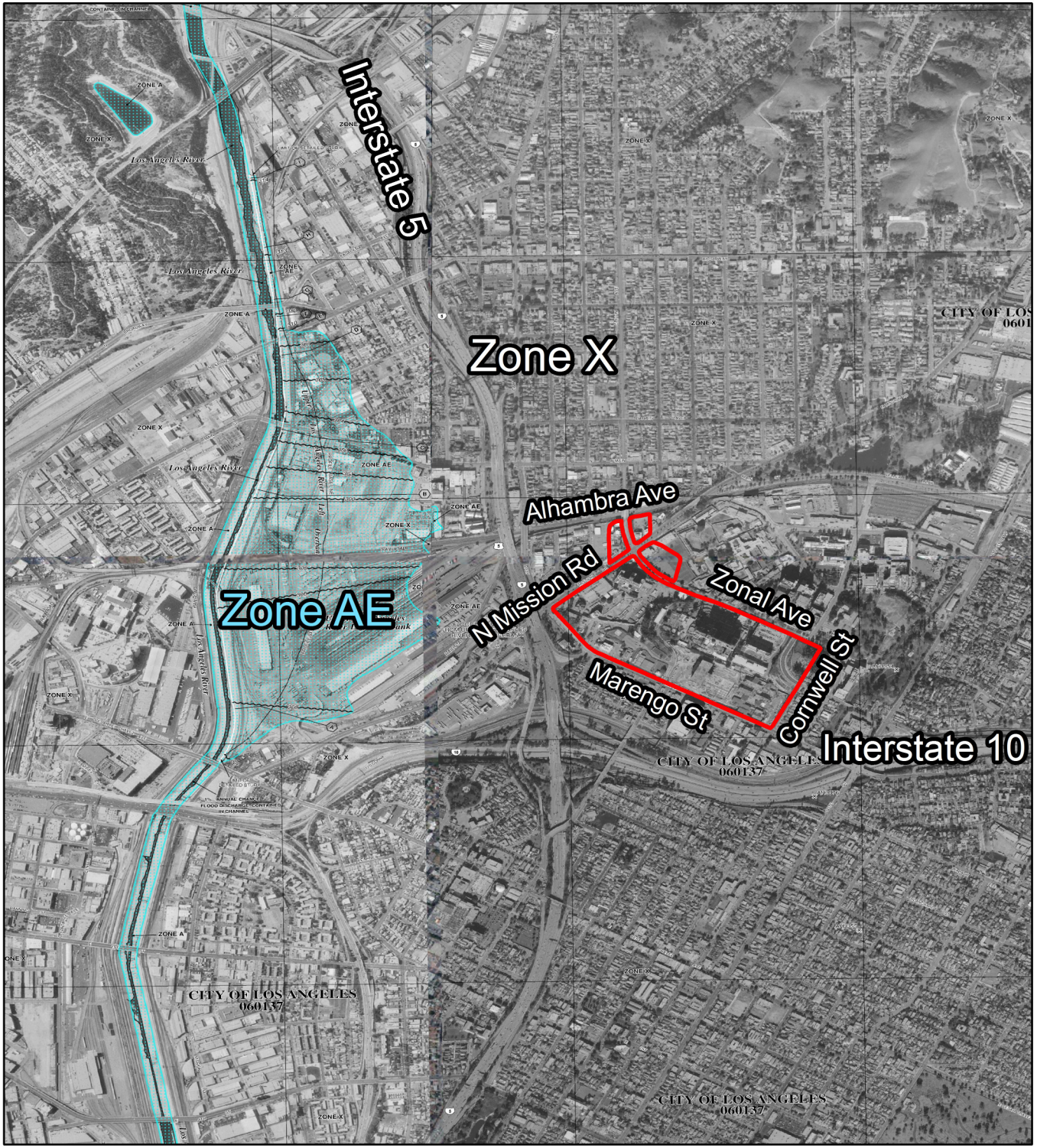
LA+USC Medical Center Master Plan

EXHIBIT 2
AERIAL PHOTOGRAPH



North

Feet

0 1,200 2,400 4,800

1 inch = 2,000 feet

Legend

Project Boundary

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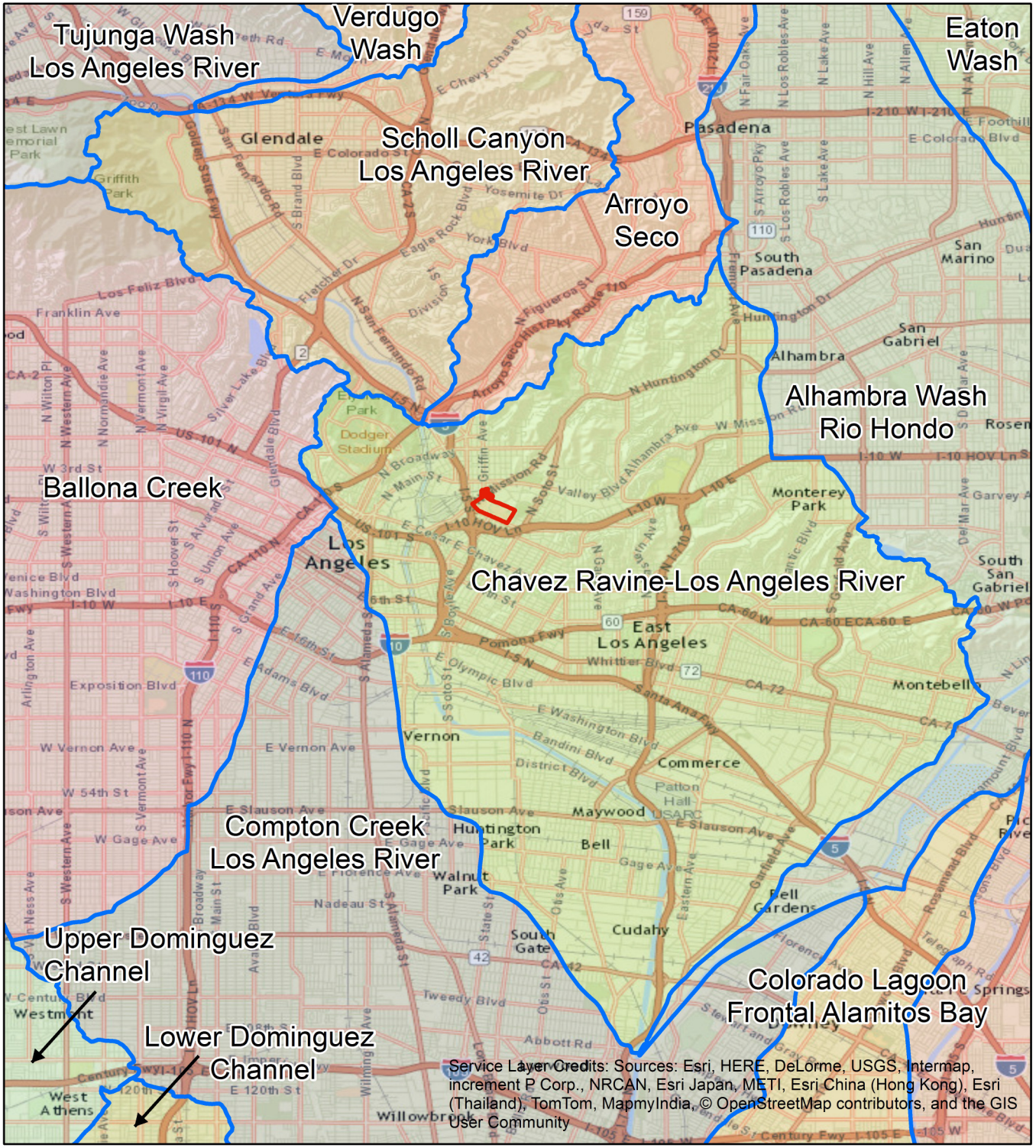
EXHIBIT 3

FIRM PANELS

06037C1628F, 06037C1629F,
06037C1636F, 06037C1637F
Panels updated 9/26/2008



North

Feet

0 7,500 15,000 30,000

1 inch = 12,500 feet

Legend

- USGS NHD Subwatershed
- Project Boundary

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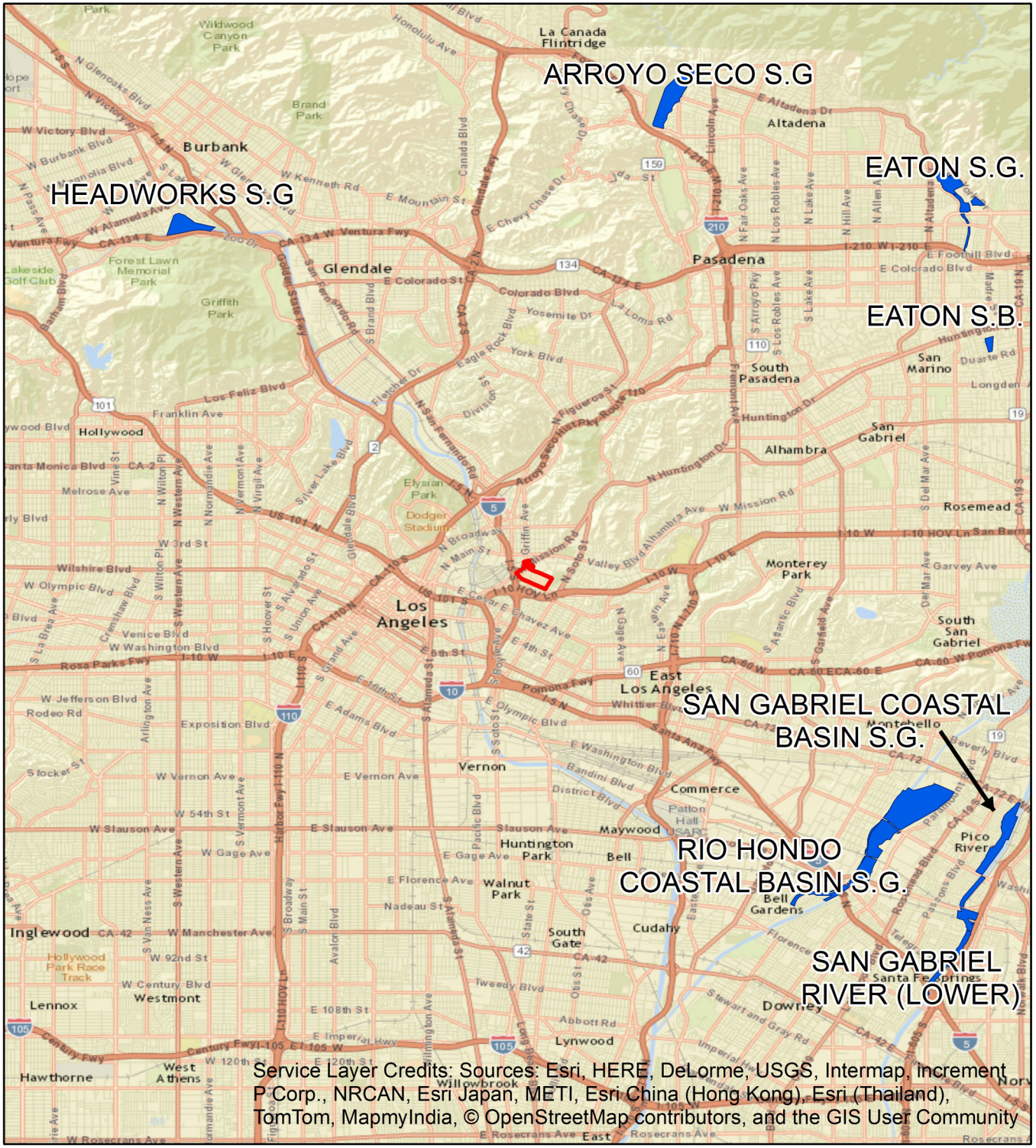
EXHIBIT 4

Subwatershed Boundaries



North

Feet

0 9,000 18,000 36,000

1 inch = 15,000 feet

Legend

Spreading Grounds

Project Boundary

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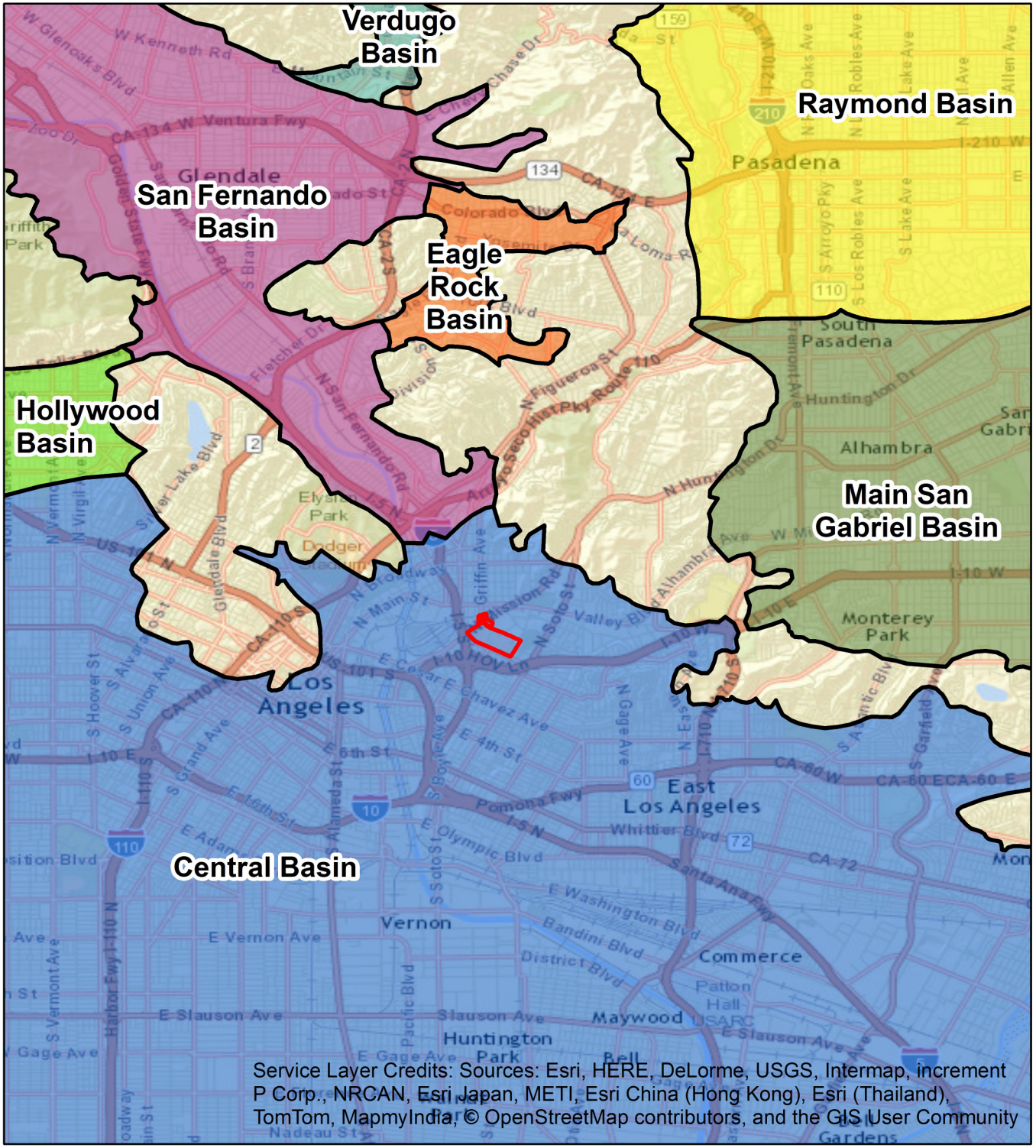
LA+USC Medical Center

EXHIBIT 5

Stormwater Spreading Grounds

Spreading Grounds data from Los Angeles Co. Dept. of Public Works



North

0 6,250 12,500 25,000 Feet

1 inch = 10,000 feet

Legend

- Ground Water Basins
- Project Boundary

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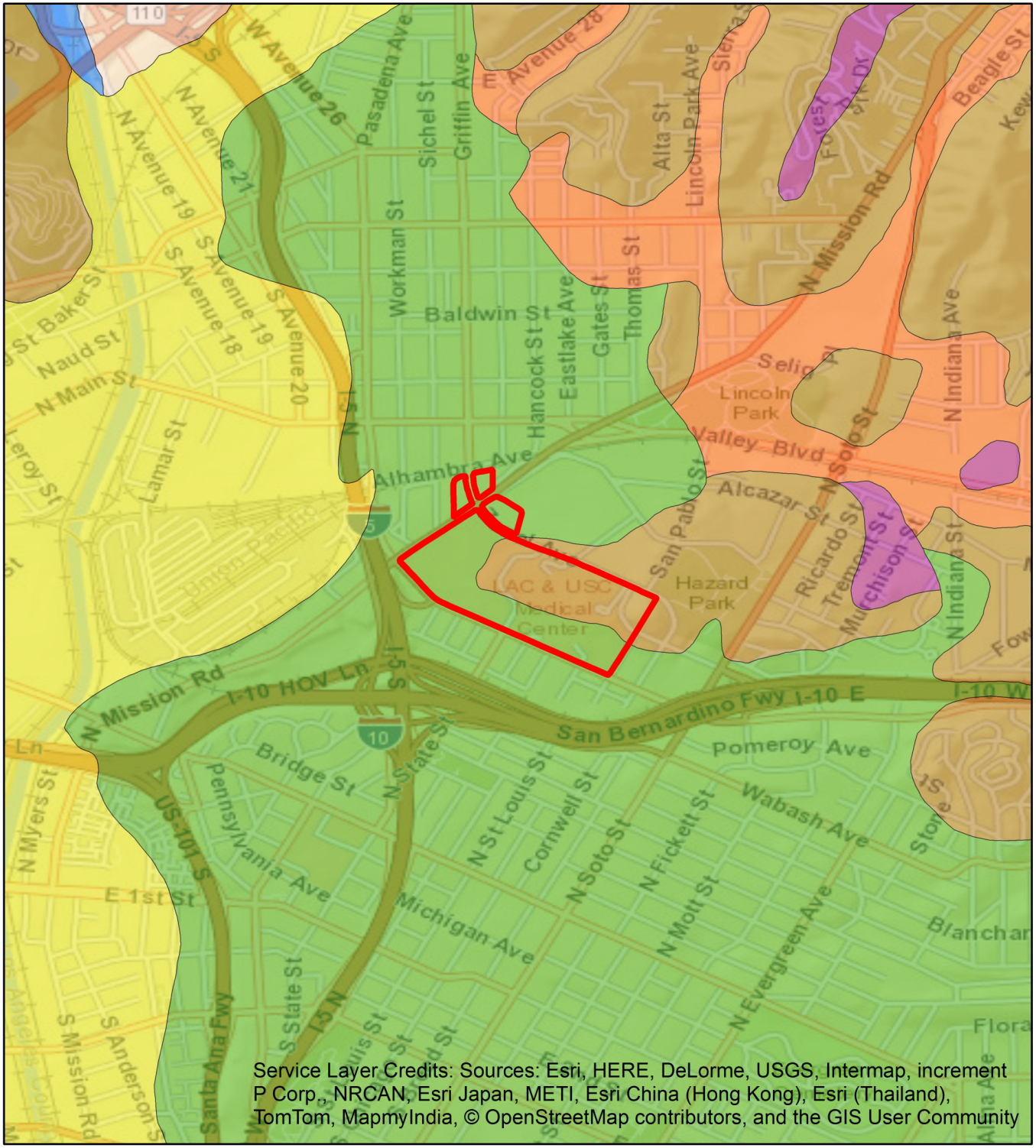
LA+USC Medical Center Master Plan EIR

EXHIBIT 6

Groundwater Basins

Ground water basin data from
Los Angeles Co. Dept. of Public Works



North

Feet

0 1,300 2,600 5,200

1 inch = 2,000 feet

- Project Boundary
- Altamont Clay Loam
- Ramona Loam
- Yolo Clay Loam
- Tujunga Fine Sandy Loam
- Handford Gravelly Sandy Loam
- Handford Fine Sandy Loam
- Diablo Clay Loam

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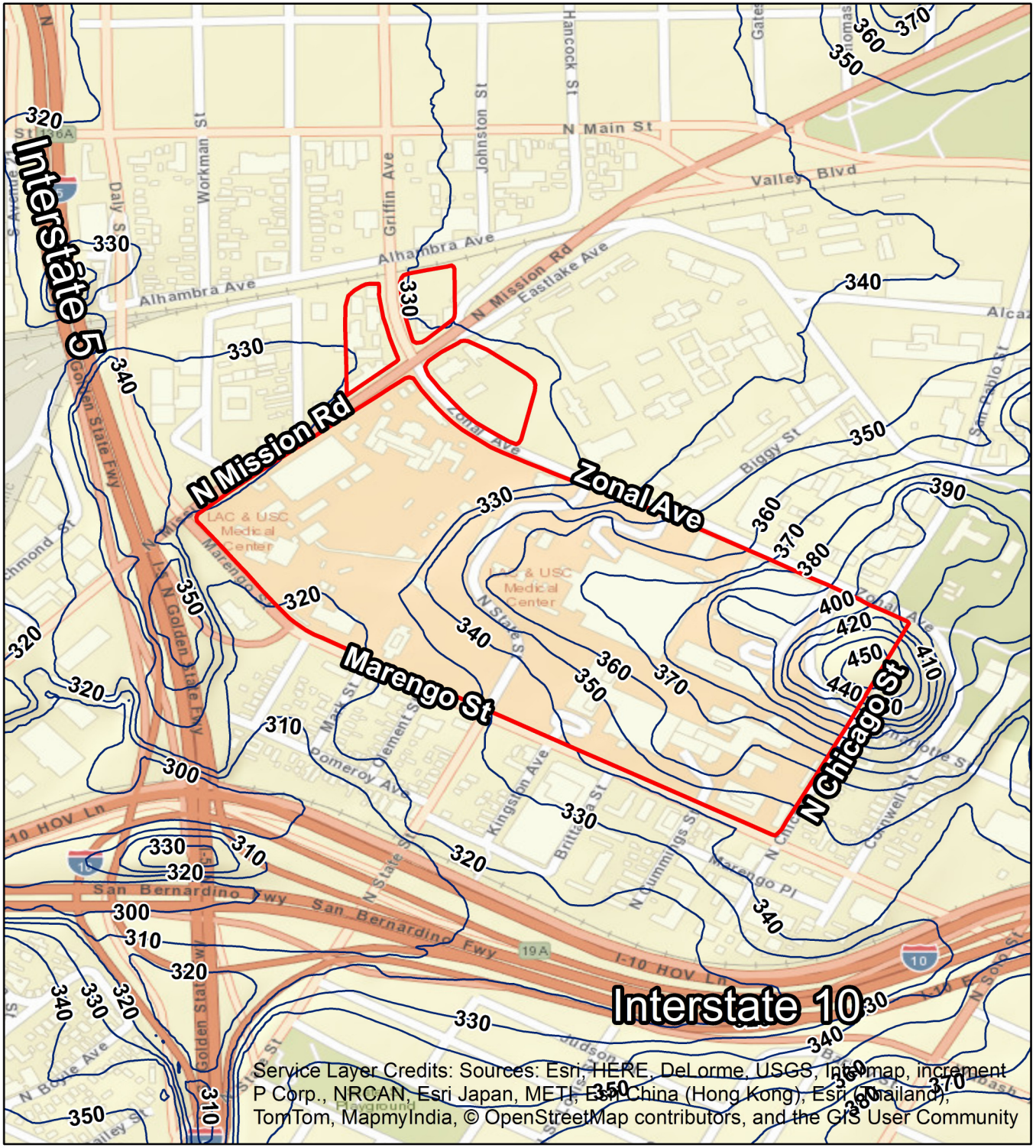
LA+USC Medical Center Master Plan EIR

EXHIBIT 7

Soil Types

Soil data from Los Angeles Co.
Dept. of Public Works, Water Resources Division



North

0 500 1,000 2,000 Feet

1 inch = 750 feet

Legend

- Project Boundary
- 10ft Contour

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EXHIBIT 8

Topographic Map

Elevation data from
USGS National Elevation Dataset

APPENDIX A – ADDENDUM TO THE EIR FOR THE USC HEALTH SCIENCES CAMPUS PROJECT

Los Angeles City Planning Department

City Hall • 200 N. Spring Street, Room 750 • Los Angeles, CA 90012

ADDENDUM TO THE

ENVIRONMENTAL IMPACT REPORT

FOR THE

USC HEALTH SCIENCES CAMPUS PROJECT

March 2013

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ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT FOR THE USC HEALTH SCIENCES CAMPUS PROJECT

I. Introduction/Background

This document is an Addendum to the Environmental Impact Report (EIR) prepared for the University of Southern California Health Sciences Campus Project (State Clearinghouse No. 2004101084), certified by the City of Los Angeles in August 2006 (Certified EIR). In accordance with the California Environmental Quality Act (CEQA), this Addendum analyzes proposed modifications to the development program for the Health Sciences Campus (HSC) Project to determine whether such modifications would result in any new significant environmental impacts or a substantial increase in the severity of impacts set forth in the Certified EIR.

The Certified EIR analyzed the development of between 585,000 and 765,000 square feet of additional academic and medical-related floor area within the existing Health Sciences Campus in northeast Los Angeles (the Original Project). The Certified EIR analyzed this range of square footages to allow for flexibility in the mix of uses. Medical clinic uses generally have a greater potential to result in environmental impacts as compared to academic or medical research uses. Therefore, an increase in medical clinic uses would require a reduction in academic and/or medical research uses in order for the entire project to remain within the overall environmental envelop analyzed in the Certified EIR. For example, under the Original Project, up to 120,000 square feet[1] of medical clinic uses could be developed with the remainder of the HSC developed with up to 465,000 square feet of academic and/or medical research facilities. In addition, in the event that on-site development were to reach 765,000 square feet, a total of 720,000 square feet of academic and/or medical research uses could be developed, together with a maximum of 45,000 square feet of medical clinic development. These uses would be developed within seven Development Sites (referred to as Development Sites A, B, C, D, E, F, and G) within the HSC.

As discussed further below, the Applicant proposes to modify the Original Project to provide for student housing and hotel uses. Specifically, as part of the modifications, the Applicant would expand the uses within Development Site E to include graduate student

[1] *All references to square feet refer to square feet of floor area as defined in Los Angeles Municipal Code Section 12.03.*

housing uses comprising approximately 238,500 square feet and providing 185 dwelling units and a childcare center. A hotel providing up to 275 rooms and comprising approximately 250,000 square feet may also be constructed within Development Site E adjacent to the proposed graduate student housing uses. In addition, a modification to the maximum amount of square footage evaluated in the Certified EIR is proposed. Specifically, as provided by the Certified EIR, flexibility in the amount of floor area to be developed within the Development Sites would be provided so long as the peak-hour vehicle trips associated with such development do not exceed the peak-hour vehicle trips set forth in the Certified EIR. Under the Modified Project, academic/medical research and medical clinic uses would continue to be permitted within the Project Site. The Modified Project also proposes to improve the existing pedestrian and aesthetic environment along San Pablo Street, Alcazar Street, Eastlake Avenue, Norfolk Street, Biggy Street, Playground Street, and Zonal Avenue between San Pablo Street and Biggy Street. Implementation of the proposed pedestrian enhancement and aesthetic improvements would include modified roadway classifications to allow for narrowing of streets while maintaining traffic lanes and capacity along most roadway segments,[2] widening sidewalks, planting of additional street trees, improving pedestrian lighting, installing street furniture, improving the streetscape with enhanced paving in intersections and decorative banding in sidewalks, and placement of a monument sign at the northwest and southwest corners of Alcazar Street and Soto Street. It is anticipated that the installation of monument signage within the northwest corner of Soto Street and Alcazar Street would include a monument arch, decorative wrought iron fence with integral brick columns, brick pavers with concrete bands, and landscaping and irrigation. Additionally, the southwest corner may include monument signage with a decorative wrought iron fence with integral brick columns, brick pavers with concrete bands, and landscaping and irrigation. To accommodate these improvements, on-street parking would be removed along portions of the affected roadway segments. The specific design details associated with the proposed pedestrian improvements related to roadway striping, crosswalks, turning radii, and installation of traffic control devices would be subject to review and approval by the Los Angeles Department of Transportation's design staff as part of the Bureau of Engineering's B-permit process.

Following implementation of the Modified Project, the HSC would continue to operate as a single, functionally integrated campus. With implementation of the proposed pedestrian enhancements and aesthetic improvements, the Modified Project would

---

[2] *As shown in Table 13 of the Traffic Memorandum provided as Appendix D, the existing number of lanes would be maintained along most roadway segments, with the exception of the roadway segment at Alcazar Street from San Pablo Street to Playground Street, which would include an additional eastbound traffic lane. Also shown in Table 13 of the Traffic Memorandum, roadway capacities would generally be maintained or increased with the exception of the roadway segment at San Pablo Street from Alcazar Street to Eastlake Avenue/Norfolk Street, which would be reduced due to the removal of the center turn lane separating the northbound and southbound lanes.*

promote walkability, increase outdoor space, improve connections within the HSC, improve vehicular circulation around the campus, and enhance linkages between the adjacent Lincoln Park and Hazard Park.

The seven Development Sites described above as well as the roadways proposed to be improved are hereafter collectively referred to as the "Project Site."

II. CEQA Authority for an Addendum

As indicated above, this document is an Addendum to the Certified EIR and addresses the proposed changes to the HSC Project set forth in the Certified EIR. The Certified EIR included all statutory sections required by CEQA, comments received on the Draft EIR, responses to comments on the Draft EIR, and supporting technical appendices. CEQA establishes the type of environmental documentation required when changes to a project occur after an EIR is certified. Specifically, Section 15164(a) of the CEQA Guidelines states that:

> *"The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred."*

Section 15162 of the CEQA Guidelines requires a Subsequent EIR when an MND has already been adopted or an EIR has been certified and one or more of the following circumstances exist:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Likewise, California Public Resources Code (PRC) Section 21166 states that unless one or more of the following events occur, no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency:

- Substantial changes are proposed in the project which will require major revisions of the environmental impact report;

- Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or

- New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

As demonstrated by the analysis herein, the Modified Project would not result in any additional significant impacts, nor would it substantially increase the severity of previously anticipated significant impacts. Rather, all of the impacts associated with the Modified Project are within the envelope of impacts addressed in the Certified EIR and do not constitute a new or substantially increased significant impact. Based on this determination, the Modified Project does not meet the requirements for preparation of a Subsequent EIR pursuant to Section 15162 of the CEQA Guidelines.

III. Project Description

A. Original Project

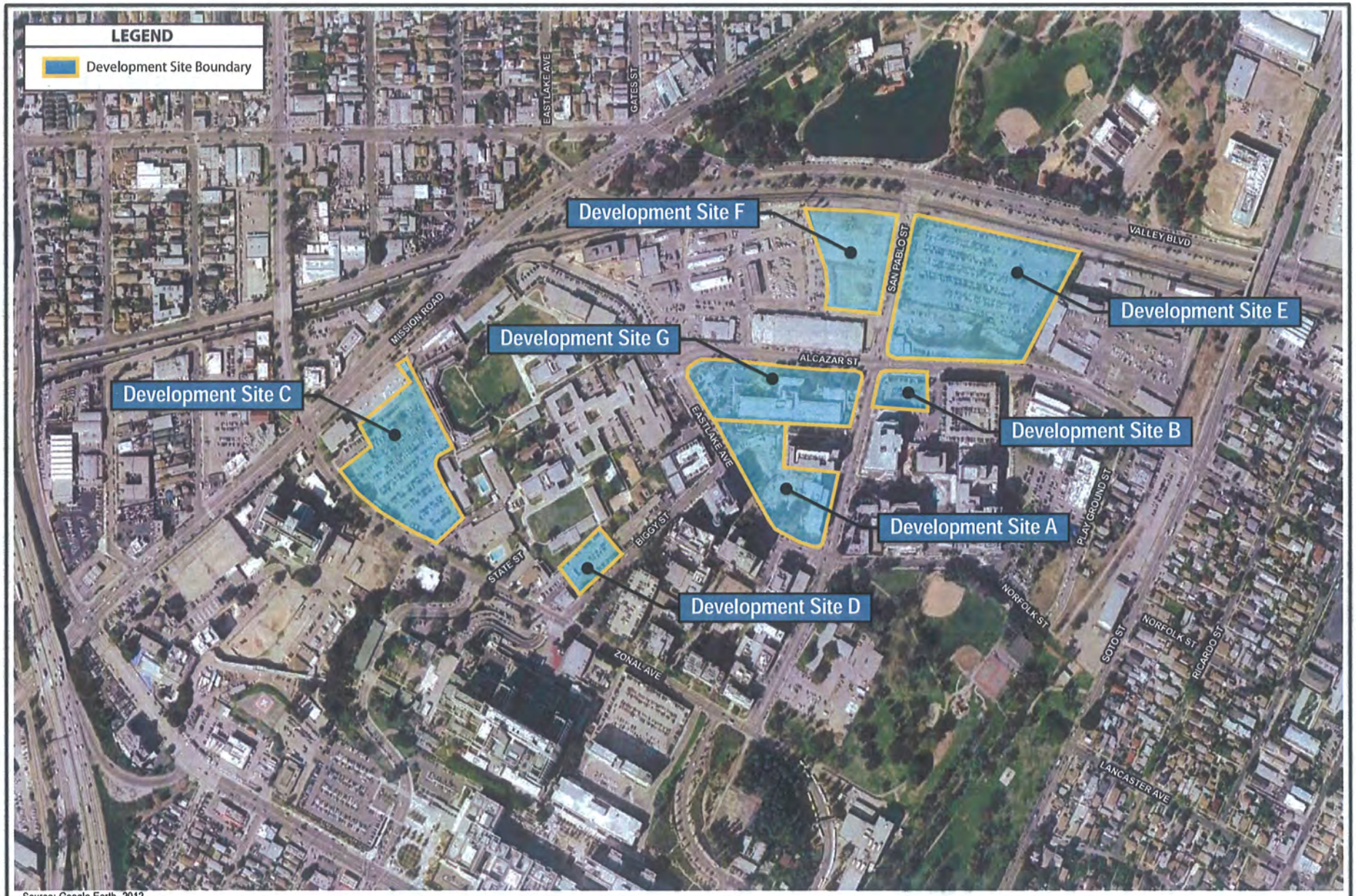
As indicated above, the Original Project provides for the development of between 585,000 and 765,000 square feet of additional academic and medical-related floor area within the existing HSC. Specifically, under the Original Project, up to 120,000 square feet of medical clinic uses could be developed with the remainder of the campus developed with up to 465,000 square feet of academic and/or medical research facilities. In addition, in the event on-site development were to reach 765,000 square feet, a maximum of 45,000 square feet of medical clinic development and 720,000 square feet of academic and/or medical research uses could be constructed. As shown in Figure 1 on page 6, these uses would be developed within seven Development Sites (referred to as Development Sites A, B, C, D, E, F, and G) within the HSC. A description of the proposed development evaluated for each of the Development Sites is as follows:

- **Development Site A:** Development Site A includes approximately 2.46 acres within the central portion of the HSC. The maximum amount of development analyzed for Development Site A ranges from 120,000 square feet of medical clinic facilities to 465,000 square feet of academic and/or medical research facilities. Maximum building heights of 150 feet were evaluated within Development Site A.

- **Development Site B:** Development Site B includes approximately 1.13 acres located at the northeast corner of Alcazar Street and San Pablo Street. The maximum amount of development analyzed for Development Site B ranges from 120,000 square feet of medical clinic facilities to 295,338 square feet of academic and/or medical research facilities. Parking facilities may also be provided. Maximum building heights of 150 feet were evaluated within this Development Site.

- **Development Site C:** Development Site C includes approximately 3.68 acres that are currently used as a surface parking lot and located in the western portion of the HSC on the north side of Zonal Avenue, between State Street and Mission Road. Under the Original Project, Development Site C would be developed with a multi-story parking structure providing up to 2,800 parking spaces with a height not to exceed 75 feet.

- **Development Site D:** Development Site D is comprised of approximately 0.77 acre and is currently used as a surface parking lot. Development Site D is located on the west side of Biggy Street between Zonal Avenue and Eastlake Avenue. Under the Original Project, permitted development for Development Site D includes a combination of academic/medical-related uses and parking. If only academic and medical-related uses are constructed, the maximum amount



Source: Google Earth, 2012.

matrix environmental

Figure 1
Aerial View of Development Sites

of development would be limited to 59,000 square feet of medical clinic facilities to up to 200,000 square feet of academic and/or medical research facilities. Maximum building heights of 140 feet were analyzed for Development Site D.

- **Development Site E:** Development Site E consists of approximately 7.64 acres that are currently used for surface parking. Development Site E is located on the east side of San Pablo Street between Alcazar Street and Valley Boulevard. The maximum amount of development for Development Site E under the Original Project would range from 118,000 square feet of medical clinic facilities to 400,000 square feet of academic and/or medical research facilities. Parking facilities may also be provided. Maximum building heights of 100 feet have been evaluated for Development Site E.

- **Development Site F:** Development Site F is comprised of approximately 2.65 acres located on the west side of San Pablo Street. The maximum amount of development for Development Site F under the Original Project would range from approximately 118,000 square feet of medical clinic facilities to 400,000 square feet of academic and/or medical research facilities. Parking facilities may also be developed. Maximum building heights of 100 feet for this Development Site were analyzed in the Certified EIR.

- **Development Site G:** Development Site G is comprised of approximately 4.0 acres of a larger 8.06-acre parcel. The maximum development approved ranges from approximately 29,500 square feet of medical clinic facilities to 100,000 square feet of academic and/or medical research facilities. Maximum building heights of 100 feet were evaluated for Development Site G.

The Original Project also included the creation of new exterior courtyards and walkways between and around the proposed buildings. These spaces included plantings that would complement the existing landscaping program throughout the HSC. The proposed buildings also featured signage and lighting consistent with existing HSC lighting and signage. Additionally, parking for the Original Project was proposed to be provided within Development Sites C and/or B, D, E, and F. Moreover, the Original Project proposed to connect sidewalks and pedestrian walkways between buildings to the parking with the proposed and existing buildings within the HSC, as well as via the on-campus shuttle program. In addition, drop-off and delivery areas were included at each of the proposed buildings.

B. USC Health Sciences Campus Projects Constructed and Underway

Since preparation of the EIR, the new 62,500-square-foot Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research (Broad Center) has been constructed and is currently in operation. This new facility is located within Development

Site A. In addition, the Healthcare Consultation Center Three (HCC III), which includes development of 92,700 square feet of medical clinic uses and 9,900 square feet of non-clinical uses, is currently in the site plan review approval process with the City of Los Angeles. This facility will be located within Development Site B. The analysis of the potential physical effects of the Modified Project provided below also accounts for the potential physical effects associated with the Broad Center and HCC III.

Other improvement projects currently underway within the HSC include the Los Angeles Department of Water and Power Utilities Project; the Norfolk Street extension; and modifications to the in-patient and out-patient circulation system. These projects are not a part of the Modified Project and are being or will be undertaken regardless of whether the Modified Project proceeds. However, they are described here as they are currently anticipated to be completed and in operation at buildout of the Modified Project. In addition, as described further below, while the physical improvements associated with the Norfolk Street extension would not be implemented as part of the Modified Project, the proposed reclassification of Norfolk Street would be included as part of the Modified Project's request for a general plan amendment.

In conjunction with the Los Angeles Department of Water and Power, USC has proposed to move all communication and energy transmission lines below ground throughout the HSC Campus. With the proposed Norfolk Street extension, Norfolk Street will be extended from its current eastern terminus at Playground Street to a new intersection with Soto Street. This will provide an additional major access point to the HSC and will be designated as the primary entrance for hospital in-patient visitors. In addition, as part of the modifications to the in-patient and out-patient circulation, in-patient and out-patient access would be separated, with in-patient access located on Norfolk Street and the out-patient drop-off areas located off of Alcazar Street. With this separation of in-patient and out-patient circulation, use of San Pablo Street between Alcazar Street and Eastlake Avenue/Norfolk Street as an access point would be reduced.

C. Modified Project

The Applicant proposes to modify the Original Project to provide for student housing and hotel uses to support the University. In addition, a modification to the maximum amount of square footage evaluated in the Certified EIR is proposed. Specifically, as provided in the Certified EIR, flexibility in the amount and type of floor area to be developed within the Development Sites would be provided so long as the peak-hour vehicle trips do not exceed the peak-hour vehicle trips set forth in the Certified EIR. Additionally, the Modified Project proposes pedestrian enhancements and aesthetic improvements within and surrounding the HSC.

Four development options illustrating how the proposed flexibility of uses may be implemented are described further below. A more detailed description of the Modified Project is also provided below.

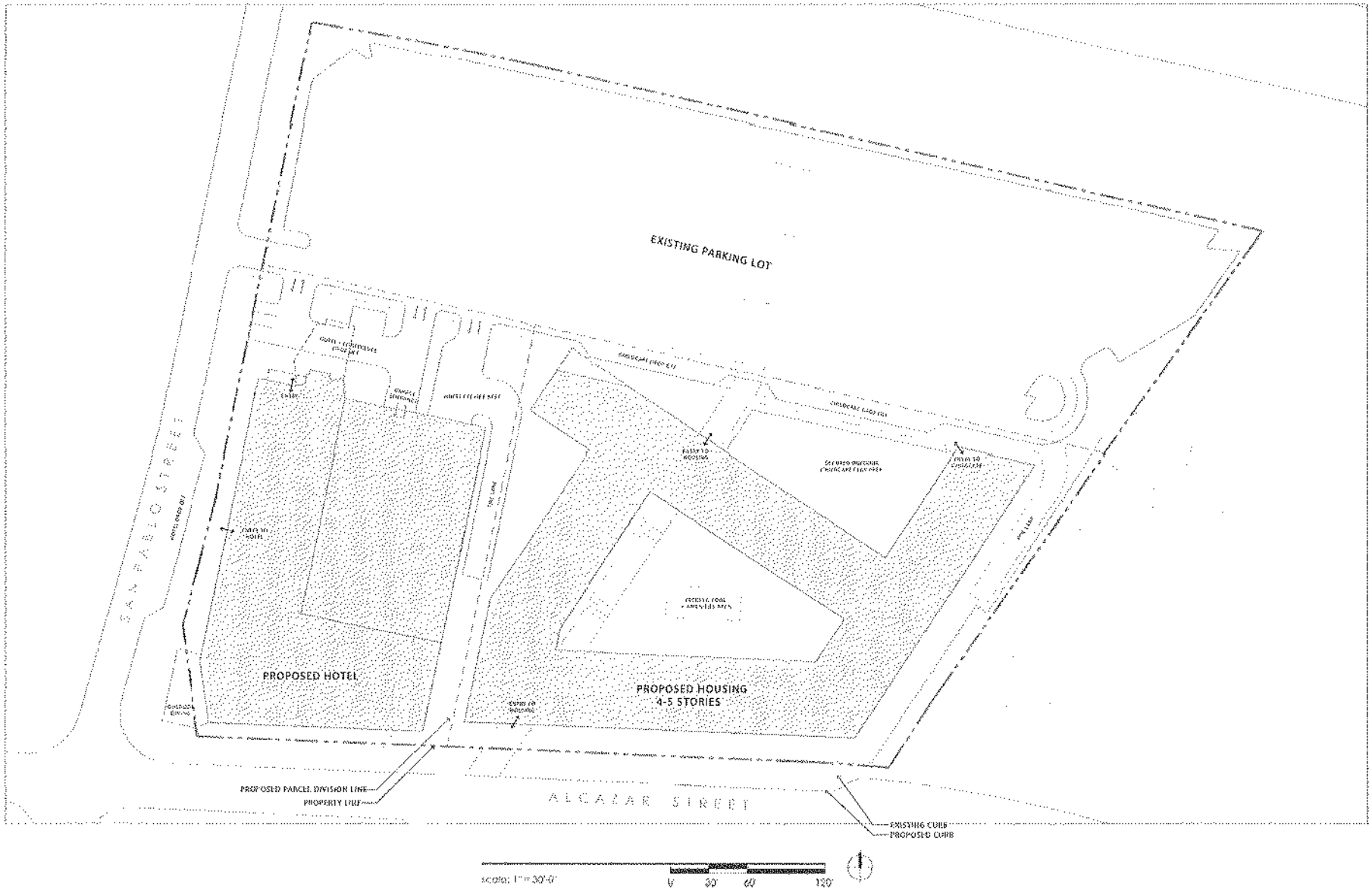
1. Student Housing Component

The Applicant proposes to expand the uses within Development Site E to include graduate student housing uses comprising approximately 238,500 square feet and providing 185 dwelling units, associated amenities, and a childcare center. It is anticipated that the 185 dwelling units would comprise approximately 219,500 square feet of floor area, while the amenities and childcare uses would comprise approximately 7,500 and 11,500 square feet of floor area, respectively. The approximately 7,500 square feet of amenities would include a social lounge, fitness center, business center with study rooms, and an on-site management and leasing office. The childcare center is anticipated to accommodate 100 to 150 children and would only be open to students/employees/affiliates of the HSC.

The new student housing building would be comprised of four to five stories with a maximum building height of approximately 67 feet. As shown in the conceptual site plan provided in Figure 2 on page 10, open space amenities including a new swimming pool and landscaped open space areas would form the central portion of the student housing site. Outdoor landscaped open space areas would also be located adjacent to the childcare use to the north of the childcare uses within the northern portion of the student housing site. In addition, landscaped pedestrian walkways would be provided throughout the student housing site. Construction of the student housing component is expected to commence in January 2013 and be completed in August 2014.

2. Potential Hotel Component

A hotel providing up to 275 rooms may also be constructed within Development Site E to the west of the proposed graduate student housing uses. The proposed hotel would comprise approximately 250,000 square feet and would include approximately 40,000 square feet of amenities (e.g., fitness center, business center), approximately 30,000 square feet of conference center area, approximately 5,000 square feet of ancillary restaurant uses, and approximately 1,000 square feet of ancillary retail uses. In addition, the hotel tower would be up to approximately 175 feet in height, which would be greater than the 100-foot building height set forth in the Original Project for this Development Site, but generally consistent with the taller building heights in the project vicinity. Construction of the hotel component could commence as early as January 2014, with construction completed as early as March 2016.



Source: Ayers Saint Gross Architects & Planners and KTGY Architecture & Planning, February 2012.

matrix environmental

Figure 2
Proposed Site Plan -
Graduate Student Housing and Hotel

3. Academic/Medical Research and Medical Clinic Uses

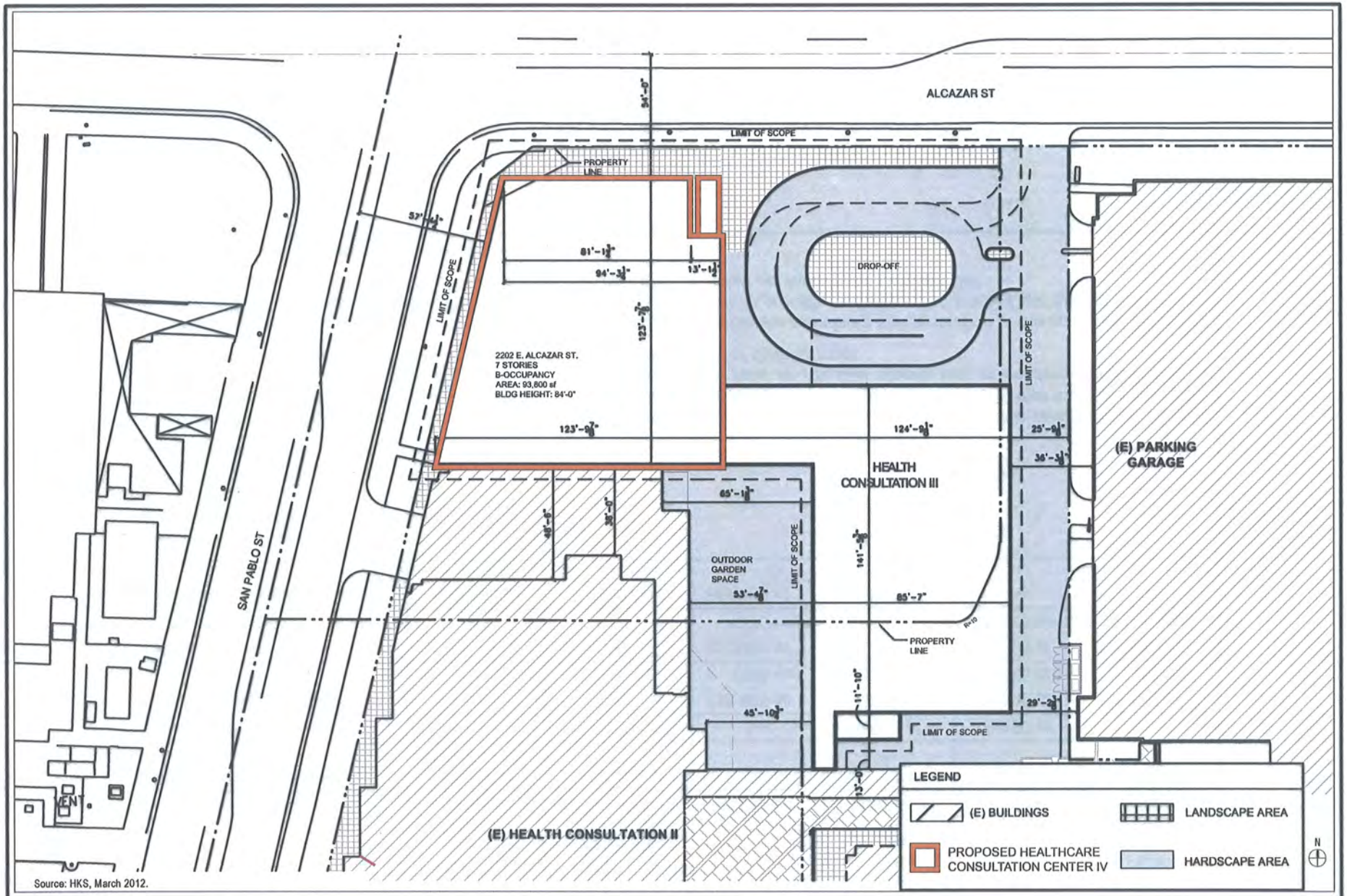
Under the Modified Project, academic/medical research and medical clinic uses would continue to be developed, consistent with the Original Project. Specifically, a seven-story, approximately 84-foot-high HCC IV building is anticipated to be constructed within Development Site B. Based on the development option ultimately chosen, this new building may include up to 99,800 square feet of medical clinic uses only or up to 96,800 square feet of medical clinic uses and up to 9,900 square feet of non-clinical uses. Construction of HCC IV could commence as early as May 2013 with construction completed as early as January 2015. A conceptual site plan for HCC IV is provided in Figure 3 on page 12.

4. Development Options

As described above, the Applicant proposes to add student housing and hotel uses to the uses within HSC. Table 1 on page 13 provides four concepts or options that illustrate how these uses may be integrated with the medical research/academic and medical clinic uses set forth under the Original Project. Under the Modified Project, various mixes of the student housing, hotel, academic/medical research and medical clinic uses would be permitted as long as the peak-hour trips do not exceed the number of trips set forth in the Certified EIR. Four development options illustrating how these land uses may be integrated are provided below. All of these development options would generate similar amounts of peak-hour trips.

(a) Option 1

As shown in Table 1 on page 13, Option 1 would include development of approximately 27,300 square feet of additional medical clinic uses within a new healthcare consultation center (HCC IV) within Development Site B. In addition, within Development Site E, Option 1 proposes development of graduate student housing uses comprising approximately 238,500 square feet and providing 185 dwelling units, approximately 7,500 square feet of amenities, and an approximately 11,560-square-foot childcare center. Option 1 also includes development of hotel uses comprising approximately 250,000 square feet and providing 275 rooms, approximately 40,000 square feet of hotel amenities, a 30,000 square foot conference center, a 5,000-square-foot restaurant, and 1,000 square feet of retail uses. As previously described, the hotel may be developed adjacent to the proposed graduate student housing uses within Development Site E. Lastly, Option 1 also proposes development of approximately 256,000 square feet of additional medical research uses within one of the Development Sites as set forth under the Original Project. Heights of proposed structures would range from approximately 67 feet to 175 feet.



Source: HKS, March 2012.

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Figure 3
Proposed Site Plan -
Healthcare Consultation Center IV

Table 1
Modified Project Development Program Options

Land Use	Original Project	Projects Constructed and Underway	Modified Project Land Use Options[b]			
			Option 1	Option 2	Option 3	Option 4
Medical Clinic Facilities	45,000 to 120,000 sf[a]	92,700 sf	27,300 sf	92,700 sf	96,800 sf	99,800 sf
Non-Clinical Facilities	—	9,900 sf	—	9,900 sf	9,900 sf	—
Graduate Student Housing	—	—	238,500 sf (185 du)	238,500 sf (185 du)	238,500 sf (185 du)	238,500 sf (185 du)
Hotel	—	—	250,000 sf (275 rm)	—	250,000 sf (275 rm)	250,000 sf (275 rm)
Academic/Medical Research	465,000 to 720,000 sf[a]	62,500 sf	256,000 sf	144,000 sf	—	—

sf = square feet

du = dwelling units

rm = rooms

[a] *Under the Original Project, up to 120,000 square feet of medical clinic uses could be developed with the remainder of the HSC developed with up to 465,000 square feet of academic and/or medical research facilities. In the event that medical clinic uses, which are more trip-intensive, is limited to 45,000 square feet, a total of 720,000 square feet of academic and/or medical research uses could be developed, for a total of 765,000 square feet of development.*

[b] *These represent a range of options that could be accommodated within the remaining trip generation of the approved 2005 EIR. It is noted that as part of the Modified Project, the Applicant proposes to provide flexibility in the amount and type of floor area to be developed, so long as the peak-hour vehicle trips do not exceed that set forth in the Certified EIR.*

Source: Gibson Transportation, Matrix Environmental, 2013.

(b) Option 2

Similar to Option 1, Option 2 would include additional medical clinic uses within a new HCC IV. However, Option 2 proposes substantially more square footage of medical clinic uses (approximately 92,700 square feet) and also includes non-clinical uses (approximately 9,900 square feet) within the new HCC IV. However, no hotel uses would be developed as part of Option 2. In addition, as with Option 1, Option 2 would include the graduate student housing component (approximately 185 units and associated amenities, as well as a childcare component). Finally, Option 2 would provide approximately 144,000 square feet of additional medical research uses within one of the seven Development Sites.

(c) Option 3

Option 3 proposes approximately 96,800 square feet of additional medical clinic uses and approximately 9,900 square feet of non-clinical uses within a new HCC IV. Similar to both Options 1 and 2, Option 3 would also include the graduate student housing component with approximately 185 dwelling units and associated amenities, as well as a childcare component. Also similar to Option 1, this Option proposes the 275-room hotel component as described under Option 1. Additional medical research uses within one of the seven Development Sites would not be provided under Option 3.

(d) Option 4

Option 4 proposes approximately 99,800 square feet of additional medical clinic uses within HCC IV. However, no new non-clinical uses would be provided within HCC IV. In addition, Option 4 would also include the graduate student housing component as described above. Also similar to Option 1, this Option proposes the 275-room hotel component as described under Option 1. Additional medical research uses within one of the seven Development Sites would not be provided under Option 4.

5. Features Common to all Development Options

In order to minimize potential conflicts between construction activity and through traffic, the Modified Project would include the development of a Construction Management Plan for use during construction. Features of the Construction Management Plan may include, but would not be limited to: limiting potential lane closures to off-peak travel periods, to the extent feasible; maintaining existing access for adjacent uses; prohibiting parking by construction workers on adjacent streets and directing construction workers to utilize on-site or other HSC-designated parking areas; scheduling receipt of construction materials during non-peak travel periods, to the extent feasible; and complying with approved construction traffic control plans that identify traffic control measures, signs,

delineators, etc., to be implemented by the construction contractor throughout the duration of construction.

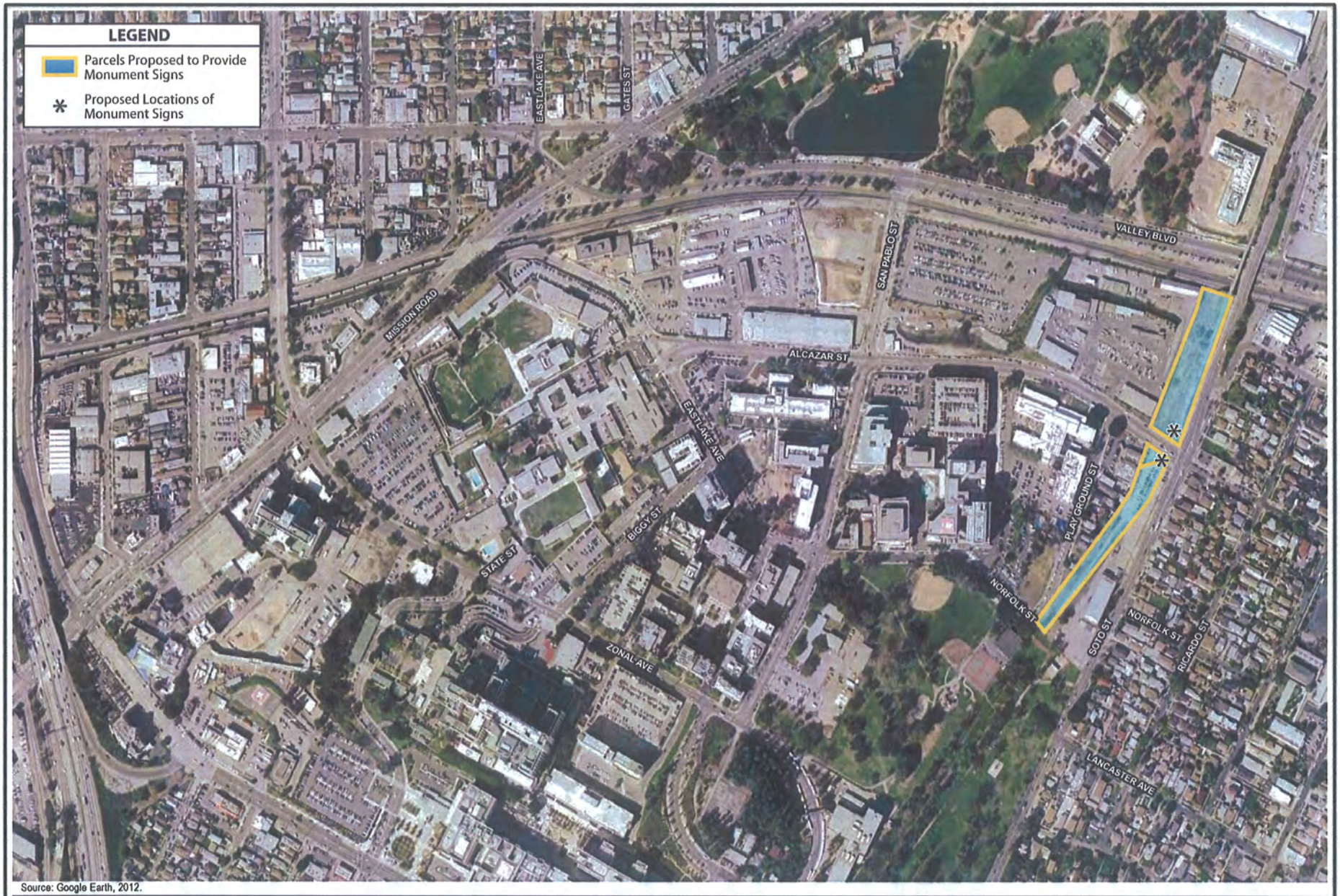
Additionally, similar to the Original Project, the Modified Project would be designed to be compatible with the existing buildings within and surrounding the HSC. In addition, similar to the Original Project, the Modified Project would provide new landscaped walkways between and around the proposed buildings. Proposed signage would include monument signs, building identification signs, directional signage, and wall signs on the buildings' street fronting façades. Signage would be consistent with the signage regulations as provided in the City of Los Angeles Municipal Code and would be visually integrated with the proposed and existing development to employ a consistent design theme. The Modified Project would also include exterior lighting on buildings for security and entryway lighting, within the parking facilities, and along driveways and roadways for safety. In addition, low-level lighting to accent architectural, signage, and landscaping elements may be incorporated throughout the site. Pedestrian-oriented light posts would also be located along pedestrian pathways and along the street frontages. All new street and pedestrian lighting within the public right-of-way would comply with applicable City regulations and would be approved by the Bureau of Street Lighting. The Modified Project would also comply with the standards of the Los Angeles Green Building Code for achieving water efficiency and conservation; material conservation and resource efficiency; and environmental quality.

Access to the graduate student housing and hotel uses is planned to be provided via San Pablo Street and shared with the driveway of the existing surface parking lot. In addition, access to the proposed HCC IV is planned to be provided via driveways along Alcazar Street. Parking for the Modified Project would be provided within one of the existing surface parking lots or parking structures located within the HSC.

6. Proposed Streetscape Improvements and Monument Signs

As previously noted, pedestrian enhancements and aesthetic improvements are proposed along San Pablo Street, Alcazar Street, Playground Street, Eastlake Avenue, Norfolk Street, Biggy Street, and Zonal Avenue between San Pablo Street and Biggy Street. Additional pedestrian and aesthetic improvements, including the installation of monument signs, are also proposed within one parcel located northwest and two parcels located southwest of Alcazar Street and Soto Street, as shown in Figure 4 on page 16.

Improvements would include narrowing of roadways while maintaining traffic lanes and capacity; widening of sidewalks; planting of new landscaping and installation of improved pedestrian lighting and street furniture; the addition of enhanced paving in intersections and decorative banding in sidewalks to enhance the streetscape; and placement of monument signs at the northwest and southwest corners of Alcazar Street



Source: Google Earth, 2012.

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Figure 4
Parcels Proposed to Provide Monument Signs

and Soto Street. It is anticipated that the installation of monument signage within the northwest corner of Soto Street and Alcazar Street would include a monument arch, decorative wrought iron fence with integral brick columns, brick pavers with concrete bands, and landscaping and irrigation. Additionally, the southwest corner may include a monument sign with a decorative wrought iron fence with integral brick columns, brick pavers with concrete bands, and landscaping and irrigation. To accommodate these improvements, on-street parking would be removed along portions of the affected roadway segments.

These improvements would reduce the potential for pedestrian/vehicular conflicts and enhance pedestrian safety and connectivity by narrowing intersections to the minimum required by traffic demands and providing curb extensions in place of turn lanes that favor the vehicle. Specifically, the Modified Project would narrow portions of the roadway along San Pablo Street, Alcazar Street, and Eastlake Avenue in order to provide widened pedestrian sidewalks, improved landscaping, and streetscape enhancements. To allow for these improvements, the current roadway classifications would be modified to reflect the proposed enhancements and facilitate an orderly traffic circulation pattern throughout the HSC. Specifically, San Pablo Street would be reclassified from a secondary highway to a modified collector street along most of the roadway segment and from a secondary highway to a modified local street between Alcazar Street and Eastlake Avenue/Norfolk Street. Additionally, Alcazar Street and Eastlake Avenue would be reclassified from collector streets to modified collector streets, and Norfolk Street would be reclassified from a paper street/local street to a modified collector street.[3] Biggy Street and Playground Street would be reclassified from local streets to modified local streets. No changes would occur to the roadway classification and roadway width of Zonal Avenue would occur.

As part of the Project design, all street crossings would be differentiated from the asphalt roadway and appropriate signalization would be incorporated. In addition, pedestrian lights, placed between existing and proposed street trees along the right-of-way, would reinforce the streetscape hierarchy and identity of the HSC. Benches paired with trash and recycling receptacles, would be integrated in locations of pedestrian flow and congregation so as to promote a sense of community on campus while beginning to establish locations of opportunity for public gathering spaces. Bike racks located in close proximity to building entrances would provide the campus community with a healthy

[3] *It should be noted that the University has proposed to extend Norfolk Street from its current terminus at Playground Street to Soto Street, resulting in a new signalized intersection with Soto Street. The proposed Norfolk Street extension, which is part of the City's Master Plan of Highways, is currently in the site plan review process with the City. While the physical improvements associated with the Norfolk Street extension would not be implemented as part of the Modified Project, the proposed reclassification of Norfolk Street (including the new segment from Playground Street to Soto Street) from a paper street/local street to a modified collector street would be included as part of the Modified Project's request for a general plan amendment.*

alternative to commuting to and from the campus. In addition, due to the length of some blocks and the desire to increase connectivity across the major vehicular corridors within the campus, midblock pedestrian crossings are also anticipated. Additionally, where on-street parking occurs, planted bulb-outs would be incorporated to protect the pedestrian, and narrow the crossing distance. Where on-street parking is eliminated in favor of a wider sidewalk, a traditional pedestrian curb cut would be employed. The specific design details related to roadway striping, crosswalks, turning radii, and installation of traffic control devices would be subject to review and approval by the Los Angeles Department of Transportation's design staff as part of the Bureau of Engineering's B-permit process.

Access to the overall HSC would continue to be provided along Zonal Avenue at Mission Avenue, Eastlake Avenue at Mission Road, San Pablo Street at Valley Boulevard, San Pablo Street at Zonal Avenue, and Alcazar Street at Soto Street. In addition, metered curbside parking would continue to be provided along the east side of San Pablo Street between Norfolk Street and Zonal Avenue; the northern side of Alcazar Street between Soto Street and Eastlake Avenue and on the southern side of Alcazar Street between Eastlake Avenue and San Pablo Street; the southern side of Norfolk Street adjacent to Hazard Park; the southwestern side of Eastlake Avenue between Biggy Street and Alcazar Street; and along the west side of Biggy Street.

Construction of these improvements is anticipated to occur as a phased development with anticipated buildout in 2015.

IV. Required Approvals

The following discretionary actions are proposed to implement the Modified Project:

- General Plan Amendment from Limited Industrial to General Commercial or Neighborhood Commercial for Development Site E;
- General Plan Amendment to the Northeast Los Angeles Community Plan and the Transportation Element of the City of Los Angeles General Plan for reclassification of San Pablo Street, Alcazar Street, Eastlake Avenue, Norfolk Street, Biggy Street, and Playground Street;
- General Plan Amendment to change the land use designation on two parcels located southwest and one parcel located northwest of Alcazar Street and Soto Street from Public Facilities to General Commercial;[4]
- Zone Change from CM-1 and [T][Q]CM-1 to [T][Q]C2-2 for Development Site E;

[4] *This General Plan Amendment is proposed to accurately reflect private ownership and to allow for the installation of monument signage within these parcels.*

- Zone Change for two parcels located southwest and one parcel located northwest of Alcazar Street and Soto Street from PF-1 to [Q]C2-1;[5]
- Subdivision approval (parcel map or lot line adjustment) to create separate legal parcels for the hotel and student housing projects;
- Conditional Use Permit for alcohol service in the hotel;
- Site Plan Review for the various components pursuant to LAMC Section 16.05.C;
- Haul Route Permit;
- Grading, excavation, and building permits; and
- Any other permits or approvals as may be required.

Maps illustrating the existing and proposed land use designations and zoning for the Development Sites are provided further below in Subsection V.I, Land Use.

V. Comparative Analysis of Modified Project Impacts

The analyses provided below address each of the environmental issues analyzed in the Certified EIR and focus on the potential changes in environmental impacts due to the Modified Project. The analysis of each environmental issue first summarizes the findings of the Certified EIR, and then analyzes the potential physical effects of the Modified Project. It should be noted that for conservative purposes, the analyses of impacts associated with the Modified Project provided below consider the potential impacts of Option 1 shown in Table 1 on page 13 as this option would result in the greatest potential for environmental impacts. The analyses provided below also account for the physical environmental effects associated with the Broad Center and HCC III. These impacts attributable to the Modified Project (including the Broad Center and HCC III) are then compared with the analysis and findings within the Certified EIR to determine if such impacts are within the envelope of impacts documented in the Certified EIR. Any changes to the mitigation measures of the Original Project are also provided where necessary for each of the issue areas addressed in the Certified EIR.

[5] *This Zone Change is proposed to accurately reflect private ownership of these parcels and to allow for the installation of monument signage within these parcels. The proposed Q condition would prohibit further development within these parcels without a plan approval and, if required, further CEQA review.*

A. Visual Resources

1. Original Project Impacts

(a) Construction

Construction of the Original Project would involve the demolition and removal of six surface parking lots and one vacant lot within the existing HSC. All of the existing ornamental trees and landscaping on those lots and street trees would be removed to allow for the construction of the Original Project. The removal of street trees would detract from the visual character of the area and would create a temporary potentially significant aesthetic impact. In addition, construction fencing along streets and sidewalks would potentially serve as a target for graffiti, if not appropriately monitored, and could further temporarily degrade the visual character of the area. However, the Original Project would provide for landscape plantings and trees along the perimeter of each Development Site, which would result in an improvement over existing conditions. In addition, all street trees removed would be replaced in accordance with standard City requirements. Furthermore, the Applicant would contract with a graffiti removal company and would monitor each construction site. As set forth in the Certified EIR, with implementation of Mitigation Measure B-1 provided below, visual impacts associated with construction of the Original Project would be less than significant.

(b) Operation

The aesthetic character of the HSC is that of a contemporary and integrated campus set into an existing urban landscape providing academic, research, hospital and medical office buildings, and parking facilities designed in a modernist style. The surface parking lots that are designated for development currently feature limited landscaping consisting of ornamental trees and landscaping designed as amenities to the streetscape. The existing visual resources that contribute to the aesthetic character of the area include the existing USC Health Sciences Campus buildings and the Los Angeles County–USC Medical Center, which display high-quality architecture and landscaping.

Although the Original Project would substantially change the current appearance of the seven Development Sites when viewed from within the HSC and from the streets immediately adjacent to the Development Sites, the existing vacant and surface parking lots proposed for development feature minimal landscaping and offer limited aesthetic value to the area. It is expected that the buildings that would be developed under the Original Project would be designed in a style reflective of the existing academic, research and medical office buildings that define the aesthetic appearance of the HSC. In addition, the maximum heights proposed under the Original Project of 150 feet within Development Sites A and B; 75 feet within Development Site C; 140 feet within Development Site D; and 100 feet within Development Sites E, F, and G, would be comparable to the existing HSC

buildings. Furthermore, the Original Project would incorporate numerous pedestrian-oriented design features including sidewalks, exterior courtyards and pedestrian walkways. Therefore, the Original Project would enhance the visual character of the area and would not substantially contrast with, degrade or eliminate the existing visual character of the area. In addition, shadows cast by the proposed structures during the spring, summer, fall, and winter months would not extend onto any of the shadow-sensitive uses in the vicinity of the seven Development Sites longer than three hours between the hours of 9:00 A.M. and 3:00 P.M. between late October and early April, or for more than four hours between the hours of 9:00 A.M. and 5:00 P.M. between early April and late October. Furthermore, exterior signage for the proposed buildings would be compatible with the design of the existing signage within the HSC and would comply with the regulations of the City of Los Angeles Municipal Code (LAMC) with regard to the placement, construction and modification of all exterior signs and sign support structures. As such, impacts associated with visual quality and light and glare during Original Project operations would be less than significant.

2. Modified Project Impacts

(a) Construction

Similar to the Original Project, visual quality impacts during construction of the Modified Project may result from the temporary creation of construction sites, tree removal, and the potential placement of graffiti on construction barriers. However, as the types of construction activities that would occur under the Modified Project would be generally similar to those anticipated for the Original Project, potential issues associated with construction of the Modified Project would also be the same. In addition, as with the Original Project, the Modified Project would replace any trees in accordance with City standards and would implement the same mitigation measure to address the unauthorized placement of materials on any temporary construction barriers. Therefore, with the implementation of the Original Project's recommended mitigation measure, visual quality impacts during construction of the Modified Project would also be reduced to less than significant levels. Such impacts would be within the envelope of impact analysis addressed in the Certified EIR.

(b) Operation

As with the Original Project, the Modified Project would alter the visual character of the Project Site and surrounding area by replacing existing surface parking lots and infill areas with new structures providing for student housing, hotel, medical clinic, medical research and/or academic uses, and improving the streetscape within the HSC. With respect to visual quality, the Original Project provided for the construction of additional academic and medical-related floor area and parking facilities within the Project Site. Although the Modified Project proposes to expand the uses within Development Site E to

provide for student housing and hotel uses related to the University and potentially provide for more overall square footage, this change is not anticipated to result in additional visual quality impacts as the design of the proposed structures would be compatible with the existing HSC buildings and other surrounding uses. Specifically, similar to the Original Project, the design of the Modified Project would complement the existing HSC in terms of architecture, signage, lighting, landscape, and hardscape. In addition, though the height of the proposed hotel would exceed the 100-foot height anticipated for Development Site E under the Original Project by up to 75 feet, this modification would not result in new view blockages of visual resources as compared to the Original Project. Overall, the heights of the proposed buildings would be compatible with the maximum heights allowed for other Development Sites, including Development Sites A and B (150 feet) and existing multi-story buildings within and surrounding the HSC, such as the Los Angeles County/USC Medical Center Building, which has a building height of up to 247 feet.[6] Therefore, as with the Original Project, the Modified Project would not introduce elements that would substantially detract from the existing visual character or primary visual resources of the area and would not remove or demolish elements that contribute positively to the visual character of the area. Rather, the Modified Project would replace existing surface parking lots, which offer limited aesthetic value to the area, with new contemporary buildings that would serve to enhance the overall appearance of the HSC. In addition, with implementation of the pedestrian enhancements and aesthetic improvements, the new streetscape would enhance the appearance of the campus while promoting walkability. Furthermore, increased outdoor space, improved connections within the HSC and to the surrounding community, and enhanced linkages between Lincoln Park and Hazard Park would also be provided. Additionally, benches paired with trash and recycling receptacles would be integrated in locations of pedestrian flow and congregation so as to promote a sense of community on campus while helping to establish locations of opportunity for public gathering spaces. Moreover, like the Original Project, the Modified Project would implement the mitigation measures set forth below that would assure that the Modified Project would be visually compatible with existing development and would not degrade the visual environment. Thus, as with the Original Project, impacts related to visual quality would be less than significant under the Modified Project. Such impacts would be within the envelope of impacts set forth in the Certified EIR.

3. Mitigation Measures

A Mitigation Monitoring and Reporting Program (MMRP) was adopted for the Original Project. The mitigation measures set forth in the MMRP included in the Certified EIR to address visual quality impacts would also apply to the Modified Project. No additional mitigation measures are required for the development of the Modified Project as no

[6] *Emporis, Building Directory, www.emporis.com/building/losangelescountyuscmedicalcenter-losangeles-ca-usa, accessed March 28, 2012.*

significant aesthetic impacts would result from implementation of the Modified Project. The mitigation measures identified in the Certified EIR include the following:

(a) Construction

Mitigation Measure B-1: The Applicant shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner throughout the construction period.

(b) Operation

Mitigation Measure B-2: Building façades facing public streets shall be designed to enhance the pedestrian experience and connectivity of the HSC campus through such features as wide and well-illuminated entry areas, landscaping, and informal gathering space.

Mitigation Measure B-3: Architectural design and exterior building materials shall be compatible with the theme and quality of building design and materials used within the HSC campus.

Mitigation Measure B-4: New utilities shall be constructed underground, to the extent feasible.

Mitigation Measure B-5: Exterior signage for the proposed buildings shall be compatible with the design of the building.

Mitigation Measure B-6: All new or replacement street trees shall be selected for consistency with the existing street trees or in accordance with a street tree master plan reviewed and approved by the Department of Public Works Street Tree Division.

Mitigation Measure B-7: All mechanical, electrical and rooftop equipment shall be screened from view from adjacent surface streets.

Mitigation Measure B-8: Landscaping and/or vegetation features shall be incorporated into the design of each Development Site.

Mitigation Measure B-9: All exterior lighting shall be directed on-site or shielded to limit light spillover effects.

B. Agriculture Resources

1. Original Project Impacts

No agricultural uses or related operations are present on the Project Site or within the surrounding area, nor is the Project Site considered prime or unique farmland of

statewide or local importance as identified by the State Department of Conservation and the City of Los Angeles General Plan. The Project Site is also not zoned for agricultural uses, nor is it under a Williamson Act contract. Therefore, the Original Project would not result in the conversion of designated farmland, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses. As such, under the Original Project, no impacts to agricultural uses would occur, and no mitigation measures are necessary.

2. Modified Project Impacts

There are no existing or mapped agricultural resources within the Project Site and such uses are not proposed as part of the Modified Project. Therefore, similar to the Original Project, the Modified Project would not result in impacts to agricultural resources. Thus, impacts on agricultural resources under the Modified Project would be within the envelope of impacts identified in the Certified EIR.

C. Air Quality and Greenhouse Gas Emissions

1. Original Project Impacts

(a) Construction

Construction-related daily (short-term) emissions are expected to exceed South Coast Air Quality Management District (SCAQMD) significance thresholds for NO_X and ROC.[7] Thus, emissions of these pollutants would result in significant short-term regional air quality impacts. Daily emissions of CO, SO_X, and PM_{10} would be considered adverse, but less than significant, since the levels of these emissions would fall below the SCAQMD significance thresholds.

Potential maximum CO, SO_2 and NO_2 concentrations, when added to background ambient concentrations, would not violate their respective Ambient Air Quality Standards at any of the 16 sensitive receptor locations. However, the Original Project would result in localized PM_{10} concentrations during construction that exceed the SCAQMD's significance threshold at 13 of the 16 sensitive receptor locations. Therefore, construction of the Original Project would result in a significant and unavoidable impact on localized air quality with respect to PM_{10} concentrations.

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[7] *Subsequent to completion of the Certified EIR, SCAQMD changed the pollutant Reactive Organic Compounds (ROC) to Volatile Organic Compounds (VOC). For purposes of this analysis, the two terms are interchangeable.*

The Original Project would not result in a long-term (i.e., 70 years) substantial source of Toxic Air Contaminant emissions, with no residual emissions after construction and corresponding individual cancer risk. In addition, via mandatory compliance with SCAQMD rules, no construction activities or materials are proposed that would create objectionable odors. As such, Project-related toxic emission and odor impacts during construction would be less than significant.

(b) Operations

Regional emissions resulting from the Original Project would not exceed regional SCAQMD thresholds for ROC, SO_X, CO, or PM_{10}. However, the Original Project would exceed the regional SCAQMD threshold for NO_X, and impacts associated with this pollutant would be significant.

The Original Project would not have a significant impact relative to 1-hour or 8-hour local CO concentrations due to mobile source emissions. Since significant impacts would not occur at the intersections with the highest traffic volumes that are located adjacent to sensitive receptors, no significant impacts are anticipated to occur at any other locations in the study area as the conditions yielding CO hotspots would not be worse than those occurring at the analyzed intersections. In addition, the operation of the Original Project's parking structure would not cause or localize air quality impacts related to mobile sources. Furthermore, compliance with SCAQMD rules and regulations regarding stationary-source combustion equipment would ensure that contributions to localized PM_{10} concentrations remain below the SCAQMD significance threshold. As the Original Project does not cause an exceedance of an ambient air quality standard, the Original Project's localized operational air quality impacts would therefore be less than significant.

The potential exists that the later stages of construction could occur concurrently with the occupancy of the earlier stages of development. Concurrent construction and operational emissions would exceed regional SCAQMD daily thresholds for NO_X, and ROC, but would not exceed the regional SCAQMD daily threshold for CO, SO_X, or PM_{10}. Thus, a significant regional air quality impact due to NO_X, and ROC emissions would occur.

Potential sources of air toxics (e.g., truck traffic on local streets, on-site truck idling and movement and operation of transportation refrigeration units) would be dispersed among the Development Sites (i.e., at multiple loading dock, boiler and emergency backup generator locations). In addition, the Original Project would not include any notable sources of acutely and chronically hazardous toxic air contaminants, although minimal emissions may result from the use of consumer products. Furthermore, the Original Project does not include any uses identified by the SCAQMD as being associated with odors. As such, impacts with regard to toxic contaminants and odors from operation of the Original Project would be less than significant.

2. Modified Project Impacts

(a) Construction

Similar to the Original Project, construction of the Modified Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile source emissions, primarily NO_X, would result from the use of construction equipment such as dozers, loaders, and cranes. During the finishing phase, paving operations and the application of architectural coatings (i.e., paints) and other building materials would release VOCs. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction were forecasted by assuming a conservative start date (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and mobile-source emissions factors derived from the California Air Resources Board's (CARB) OFFROAD2007 and EMFAC2011 models. The emission calculation procedures were conducted consistent with the most recent version of the URBEMIS model (URBEMIS 2007). Details are presented in Appendix A. The calculations reflect the types and quantities of construction equipment that would be used to remove existing structures and pavement; grade and excavate the Project Site; construct the proposed buildings, structures and related improvements; and plant new landscaping within the Project Site. Construction tasks were aggregated to reflect overlapping tasks and identify the maximum construction emissions occurring over the course of Modified Project construction.

In order to provide a conservative analysis, it was assumed that all construction activities would be completed within the minimum timeframe anticipated for construction, which provides for the maximum overlap of construction components within the Modified Project's overall development period as well as the most intense peak daily construction activity for each component of the Modified Project. This is of particular importance as construction emissions are directly related to the duration and intensity of construction activities (i.e., emissions increase as the amount of construction and intensity increases). Emission rates representative of certain stages of construction (i.e., construction worker trips and delivery vehicle trips) would also decrease over time in response to the use of cleaner vehicles or equipment that emit lower levels of pollutants. Detailed construction phasing assumptions are presented in Appendix A.

As shown in Table 2 on page 28, Modified Project emissions of VOC and NO_X would exceed the SCAQMD regional threshold. However, VOC and NO_X emissions would remain below those previously reported under the Original Project. All other pollutants remain below their respective SCAQMD regional thresholds and below the previously reported emissions for the Original Project. As such, the Modified Project would not result in any new or substantially increased significant impacts to regional air quality and such impacts would be within the envelope of impacts set forth in the Certified EIR.

When quantifying mass emissions for localized analysis, only emissions that occur on-site are considered. Consistent with the SCAQMD Localized Significance Threshold (LST) methodology guidelines, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. As shown in Table 3 on page 30, localized emissions of CO, PM_{10}, and $PM_{2.5}$ would remain below their respective SCAQMD LST significance thresholds. However, NO_X emissions would exceed the SCAQMD LST. Therefore, the localized effects from the on-site construction emissions of NO_X would be potentially significant and mitigation measures are required.

(b) Operation

Similar to the Original Project, air pollutant emissions associated with occupancy and operation of the Modified Project would be generated by consumption of both electricity and natural gas, and by the operation of on-road vehicles. With the modification to account for student housing and hotel uses, regional emissions were re-evaluated using the most recent version of URBEMIS (URBEMIS 2007). The results of this analysis are shown in Table 4 on page 32.

In comparison to the Original Project, operational emissions for the Modified Project would decrease by 49 lbs/day of CO, 22 lbs/day of NO_X, 1 lb/day of VOC, and results in similar amounts of SO_X. However, the Modified Project is expected to result in an increase of 55 lbs/day of PM_{10} when compared to the Original Project. However, like the Original Project, regional PM_{10} emissions from the Modified Project would be below the applicable significance threshold and the impact from such emissions would be below the applicable significance threshold and the impact from such emissions would be less than significant. The overall reduction in operational emissions of CO, NO_X, and VOC is a result of the reduced emission factors the latest URBEMIS model uses along with a later buildout year.

The increase in PM_{10} emissions is a direct result of additional sources the latest URBEMIS model includes in the emission estimates; specifically, entrained roadway dust from motor vehicle travel on paved roads. Though the Modified Project would result in a reduction in NO_X emissions in comparison to the Original Project, similar to the Original Project, operation of the Modified Project would exceed the SCAQMD regional threshold for NO_X. Implementation of the same project design features and mitigation measures as

Table 2
Modified Project Regional Construction Emissions
(Pounds per Day)

Emission Source	VOC	CO	NO_X	$SO_{2.5}$	PM_{10}	$PM_{2.5}$[a]
Modified Project						
Residential Demolition	5	25	43	<1	10	3
Residential Earthwork	16	74	162	<1	33	12
Residential Foundation	6	33	46	<1	2	2
Residential Concrete/Steel/Frame	7	47	50	<1	2	2
Residential Interior/Exterior Finishing	69	54	38	<1	2	2
Residential Landscape/Paving	3	17	20	<1	1	1
Hotel Demolition	4	18	28	<1	4	1
Hotel Earthwork	10	55	99	<1	21	7
Hotel Foundation	5	28	45	<1	2	1
Hotel Concrete/Steel/Frame	7	41	51	<1	2	2
Hotel Interior/Exterior Finishing	71	50	32	<1	2	1
Hotel Landscape/Paving	3	14	17	<1	1	1
HCCIII Demolition	4	25	31	<1	2	2
HCCIII Earthwork	5	31	39	<1	7	3
HCCIII Shoring	3	17	19	<1	1	1
HCCIII Concrete/Steel/Frame	6	36	40	<1	2	2
HCCIII Interior/Exterior Finishing	24	59	32	<1	2	1
HCCIII Landscape/Paving	3	17	20	<1	1	1
HCCIV Demolition	4	25	31	<1	2	2
HCCIV Earthwork	5	31	39	<1	9	3
HCCIV Shoring	3	17	19	<1	1	1
HCCIV Concrete/Steel/Frame	6	36	40	<1	2	2
HCCIV Interior/Exterior Finishing	24	59	32	<1	2	1
HCCIV Landscape/Paving	3	17	20	<1	1	1
Roadway Improvements[b]						
Phase 3A.1 Demolition	3	14	24	<1	1	1
Phase 3A.2 Grading	3	18	27	<1	5	2
Phase 3A.3 Paving	2	10	14	<1	1	1
Phase 3A.4 Demolition	3	14	24	<1	1	1
Phase 3A.5 Grading	3	18	27	<1	5	2
Phase 3A.6 Paving	2	9	13	<1	1	1
Phase 3B.1 Demolition	3	14	22	<1	1	1
Phase 3B.2 Grading	3	17	25	<1	4	2
Phase 3B.3 Paving	2	9	13	<1	1	1
Phase 3B.4 Demolition	3	14	22	<1	1	1
Phase 3B.5 Grading	3	17	25	<1	4	2
Phase 3B.6 Paving	2	9	12	<1	1	1
Maximum Concurrent Peak Daily[c]	**130**	**236**	**240**	**<1**	**50**	**18**

Table 2 (Continued)
Modified Project Regional Construction Emissions
(Pounds per Day)

Emission Source	VOC	CO	NO_X	$SO_{2.5}$	PM_{10}	$PM_{2.5}$[a]
Comparison to SCAQMD Thresholds						
Modified Project Emissions	130	236	240	<1	50	18
SCAQMD Significance Threshold	75	550	100	150	150	55
Over/(Under)	55	(314)	140	(150)	(100)	(37)
Comparison to Original Project						
Modified Project Emissions	130	236	240	<1	50	18
Original Project Emissions[d]	144	340	281	1	107	—
Over (Under)	**(14)**	**(104)**	**(41)**	**(1)**	**(64)**	—

[a] *Subsequent to completion of the Certified EIR, the SCAQMD promulgated $PM_{2.5}$ regional significance thresholds. As shown above, the Modified Project would result in less than significant regional construction $PM_{2.5}$ impacts.*

[b] *In order to limit potential impacts during construction of the proposed streetscape improvements, construction is proposed to occur in two primary phases, Phases 3A and 3B.*

[c] *Maximum concurrent peak daily emissions of VOC and CO occur when Residential Interior/Exterior Finishing, Hotel Earthwork, HCC III Interior/Exterior Finishing, and HCC IV Interior/Exterior Finishing and Phase 3A.8 Grading phases all overlap. Maximum concurrent peak daily emissions of NO_X, PM_{10}, and $PM_{2.5}$ occur during the Earthwork phases of the Residential element, HCC III, and HCC IV.*

[d] *Table 13 on page 211, Section VI.D, Air Quality, of the Draft EIR.*

Source: Matrix Environmental, 2013.

the Original Project would reduce the potential air quality impacts of the Modified Project to the extent technically feasible. However, emissions would remain above SCAQMD significance thresholds. Therefore, similar to the Original Project, operation of the Modified Project would have a significant and unavoidable impact on regional air quality for NO_X. Operational emissions would not exceed the SCAQMD significance thresholds for VOC, CO, SO_X, PM_{10}, or $PM_{2.5}$, and, thus, impacts are concluded to be less than significant for those pollutants. Such impacts would be within the envelope of impacts included in the Certified EIR.

With regard to traffic-related localized air quality impacts, as described further below in Subsection V.O, Traffic, Circulation, and Parking, the Modified Project would result in a slightly reduced number of peak-hour trips compared to the Original Project. Therefore, traffic-related localized air quality impacts would be essentially the same for the Modified Project as for the Original Project. Since the localized CO hotspot analysis for the Original Project did not result in any significant impacts, the Modified Project would likewise not have any localized impacts.

Table 3
Modified Project Localized Construction Emissions
(Pounds per Day)

Emission Source	CO	NO_X	PM_{10}	$PM_{2.5}$[a]
Modified Project				
Residential Demolition	18	28	9	2
Residential Earthwork	40	72	30	9
Residential Foundation	16	23	1	1
Residential Concrete/Steel/Frame	16	26	1	1
Residential Interior/Exterior Finishing	17	27	2	1
Residential Landscape/Paving	12	17	1	1
Hotel Demolition	14	25	3	1
Hotel Earthwork	29	48	19	6
Hotel Foundation	13	19	1	1
Hotel Concrete/Steel/Frame	15	24	1	1
Hotel Interior/Exterior Finishing	12	18	1	1
Hotel Landscape/Paving	11	15	1	1
HCCIII Demolition	14	27	2	1
HCCIII Earthwork	20	32	7	3
HCCIII Shoring	9	18	1	1
HCCIII Concrete/Steel/Frame	18	30	2	1
HCCIII Interior/Exterior Finishing	12	20	1	1
HCCIII Landscape/Paving	12	17	1	1
HCCIV Demolition	14	27	2	1
HCCIV Earthwork	20	32	9	3
HCCIV Shoring	9	18	1	1
HCCIV Concrete/Steel/Frame	18	30	2	1
HCCIV Interior/Exterior Finishing	12	20	1	1
HCCIV Landscape/Paving	12	17	1	1
Roadway Improvements				
Phase 3A.1 Demolition	10	19	1	1
Phase 3A.2 Grading	14	22	4	2
Phase 3A.3 Paving	7	11	1	1
Phase 3A.4 Demolition	10	19	1	1
Phase 3A.5 Grading	14	22	4	2
Phase 3A.6 Paving	7	10	1	1
Phase 3B.1 Demolition	10	17	1	1
Phase 3B.2 Grading	14	21	4	2
Phase 3B.3 Paving	7	10	1	1
Phase 3B.4 Demolition	10	17	1	1
Phase 3B.5 Grading	14	21	4	2
Phase 3B.6 Paving	7	9	1	1
Maximum Concurrent Peak Daily[b]	**80**	**135**	**46**	**15**

Table 3 (Continued)
Modified Project Localized Construction Emissions
(Pounds per Day)

Emission Source	CO	NO_X	PM_{10}	$PM_{2.5}$[a]
Comparison to SCAQMD LSTs				
Modified Project Emissions	80	135	46	15
SCAQMD Significance Threshold[c]	3,188	68	68	21
Over/(Under)	(3,108)	67	(23)	(6)

[a] *Subsequent to completion of the Certified EIR, the SCAQMD promulgated $PM_{2.5}$ localized significance thresholds. As shown above, the Modified Project would result in less than significant localized construction $PM_{2.5}$ impacts.*

[b] *Maximum concurrent peak daily emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$ occur during the Earthwork phases of the Residential element, HCC III, and HCC IV.*

[c] *SCAQMD LSTs based on SRA 1, 5-acre active site area, and 110-meter receptor distance. The SCAQMD localized threshold for NO_X was revised to account for the recently adopted 1-hour NO_2 NAAQS of 188 $\mu g/m^3$ or an incremental threshold of 46 $\mu g/m^3$ for SRA 1.*

Source: Matrix Environmental, 2013.

The Modified Project would also be subject to the SCAQMD's Air Quality Management Plan (AQMP). A project is consistent with the AQMP if it is consistent with the population, housing, and employment assumptions that were used in its development. The most recent AQMP adopted by the SCAMQD incorporates SCAG's 2008 Regional Transportation Plan (RTP) socioeconomic forecast projections of regional population and employment growth. As discussed below under Section V.L, Population and Housing, the Modified Project would result in an increase of 447 beds. Using the number of beds as a surrogate for population, the Modified Project's increase in population would represent approximately 0.011 percent of the City of Los Angeles Subregion's forecasted population growth for 2014. Additionally, the Modified Project is expected to result in an increase of approximately 343 jobs associated with the proposed hotel uses. This would represent approximately 0.77 percent of the City of Los Angeles Subregion's forecasted employment growth for 2014. Such levels of population and employment growth are consistent with the forecasts for the Subregion as adopted by SCAG. Because the SCAQMD is expected to incorporate these same projections into the AQMP, it can be concluded that the Modified Project would be consistent with the projections in the AQMP. For comparison purposes, the Original Project included an increase of approximately 487 jobs, 144 jobs more than the Modified Project.

When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit toxic air contaminants (TACs). The CARB has published and adopted the "*Air Quality and Land Use Handbook: A Community Health Perspective (2005),*" which provides

Table 4
Modified Project Operation Emissions
(Pounds per Day)

Emission Source	VOC	CO	NO_X	$SO_{2.5}$	PM_{10}	$PM_{2.5}$[a]
Original Project[b]						
Mobile Sources	44	479	59	<1	64	--
Stationary Sources[c]	1	7	42	3	1	--
Miscellaneous Sources	1	10	2	<1	1	--
Total	**46**	**496**	**103**	**3**	**66**	--
Modified Project						
Mobile Sources	38	436	57	<1	120	23
Stationary Sources	<1	3	19	2	1	1
Area Sources	7	8	5	1	<1	<1
Total	**45**	**447**	**81**	**3**	**121**	**24**
Difference (Net) Emissions	(1)	(49)	(22)	0	55	--
Comparison to SCAQMD Threshold						
Modified Project Emissions	45	447	81	3	121	24
SCAQMD Significance Threshold	55	550	55	150	150	55
Over (Under)	(10)	(103)	26	(147)	(29)	(31)

[a] *Subsequent to completion of the Certified EIR, the SCAQMD promulgated $PM_{2.5}$ significance thresholds. As shown above, the Modified Project would result in less than significant $PM_{2.5}$ impacts.*

[b] *Table 14 on page 218, Section VI.D, Air Quality, of the Draft EIR.*

[c] *Stationary sources under the Original Project include electricity and natural gas usage. Under the Modified Project, emissions from natural gas usage are included as an area source.*

Source: Matrix Environmental, 2013.

recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). The SCAQMD adopted similar recommendations in their "*Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (2005).*" Together the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources, and the addition of new TAC sources in proximity to existing sensitive land uses.

Based on CARB siting recommendations, sensitive receptors should not be sited within 1,000 feet of a warehouse distribution center or rail yard (which have extensive heavy-duty truck activity), within 500 feet of a freeway (or similar high traffic roadway (i.e., roads within urbanized areas carrying more than 100,000 vehicles per day), or within

300 feet of a dry cleaning facility that uses perchloroethylene, among other siting recommendations. The residential units included as part of the Modified Project would not be located within the above described distances to any of these sources of TACs. Therefore, the Modified Project would not result in any air toxic impacts and such impacts would be within the envelope of impacts analyzed in the Certified EIR.

(c) Greenhouse Gas Emissions

Until the passage of AB 32, CEQA documents generally did not evaluate GHG emissions or impacts on global climate change. Rather, the primary focus of air pollutant analysis in CEQA documents was the emission of criteria pollutants, or those identified in the California and federal Clean Air Acts as being of most concern to the public and government agencies (e.g., toxic air contaminants). With the passage of AB 32 and SB 97, CEQA documents now contain a more detailed analysis of GHG emissions. However, the analysis of GHGs is different from the analysis of criteria pollutants. Since the half-life of CO_2 is approximately 100 years, GHGs affect the global climate over a relatively long timeframe. Conversely, for criteria pollutants, significance thresholds/impacts are based on daily emissions; and the determination of attainment or non-attainment are based on the daily exceedance of applicable ambient air quality standards (e.g., 1-hour and 8-hour exposures).

In its January 2008, CEQA and Climate Change white paper, the California Air Pollution Control Officers Association (CAPCOA) identified a number of potential approaches for determining the significance of GHG emissions in CEQA documents. In its white paper, the CAPCOA suggests making significance determinations on a case-by-case basis when no significance thresholds have been formally adopted by a lead agency. One of the potential approaches identified in the CAPCOA white paper, Threshold 1.1, would require a project to meet a percent reduction target. This target would be based on the average reduction from "business-as-usual" emissions identified by CARB as necessary to satisfy AB 32's mandate of returning to 1990 levels of GHG emissions by 2020. CARB has calculated the necessary reduction to be approximately 16 percent from "business-as-usual."[8]

Subsequent to the completion of the Original Project's Certified EIR, the state's Office of Planning and Research's recommended amendments to the CEQA Guidelines for GHGs were adopted by the Resources Agency on December 30, 2009. Analysis of GHG emissions in a CEQA document presents unique challenges to lead agencies. However, such analysis must be consistent with existing CEQA principles and, therefore, the amendments comprise relatively modest changes to various portions of the existing CEQA Guidelines. The amendments add no additional substantive requirements; rather, the

[8] *CARB, Supplement to the AB 32 Scoping Plan FED, Table 1.2-2, Updated 2020 Business-as-Usual Emissions Forecast, www.arb.ca.gov/cc/scopingplan/document/final_supplement_to_sp_fed.pdf.*

Guidelines merely assist lead agencies in complying with CEQA's existing requirements. Modifications address those issues where analysis of GHG emissions may differ in some respects from more traditional CEQA analysis. Other modifications clarify existing law that may apply both to an analysis of GHG emissions as well as more traditional CEQA analyses.

As shown in Table 5 on page 35, the Modified Project would result in an annual total of 15,399 metric tons of carbon dioxide equivalent (CO_2e). This would represent an approximate 27 percent reduction over the "business-as-usual" scenario. This reduction is a direct result of applying required conservation measures for new buildings per the City of Los Angeles "Green Building" ordinance. Some key mandatory measures included in the City of Los Angeles "Green Building" ordinance include the following:

- Construction—Construction waste reduction of at least 50 percent;
- Construction—100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled;
- Transportation Demand—Provide secure bicycle parking for 5 percent of motorized vehicle parking capacity;
- Transportation Demand—Provide designated parking for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles;
- Energy Conservation—Provide electric vehicle supply wiring for a minimum of 5 percent of the total number of parking spaces;
- Energy Conservation—A project must exceed the CEC requirement based on the 2008 Energy Efficiency Standards by 15 percent using an Alternative Calculation Method (ACM) approved by the CEC;
- Energy Conservation—Each appliance provided and installed shall meet Energy Star if an Energy Star designation is applicable for that appliance;
- Renewable Energy—Provide future access, off-grid pre-wiring, and space for electrical solar systems;
- Water—A schedule of plumbing fixtures and fixture fittings shall be provided that will reduce the overall use of potable water within the building by at least 20 percent, based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code; and
- Wastewater—Each building shall reduce wastewater by 20 percent based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

Table 5
Annual GHG Emissions Summary
(Metric Tons of Carbon Dioxide Equivalent)

Scope	"Business-as-Usual" Project	Project	Project's Break from "Business-as-Usual"
Mobile Source	17,771	12,320	31%
Electricity Usage	1,332	1,154	13%
Natural Gas Usage	2,022	1,747	14%
Water Usage/Wastewater Generation	368	294	20%
Solid Waste	162	162	0%
Construction	201	201	0%
Total	**21,857**	**15,879**	**27%**

Source: Matrix Environmental, 2013.

As such, the Modified Project is expected to result in less than significant impacts related to GHG emissions.

3. Mitigation Measures

The mitigation measures set forth in the MMRP included in the Certified EIR and provided below remain applicable to the Modified Project. An additional mitigation measure is also provided below to address potentially significant impacts associated with localized emissions from construction of the Modified Project.

(a) Construction

Mitigation Measure D-1: General contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403.7

Mitigation Measure D-2: Disturbed areas shall be watered three times daily, which is above and beyond the SCAQMD Rule 403 requirement to water disturbed areas two times daily.

Mitigation Measure D-3: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

Mitigation Measure D-4: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues would turn their engines off, when not in use, to reduce vehicle emissions. Construction emissions should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.

Mitigation Measure D-5: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible.

Mitigation Measure D-6: All construction vehicles shall be prohibited from idling in excess of ten minutes, both on- and off-site.

Mitigation Measure D-7: Project heavy-duty construction equipment shall use alternative clean fuels, such as low sulfur diesel or compressed natural gas with oxidation catalysts or particulate traps, to the extent feasible.

Mitigation Measure D-8: The Applicant shall utilize coatings and solvents that are consistent with applicable SCAQMD rules and regulations.

Mitigation Measure D-9: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with Best Available Control Technology devices certified by the California Air Resources Board. Any emissions control device used by the contractor shall achieve emissions reduction that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by California Air Resources Board regulations.

(b) Operation

Mitigation Measure D-~~9~~10: The Applicant shall provide public education to USC Health Science Campus visitors and employees regarding the importance of reducing vehicle miles traveled and utilizing transit, and the related air quality benefits through the use of brochures and other informational tools.

Mitigation Measure D-~~10~~11: The Applicant shall, to the extent feasible, schedule deliveries during off-peak traffic periods to encourage the reduction of trips during the most congested periods.

Mitigation Measure D-~~11~~12: The Applicant shall coordinate with the MTA and the City of Los Angeles Department of Transportation to provide information with regard to local bus and rail services.

Implementation of the mitigation measures described above would reduce construction emissions for all pollutants. However, as shown in Table 6 on page 37, based on SCAQMD screening thresholds, the Modified Project would remain in exceedance of the SCAQMD localized significance threshold for NO_X during the most intense construction period. Therefore, the localized effects from the on-site construction emissions of NO_X were analyzed using the AERMOD dispersion model. The results of the dispersion modeling show that the maximum concentrations of NO_2 at an off-site sensitive receptor would occur at Hazard Park, just south of the Project Site. The maximum state and federal

Table 6
Mitigated Modified Project Localized Construction Emissions
(Pounds per Day)

Emission Source	CO	NO_X	PM_{10}	$PM_{2.5}$[a]
Modified Project				
Residential Demolition	18	12	8	1
Residential Earthwork	40	32	19	4
Residential Foundation	16	14	0	0
Residential Concrete/Steel/Frame	16	15	0	0
Residential Interior/Exterior Finishing	17	16	0	0
Residential Landscape/Paving	12	8	0	0
Hotel Demolition	14	10	2	0
Hotel Earthwork	29	21	12	3
Hotel Foundation	13	12	0	0
Hotel Concrete/Steel/Frame	15	14	0	0
Hotel Interior/Exterior Finishing	12	11	0	0
Hotel Landscape/Paving	11	7	0	0
HCCIII Demolition	14	11	1	0
HCCIII Earthwork	20	14	4	1
HCCIII Shoring	9	11	0	0
HCCIII Concrete/Steel/Frame	18	17	0	0
HCCIII Interior/Exterior Finishing	12	12	0	0
HCCIII Landscape/Paving	12	8	0	0
HCCIV Demolition	14	11	1	0
HCCIV Earthwork	20	14	5	1
HCCIV Shoring	9	11	0	0
HCCIV Concrete/Steel/Frame	18	17	0	0
HCCIV Interior/Exterior Finishing	12	12	0	0
HCCIV Landscape/Paving	12	8	0	0
Roadway Improvements				
Phase 3A.1 Demolition	10	12	0	0
Phase 3A.2 Grading	14	13	2	1
Phase 3A.3 Paving	7	5	0	0
Phase 3A.4 Demolition	10	12	0	0
Phase 3A.5 Grading	14	13	2	1
Phase 3A.6 Paving	7	5	0	0
Phase 3B.1 Demolition	10	11	0	0
Phase 3B.2 Grading	14	12	2	1
Phase 3B.3 Paving	7	5	0	0
Phase 3B.4 Demolition	10	11	0	0
Phase 3B.5 Grading	14	12	2	1
Phase 3B.6 Paving	7	5	0	0
Maximum Concurrent Peak Daily[b]	**80**	**72**	**27**	**6**

Table 6 (Continued)
Mitigated Modified Project Localized Construction Emissions
(Pounds per Day)

Emission Source	CO	NO_X	PM_{10}	$PM_{2.5}$[a]
Comparison to SCAQMD LSTs				
Modified Project Emissions	**80**	**72**	**27**	**6**
SCAQMD Significance Threshold[c]	3,188	68	68	21
Over/(Under)	(3,108)	4	(41)	(15)

[a] *Subsequent to completion of the Certified EIR, the SCAQMD promulgated $PM_{2.5}$ localized significance thresholds. As shown above, the Modified Project would result in less than significant localized construction $PM_{2.5}$ impacts.*

[b] *Maximum concurrent peak daily emissions of CO, PM_{10}, and $PM_{2.5}$ occur during the Earthwork phases of the Residential element, HCC III, and HCC IV. Maximum concurrent peak daily emissions of NOx occur during the Residential Concrete/Steel/Frame, HCC III Shoring, HCC III Concrete/Steel/Frame, HCC IV shoring, and HCC IV Concrete/Steel/Frame.*

[c] *SCAQMD LSTs based on SRA 1, 5-acre active site area, and 110-meter receptor distance. The SCAQMD localized threshold for NO_X was revised to account for the recently adopted 1-hour NO_2 NAAQS of 188 $\mu g/m^3$ or an incremental threshold of 46 $\mu g/m^3$ for SRA 1.*

Source: Matrix Environmental, 2013.

1-hour concentrations observed within the park boundaries are 39.05 $\mu g/m^3$ and 29.58 $\mu g/m^3$, respectively. The maximum annual concentration predicted to occur is 0.63 $\mu g/m^3$. Similar to the Original Project, and as shown in Table 7 on page 39, all of these maximum concentrations would remain below the state and federal ambient air quality standards at off-site sensitive receptors (see Appendix A). Additionally, due to a reduction in emission factors since the time of the Original Project's analysis, the Modified Project would reduce the significant and unavoidable impacts to localized PM_{10} emissions to less than significant. As such, localized impacts that may result from air pollutant emissions during the construction phases would be less than significant.

D. Biological Resources

1. Original Project Impacts

The Project Site is located in an urbanized location developed primarily with surface parking, ornamental trees, and landscaping designed as amenities to the streetscape, rather than as natural habitat. In addition, the Project Site is not located in or adjacent to any riparian area and is not identified in the City of Los Angeles General Plan as a natural, conservation, or open space resource. Additionally, no other adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved, local, regional, or state habitat conservation plan applies to the Project Site. Furthermore, the Project Site does not contain any natural hydrologic features or federally protected wetlands as defined by

Table 7
Maximum Ambient Construction Pollutant Impacts
($\mu g/m^3$)

Pollutant	Maximum Off-Site Concentration
NO_2—1-hr Concentration	
Maximum Increment (CAAQS)	39.1
CAAQS Background	226.2
CAAQS Background + Increment	265.3
SCAQMD Threshold	339
Significant Impact?	No
Maximum Increment (NAAQS)	29.6
NAAQS Background	141.9
NAAQS Background + Increment	171.5
SCAQMD Threshold	188
Significant Impact?	No
NO_1—Annual Concentration	
Maximum Increment	0.63
Background	52.83
Background + Increment	53.45
SCAQMD Threshold	57
Significant Impact?	No

Source: Matrix Environmental, 2013.

Section 404 of the Clean Water Act. In addition, any street trees requiring removal would occur in accordance with the City of Los Angeles Street Tree Division requirements. Lastly, the Project Site does not function as a wildlife corridor and no bodies or courses of water exist on-site to provide habitat for fish. Based on the above, the Project Site does not contain any notable natural features or natural habitat for species identified as candidate, sensitive, or of special status. As set forth in the Certified EIR, overall, no impacts to biological resources would occur, and no mitigation measures are necessary.

The surrounding area features Hazard Park, a 25-acre recreational resource, which has the potential to contain biological resources. However, the Project Site is physically separated from Hazard Park such that there is no direct interface between the Project Site and the park. Specifically, while Development Site A (the portion of the Project Site nearest to Hazard Park) and the park are located at opposite corners of the San Pablo Street/Eastlake Avenue intersection, actual buildings proposed on Development Site A would be separated from Hazard Park not only by San Pablo Street and Eastlake

Avenue/Norfolk Street, but also by intervening ornamental landscaping. Development Sites B, C, D, E, F, and G are located further from Hazard Park and are separated from the park by other HSC buildings. Therefore, due to the distance and the actual physical separation that exists between the Project Site and Hazard Park, the Project would not have an impact on any species that may inhabit Hazard Park.

2. Modified Project Impacts

As described above, there are no notable natural features or natural habitat for species identified as candidate, sensitive, or of special status within the HSC. In addition, as with the Original Project, removal of any street trees under the Modified Project would occur in accordance with the City of Los Angeles Street Tree Division requirements. Furthermore, removal of any on-site mature trees, which could potentially provide nesting sites for migratory birds, would be conducted in accordance with the Migratory Bird Treaty Act (MBTA) and the California Department of Fish and Game (CDFG) Code. Therefore, similar to the Original Project, the Modified Project would not result in impacts to biological resources, and no mitigation measures would be necessary. Such impacts would be within the envelope of impacts addressed in the Certified EIR.

E. Cultural Resources

1. Original Project Impacts

As discussed in the Certified EIR, none of the Development Sites contain any extant buildings, structures, objects, sites, or districts with any historical associations or significance necessary for California Register eligibility. Thus, the Project Site does not contain any historical resources as defined by the CEQA Guidelines. As such, the Certified EIR determined that no adverse impacts to significant historical resources would occur, and no mitigation measures are necessary.

As the Project Site is located within an urbanized area and has been subject to disturbance due to grading and development activities in the past, any surficial archaeological resources that may have existed on the site at one time are likely to have been disturbed or removed previously. In addition, as discussed in the Certified EIR, a records search conducted by the South Central Coastal Information Center of the California Historical Resources Information System reported no historic or prehistoric archaeological sites on the Project Site or within the HSC. Moreover, no unique paleontological or unique geologic resources have been identified on any of the Development Sites or in the surrounding area. Additionally, no human remains are known to be present. Any discovery of archaeological and paleontological resources and human remains during construction of the Project would be treated in accordance with federal, state, and local guidelines, as

appropriate. As such, any impacts are expected to be less than significant, and no mitigation measures are necessary.

2. Modified Project Impacts

As noted above, the Modified Project would continue to be developed within the HSC. As described above, there are no known historic resources within the Project Site. Therefore, similar to the Original Project, no direct impacts to historical resources would result from the Modified Project. In addition, as the Project Site is located within an urbanized area and has been subject to disturbance due to grading and development activities in the past, the potential for Project-related ground-disturbing activities to encounter archaeological and paleontological resources and human remains would be low. In addition, similar to the Original Project, any uncovering of archaeological and paleontological resources and human remains under the Modified Project would be treated in accordance with federal, state, and local guidelines, as appropriate. Therefore, as with the Original Project, potential impacts to cultural resources would be less than significant with the Modified Project. Such impacts would be within the envelope of impact addressed in the Certified EIR.

F. Geology and Soils

1. Original Project Impacts

As set forth in the Certified EIR, no known active faults pass through any of the Development Sites, nor are any of the Development Sites within an Alquist-Priolo Earthquake Fault Zone. However, the Project Site could be subject to moderate to strong ground shaking typical of the general southern California area. Therefore, development associated with the Original Project could result in the potential exposure of people and structures to ground shaking in the event of an earthquake. With adherence to applicable seismic standards, safety requirements and construction specifications, potential impacts related to strong seismic ground shaking would be less than significant, and no mitigation measures are necessary.

As indicated in the Certified EIR, the type and consistency of the soils and underlying bedrock as well as the extensive geologic history of the Project Site are such that the Original Project would not be expected to experience liquefaction or similar seismic ground failure. In addition, the probability of seismically-induced landslides occurring within the Project Site is remote. Furthermore, detailed geotechnical investigations that would be required in support of the City's issuance of grading and building permits and adherence to applicable safety requirements and construction specifications would identify and remedy any adverse conditions attributable to the presence of unstable/expansive soils. In addition, as Project development would not result in the substantial loss of topsoil and

construction activities would occur in accordance with applicable state and local regulations governing grading and site design, the Original Project is not expected to cause substantial soil erosion. As such, any impacts associated with landslides, liquefaction, unstable/ expansive soils, and soil erosion would be less than significant, and no mitigation measures are necessary.

2. Modified Project Impacts

The analysis of potential impacts associated with Project Site geology and soils provided below is based in part on information contained in the Certified EIR and in a Geotechnical Engineering Investigation prepared by Geotechnologies, Inc. dated December 22, 2011, and provided as Appendix B of this Addendum.

As described above, no known active faults pass through any of the Development Sites and none of the Development Sites are within an Alquist-Priolo Earthquake Fault Zone. Nonetheless, as with the Original Project, implementation of the Modified Project could result in the potential exposure of people and structures to ground shaking in the event of an earthquake. However, similar to the Original Project, the Modified Project would adhere to applicable seismic standards, safety requirements, and construction specifications. With implementation of these regulatory requirements, the Modified Project's impacts associated with the exposure of on-site populations, property, or structures to seismic hazards would be less than significant, and no mitigation measures are necessary.

Geological conditions of the Development Sites have remained substantially the same since preparation of the Certified EIR. Therefore, similar to the Original Project, development within these sites would also not result in liquefaction or landslides hazards that would expose people, property, or structures to an increased risk of hazard or damage. However, the streetscape improvements proposed along San Pablo Street, Alcazar Street, Eastlake Avenue, and Norfolk Street may be within or adjacent of a potentially liquefiable area.[9,10] However, the Modified Project would comply with City of Los Angeles Building Code requirements pertaining to development within areas susceptible to liquefaction and with the California Geological Survey Special Publication 117, which provides guidelines for

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[9] *California Division of Mines and Geology, State of California Seismic Hazard Zones, Los Angeles Quadrangle, March 25, 1999. Available at http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_la.pdf; accessed November 8, 2011.*

[10] *Los Angeles General Plan Safety Element, Exhibit B, Areas Susceptible to Liquefaction, page 49 (November 1996).*

evaluating and mitigating seismic hazards in California.[11] In addition, similar to the Original Project, the Modified Project would adhere to applicable safety requirements and construction specifications to remedy any adverse conditions attributable to the presence of unstable/expansive soils. Furthermore, as with the Original Project, the Modified Project would implement appropriate construction techniques to reduce any potential impacts associated with erosion. Additionally, detailed site-specific geotechnical studies that would be required in support of the City's issuance of grading and building permits would further minimize potential geological impacts. As such, similar to the Original Project, potential impacts associated with geology and soils under the Modified Project would also be less than significant and within the envelope of the impact analysis set forth in the Certified EIR.

G. Hazards and Hazardous Materials

1. Original Project Impacts

As discussed in the Certified EIR, potential hazards and hazardous materials impacts associated with the Original Project would primarily be limited to the use of potentially hazardous materials during construction and operation. Specifically, construction of the Original Project may include the use of paints, cleaning materials, vehicle fuels, oils, and transmission fluids. During operation, the Original Project could use medical hazardous materials and generate medical hazardous waste typical of medical clinic uses. Additionally, the Project may include nuclear medicine, which would involve the use of very small amounts of radioactive materials or radiopharmaceuticals for diagnosis and treatment of diseases. The Original Project may also generate limited quantities of hazardous materials associated with the routine use of the proposed parking facilities (e.g., leaks of engine oil, transmission fluid from vehicles). However, all potentially hazardous materials used during construction and operation would be contained, stored, used, and disposed of in accordance with all applicable federal, state, and local laws, regulations, and standards. In addition, the Original Project would be required to prepare an emergency response and evacuation plan, conduct hazardous materials training, and notify employees who work in the vicinity of hazardous materials, in accordance with federal OSHA and Cal OSHA requirements. Based on the preceding, the Original Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. In addition, no upset or accident is reasonably foreseen that would involve the creation of a significant hazard through the release of hazardous materials into the environment. As such, impacts would be less than significant, and no mitigation measures are necessary.

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[11] *California Department of Conservation, California Geological Survey, Seismic Hazards Zonation Program Laws and Guidelines. Available at www.conservation.ca.gov/cgs/shzp/Pages/SHMPpgminfo.aspx; accessed November 9, 2011.*

Any adverse conditions that are identified during the regulatory permitting and construction process for the Original Project associated with the inclusion of the HSC on lists of hazardous material sites compiled pursuant to Government Code Section 65962.5 would be satisfactorily addressed and mitigated to a less than significant level via compliance with applicable standards and regulations and no mitigation measures are necessary.

Implementation of the Original Project would not result in the closure of any street, particularly those designated as an evacuation route in an adopted emergency response or evacuation plan. To the extent feasible, construction activities and staging areas would not physically block any streets or impair access to and around the HSC or any adjacent properties. The proposed buildings would be designed to conform to the standards of the Los Angeles Fire Department for emergency egress and would be integrated into the existing HSC emergency response and evacuation plans. As such, potential impacts to adopted emergency response or evacuation plans would be less than significant, and no mitigation measures are necessary.

2. Modified Project Impacts

The following analysis addresses the Modified Project's potential impacts with regard to hazards and hazardous materials and is based in part upon information provided in the Certified EIR and in the Phase I Environmental Site Assessment prepared by California Environmental Geologists and Engineers, Inc., dated January 2012, and provided as Appendix C of this Addendum.

As excavation and earthwork activities under the Modified Project would be similar to those of the Original Project, the potential to release contaminants during these phases of construction would be generally the same as under the Modified Project. The Modified Project may result in additional construction activities compared to the Original Project due to increased development under Option 1. As such, the Modified Project may result in an increase in the handling and storage of hazardous materials during construction. Furthermore, as described in detail in Appendix C of this Addendum, it is possible that development of the Modified Project could encounter contaminated soil or underground features such as underground storage tanks associated with previous uses of the Project Site and the inclusion of the HSC on lists of hazardous material sites. However, with compliance with applicable standards and regulations and implementation of recommendations provided in the site-specific environmental site assessment, any potential hazards and hazardous materials impacts would be satisfactorily addressed and mitigated to a less than significant level. Therefore, the Modified Project would not create any new impacts with respect to hazardous materials during construction or would increase the severity of any previously identified impacts. Such impacts would be within the envelope of impacts provided in the Certified EIR.

As previously described, the Original Project provided for the construction of additional academic and medical-related floor area and parking facilities within the Project Site. In addition to these types of uses, the Modified Project would include the development of housing and hotel uses which would involve the limited use of hazardous materials typical of those used for such development. Specifically, the hotel and residential uses would involve the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents, paints, and pesticides for landscaping. Therefore, the change in land uses would not result in the use of more hazardous materials within the HSC. Notwithstanding, as with the Original Project, all potentially hazardous materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable federal, state, and local regulations. As such, the change in land uses that would occur under the Modified Project would not create any new impacts with respect to hazardous materials during operation, nor would the Modified Project increase the severity of any previously identified impacts. Thus, as with the Original Project, hazards and hazardous materials impacts during operation would be less than significant under the Modified Project. Such impacts would be within the envelope of impact analysis addressed in the Certified EIR.

Additionally, as with the Original Project, the proposed streetscape improvements would not physically block any streets, result in the full closure of any street, or impair access to and around the HSC or any adjacent properties. Specifically during construction, one traffic lane in each direction and at least one sidewalk would remain available at all times. Therefore, similar to the Original Project, potential impacts to adopted emergency response or evacuation plans would be less than significant under the Modified Project. Such impacts would be within the envelope of impacts provided in the Certified EIR.

H. Surface Hydrology and Water Quality, and Groundwater

1. Original Project Impacts

(a) Hydrology

As described above, construction of the Original Project would involve the demolition and removal of six surface parking lots and one vacant lot within the existing HSC. Replacement of these existing primarily impervious surfaces with proposed buildings would not substantially increase the amount of impervious cover that currently exists. As such, the amount of surface runoff would not substantially increase and the existing drainage pattern of the site would not be altered. In addition, in accordance with National Pollutant Discharge Elimination System (NPDES) permit requirements, a Standard Urban Stormwater Management Plan (SUSMP) would be implemented, which would ensure that post-development peak stormwater runoff discharge rates would not exceed the estimated

pre-development rates such that there would be an increased potential for downstream runoff. Furthermore, surface runoff would continue to be captured by existing drainage systems and any new drainage systems that may be installed to support development. Therefore, as the Project Site is currently impervious and would continue to be with implementation of the Original Project, the Original Project would not result in a substantial alteration to the existing drainage pattern or an increase in the rate or amount of on- or off-site surface runoff which could result in flooding, erosion, or siltation. Thus, impacts to hydrology would be less than significant, and no mitigation measures would be necessary.

The Project Site is not located within a 100-year flood plain or within an inundation area associated with the failure of a levee or dam. Therefore, the Original Project would not result in significant impacts associated with flood flows, and no mitigation measures are necessary.

(b) Surface Water Quality

An increase in urban contaminants may be expected from the increase in parking facilities on Development Site C and possibly Development Site D. However, the Original Project would be required to comply with state and local regulations governing water quality standards and waste discharge requirements associated with construction and operation of the facilities associated with the Original Project. In addition, as part of the Original Project, SUSMP requirements would be implemented, which may include, but not be limited to: minimizing stormwater pollutants of concern; providing storm drain system stenciling and signage; containing properly designed outdoor material storage areas; containing properly designed trash storage areas; and providing proof of ongoing BMP maintenance. As such, the Original Project would result in less than significant impacts to water quality, and no mitigation measures would be necessary.

(c) Groundwater

The water needs of the Original Project would be met by the Los Angeles Department of Water and Power, which draws its water supplies from distant sources for which it conducts its own assessment and mitigation of potential environmental impacts. In addition, the HSC is mostly developed and contains minimal amounts of pervious surfaces that allow water infiltration. Furthermore, as noted above, the Original Project would replace existing impervious surfaces with new impervious surfaces. Therefore, the Original Project would not result in an increase of impervious area, which could marginally reduce percolation and result in a reduction in groundwater recharge. As such, groundwater impacts would be less than significant and no mitigation measures are necessary.

2. Modified Project Impacts

(a) Hydrology

As described above, the seven Development Sites include six surface parking lots and one vacant lot within the existing HSC. In addition, the area of the streetscape improvements is developed with roadways and sidewalks, street lights, utility poles, and limited ornamental landscaping in the form of trees and shrubs. Thus, the Project Site is comprised almost entirely of impervious surfaces. The Modified Project would replace these existing primarily impervious surfaces with new impervious surfaces as well as additional landscaping. Therefore, with the implementation of this additional landscaping, the rate and amount of stormwater runoff would decrease slightly under the Modified Project compared to the Original Project and would continue to be captured by the existing storm drain infrastructure or any new drainage system that may be installed as part of the Modified Project. Thus, development of the Modified Project would not result in an increase in the amount of impervious surface which could contribute additional runoff. Therefore, as with the Original Project, the Modified Project would result in less than significant impacts to hydrology. Such impacts would be within the envelope of impact analysis addressed in the Certified EIR.

(b) Surface Water Quality

As with the Original Project, continued compliance with NPDES requirements and local regulations that include BMPs would ensure that construction activities associated with the Modified Project would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles Regional Water Quality Control Board or other regulatory agencies or impair the beneficial uses of the receiving waters. In addition, construction of the Modified Project would not result in a violation of any water quality standards or waste discharge requirements and would not otherwise substantially degrade water quality. Therefore, as with the Original Project, construction-related impacts to surface water quality would be less than significant under the Modified Project. Such impacts would be within the envelope of impacts addressed in the Certified EIR.

Similar to the Original Project, pollutants typically associated with urban uses, such as oil and grease, metals, fertilizers, pesticides, dirt from landscaped areas, and litter, would be produced during operation of the Modified Project. However, it is anticipated that with the additional landscaping to be provided by the Modified Project, the amount of pervious area would be increased within the HSC. Therefore, the Modified Project would result in a reduced potential for urban pollutants to be conveyed into nearby storm drains during stormwater events. In addition, similar to the Original Project, the Modified Project would be required to comply with SUSMP requirements during the operational life of the Project. Such requirements would include source control BMPs, treatment control BMPs,

and requirements regarding erosion control. Therefore, as with the Original Project, with compliance with such requirements, impacts to surface water quality during operation would be less than significant under the Modified Project. Such impacts would be within the envelope of impact analysis provided in the Certified EIR.

(c) Groundwater

As noted above, the Modified Project would replace existing primarily impervious surfaces with new impervious surfaces and additional landscaping. Therefore, as with the Original Project, the Modified Project would also not result in an increase of impervious area which could marginally reduce percolation and result in a reduction in groundwater recharge. Thus, impacts to groundwater hydrology would be less than significant and within the envelope of impact analysis addressed in the Certified EIR.

Based on the Geotechnical Engineering Investigation included as Appendix B of this Addendum, minor to moderate seepage of groundwater was encountered at depths between 12 and 24 feet below the existing site grade of Development Site E. In addition, according to the California Geological Survey Seismic Hazard Zone Report, the historically highest groundwater level is on the order of 25 feet below grade. Furthermore, water seepage was encountered at depths between 5 and 14½ feet under a prior geotechnical investigation conducted in 2002. Construction activities for the Modified Project could require excavation of up to 30 feet below ground surface for development of the HCC IV. Therefore, there is a possibility that, during excavation activities, some seepage will be encountered and dewatering may be necessary. As indicated in Appendix B, it is anticipated that any seepage encountered could be mitigated on an as-encountered basis through the use of small channels at the base of the excavations leading to temporary sump pits, or to the lower end of the site. In addition, any discharge of groundwater during construction of the Modified Project would occur pursuant to, and comply with, the applicable NPDES permit requirements. Furthermore, the Modified Project would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to effectively reduce the potential for the construction of the Modified Project to release contaminants into groundwater. As such, construction activities associated with the Modified Project would not degrade groundwater quality, and impacts would be less than significant. Such impacts would be within the envelope of impacts identified in the Certified EIR.

I. Land Use and Planning

1. Original Project Impacts

The Project Site is subject to the land use plans and policies of the City of Los Angeles General Plan Framework, the Northeast Los Angeles Community Plan

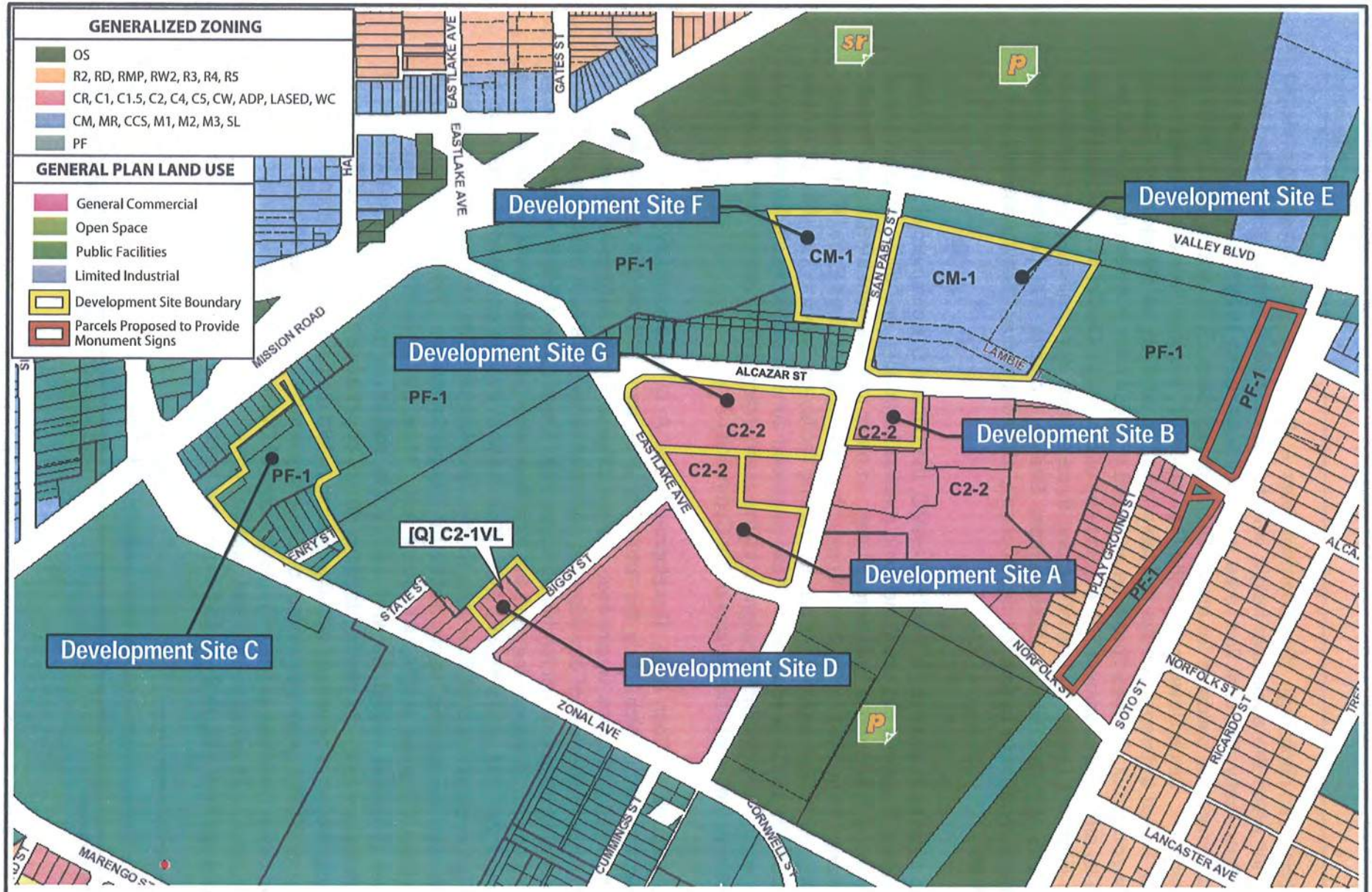
(Community Plan), and the Adelante Eastside Redevelopment Plan. Regional plans governing planning and land use issues at the Project Site include the SCAG Regional Comprehensive Plan and Guide, the Los Angeles County Metropolitan Transportation Authority (Metro) Congestion Management Plan, and the SCAQMD Air Quality Management Plan (AQMP). In addition, the Project Site is subject to the provisions of the City of Los Angeles Zoning Code, Chapter 1 of the City of Los Angeles Municipal Code (LAMC), which, in part, facilitates implementation of Community Plan objectives through land use designations and development standards. A summary of the Original Project's consistency with these applicable plans and policies is provided below.

(a) Northeast Los Angeles Community Plan

As shown in Figure 5 on page 50, per the Community Plan, Development Sites A, B, D, and G are designated as General Commercial, while Development Site C is designated for Public Facilities. Development Sites E and F are designated Limited Industrial. The proposed academic, medical research, and medical office uses and potential parking facilities would be compatible with the uses designated for the Project Site as defined in the Community Plan. In addition, the Original Project would be consistent with the site planning, neighborhood compatibility, landscape, access, aesthetic, light and glare and transit oriented goals of the Community Plan. Specifically, the architectural style of proposed buildings would be similar to the existing HSC buildings and articulated surfaces on building walls would avoid large, sterile expanses on building walls. Proposed buildings would also feature signage and lighting consistent with existing HSC operations. Furthermore, the Original Project would include the creation of new exterior courtyards and walkways between and around proposed buildings, which would serve to create a pedestrian-friendly campus environment that would facilitate pedestrian access to the entire facility by limiting pedestrian and vehicle interfaces and providing parking at selected locations within the HSC. Additionally, the proposed change in the land use designations of Development Site C from Public Facilities to General Commercial and Development Sites E and F from Limited Industrial to General Commercial would be compatible with the designations of the surrounding HSC parcels and would be compatible with the intent and policies of the Community Plan. Moreover, the proposed vacation of Henry Street would have no bearing on land uses in and around the Project Site as this street has been paved over and out of circulation for over twenty years and is entirely internal to Development Site C. Based on the above, land use impacts of the Original Project in relation to the Northeast Los Angeles Community Plan would be less than significant.

(b) Los Angeles Municipal Code

Per the LAMC, Development Sites A, B, and G are zoned C2 (Commercial), while Development Site C is zoned PF (Public Facilities) and Development Site D is zoned [Q]C2-1VL (Commercial, Height District 1VL). Development Sites E and F are zoned CM



Source: City of Los Angeles ZIMAS, 2013.

matrix environmental

Figure 5
Existing Land Use Designations and Zoning

(Commercial Manufacturing). Development Sites A, B, and G are located within Height District 2 for which the applicable height limitation is defined in terms of permitted floor area.12 Specifically, the total floor area in all buildings within Height District 2 shall not exceed six times the buildable lot area. Development Sites C, E, and F are located in Height District 1. Since Development Site C is zoned PF, the total floor area permitted on this site is limited to three times the buildable area. In addition, as Development Sites E and F are zoned CM, the total floor area permitted on these sites is limited to 1.5 times the buildable lot area. Development Site D is located within Height District 1VL. No building or structure in Height District 1VL shall exceed three stories, nor shall it exceed 45 feet in height. The [Q] condition on Development Site D prohibits 100 percent residential development, and limits residential development, should it occur, to that permitted in the RD1.5 zone.

As detailed in Section 12.14 of the LAMC, the C2 and CM commercial zones permit a wide variety of commercial uses, including medical laboratory, and allow the provision of surface parking in support of commercial uses. In order to implement the Original Project, a zone change from CM-1 to C2-2 is proposed for Development Sites E and F. In addition, as the Original Project proposes a private parking facility on Development Site C, a zone change from PF to C2 is required. These proposed zone changes would be compatible with the zoning designations assigned to the surrounding HSC parcels and would be consistent with the intent and policies of the Community Plan.

In regards to floor area, Development Site A is approximately 2.46 acres or 91,912 square feet in size. Thus the total floor area permitted on this site would be a maximum of 551,472 gross square feet. As the Original Project proposed a maximum of 465,000 gross square feet of development on Development Site A, it would be consistent with the existing height district for this particular site. Development Site B is approximately 1.13 acres or 49,223 square feet and the total floor area permitted would, therefore, be a maximum of 295,338 gross square feet. The Original Project proposed a maximum of 295,338 gross square feet of floor area for this Development Site and would therefore be consistent with the existing height district for this particular site. Development Site G is approximately 4.0 acres or 174,240 square feet. Thus, the up to 100,000 square feet of floor area proposed would be well within the maximum permitted development of 1,045,440 square feet. As parking facilities do not count toward the permitted floor area, the Original Project is consistent with the existing height district for Development Site C. A maximum of 50,312 gross square feet of University and/or medical-related uses would be permitted within Development Site D. As the size of Development Site D is approximately 0.77 acre, or 33,541 gross square feet, and the site is within Height District 1VL, a height district change from 1VL to 2 would be required to comply with the LAMC. Development

[12] *Total floor area and height limitations are regulated by LAMC Section 12.21.1.*

Site E is approximately 7.64 acres in size and would permit a maximum of 499,198 gross square feet, while Development Site F is approximately 2.65 acres permitting a maximum floor area of 115,434 gross square feet. Although the proposed development on Development Site E is consistent with the existing height district, the Original Project proposes a height district change to Height District 2 to provide for a consistent Height District 2 across the Project Site. In addition, as the maximum amount of development proposed for Development Site F would exceed the permitted floor area, a height district change from 1 to 2 would also be required for this Development Site. However, the heights of proposed buildings that may occur on Development Sites D, E, and F would be consistent with the heights of the surrounding HSC structures. Furthermore, the location of these Development Sites would be sufficiently distant from Lincoln and Hazard Parks and off-site residential uses so as to not alter the land use relationships that currently exist.

(c) General Plan Framework

The Metro Long Range Land Use Diagram of the General Plan Framework designates the Project Site as a Community Center. The Original Project proposes to develop academic and medical-related facilities on sites that are currently used as surface parking lots or are undeveloped within the existing HSC. These proposed uses are consistent with the uses permitted within the Community Center General Plan Land Use designation. In addition, development of these sites would preserve the character of the surrounding neighborhood, as the proposed development would assist in enhancing the established HSC with similar uses. On an overall basis, the Original Project would enhance the urban character of the Project Site area and with the proposed improvements, the Original Project's land use impacts in relation to the City's General Plan Framework would be less than significant.

(d) Adelante Eastside Development Project

The principal goal of the Adelante Eastside Development Project is to improve living conditions, upgrade public improvements, increase commercial choices, and revitalize the industrial base while preserving existing businesses and industry. As the Original Project would preserve and enhance the existing HSC, a unique commercial and institutional resource of the community, the Original Project is consistent with the policies or goals of the Adelante Eastside Redevelopment Plan.

(e) Regional Plans

As the Original Project would be developed in an established area of the City, in which existing facilities and infrastructure are already in place and would be available to the Original Project, and as the Original Project would be served by the nearby San Bernardino (I-10), and Golden State (I-5) Freeways as well as public transit via the Metro, DASH, and

USC shuttle systems, the impact of the Original Project on RCPG policies would be less than significant. In addition, development of the Original Project would result in less than significant impacts with regards to the Los Angeles County CMP. Furthermore, as the Original Project would not result in an increase in the frequency or severity of an existing air quality violation or create a new violation, the Original Project would be consistent with the AQMP.

(f) Project Compatibility with Surrounding Land Uses

Development of academic and medical-related facilities on the seven Development Sites would be consistent with the existing uses found within the HSC. In addition, as part of an established campus of related land uses, the proposed buildings would not physically divide an established community, but rather would assist in infilling the established HSC with similar uses. Similarly, the development of parking facilities on one or more of Development Sites B, C, D, E, and F would not result in the physical separation of any established community.

The HSC is bounded by public, commercial, institutional, residential, and recreational land uses. The closest residential uses are located approximately 700 feet east of Development Site B along the east and west sides of Playground Avenue, which bisects the eastern portion of the HSC. However, no land use compatibility impacts between the Development Sites and these residential uses are anticipated, as existing HSC structures separate the Development Sites from these residential uses. In addition, with regards to nearby recreational uses, Lincoln Park is located approximately 0.25 mile from the nearest Development Site and is further separated from the Project Site by Valley Boulevard and the railroad tracks that parallel the southern side of Valley Boulevard and existing HSC structures. Additionally, while Development Site A and Hazard Park are located at opposite corners of the intersection, any buildings on Development Site A would be separated from Hazard Park by San Pablo Street and Eastlake Avenue/Norfolk Street, and also by the ornamental landscape buffer that exists directly north of Eastlake Avenue. The remaining Development Sites are located further north from Hazard Park and are separated from the park by existing HSC buildings. Furthermore, the development of additional academic, medical-related, and academic support facilities within the existing HSC would be compatible with the surrounding institutional uses given their similarities in land use classification. In conclusion, the height of the proposed structures would not substantially contrast with the surrounding area, since the proposed structures would be consistent in scale with the existing HSC structures, as well as the other nearby institutional and public uses in the vicinity of the Project Site. Therefore, the land use impacts of the proposed uses on the Project Site relative to compatibility with the nearby land uses would be less than significant.

2. Modified Project Impacts

As described above, a modification to the Original Project has been proposed to change the type of development previously planned for Development Site E. Specifically, as shown in Table 1 on page 13, the maximum amount of development analyzed in the Certified EIR for Development Site E of between 118,000 square feet of medical clinic facilities and up to 400,000 square feet of academic and/or medical research facilities, and parking facilities would be substituted for graduate student housing uses comprising approximately 238,500 square feet and providing 185 dwelling units, amenities, and a child care center. A hotel providing up to 275 rooms may also be constructed within Development Site E adjacent to the proposed graduate student housing uses. In addition, a modification to the maximum amount of square footage to be developed is proposed. Specifically, the Applicant proposes to provide flexibility in the amount and type of floor area to be developed so long as the peak-hour vehicle trips do not exceed that set forth in the Certified EIR. Furthermore, the Modified Project also proposes to modify the existing roadway classifications to allow for pedestrian enhancements and aesthetic improvements within the HSC. As described above, discretionary approvals proposed under the Modified Project include the following:

- General Plan Amendment from Limited Industrial to General Commercial or Neighborhood Commercial for Development Site E;
- General Plan Amendment to the Northeast Los Angeles Community Plan and the Transportation Element of the City of Los Angeles General Plan for reclassification of San Pablo Street, Alcazar Street, Eastlake Avenue, Norfolk Street, Biggy Street, and Playground Street;[13]
- General Plan Amendment to change the land use designation on two parcels located southwest and one parcel located northwest of Alcazar Street and Soto Street from Public Facilities to General Commercial;
- Zone Change from CM-1 and [T][Q]CM-1 to [T][Q]C2-2 for Development Site E;
- Zone Change for two parcels located southwest and one parcel located northwest of Alcazar Street and Soto Street from PF-1 to [Q]C2-1;
- Subdivision approval (parcel map or lot line adjustment) to create separate legal parcels for the hotel and student housing projects;

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[13] *As indicated in the memo from the City of Los Angeles Bureau of Engineering dated September 24, 2012, and included as Appendix E of this Addendum, the Bureau of Engineering reviewed the proposed roadway reclassifications and provided clarifications regarding the requested General Plan Amendment. Specifically, the Bureau of Engineering determined that previous improvement conditions would need to be deleted as part of the requested General Plan Amendment, as they are obsolete or inconsistent with the changes proposed by the Modified Project.*

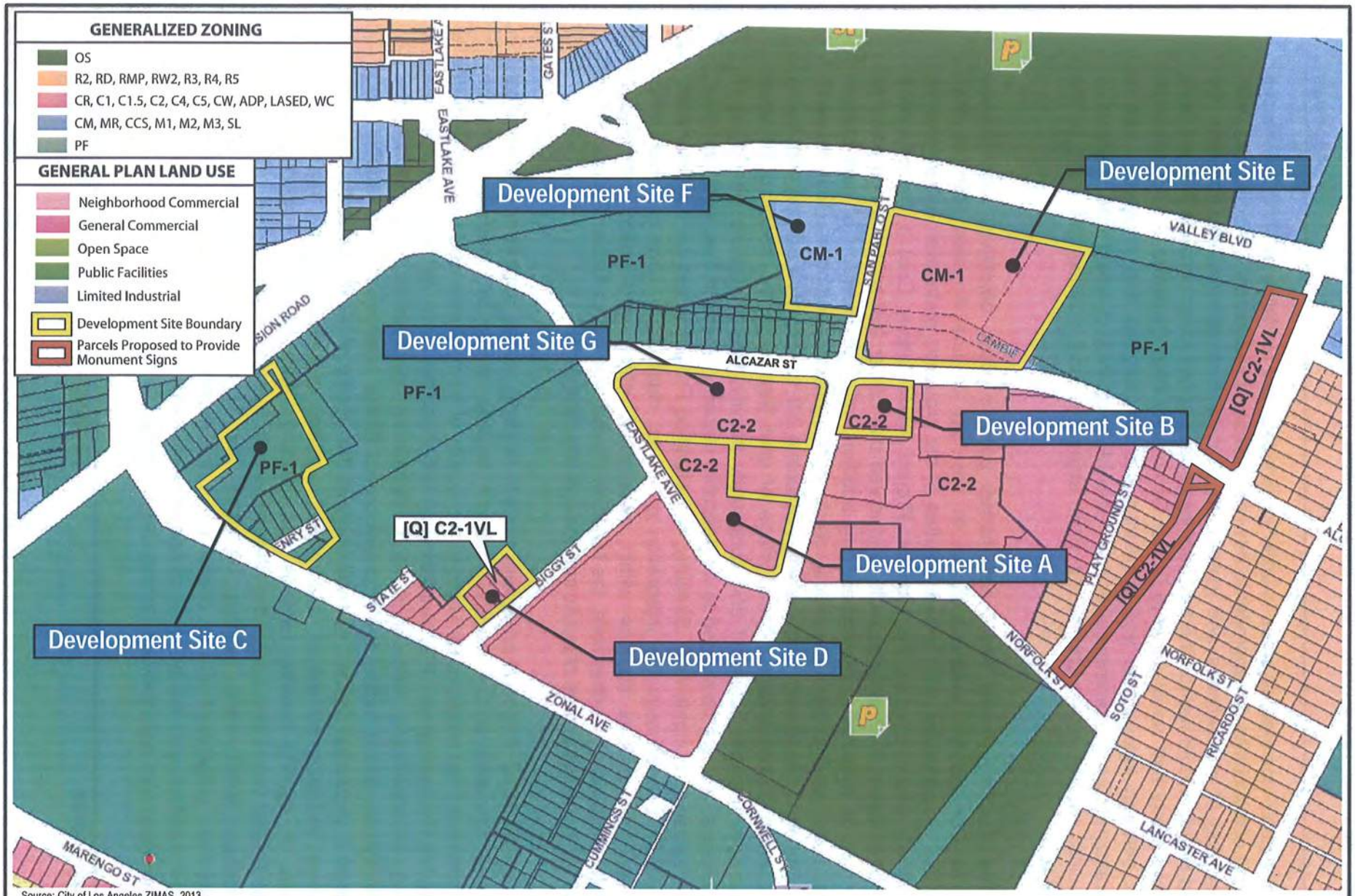
- Conditional Use Permit for alcohol service in the hotel;
- Site Plan Review for the various projects pursuant to LAMC § 16.05.C;
- Haul Route Permit;
- Grading, excavation, and building permits; and
- Any other City of Los Angeles permits or approvals as may be required.

Figure 6 on page 56 illustrates the proposed changes in land use designations and zoning.

(a) Consistency with Local and Regional Plans

As indicated above, a General Plan Amendment to change the Community Plan designation of Development Site E from Limited Industrial to General Commercial or Neighborhood Commercial is proposed to provide for the hotel/student housing uses proposed under the Modified Project. In addition, the Modified Project also proposes a General Plan Amendment to the Community Plan and the Transportation Element of the General Plan for reclassification of San Pablo Street, Alcazar Street, Eastlake Avenue, Norfolk Street, Biggy Street, and Playground Street to allow for enhancements to the existing pedestrian and aesthetic environment of the HSC. Furthermore, as shown in Figure 6, the Modified Project includes an additional General Plan Amendment to change the land use designation on two parcels located southwest and one parcel located northwest of Alcazar Street and Soto Street from Public Facilities to General Commercial to accurately reflect private ownership and also allow the placement of monument signage.

With the inclusion of new student housing and hotel uses as well as additional medical clinic, and academic and/or medical research facilities, the Modified Project would serve to enhance the existing HSC by expanding the range of uses currently provided. In addition, with implementation of the proposed pedestrian enhancements and aesthetic improvements, the Modified Project would promote walkability, increase outdoor space, improve connections within the HSC, improve vehicular circulation around the campus, and enhance linkages between the adjacent Lincoln Park and Hazard Park. The design of new buildings would also continue to incorporate streetscape improvements, exterior courtyards, landscaped walkways between buildings, and new landscaping. Furthermore, new buildings would be similar in height to existing buildings within the Project vicinity and would be designed with high quality architecture. Therefore, like the Original Project, the Modified Project would further Community Plan Policy 6-1.1, which seeks to "encourage compatibility in school locations, site layout, and architectural design with adjacent land uses and community character." In addition, the new hotel uses to be provided under the Modified Project would further Community Plan Objective 2-1, to "conserve and strengthen



Source: City of Los Angeles ZIMAS, 2013.

matrix environmental

Figure 6
Proposed Land Use Designations and Zoning

potentially viable commercial areas in order to stimulate and revitalize existing businesses and create opportunities for appropriate new commercial development." Additionally, with the narrowing of intersections and installation of curb extensions, where feasible, the Modified Project would reduce the potential for pedestrian/vehicular conflicts and enhance pedestrian safety and would serve to further Community Plan Objective 2-3, to "minimize conflicts between auto-related and pedestrian-oriented activities and encourage use of public transportation in commercial areas." The Modified Project would also continue to support the several other Community Plan objectives and policies set forth in the Certified EIR.

The Modified Project would also further specific goals, objectives, and policies related to Community Centers included in the City of Los Angeles General Plan Framework. In particular, with implementation of the proposed pedestrian enhancements and aesthetic improvements, the Modified Project would further Goal 3, "to provide a pedestrian-oriented, high activity, multi- and mixed use center that supports and provides identity for Los Angeles' communities." In addition, with the provision of new student housing, hotel, and additional medical clinic, and academic and/or medical research facilities, the Modified Project would support Objective 3.9, to "reinforce existing community centers, which accommodate a broad range of uses that serve the needs of adjacent residents, promote neighborhood and community activity, are compatible with adjacent neighborhoods, and are developed to be desirable places in which to live, work, and visit, both in daytime and nighttime." Similarly, the Modified Project would be consistent with Policy 3.9.2 to "encourage the integration of school classrooms, libraries, and similar educational and cultural facilities within commercial, office, and mixed commercial-residential structures." Furthermore, the Modified Project would also further Policy 3.9.7 to "provide for the development of public streetscape improvements."

The Modified Project's proposed student housing, hotel, and additional medical clinic, and academic and/or medical research facilities would be consistent with the Redevelopment Plan objective to "improve the quality of life for those who live and work in and visit the Redevelopment Plan Area through enhanced business, employment, housing, shopping, entertainment, recreational, and educational opportunities." In addition, the Modified Project would further the Redevelopment Plan's goal/objective to "support and encourage a circulation system that will improve the quality of life in the Redevelopment Plan Area, including pedestrian, automobile, parking, and mass transit system, with emphasis on serving existing facilities and meeting future needs." Additionally, the Modified Project would also further the Redevelopment Plan's goals/objectives to "preserve and increase employment, training, business, and investment opportunities through redevelopment programs." On an overall basis, the modifications to the Original Project would not interfere with the types of development already present within and around the HSC and would also not inhibit implementation of applicable regional plans.

Based on the above, with approval of the proposed land use designation change, no significant impacts associated with consistency with the land use plans would occur and such impacts would be within the envelope of impacts set forth in the Certified EIR.

(b) Consistency with Zoning

As described above, the applicable height limitation for each of the Development Sites is defined in terms of permitted floor area. The proposed HCC IV building within Development Site B is anticipated to have a maximum height of 95 feet and a maximum floor area of 106,700 square feet. As Development Site B is zoned C2 and is within Height District 2, the total floor area shall not exceed six times the buildable lot area. Development Site B is approximately 1.13 acres or 49,223 square feet and the total floor area permitted would, therefore, be a maximum of 295,338 gross square feet. When accounting for development underway for Development Site B (HCC III), and the maximum development proposed for HCC IV, the total floor area within Development Site B would be approximately 271,800 square feet. Based on the proposed height and maximum development proposed, development within Development Site B under the Modified Project would be within the height and floor area limits set forth by existing zoning and consistent with the building heights analyzed in the Certified EIR. In addition, the proposed uses would be consistent with existing zoning and consistent with the uses evaluated in the Certified EIR.

With regard to Development Site E, the Modified Project proposes to provide student housing uses comprising approximately 238,500 square feet and possibly hotel uses comprising up to 250,000 square feet. The height of the new student housing buildings would be approximately 67 feet, while the height of the hotel building would be a maximum 175 feet. Based on existing zoning, the maximum permitted floor area for Development Site E shall not exceed 499,198 square feet. In addition, with approval of the zone change from CM-1 and [T][Q]CM-1 to C2-2, which would permit a floor area up to six times the buildable lot area, the maximum floor area permitted within Development Site E would increase to 1,996,790. Thus, the maximum floor area of 488,500 proposed for Development Site E under the Modified Project would be well within the permitted floor area set forth by existing and proposed zoning. In addition, the proposed student housing and hotel uses would be consistent with the uses permitted under the proposed C2-2 zone. Furthermore, as described above under Subsection A, Visual Resources, the height increase associated with the hotel would be compatible with the maximum heights allowed in other Development Sites, including Development Sites A and B (150 feet) and existing multi-story buildings within and surrounding the HSC such as the nearby Los Angeles County/USC Medical Center building (247 feet).[14] Therefore, the increase in height and

[14] *Emporis, Building Directory, www.emporis.com/building/losangelescountyuscmedicalcenter-losangeles-ca-usa, accessed March 28, 2012.*

proposed student housing and hotel uses for Development Site E would not pose any inconsistencies with applicable land use regulations should the requested discretionary actions be approved by the City. Thus, significant impacts associated with consistency with zoning would not occur and such impacts would be within the envelope of impacts set forth in the Certified EIR.

Additionally, as previously noted, the proposed zone change for two parcels located southwest and one parcel located northwest of Alcazar Street and Soto Street from PF-1 to [Q]C2-1 is proposed to accurately reflect private ownership and allow for the installation of monument signage within these parcels. The development of new buildings or other structures within these parcels is not proposed as part of the Modified Project. In addition, the proposed Q condition would prohibit further development within these parcels without a plan approval. As such, the installation of monument signage within these parcels would not introduce any inconsistencies with applicable land use regulations as the proposed zone change would be consistent with existing adjacent zoning and land uses. Therefore, no significant impacts with consistency with zoning would occur and such impacts would be within the envelope of impacts set forth in the Certified EIR.

(c) Land Use Compatibility

With regard to land use compatibility, though the Modified Project proposes a change in the land uses previously planned for Development Site E, the proposed hotel and student housing uses would be consistent and compatible with the land use mix of the surrounding area. In addition, the design of the proposed structures would be compatible with the existing HSC buildings and the nearby institutional and residential uses surrounding the HSC. Furthermore, based on the location of the Development Sites within the HSC campus, the Modified Project would not disrupt or divide a community. Additionally, with implementation of the proposed streetscape improvements, no public roadways or sidewalks would be permanently closed or relocated and no separation of uses or disruption of access between land uses would occur. The Modified Project would result in the continued use of the internal roadways for vehicular and pedestrian access and the overall HSC for educational, research, and medical purposes and would be consistent in terms of use and general character with the surrounding uses. Thus, the Modified Project would result in less than significant impacts with regard to land use compatibility. Such impacts would be similar to those of the Original Project, and within the envelope of impact analysis addressed in the Certified EIR.

J. Mineral Resources

1. Original Project Impacts

The Project Site is not located in an area containing significant mineral deposits, as designated by the City of Los Angeles. In addition, the applicable local land use plans do not delineate that the Project Site or the surrounding area contain significant mineral deposits or are designated as a locally important mineral resource site. Therefore, development associated with the Original Project would not change the availability of known or potential mineral resources or result in the loss of availability of a locally important mineral resource recovery site delineated on a land use plan. As such, no impacts to mineral resources would occur and no mitigation measures are necessary.

2. Modified Project Impacts

As described above, the Project Site does not contain mineral deposits and such uses are not proposed as part of the Modified Project. Therefore, similar to the Original Project, no impacts to mineral resources would result from the Modified Project. Such impacts would be within the envelope of impact addressed in the Certified EIR.

K. Noise

As described further in the Certified EIR, sound pressure is measured and quantified using a logarithmic ratio, the scale of which gives the level of sound in decibels (dB). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate this human, frequency-dependent response, the A-weighted system is used to adjust measured sound levels. The A-weighted sound level is expressed as "dBA." In addition, time variation in noise exposure is typically expressed in terms of the average energy over time (L_{eq}), or alternatively, as a statistical description of the sound level that is exceeded over some fraction of a given period of time. In accordance with the City of Los Angeles Noise Regulation limits for residential zones, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. Furthermore, the City of Los Angeles has also adopted local guidelines based, in part, on the community noise compatibility guidelines established by the State Department of Health Services for use in assessing the compatibility of various land use types with a range of noise levels. These guidelines are set forth in the City of Los Angeles CEQA Thresholds Guide (Thresholds Guide) in terms of the Community Noise Equivalent Level (CNEL). A CNEL value of 70 dBA is the upper limit of what is considered a "normally acceptable" noise environment for business and professional commercial uses, although a CNEL as high as 77 dBA is considered "conditionally acceptable."

1. Original Project Impacts

(a) Construction

Maximum daytime noise level increases with Original Project construction would meet or exceed the 5 dBA noise level increase established by the City of Los Angeles Noise Regulation, and as such, impacts would be significant. With implementation of Mitigation Measure E-1 provided below, noise levels associated with construction activities would be reduced to some extent but would not be reduced below the significance threshold. As such, noise impacts associated with on-site construction noise are considered significant and unavoidable.

In addition to on-site construction noise, haul trucks, delivery trucks, and construction workers would require access to the site throughout the construction duration. While construction workers would arrive from many parts of the region, haul trucks and delivery trucks would generally travel to the Project Site via Soto Street from the Interstate 10 Freeway. Although residential uses are present on the east side of Soto Street, construction traffic would not be present during the noise-sensitive late evening and nighttime hours. As such, potential impacts associated with construction traffic would be less than significant, and no mitigation measures are necessary.

(b) Operation

Operational noise impacts associated with the Original Project could occur from traffic noise; mechanical equipment such as boilers, chillers, pumps, and emergency generators; loading docks and refuse collection/recycling areas; proposed parking structures and surface parking lots associated with the activation of car alarms, sounding of car horns, slamming of car doors, engine revs, and tire squeals; and emergency helipads.

Regarding traffic noise, the incremental Project-related traffic noise level increases would be less than the specified thresholds, as described above, and would be less than significant. In addition, with compliance with City of Los Angeles Noise Ordinance requirements, impacts associated with mechanical equipment would also be less than significant. Noise associated with loading docks and refuse collection/recycling areas, however, could potentially affect the areas located immediately north and west of Development Site D (Juvenile Hall uses). With implementation of Mitigation Measure E-2, provided below, these impacts would be reduced to less than significant. With regard to potential noise impacts associated with proposed parking structures and surface parking lots, noise level increases were determined to be less than the City of Los Angeles Noise Regulation significance threshold at areas adjacent to potential Development Site locations. Lastly, due to the infrequent and emergency-only nature of helipad uses, adverse noise impacts related to such use would be less than significant.

2. Modified Project Impacts

(a) Construction

As previously described, the Modified Project involves modifications to the land use mix of the Original Project. The Modified Project also proposes to improve the existing pedestrian and aesthetic environment along San Pablo Street, Alcazar Street, Eastlake Avenue, Norfolk Street, Biggy Street, Playground Street, and Zonal Avenue between San Pablo Street and Biggy Street. The street improvements and modification to permit student and hotel uses as well as additional medical clinic and non-medical uses would not substantially change the types of construction activities compared to the Original Project. Therefore, peak daily construction activities and resulting noise levels of the Modified Project would be similar to the Original Project. In addition, the development proposed under the Modified Project would continue to be implemented within several of the Development Sites analyzed in the Certified EIR. Thus, as the distance to sensitive receptors and the intensity of construction activities would not change, construction noise levels for the Modified Project would be similar to the Original Project. In addition, the Modified Project would implement the same construction mitigation measure, as applicable, identified for the Original Project. Therefore, the Modified Project would not create any new significant impacts related to construction noise nor result in a substantial increase in a previously identified significant impact. As such, construction noise impacts under the Modified Project would be within the envelope of impact analysis addressed in the Certified EIR.

(b) Operation

As the type and intensity of uses proposed under the Modified Project were specifically developed within the remaining trip generation of the Certified EIR, the volume and distribution of traffic under the Modified Project would be comparable to the Original Project. Thus, similar to the Original Project, operational traffic noise associated with the Modified Project would be less than the specified thresholds. In addition, though the Modified Project involves modifications to the land use mix of the Original Project, the new residential and hotel land uses would not typically involve operations that generate noise levels that would exceed the existing noise levels within and surrounding the HSC or those anticipated under the Original Project. Additionally, noise levels associated with the proposed childcare center outdoor play area would be consistent with existing land uses, including the nearby Lincoln Park and HSC's existing children's daycare center, and are not anticipated to affect nearby sensitive receptors. Furthermore, the Modified Project would implement the same operational mitigation measure, as applicable, that was identified for the Original Project. Thus, the modification to the land use mix would not be anticipated to generate significant noise levels at nearby sensitive receptors and would be considered less than significant. In addition, as required by the City's Code, appropriate noise insulation in the design of the residential and hotel buildings would be provided to

reduce the exterior noise level to 45 dBA CNEL within the interior of the buildings. Therefore, the Modified Project would not result in a new significant and unavoidable impact or substantially worsen a previously identified significant impact with respect to operational noise. As such, operational noise impacts under the Modified Project would be within the envelope of impacts identified in the Certified EIR.

The Modified Project proposed improvements along San Pablo Street, Alcazar Street, Eastlake Avenue, Norfolk Street, Biggy Street, Zonal Avenue between San Pablo Street and Biggy Street, and Playground Street and are not forecasted to generate any new daily trips, based on the Project's traffic analysis. However, the traffic on internal roadways is expected to change distribution patterns as a result of the proposed roadway modifications. In particular, the narrowing of San Pablo Street between Alcazar Street and Eastlake Avenue/Norfolk Street is expected to shift a portion of the current traffic (approximately 40 percent) from this roadway segment to the streets on the loop formed by Alcazar Street, Eastlake Avenue, Norfolk Street, and Playground Street.

This change in roadway traffic volumes was analyzed to determine if traffic-related noise impacts would result from Project development. The Project-generated traffic noise impact is determined by comparing the increase in noise levels from the "future without project" to "future with project" conditions against the Project's significance threshold. The incremental significance threshold for both Project-level and cumulative level traffic noise is 3 dBA CNEL. An increase in traffic noise levels of 3 dBA is equivalent to doubling the traffic volume. Traffic volume along Eastlake Avenue from Alcazar Street to San Pablo Street will increase 40 percent, less than the 50 percent required to reach a 3-dBA increase in noise; therefore, off-site traffic noise impacts associated with the Project would be less than significant, and no mitigation measures would be required.[15]

As previously described, Norfolk Street would be extended from its current terminus at Playground Street to a new intersection with Soto Street. An additional evaluation of traffic noise along this new roadway segment was conducted to determine whether the land uses along this segment would be considered consistent with the City guidelines for Noise/ Land Use Compatibility. The new roadway segment would result in 59.9 dBA CNEL at a distance of 50 feet from the right-of-way. Adjacent land uses along this segment include a neighborhood park and a hospital. According to the City guidelines for Noise/Land Use Compatibility, noise from the new roadway segment at these noise receptors would be well within the "normally acceptable" noise level. As a result, land use compatibility impacts with regard to community noise levels would be less than significant, and no mitigation measures would be required.

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[15] *Gibson Transportation Consulting, Inc., Memorandum, Campus Beautification Project, USC Health Sciences Campus, April 30, 2012.*

3. Mitigation Measures

The mitigation measures set forth in the MMRP included in the Certified EIR and provided below remain applicable to the Modified Project. No additional mitigation measures are required due to the development of the Modified Project.

(a) Construction

Mitigation Measure E-1: Prior to the issuance of any grading, excavation, haul route, foundation, or building permits, the Applicant shall provide proof satisfactory to the Building and Safety Department and Planning Department that all construction documents require contractors to comply with Los Angeles Municipal Code Section 41.40 which requires all construction and demolition activity located within 500 feet of a residence to occur between 7:00 A.M. and 6:00 P.M. Monday through Friday and 8:00 A.M. and 6:00 P.M. on Saturday, and that a noise management plan for compliance and verification has been prepared by a monitor retained by the Applicant. At a minimum, the plan shall include the following requirements:

1. Pile drivers used in proximity to sensitive receptors shall be equipped with noise control having a minimum quieting factor of 10 dB(A);
2. Loading and staging areas must be located on site and away from the most noise-sensitive uses surrounding the site as determined by the Department of Building and Safety;
3. Program to maintain all sound-reducing devices and restrictions throughout the construction phases;
4. An approved haul route authorization that avoids noise-sensitive land uses to the maximum extent feasible; and
5. Identification of the noise statutes compliance/verification monitor, including his/her qualifications and telephone number(s).

(b) Operation

Mitigation Measure E-2: If a loading dock/refuse collection area is proposed to be located on Development Site D, the Applicant shall be required to submit evidence, prior to the issuance of building permits for Development Site D, that is satisfactory to the City of Los Angeles Department of Building and Safety that noise level increases do not cause the baseline ambient noise level to increase beyond the 5-dBA significance threshold at any adjacent property line. This mitigation

measure does not apply to development that may occur on Development Sites A, B, C, E, F, and G.

L. Population and Housing

1. Original Project Impacts

Development associated with the Original Project would occur within an urbanized area with existing infrastructure and roadways, and would not result in the extension of roads or major infrastructure. In addition, development associated with the Original Project would occur on sites that do not contain residential uses and none were proposed as part of the Original Project. The Original Project would also not displace existing housing, nor would it displace numbers of people, necessitating the construction of replacement housing elsewhere. While new employment opportunities would be created by the Original Project, most of the expected employees would be drawn from the existing labor force in the region and would not require the need to relocate or place a demand for housing in the area. It is possible that some of the future employees would be new residents of the area; however, it is unlikely that this growth would be substantial in the context of the growth forecasted for the City of Los Angeles. As such, impacts on population and housing associated with the Original Project would be less than significant, and no mitigation measures are necessary.

2. Modified Project Impacts

The Modified Project proposes 185 new graduate student housing units, which would provide a total of 447 beds. For the purposes of this analysis, the number of beds is used as a surrogate for population. As such, the Modified Project would result in a direct population increase of 447 persons. Therefore, the Modified Project would result in an increase in the residential population within and surrounding the HSC compared to the Original Project. However, this direct population growth would be consistent with the SCAG growth forecast for the City of Los Angeles Subregion. Specifically, the Modified Project population would represent approximately 0.011 percent of the 2014 population (4,199,369) forecasted for the City of Los Angeles Subregion.[16,17] In addition, it is anticipated that the new graduate student housing units would primarily be occupied by the existing student population. As such, the Modified Project is not expected to induce substantial population growth, nor exceed the population forecast for the City of Los Angeles. Additionally, to the extent that the Modified Project helps accommodate the

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[16] *SCAG regional growth forecast adopted for the 2008 Regional Transportation Plan Update (www.scag.ca.gov/forecast/index.htm).*

[17] *Based on a straight-line interpolation between 2005 and 2010 values in the SCAG regional growth forecast adopted with the 2008 Regional Transportation Plan Update. The year 2014 represents the anticipated build-out year of the graduate student housing uses.*

anticipated population growth, its population impacts are considered beneficial. Moreover, with the Modified Project's added supply of student housing, development of the Modified Project would have a beneficial impact on the housing market. Thus, impacts on the local population and housing market would be less than significant under the Modified Project. Such impacts would be within the envelope of impacts set forth in the Certified EIR.

M. Public Services

1. Original Project Impacts

(a) Fire

The Los Angeles Fire Department (LAFD) provides fire protection to the Project Site. The nearest LAFD stations are Station 1 at 2230 Pasadena Avenue and Station 2 at 1962 East Cesar Chavez Avenue, both approximately 1 mile from the Project Site. Both stations feature two engine units and one rescue unit. As the distance from either Station 1 or Station 2 to the Project Site is approximately 1 mile, the Project Site is within the LAMC response distance standard. Notwithstanding, educational, medical research and office buildings as well as the parking structure associated with the Original Project would be constructed to include fire safety features such as sprinklers in accordance with LAMC requirements to ensure adequate fire protection. Furthermore, plan check procedures conducted by the City of Los Angeles during the building permit process would identify additional fire safety features in accordance with applicable standards and would identify any needs for additional measures to assure the adequate provision of fire protection services to the Project Site. As such, the Original Project would result in a less than significant impact related to the provision of fire protection, and no mitigation measures are necessary.

(b) Police

The City of Los Angeles Police Department (LAPD) provides police protection to the Project Site and surrounding area. The Project Site is specifically within the Hollenbeck Community Policing area, which encompasses the communities of El Sereno, Lincoln Heights and Boyle Heights. The Hollenbeck Community Police Station is located at 2111 East 1st Street, approximately 1.5 miles south of the Project Site. The Original Project buildings would be designed with security features, such as controlled access and illumination of public and semipublic spaces to minimize opportunities for criminal activity, thereby reducing the demands placed upon police services. In addition, USC maintains a Department of Public Safety to address safety and security concerns on its campuses. These existing services would be extended to include the Original Project. Based on the above, any Original Project impacts on police protection services are expected to be less than significant, and no mitigation measures are necessary.

(c) Schools

The proposed educational and medical research and office buildings on Development Sites A, B and possibly D and the parking structure on Development Site C and also possibly on Development Site D are non-residential in nature and therefore, would not directly generate school-age children. Though it is expected that most of the new employees would be drawn from the existing labor force in the area, the creation of new employment opportunities may induce new residents to the area. However, any potential new employees are expected to be distributed among the region's several municipalities and school districts and are not expected to contribute a significant number of children to any one school. In addition, the Original Project would be subject to the development fees of the Los Angeles Unified School District. Specifically, Senate Bill 50 (SB 50), enacted in 1998, states that the payment of a fee, charge or other levy pursuant to the provisions of Section 17620 of the Education Code is deemed to provide full and complete mitigation for any impact to school facilities. As such, Original Project development would result in a less than significant impact on schools, and no mitigation measures are necessary.

(d) Parks

There are several park and public recreational facilities within the surrounding area, most notably Hazard Park and Lincoln Park, located southeast and north of the Project Site, respectively. Lincoln Park is located north of Valley Boulevard. The proposed educational, medical research and medical office buildings on Development Sites A, B and possibly D, and the parking structure on Development Site C and also possibly on Development Site D are non-residential in nature. Employees of these buildings are not expected to make significant use of the nearby parks as the majority of the recreational needs of Project-related employees would be met by park facilities near their place of residence or by regional park facilities. In addition, the residences of potential new employees are expected to be distributed among several municipalities and are not expected to result in a significant increase in demand for parks in any specific city, community or neighborhood. Therefore, the Original Project's impacts on parks would be less than significant, and no mitigation measures are necessary.

(e) Libraries and Other Public Services

Other public facilities that would serve the Original Project include libraries, roads and transit, utility systems such as water and sewer infrastructure, as well as other general public facilities. The Original Project is part of an educational and medical campus. The Project is non-residential in nature and most of the expected employees would be drawn from the existing labor force in the region. As such, the Original Project would not directly generate any other new demand for public facilities. Therefore, impacts to other governmental services would be less than significant, and no mitigation measures are necessary.

2. Modified Project Impacts

(a) Fire

The Modified Project's development of graduate student housing units would increase the residential service population of Fire Stations 1 and 2 and would potentially increase the demand for fire protection services as provided by these stations. However, it is anticipated that the new graduate student housing units would be occupied by the existing student population already present within the campus. Therefore, the activity levels under the Modified Project, compared to the Original Project, would represent a minor increase in the overall population served by the fire stations in proximity of the Project Site. Additionally, though the fire fighting resources of Station 1 have been reduced to one engine unit and one rescue unit,[18] compared to what was provided in the Original project, the fire fighting resources of Station 2 have increased to three engine units and one rescue unit.[19] In addition, as with the Original Project, the Modified Project would include any fire safety features in accordance with LAMC requirements and as required by the City during the normal building permit process to provide for the adequate provision of fire protection services to the Project Site. Therefore, sufficient fire fighting and paramedic resources are anticipated to be available to meet the minor increased demand attributable to the Modified Project. Furthermore, as the type and intensity of uses proposed under the Modified Project were specifically developed within the remaining trip generation of the Certified EIR, the volume and distribution of traffic under the Modified Project would be comparable to the Original Project. Thus, the Modified Project would not interfere with emergency vehicle access to the Project Site. Additionally, as set forth in the memorandum from the Los Angeles Fire Department included as Appendix F, the Los Angeles Fire Department has determined that no significant impacts with respect to emergency access or fire protection services would occur as a result of the Modified Project.

Based on the above, the Modified Project would not create any new impacts with respect to fire protection services nor increase the severity of any previously identified impacts. Therefore, impacts on fire protection services would be less than significant and within the envelope of impacts identified in the Certified EIR.

(b) Police

The LAPD utilizes an area's resident population to determine service needs, in the form of an officer-to-resident ratio. As the Modified Project would involve a change in the land use mix of the Original Project and develop new graduate student housing units, the

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[18] *Personal communication with Captain Ponce of Station 1. April 10, 2012.*

[19] *Personal communication with Captain George Perez of Station 2. April 11, 2012.*

Modified Project would increase the residential population and potentially increase the demand for police protection services over the Original Project. However, it is anticipated that the new graduate student housing units would be occupied by the existing student population that would already be present within the campus. Furthermore, the Modified Project would implement the same security features identified for the Original Project and the USC Department of Public Safety would continue to address safety and security concerns within the HSC. Therefore, any impacts on police protection services associated with the Modified Project are expected to be less than significant. Such impacts would be within the envelope of impacts identified in the Certified EIR.

(c) Schools

The Modified Project would result in a direct increase in the residential population and an associated increase in the demand for schools within the Los Angeles Unified District service area. However, development of the Modified Project would be subject to the school fees required by Government Code Section 65995. The payment of these development fees constitutes full mitigation of school impacts, and thus impacts under the Original Project would be less than significant. Such impacts on schools would be within the envelope of impacts identified in the Certified EIR.

(d) Parks

The demand for parks and recreational services is primarily the function of the amount of residential development in an area, as an area's residents are considered the primary users of parks and recreation facilities. Therefore, the Modified Project's new student housing population of approximately 447 persons is anticipated to result in some increased use of the nearby Lincoln and Hazard Parks and other existing neighborhood, community, and regional parks. The Modified Project would provide open-space areas and recreational amenities as part of development of the new student housing units. In addition, the student housing component would satisfy the City's open space requirements as set forth in the LAMC. Accordingly, the Modified Project is not anticipated to result in significant impacts to parks and such impacts would be within the envelope of impacts set forth in the Certified EIR.

(e) Libraries and Other Public Services

Library services within the Project area are provided by the City of Los Angeles Public Library (LAPL) and also within the HSC. The closest public libraries to the Project Site are the Malabar Library located at 2801 Wabash Avenue, Benjamin Franklin Library located at 2200 East 1st Street, and the Lincoln Heights Library located at 2530 Workman

Street, all approximately 1 mile from the Project Site.[20] As the Modified Project would result in an increase in the residential population, the Modified Project would generate a direct increase in the demand for library services. However, as the proposed new graduate student housing units would be occupied primarily by the existing student population already present within the campus, the actual demand on library resources for professional daytime use by Modified Project residents would be minimal, particularly since student research needs are commonly met by in-house or on-line reference resources. Therefore, the Modified Project would result in less than significant impacts on library facilities and such impacts would be within the envelope of impacts identified in the Certified EIR.

N. Recreation

1. Original Project Impacts

There are several park and public recreational facilities within the surrounding area, most notably Hazard Park and Lincoln Park. The Original Project does not propose residential uses, which could create a direct demand for parks and recreational facilities. While new employment opportunities would be provided by the Original Project, these employees are not expected to make significant use of the nearby parks. In addition, the majority of the recreational needs of employees would be met by park facilities near their place of residence or by regional park facilities. As the residences of potential new employees are expected to be distributed among several municipalities, use of parks and other recreational facilities by potential new employees is not expected to result in a significant increase in demand for parks in any specific city, community or neighborhood. Therefore, potential impacts to parks or other recreational facilities resulting from the Project would be less than significant, and no mitigation measures are necessary.

2. Modified Project Impacts

The demand for parks and recreational services generated by a project is primarily a function of the amount of residential development that is being proposed. Therefore, the Modified Project's new residential population associated with the proposed 185-unit graduate student housing component would result in an increase in the residential population, which could result in a corresponding increase in the use of the nearby Lincoln and Hazard Parks and other existing neighborhood, community, and regional parks and recreational facilities. However, it is anticipated that the new graduate student housing units would be occupied by the existing student population present within the campus, which may already use nearby recreational facilities. Furthermore, the Modified Project would satisfy the City's open space requirements as set forth in the LAMC. Thus, the

[20] *Los Angeles Public Library, Find a Library Near You, Selection for "90033," www.lapl.org/maps/branch_googlemap.php?zipcode=90033, accessed March 27, 2012.*

Modified Project would not substantially increase the use of off-site neighborhood and regional parks and recreational facilities, nor would it substantially increase demand for recreation programs. Modified Project impacts on recreation facilities would be less than significant. Such impacts would be within the envelope of impacts set forth in the Certified EIR.

O. Traffic, Circulation, and Parking

1. Original Project Impacts

(a) Construction

Depending upon the specific nature of the construction activity (e.g., demolition, excavation, or concrete pouring), it was assumed that the majority of truck traffic would be distributed evenly across the workday and thus would not significantly interfere with HSC traffic patterns. In addition, any temporary lane closures during construction would normally be limited to between 9:00 A.M. and 3:00 P.M. In the event temporary lane closures are required, flag men would be used to control traffic movement during ingress or egress of trucks and heavy equipment from the construction site. As such, though Original Project construction may create a temporary inconvenience to auto travelers, bus riders, and pedestrians, with the required haul route approval and implementation of general construction management practices and specific project design features, Original Project traffic impacts during construction would be less than significant.

(b) Operation

In order to identify streets and intersections most likely to be impacted by Original Project traffic, the following 18 study intersections in the Project vicinity were identified in consultation with the LADOT. In addition, pursuant to LADOT's traffic study guidelines, Level of Service calculations were prepared for six scenarios. A summary of the potential Original Project traffic impacts for each scenario is provided further below.

1. I-5 Freeway Southbound (SB) Off-Ramp and Avenue 21-Main Street
2. I-5 Freeway SB Ramps and Mission Road
3. I-5 Freeway Northbound (NB) Off-Ramp and Daly Street-Main Street
4. Daly Street and Main Street
5. Mission Road and Daly Street-Marengo Street
6. I-5 Freeway NB On-Ramp and Marengo Street

7. Mission Road and Griffin Avenue-Zonal Avenue
8. Mission Road and Valley Boulevard
9. Mission Road and Main Street
10. Biggy Street and Zonal Avenue
11. San Pablo Street and Valley Boulevard
12. San Pablo Street and Alcazar Street
13. San Pablo Street and Eastlake Avenue-Norfolk Street
14. San Pablo Street and Zonal Avenue
15. Soto Street and Alcazar Street
16. Soto Street and I-10 Freeway Westbound (WB) Ramps-Charlotte Street
17. Soto Street and Marengo Street
18. Soto Street and I-10 Freeway Eastbound (EB) Off-Ramp-Wabash Avenue

(1) Traffic

Under a program consisting of 120,000 square feet of medical clinic facilities and 465,000 square feet of academic and medical research space, the Original Project is expected to generate 753 vehicle trips (613 inbound trips and 140 outbound trips) during the A.M. peak hour. During the P.M. peak hour, the Original Project is expected to generate 774 vehicle trips (161 inbound trips and 613 outbound trips). Over a 24-hour period, the Original Project is forecast to generate 7,715 daily trips during a typical weekday.

Existing Conditions

Under the Certified EIR existing conditions, 16 of the 18 study intersections were operating at LOS D or better during both the A.M. and P.M. peak commuter hours. The remaining two intersections (Intersections 2 and 16) were noted to be operating at LOS E during the A.M. peak hour only.

Future Plus Project Conditions

With the addition of ambient growth traffic, 15 of the 18 study intersections are expected to continue operating at LOS D or better during both the A.M. and P.M. peak commuter hours, except for: Intersection 2 (LOS F during the A.M. peak hour);

Intersection 5 (LOS E during the P.M. peak hour); and Intersection 16 (LOS F during the A.M. peak hour and LOS E during the P.M. peak hour).

Future with Related Projects

With the addition of ambient growth traffic and the traffic due to the related projects, 14 of the 18 study intersections are forecasted to operate at LOS D or better during both the A.M. and P.M. peak commuter hours, except for: Intersection 2 (LOS F during the A.M. peak hour); Intersection 5 (LOS E during the A.M. and P.M. peak hour); Intersection 16 (LOS F during the A.M. and P.M. peak hour); and Intersection 17 (LOS E during the P.M. peak hour).

Future with Parking Scenario Nos. 1 and 2

In order to provide a conservative analysis of the Original Project's potential traffic impacts, two parking scenarios were developed that reflect the greatest concentration of Original Project-related traffic on the local roadway system. Parking Scenario No. 1 assumes that parking for the Original Project would be provided entirely within Development Site C. Parking Scenario No. 2 assumes that parking for the Original Project would be provided entirely within Development Site E or in combination of Development Sites E and F. Under these assumptions, 11 of the 18 study intersections would be significantly impacted by the development of the Original Project under both parking scenarios. Nine of the 11 impacted intersections would be the same intersections under both parking scenarios. These nine intersections, which would be impacted under both parking scenarios include Intersections 2, 3, 5, 6, 12, 14, 16, 17, and 18. In addition, Intersections 7 and 10 would be impacted under Parking Scenario No. 1 and Intersections 8 and 15 would be impacted under Parking Scenario No. 2.

Other Potential Traffic Impacts

Project impacts with regard to facilities under the jurisdiction of the Los Angeles County Congestion Management Plan would be less than significant. In addition, with regard to the Union Pacific crossing on San Pablo Street, south of Valley Boulevard, it is conservatively concluded that a potentially significant impact could occur during the periods of time when traffic is diverted due to train(s) blocking San Pablo Street. This potential impact would be temporary in nature and would be alleviated once San Pablo Street is available as a through traffic route.

Traffic Impacts with Implementation of Mitigation Measures

After implementation of the Parking Scenario No. 1 mitigation measures provided below, impacts at seven of the 11 significantly impacted intersections would be reduced to a less than significant level. In addition, no feasible mitigation measures are available to

reduce the traffic impacts to a less than significant level at three of the remaining four intersections. The three intersections include Intersections 5, 7, and 16. Impacts at the fourth location, Intersection 17, may be reduced to a less than significant level with implementation of the applicable mitigation measure. However, as formal approval of the proposed improvements was not provided, the Certified EIR conservatively concluded that Original Project development would result in a significant traffic impact at Intersection 17.

With implementation of Parking Scenario No. 2 mitigation measures, impacts at eight of the 11 significantly impacted intersections would be reduced to a less than significant level. No feasible mitigation measures are available to reduce the traffic impacts to a less than significant level at two of the remaining three intersections. These two intersections include Intersections 8 and 5. Impacts at the third location, Intersection 17, would be the same as identified above under Parking Scenario No. 1.

As discussed above, trains currently slow or stop at the existing at-grade Union Pacific Railroad crossing immediately south of Valley Boulevard, causing vehicle queuing and occasionally rerouting of local traffic. An existing Public Utilities Commission ordinance limits the duration that trains can block at-grade crossings. However, enforcement of this ordinance is outside the authority of decision-makers associated with the Original Project. Thus, absent either enforcement of the PUC ordinance or a relocation of the train stoppage point, the Original Project would potentially contribute to an existing significant impact.

(2) Access

With regard to access, the intersections that provide access to the Project Site are projected to operate at LOS D or better under the future cumulative analysis conditions (i.e., future with Original Project and Original Project mitigation conditions). Thus, Original Project development would result in a less than significant access impact.

(3) Parking

A net increase of 2,072 parking spaces is calculated for future parking facilities under both Parking Scenario No. 1 and Parking Scenario No. 2. As described above, under Parking Scenario No. 1, parking would be provided only on Development Site C, and under Parking Scenario No. 2, parking would be provided in Development Site E or in a combination of Development Sites E and F. The net increase of 2,072 would exceed the Code requirement of 1,423 to 1,548 spaces, depending on the future mix of developed land uses. The future parking supply for the USC Health Sciences Campus would increase to approximately 5,870 spaces (i.e., 3,798 existing + 2,072 net future = 5,870 spaces). Thus, the future parking supply of 5,870 spaces is anticipated to satisfy the Original Project's future Code parking requirement. In addition, based on a peak existing parking demand of

3,132 spaces and a future peak demand of up to approximately 1,985 spaces, a total future peak parking demand of 5,117 spaces (3,132 + 1,985 = 5,117 spaces) would result. Therefore, as the available parking supply would exceed the HSC's future parking demand, parking impacts would be less than significant.

2. Modified Project Impacts

(a) Construction

Traffic and access impacts during construction of the Modified Project are anticipated to be similar to those described above for the Original Project. Specifically, as with the Original Project, it is anticipated that any trucks/construction equipment needed for construction of the Modified Project would be brought on the Project Site and be stored within the perimeter fence of the designated construction site. Thus, no staging of equipment is expected to occur on the perimeter public streets. In addition, as with the Original Project, the number of trucks hauling any export materials would be distributed throughout the duration of construction so as to minimize the number of haul trucks per day. Furthermore, similar to the Original Project, in the event of any temporary lane or sidewalk closures, flagmen would be used to control traffic movement during ingress or egress of trucks and heavy equipment from the construction site. Additionally, as with the Original Project, the Modified Project would prepare a Truck Haul Route program as part of the City's permitting process, which will be submitted to the City for review and approval prior to the issuance of a building permit. In addition, in order to minimize potential conflicts between construction activity and through traffic, the Modified Project would include a project design feature requiring a Construction Management Plan to be implemented during construction. Features of the Construction Management Plan may include: limiting potential lane closures to off-peak travel periods, to the extent feasible; maintaining existing access for adjacent uses; prohibiting parking by construction workers on adjacent streets and directing construction workers to utilize on-site or other HSC-designated parking areas; scheduling receipt of construction materials during non-peak travel periods, to the extent feasible; and complying with approved construction traffic control plans that identify traffic control measures, signs, delineators, etc., to be implemented by the construction contractor throughout the duration of construction. With implementation of the Truck Haul Route program, the Construction Management Plan, the off-peak arrival and departure of construction-related trips, and other construction management practices described above, construction traffic impacts would be less than significant under the Modified Project. Such impacts would be within the envelope of impacts addressed in the Certified EIR.

(b) Operation

To evaluate whether the proposed modifications to the Original Project would result in potential traffic impacts, Gibson Transportation Consulting, Inc. reviewed potential traffic conditions associated with the Modified Project as part of the Traffic Memorandum

summarized below and included as Appendix D. A memorandum from the Los Angeles Department of Transportation regarding the proposed modifications is provided as Appendix G. As set forth therein, the specific design details associated with the proposed improvements related to roadway striping, crosswalks, turning radii, and installation of traffic control devices would be subject to review and approval by the Los Angeles Department of Transportation's design staff as part of the Bureau of Engineering's B-permit process.

(1) Traffic

As previously described, since preparation of the Certified EIR, the 62,500 square foot Broad Center has been completed and is currently in operation. In addition, the 102,600 square foot HCC III, which includes 92,700 square feet of medical clinic facilities and 9,900 square feet of non-clinical facilities has been proposed and is currently in the site plan review process. Using the same methodology, assumptions, and trip generation rates from the Certified EIR, these two development components are expected to generate a total of 4,096 daily trips, including a total of 300 A.M. and 350 P.M. peak-hour trips. As provided above, the Original Project was anticipated to generate 753 A.M. and 774 P.M. peak-hour trips and a total of 7,715 daily trips. Thus, when accounting for the A.M. and P.M. peak-hour trips generated by these two projects, the number of remaining peak-hour trips available for the Modified Project within the trip envelope analyzed in the Certified EIR would be 453 A.M. and 424 P.M. peak-hour trips or approximately 55 percent of the trip generation forecasted for the Original Project. These remaining peak-hour trips are used in the analysis below to determine whether the development proposed under the Modified Project would be within the peak-hour trips set forth in the Certified EIR.

Additionally, as also described above, other improvement projects currently underway within the HSC include the Los Angeles Department of Water and Power Utilities Project, which involves the undergrounding of all existing overhead communication and energy transmission lines within the HSC; the Norfolk Street extension; and modifications to the in-patient and out-patient circulation system. As previously described, with the Norfolk Street extension, Norfolk Street will be extended from its current eastern terminus at Playground Street to a new intersection with Soto Street. This will provide an additional major access point to the HSC and will be designated as the primary entrance for hospital in-patient visitors. It is anticipated that upon completion of the Norfolk Street extension, 40 percent of the traffic currently entering the HSC via Alcazar Street and 20 percent of the traffic currently entering the HSC via San Pablo Street at Zonal Avenue would shift from those access points to the new gateway at Norfolk Street and Soto Street. Additionally, as part of the modifications to the in-patient and out-patient circulation, use of San Pablo Street between Alcazar Street and Eastlake Avenue/Norfolk Street as an access point would be reduced. While these projects are not a part of the Modified Project, they are described here as they are currently anticipated to be completed and in operation at

buildout of the Modified Project. In addition, the Norfolk Street extension and the modifications to the in-patient and out-patient circulation system, in particular, would modify existing circulation patterns within the HSC. These modifications are accounted for in the traffic analysis provided below.

Modified Project Traffic

Trip generation forecasts for the Modified Project were prepared for each of the four development options described above in Section III, Project Description, based on the same methodology, trip generation rates of the academic and medical-related facilities, and assumptions used in the Certified EIR.[21] Trip generation rates for the proposed student housing and hotel components were based on the Institute of Transportation Engineers Trip Generation, 8th Edition. Consistent with the Certified EIR, the trip generation forecasts include adjustments for internal capture to account for the synergy between the existing HSC and land uses proposed under the Modified Project. It should be noted that the trip generation estimates are conservative as trip reductions from travel demand management program measures (i.e., USC sponsored shuttles, carpooling programs, transit subsidies, etc.) or transit were not considered. Based on these assumptions, the Traffic Memorandum determined that Option 1 would generate the greatest number of A.M. peak-hour trips, while Option 4 would generate the greatest number of P.M. peak-hour trips. Specifically, Option 1 is forecast to generate a total of 426 net new trips during the weekday A.M. peak hour and Option 4 is forecast to generate 423 P.M. peak-hour trips. Therefore, even when accounting for the most conservative development options, the number of trips under the Modified Project would be below the 453 A.M. and 424 P.M. remaining peak-hour trips entitled for the Modified Project.

It should also be noted that the peak-hour trip generation directional distribution (i.e., inbound and outbound trips) for the Modified Project would be slightly different than the Original Project trip generation. This difference is likely due to the incorporation of the proposed graduate student housing and hotel land uses as compared to development of only medical clinical and research and development uses under the Original Project. The residential-related inbound and outbound trips are such that they would operate counter to the dominant flow of traffic to the campus (i.e., the medical clinical and research and development uses). For example, medical clinic-related traffic would be an inbound during the morning peak hour and outbound during the afternoon peak hour, whereas the student housing traffic would be the opposite with outbound trips during the morning peak hour and

[21] *As indicated in the Traffic Assessment, the year 2010 traffic volumes for most of the selected intersections are consistently lower than the year 2004 traffic volumes during the morning and afternoon peak hours. The higher 2004 traffic volumes contained in the Certified EIR suggest that the ambient traffic growth and projected related projects traffic volumes were overestimated. As such, use of the 2004 traffic count data and associated forecast traffic volumes in the Traffic Assessment is valid and results in a conservative analysis of traffic impacts.*

inbound trips during the afternoon peak hour. Regardless, the small number of trips would be distributed throughout the campus and gateways, resulting in a dissipation of traffic at the study intersections. As such, the differences in directional distribution are not anticipated to result in significant impacts at the study intersections based on a review of the level of service (LOS) and increases in the Critical Movement Analysis (CMA) values shown in the Certified EIR.

As the Modified Project also proposes modifications along the majority of the internal roadways, the Traffic Memorandum also included an analysis of the ability of the new roadway configuration to handle the expected traffic levels. This is assessed by calculating the volume-to-capacity (V/C) ratio. As described in the Traffic Memorandum, the V/C ratio is determined by dividing the 24-hour traffic volume by the roadway capacity. The V/C ratio is then used to assess the LOS of the roadway on a scale from LOS A, representing nearly free-flow conditions, to LOS F, representing over-capacity conditions. As previously described, as part of the Modified Project, the majority of the internal HSC roadways would be reclassified to facilitate an orderly traffic circulation pattern around the core of the HSC and minimize pedestrian/vehicular conflicts. In particular, San Pablo Street would be deemphasized, especially between Alcazar Street and Eastlake Avenue/Norfolk Street in order to discourage automobile traffic through the center of the campus. With implementation of the proposed roadway modifications, the distribution pattern of traffic on internal roadways is expected to change. Specifically, the narrowing of San Pablo Street between Alcazar Street and Eastlake Avenue/Norfolk Street would deter many motorists from using this stretch of road and encourage drivers to circulate the roadway system via the loop formed by Alcazar Street, Eastlake Avenue, Norfolk Street, and Playground Street. While the Modified Project would result in a redistribution of traffic within the HSC, the Modified Project would continue to be within the remaining peak-hour trips for the Campus identified in the Certified EIR. In addition, as most roadways would maintain the same number of lanes compared to existing conditions,[22] the Modified Project would not exceed existing roadway capacities.

Future Roadway Conditions with Implementation of the Project

As described further in the Traffic Memorandum, in order to ensure that the proposed roadway modifications would provide sufficient capacity to serve the long-term growth of the HSC and other facilities adjacent to HSC, an analysis of future conditions was

[22] *As previously noted, Table 13 of the Traffic Memorandum provided in Appendix D demonstrates that the existing number of lanes would be maintained along most roadway segments, with the exception of the roadway segment at Alcazar Street from San Pablo Street to Playground Street, which would include an additional eastbound traffic lane. Also shown in Table 13 of the Traffic Memorandum, roadway capacities would generally be maintained or increased with the exception of the roadway segment at San Pablo Street from Alcazar Street to Eastlake Avenue/Norfolk Street, which would be reduced due to the removal of the center turn lane separating the northbound and southbound lanes.*

also conducted. The future conditions analysis was conservatively based on a 30-year horizon with 3 percent compounding traffic growth each year, for a total of 142 percent growth. The resulting future traffic conditions (with and without the proposed roadway modifications) analysis is provided in Table 14 of the Traffic Memorandum. As provided therein, under future conditions (without the proposed roadway modifications) all roadway segments would operate at an LOS A with the exception of Norfolk Street (between San Pablo Street and Playground Street), which is expected to operate at an LOS D. As shown in Table 14 of the Traffic Memorandum, with the modified roadway classification and dimensions proposed as part of the Modified Project, all of the street segments are anticipated to continue to operate at an LOS A, with the exception of Norfolk Street, which would be improved to a LOS C and LOS B in the eastbound and westbound directions, respectively. Future operations along Alcazar Street from San Pablo Street to Playground Street are also anticipated to improve with the Modified Project.

Conclusion

Based on the above, it is concluded that any of the Modified Project options could be developed within the trip generation analyzed in the Certified EIR. In addition, it is noted that the Modified Project in combination with the trips generated by the Broad Center and the HCC III would result in fewer P.M. peak-hour trips than analyzed in the Certified EIR. Furthermore, existing and future traffic volumes would be accommodated within the proposed roadway classifications and capacities. As such, development of the Modified Project would not alter the conclusions nor result in any additional impacts or cause a substantial increase in the severity of the traffic impacts of the Certified EIR. As such, traffic impacts associated with the Modified Project would be within the envelope of traffic impacts addressed in the Certified EIR.

(2) Access

Access to the graduate student housing and hotel site is planned to be provided via San Pablo Street and shared with the driveway to the surface parking lot. Access to HCC III and HCC IV is planned to be provided via driveways along Alcazar Street. As indicated above, the Modified Project is not anticipated to result in significant impacts at the study intersections. Therefore, as with the Original Project, access impacts under the Modified Project would also be less than significant. Such impacts would be within the envelope of impact set forth in the Certified EIR.

(3) Parking

Parking associated with the Modified Project would be provided such that the total parking requirements for the land uses within the HSC would be satisfied within the total parking supply at the HSC. Therefore, similar to the Original Project, as there would be

parking available within the HSC to meet the anticipated parking demand, parking impacts under the Modified Project would also be less than significant. Such impacts would be within the envelope of impacts addressed in the Certified EIR.

3. Mitigation Measures

A traffic mitigation sequencing program was established and outlined in the LADOT assessment letter. Some of the mitigation measures have been completed and several others are underway, as indicated where appropriate below. The balance of the mitigation measures remains applicable to the Modified Project. No additional mitigation measures are required due to the development of the Modified Project.

(a) Parking Scenario No. 1

Mitigation Measure C-1: **Intersection No. 2: I-5 Freeway SB and Mission Road**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during the A.M. and P.M. peak commuter hours. Mitigation for this intersection consists of widening the southbound off-ramp to provide an additional lane. The off-ramp would provide one left-turn only lane, one combination left-turn/through lane and one right-turn only lane. A traffic signal modification would also be required.

[This mitigation measure set forth in the MMRP and included in the Certified EIR is underway.]

Mitigation Measure C-2: **Intersection No. 3: I-5 Freeway NB Off-Ramp and Daly Street–Main Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during the A.M. peak commuter hour. Mitigation for this intersection consists of the installation of a traffic signal at this location.

Mitigation Measure C-3: **Intersection No. 6: I-5 Freeway NB On-Ramp and Marengo Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during the P.M. peak commuter hour. Mitigation for this intersection consists of the installation of an eastbound right-turn only lane. This measure will involve a lengthening of the red curb along the south side of Marengo Street west of the on-ramp.

Mitigation Measure C-4: **Intersection No. 10: Biggy Street and Zonal Avenue**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during both the A.M. and P.M. peak commuter hours. Mitigation for this intersection consists of restriping the southbound approach to provide one left-through lane and one right-turn only lane and restriping the eastbound approach to provide one left-turn lane and one optional through/right-turn only lane.

Mitigation Measure C-5: **Intersection No. 12: San Pablo Street and Alcazar Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during the A.M. peak commuter hour. Mitigation for this intersection consists of the installation of a traffic signal at the location. Traffic signal warrant analyses have been completed for the intersection.

[This mitigation measure set forth in the MMRP and included in the Certified EIR is underway.]

Mitigation Measure C-6: **Intersection No. 14: San Pablo Street and Zonal Avenue**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during the P.M. peak commuter hour. Mitigation for this intersection consists of installation of a traffic signal at this location.

Mitigation Measure C-7: **Intersection No. 16: Soto Street and I-10 Freeway WB Ramps–Charlotte Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during both the A.M. and P.M. peak commuter hours. Partial mitigation for this intersection consists of the previously City reviewed and approved mitigation measure associated with the HNRT project. The previously reviewed and approved mitigation measure involves the widening of the I-10 Freeway Westbound Off-ramp to provide an additional right-turn only lane. The Preliminary Engineering Evaluation Report document is currently in preparation and will be submitted to the California Department of Transportation for review.

[This mitigation measure set forth in the MMRP and included in the Certified EIR has been completed.]

Mitigation Measure C-8: **Intersection No. 17: Soto Street and Marengo Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during both the A.M. and P.M. commuter peak hours. Mitigation for this intersection consists of the removal of the raised median islands on Soto Street, north and south of Marengo Street, restriping the northbound and southbound approaches to provide dual left-turn lanes, two through lanes and one combination through/right-turn lane, as well as a traffic signal modification. This measure has only received conceptual approval at this time.

Mitigation Measure C-9: **Intersection No. 18: Soto Street and I-10 Freeway EB Off-Ramp–Wabash Avenue**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 1 during the A.M. peak commuter hour. Mitigation for this intersection consists of restriping Soto Street, south of Wabash Avenue, within the existing roadway pavement width, to provide an additional northbound through lane.

(b) Parking Scenario No. 2

Mitigation Measure C-10: **Intersection No. 2: I-5 Freeway SB and Mission Road**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during the A.M. and P.M. peak commuter hours. The aforementioned traffic mitigation measure recommended for Parking Scenario No. 1 for the I-5 Freeway SB and Mission Road intersection also would be applicable to Parking Scenario No. 2.

Mitigation Measure C-11: No. 3: I-5 Freeway NB Off-Ramp and Daly Street–Main Street—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during the A.M. peak commuter hour. The aforementioned traffic mitigation measure recommended for Parking Scenario No. 1 for the I-5 Freeway NB Off-Ramp and Daly Street-Main Street intersection also would be applicable to Parking Scenario No. 2.

Mitigation Measure C-12: Intersection No. 6: I-5 Freeway NB On-Ramp and Marengo Street—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during the P.M. peak commuter hour. The aforementioned traffic mitigation measure recommended for Parking Scenario No. 1 for the I-5 Freeway NB On-Ramp and Marengo Street intersection also would be applicable to Parking Scenario No. 2.

Mitigation Measure C-13: **Intersection No. 12: San Pablo Street and Alcazar Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during the A.M. and P.M. peak commuter hours. The aforementioned traffic mitigation measure recommended for the Parking Scenario No. 1 for the San Pablo Street and Alcazar Street intersection also would be applicable to Parking Scenario No. 2.

Mitigation Measure C-14: Intersection No. 14: San Pablo Street and Zonal Avenue—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during the P.M. peak commuter hour. The aforementioned traffic mitigation measure recommended for Parking Scenario No. 1 for the San Pablo Street and Zonal Avenue intersection also would be applicable to Parking Scenario No. 2.

Mitigation Measure C-15: Intersection No. 15: Soto Street and Alcazar Street—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during the A.M. and P.M. peak commuter hours. Mitigation for this intersection includes the installation of a second northbound left–turn lane and widening along the south side of Alcazar Street, west of Soto Street, to provide a fourth eastbound approach lane (i.e., the eastbound approach would provide one left-turn lane, one combination left-through lane and two right-turn only lanes). A traffic signal modification would also be required.

[This mitigation measure set forth in the MMRP and included in the Certified EIR has been completed.]

Mitigation Measure C-16: **Intersection No. 16: Soto Street and I-10 Freeway WB Ramps—Charlotte Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during both the A.M. and P.M. peak commuter hours. The aforementioned traffic mitigation measure recommended for Parking Scenario No. 1 for the Soto Street and I-10 Freeway WB Ramps-Charlotte Street intersection also would be applicable to Parking Scenario No. 2.

Mitigation Measure C-17: **Intersection No. 17: Soto Street and Marengo Street**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during both the A.M. and P.M. commuter peak hours. The aforementioned traffic mitigation measure recommended for Parking Scenario No. 1 for the Soto Street and Marengo Street intersection also would be applicable to Parking Scenario No. 2. This measure has only received conceptual approval at this time.

Mitigation Measure C-18: **Intersection No. 18: Soto Street and I-10 Freeway EB Off-Ramp–Wabash Avenue**—The intersection is anticipated to be significantly impacted by Parking Scenario No. 2 during the A.M. peak commuter hour. Mitigation for this intersection consists of restriping Soto Street, south of Wabash Avenue, within the existing roadway pavement width, to provide an additional northbound through lane.

P. Utilities/Service Systems

1. Original Project Impacts

(a) Water

The majority of water use during construction would be associated with dust suppression of excavated sites. This is generally performed by water trucks which derive non-potable water from off-site sources. As such, the impact on treated water from the Los Angeles Department of Water and Power (LADWP) and on adjacent water conveyance systems would be incrementally small. The Original Project would also require construction of water lines from each Development Site for domestic water and for fire sprinkler and suppression systems. Impacts due to construction of water services include minor temporary traffic lane disruption during trenching, laying of pipe, backfilling, and street resurfacing. Standard practices and procedures, including traffic control, are generally implemented by LADWP during construction to reduce the impact to the community. As such, no significant impact to water resources is anticipated to occur during construction of the Original Project and no mitigation measures are necessary.

Operation of the Original Project is anticipated to consume an estimated total of 208,704 to 266,304 gallons per day (gpd) of potable water during the day in which the Original Project is fully occupied at buildout. Conservatively assuming the average daily demand for water is extended over 365 days per year, the projected annual consumption for the entire project at buildout would be a maximum of 97.20 million gallons annually. This represents an increase of 0.04 percent over the annual volume of water supplied by the LADWP in fiscal year 2004. In addition, LADWP has concluded via the Original Project's WSA that adequate water supplies exist to serve the maximum proposed development. Therefore, the water demand of the Original Project would be less than significant in relation to the Urban Water Management Plan and with state water statutes. In addition, the Original Project would not exceed distribution infrastructure capabilities or create a significant impact relative to the existing conveyance system. Furthermore, fire flow would be adequate to meet LAFD requirements. Therefore, the Original Project would generate a less than significant impact in relation to water supply and water conveyance systems.

(b) Sewer

During construction, a negligible amount of wastewater would be generated by construction personnel. It is anticipated that portable toilets would be provided by a private company and the waste disposed of off-site. Wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows at a time when a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained. Additionally, construction is not anticipated to generate wastewater flows that would substantially or incrementally exceed the future scheduled capacity of any treatment plant by generating flows greater than those anticipated in the City Wastewater Facilities Plan. Furthermore, impacts due to construction of lateral lines from the Development Sites to the sewer lines in the public right-of-way would be limited to minor traffic lane disruption. Standard practices and procedures, including traffic control, would be implemented to reduce the impact to the community. Therefore, construction impacts to the local wastewater conveyance and treatment system would be less than significant and no mitigation is required.

Anticipated sewage flow for the Original Project at buildout would range from 163,050 to 208,050 gallons per day. The regional wastewater treatment facility at the Hyperion Treatment Plant (HTP) has been improved to provide capacity for the incremental increase in sewage generated by anticipated growth in the City of Los Angeles. In addition, all projects served by the Hyperion Treatment System are subject to the Sewer Allocation program, which limits additional discharge according to a pre-established percentage rate. If the allotment for a particular time period (usually a month) has already been allocated, the project is placed on a waiting list until adequate treatment capacity has been determined. Under the allocation program, HTP has capacity to serve a particular rate of

growth. Since the Project Site is located in an area designated for commercial and public facility uses, the Original Project's additional wastewater flows would not substantially or incrementally exceed the future scheduled capacity of the HTP by generating flows greater than those anticipated in the Wastewater Facilities Plan or City General Plan. Furthermore, the Applicant would be subject to the payment of a sewerage facilities charge for the development at the Health Sciences Campus. Based on the preceding, no significant impacts in relation to treatment capacity would occur.

The sewer conveyance system serving the Development Sites includes sewer lines in Eastlake Avenue, San Pablo Street, Alcazar Street, Biggy Street, and Zonal Avenue. Since all sewer lines serving the Development Sites have adequate capacity to serve the maximum projected flow from each of the Development Sites, Original Project impacts relative to sewer line capacity is concluded to be less than significant.

(c) Solid Waste

The disposal of solid waste generated within the City of Los Angeles, as well as throughout all of Los Angeles County, is a shared responsibility of the County of Los Angeles, the cities within Los Angeles County, County Sanitation Districts, private industry, and other stakeholders. A total of approximately 23.8 million tons of solid waste was generated throughout Los Angeles County in 2003. This total is forecasted to increase to 27.5 million tons in 2015. The 2003 Annual Report to the Los Angeles County Integrated Waste Management Plan concluded that there is enough capacity within permitted solid waste facilities (i.e., landfills) to serve Los Angeles County through the 15-year planning period of 2003–2018. With regard to inert landfills, the County's 2003 Annual Report, indicated that based on disposal rates during the preparation of the County's 2003 Annual Report, capacity within existing inert landfills would be available for approximately 60 years (i.e., around 2065). Based on this data, it was concluded that there would be no anticipated shortfall in disposal capacity for inert waste within the County.

Total solid waste generated by all Original Project construction activity is conservatively forecasted to total approximately 28,426 tons. Based on this forecast, Original Project generated construction-related waste (i.e., asphalt and construction debris) would represent a small percentage (0.04 percent) of the inert waste disposal capacity in the region. This level of impact constitutes a less than significant impact, as the Original Project would not create a need for additional solid waste disposal facilities to adequately handle Project-generated inert waste. Furthermore, this estimate is very conservative as it assumes no construction debris would be recycled. Therefore, impacts relative to construction waste would likely be far less based on the Applicant's construction practices that include recycling of debris.

During operations, a total of approximately 1.7 and 423.7 tons of solid waste would be generated on a daily and annual basis, respectively, based on the maximum amount of development that could occur under the Original Project. Of these totals, approximately 6 percent of the solid waste generated would be medical waste that would be treated to acceptable standards prior to landfill disposal. In addition, the Applicant would continue to implement its comprehensive program of recycling municipal solid waste generated at all of its facilities. This program consists of the following three components: (1) recycling; (2) waste to energy; and (3) material recovery. The University is also committed to an ever-expanding recycling program. On an annual basis, the University has met or exceeded the Citywide waste diversion goals set forth in AB 939 since the legislation was enacted (i.e., the diversion of 50 percent of the University's waste stream from landfill disposal). The Applicant has indicated that they would extend their existing recycling program to include the Original Project. In addition, the Original Project's contribution to the Countywide waste stream would constitute 0.0018 percent of the 23.8 million tons of solid waste generated in Los Angeles County in 2003 and 0.0015 percent of the 27.5 million tons of solid waste forecasted to be generated in Los Angeles County in 2015. Based on a diversion rate of 50 percent for municipal solid waste and 7 percent for medical wastes, the actual amount of solid waste disposed of at a landfill would be slightly more than half of that identified above. It is anticipated that landfill disposal capacity would be available to accommodate the solid waste generated by the Original Project. Although there is presently no guarantee that new or expanded disposal facilities will be opened by 2015, solid waste generated by the operation of the Original Project would not materially alter the projected timeline for these landfills to reach capacity. Impacts to municipal solid waste disposal facilities would, however, be considered potentially significant. With implementation of the mitigation measures provided below potential impacts would be reduced to a less than significant level.

As the Original Project would implement the policy directives of the applicable sections of the City of Los Angeles' Source Reduction and Recycling Element, the City's Solid Waste Management Policy Plan, General Plan Framework Element and the Curbside Recycling Program, via the implementation of project design features that are expressly targeted towards solid waste recycling during construction in addition to a comprehensive recycling program that would be implemented during operations, the Original Project would be consistent with the applicable referenced plans and policies, and a less than significant impact would result.

2. Modified Project Impacts

(a) Water

As with the Original Project, the majority of water use during construction would be associated with dust suppression for graded and excavated sites. This is generally

performed by water trucks which use non-potable water from off-site sources. As such, the impact on treated water from the Los Angeles Department of Water and Power (LADWP and on adjacent water conveyance systems would be incrementally small. Thus, like the Original Project, no significant impact to water resources is anticipated to occur during construction of the Modified Project and no mitigation measures are necessary.

With regard to water demand during operations, it was determined that Modified Project Option 1 would consume the greatest amount of water, and thus is the Option that is analyzed below.

Based on the land uses proposed under Option 1 and when accounting for development that has already occurred or is underway, the average domestic water demand would be approximately 251,034 gpd, as shown in Table 8 on page 88. This water demand would be approximately 15,270 gpd less than the Original Project. Like the Original Project, the water demand of the Modified Project would be less than significant in relation to the Urban Water Management Plan. Thus, the Modified Project's impacts on water would be within the envelope of impacts identified in the Certified EIR. In addition, the Modified Project would continue to implement the mitigation measures set forth below for the Original Project.

(b) Sewer

As stated above, like the Original Project, during construction, a negligible amount of wastewater would be generated by construction personnel. It is anticipated that portable toilets would be provided by a private company and the waste disposed of off-site. Thus, wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows. Additionally, construction is not anticipated to generate wastewater flows that would substantially or incrementally exceed the future scheduled capacity of any treatment plant by generating flows greater than those anticipated in the City Wastewater Facilities Plan. Thus, construction-related impacts on wastewater infrastructure and facilities would be less than significant.

With regard to wastewater generation during operations, it was determined that Modified Project Option 1 would generate the greatest amount of wastewater, and thus is the Option that is analyzed below.

Based on the land uses proposed for Option 1 and when accounting for development that has already occurred or is underway, the average wastewater generated under Option 1 would be approximately 196,770 gpd as shown in Table 9 on page 89. This wastewater generation would be approximately 11,280 gpd less than the Original Project. In addition, the same mitigation measures set forth for the Original Project would also be

Table 8
Estimated Water Demand—Original Project vs. Modified Project

Land Use	Development	Water Demand Factor	Water Consumption (gpd)	Annual Generation (million gallons)
Original Project				
Academic/Medical Research	720,000 sf	250 gpd/1,000 sf	180,000	65.70
Medical Clinic	45,000 sf	250 gpd/1,000 sf	11,250	4.11
Parking	840,000 sf	20 gpd/1,000 sf	16,800	6.13
Outdoor Water Use			58,254	21.26
Total Original Project			**266,304**	**97.20**
Modified Project				
HCC IV Medical Clinical Facilities	27,300 sf	250 gpd/1,000 sf	6,825	2.49
Student Housing				
1 bed, 1 bath studio	20 DU	68 gpd/unit	1,360	0.50
1 bed, 1 bath apartment	35 DU	120 gpd/ unit	4,200	1.53
2 bed, 2 bath apartment	44 DU	238 gpd/ unit	10,472	3.82
3 bed, 3 bath apartment[a]	40 DU	323 gpd/unit	12,920	4.72
4 bed, 4 bath apartment	46 DU	408 gpd/unit	18,768	6.85
Childcare Center	150 students	8 gpd/student	1,200	0.44
Hotel	275 rooms	130 gpd/ room	35,750	13.05
Research and Development	256,000 sf	250 gpd/1,000 sf	64,000	23.36
Outdoor Water Use[b]			54,264	19.81
Total Modified Project			209,759	**76.57**
HSC Projects Constructed and Underway				
Broad Center	62,500 sf	250 gpd/1,000 sf	15,625	5.70
HCC III Medical Clinical Facilities	92,700 sf	250 gpd/1,000 sf	23,175	8.46
HCC III Non-Clinical Facilities	9,900 sf	250 gpd/1,000 sf	2,475	0.90
Total HSC Projects Constructed and Underway			41,275	**15.06**
Total Modified Project Option 1 including HSC Projects Constructed and Underway			251,034	**91.63**

Numbers may not be exact due to rounding.

[a] *Three-bed, 3-bath apartment is a prorated generation factor based on the average between a 2-bedroom and 4-bedroom apartment generation factor.*

[b] *To be consistent with the USC Health Sciences Campus Project (May 2005), outdoor water use is assumed to be 28 percent of the forecasted daily Modified Project water consumption.*

Source: Matrix Environmental, 2013.

Table 9
Estimated Annual Wastewater Generation—Original Project vs. Modified Project

Land Use	Development	Wastewater Demand Factor	Wastewater Generation (gpd)	Annual Generation (million gallons)
Original Project				
Academic/Medical Research	720,000 sf	250 gpd/1,000 sf	180,000	65.70
Medical Clinic	45,000 sf	250 gpd/1,000 sf	11,250	4.11
Parking	840,000 sf	20 gpd/1,000 sf	16,800	6.13
Total Original Project			**208,050**	**75.94**
Modified Project				
HCC IV Medical Clinical Facilities	27,300 sf	250 gpd/1,000 sf	6,825	2.49
Student Housing				
1 bed, 1 bath studio	20 DU	68 gpd/unit	1,360	0.50
1 bed, 1 bath apartment	35 DU	120 gpd/ unit	4,200	1.53
2 bed, 2 bath apartment	44 DU	238 gpd/ unit	10,472	3.82
3 bed, 3 bath apartment[a]	40 DU	323 gpd/unit	12,920	4.72
4 bed, 4 bath apartment	46 DU	408 gpd/unit	18,768	6.85
Childcare Center	150 students	8 gpd/student	1,200	0.44
Hotel	275 rooms	130 gpd/ room	24,050	13.05
Research and Development	256,000 sf	250 gpd/1,000 sf	64,000	23.36
Total Modified Project			**155,495**	**56.76**
HSC Projects Constructed and Underway				
Broad Center	62,500 sf	250 gpd/1,000 sf	15,625	5.7
HCC III Medical Clinical Facilities	92,700 sf	250 gpd/1,000 sf	23,175	8.46
HCC III Non-Clinical Facilities	9,900 sf	250 gpd/1,000 sf	2,475	0.90
Total HSC Projects Constructed and Underway			**41,275**	**15.06**
Total Modified Project Option 1 including HSC Projects Constructed and Underway			**196,770**	**71.82**

Note: Numbers may not be exact due to rounding.

[a] *3 bed, 3 bath apartment is a prorated generation factor based on the average between a 2 bedroom and 4 bedroom apartment generation factor.*

Source: Matrix Environmental, 2013.

implemented under the Modified Project. Therefore, impacts associated with wastewater facilities would be less than significant and such impacts would be within the envelope of impacts identified in the Certified EIR.

(c) Solid Waste

As with the Original Project, construction of the Modified Project would result in demolition and construction debris. Like the Original Project, some of the construction waste generated under the Modified Project would be disposed of at unclassified landfills. The unclassified landfills that would accept such materials have sufficient capacity to accommodate the disposal of materials associated with construction activities. Therefore, as with the Original Project, the Modified Project would result in less than significant solid waste impacts during construction.

With regard to solid waste generation during operations, it was determined that Modified Project Option 1 would generate the greatest amount of solid waste annually, and thus is the Option that is analyzed below.

As shown in Table 10 on page 91, the Original Project would generate approximately 423.7 tons of solid waste per year. In comparison, Option 1 would generate approximately 1,536.25 tons of solid waste annually. In addition, when accounting for the HSC projects constructed and underway (Broad Center and HCC III) the Modified Project would generate a total of approximately 1,549.77 tons of solid waste annually. As such, similar to the Original Project, impacts to Class III solid waste disposal facilities would be considered potentially significant under the Modified Project.

However, the solid waste anticipated to be generated by Modified Project Option 1 (including the Broad Center and HCC III) would account for only 0.0082 percent of the 19.5 million tons of solid waste generated in the Los Angeles County in 2010. In addition, it is noted that since 2003 the overall County of Los Angeles generation rate has decreased 18.1 percent. Therefore, it is anticipated that the existing and planned landfills/ improvements identified in the County Integrated Waste Management Plan 2010 Annual Report would be able to accommodate the Modified Project-generated waste. Furthermore, in future years, it is anticipated that the rate of declining landfill capacity would slow considering the City's Solid Waste Integrated Resources Plan objective to achieve a 70 percent diversion goal by 2015. In addition, like the Original Project, the Modified Project would implement mitigation measures to reduce the amount of solid waste generated within the Project Site. As such, though the Modified Project would generate more solid waste compared to the Original Project, impacts regarding solid waste generation and disposal under the Modified Project would be less than significant.

As with the Original Project, the Modified Project would comply with Senate Bill 1374 (Construction and Demolition Waste Materials: Diversion Requirements). In addition, the Modified Project would comply with federal, state, and local statutes and regulations related to solid waste including the City's Solid Waste Integrated Resources Plan, City's General

Table 10
Estimated Annual Solid Waste Generation—Original Project vs. Modified Project

Land Use	Development	Solid Waste Factor	Waste (lbs per year)	Waste (tons per year)
Original Project				
Municipal Solid Waste	765,000 sf	4.08 lbs/1,000 sf/day	811,486	405.8
Medical Solid Waste	765,000 sf	0.18 lbs/1,000 sf/day	35,802	17.9
Total Original Project			**847,314**	**423.7**
Modified Project Option 1				
HCC IV Medical Clinical Facilities	27,300 sf	0.18 lbs/1,000 sf/ day	1,277.64	0.639
Student Housing	185 DU	12.23 lbs/household/day	825,830.75	412.92
Childcare Center	11,560 sf	0.0007 lbs/sf/ day	2,103.92	1.052
Hotel[a]	275 rm	5,049 lbs/employee/day	1,731,807	865.90
Research and Development	256,000 sf	1,998 lbs/1,000 sf/day	511,488	255.744
Total Modified Project			**3,072,507.31**	**1,536.25**
HSC Projects Constructed and Underway				
Broad Center	62,500 sf	0.18 lbs/1,000 sf/day	2,925	1.46
HCC III Medical Clinical Facilities	92,700 sf	0.18 lbs/1,000 sf/day	4,338.36	2.17
HCC III Non-Clinical Facilities	9,900 sf	1,998 lbs/household/day	19,780.2	9.89
Total HSC Projects Constructed and Underway			**27,043.56**	**13.52**
Total Modified Project Option 1 including HSC Projects Constructed and Underway			**3,099,550.87**	**1,549.77**

Numbers may not be exact due to rounding.
sf = square feet
DU = dwelling units
rm = rooms
[a] *Anticipated number of employees was calculated based on a factor of 1.246 employees per room.*
Source: Matrix Environmental, 2013.

Plan Framework Element, RENEW LA Plan, and Green LA Plan. Furthermore, since the certification of the EIR, the City achieved a diversion rate of 65 percent, exceeding the 50 percent diversion rate required by AB 939.[23] In addition, implementation of mitigation measures would facilitate recycling on-site and help to ensure that the Project's impact on regional solid waste disposal capacity is minimized. As such, as with the Original Project, the Modified Project's impacts associated with solid waste plans and policies would be less than significant.

[23] *City of Los Angeles Department of Public Works, Bureau of Sanitation. Solid Resources: Recycling Information, http://lacitysan.org/solid_resources/recycling/index.htm, accessed October 31, 2011.*

As with the Original Project, the Modified Project would comply with Senate Bill 1374 (Construction and Demolition Waste Materials: Diversion Requirements). In addition, the Modified Project would comply with federal, state, and local statutes and regulations related to solid waste including the City's Solid Waste Integrated Resources Plan, City's General Plan Framework Element, RENEW LA Plan, and Green LA Plan. Furthermore, since the certification of the EIR, the City achieved a diversion rate of 65 percent, exceeding the 50 percent diversion rate required by AB 939.[24] In addition, implementation of mitigation measures would facilitate recycling on-site and help to ensure that the Project's impact on regional solid waste disposal capacity is minimized. As such, as with the Original Project, the Modified Project's impacts associated with solid waste plans and policies would be less than significant.

3. Mitigation Measures

The mitigation measures set forth in the Certified EIR and provided below remain applicable to the Modified Project. No additional mitigation measures are required due to the development of the Modified Project.

(a) Water

Mitigation Measure F-1.1: Water faucet fixtures with activators shall be installed that automatically shut off the flow of water when not in use.

Mitigation Measure F-1.2: Automatic sprinkler systems shall be set to irrigate landscaping during early morning hours or during the evening to reduce water losses from evaporation. Sprinklers shall be reset to water less often in cooler months and during the rainfall season so that water is not wasted by excessive landscape irrigation.

(b) Sewer

Mitigation Measure F-2.1: Prior to the issuance of any building permits, the Development Services Division of the Bureau of Engineering, Department of Public Works, shall make a determination of capacity in the sewer pipeline between each proposed Development Site and the trunk sewer. If service is discovered to be less than adequate, the Applicant shall be required to upgrade the connections to the mains and/or provide an alternative solution, in order to appropriately serve the Project.

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[24] *City of Los Angeles Department of Public Works, Bureau of Sanitation. Solid Resources: Recycling Information, http://lacitysan.org/solid_resources/recycling/index.htm, accessed October 31, 2011.*

Mitigation Measure F-2.2: The Applicant shall comply with procedural requirements of City ordinances regulating connections to the City sewer system (e.g., Ordinance No. 166,060).

Mitigation Measure F-2.3: All necessary on-site infrastructure improvements shall be constructed to meet the requirements of the Department of Building and Safety.

Mitigation Measure F-2.4: The Applicant shall apply for and comply with all necessary permits, including Industrial Wastewater Discharge Permits, if required.

(c) Solid Waste

Mitigation Measure F.3-1: The Applicant shall comply with the provisions of City of Los Angeles Ordinance No. 171687 with regard to all new structures constructed as part of the proposed Project.

Mitigation Measure F.3-2: The Applicant shall implement a demolition and construction debris recycling plan for all buildings constructed as part of the proposed Project, with the explicit intent of requiring recycling during all phases of site preparation and building construction.

Mitigation Measure F.3-3: All structures constructed or uses established within any part of the proposed Project Site shall be designed to be permanently equipped with clearly marked, durable, source sorted recycling bins at all times to facilitate the separation and deposit of recyclable materials.

Mitigation Measure F.3-4: Primary collection bins shall be designed to facilitate mechanized collection of such recyclable wastes for transport to on- or off-site recycling facilities.

Mitigation Measure F.3-5: The Applicant shall coordinate with the City of Los Angeles to continuously maintain in good order for the convenience of concessionaires, patrons, and employees clearly marked, durable and separate recycling bins on the same lot, or parcel to facilitate the deposit of recyclable or commingled waste metal, cardboard, paper, glass, and plastic therein; maintain accessibility to such bins at all times, for collection of such wastes for transport to on- or off-site recycling plants; and require waste haulers to utilize local or regional material recovery facilities as feasible and appropriate.

VI. Conclusion

As demonstrated by the discussion above, and as summarized in Table 11 on page 94, impacts associated with the Modified Project would be similar to or less than the impacts addressed in the Certified EIR. Thus, a new or greater significant impact would not result from the proposed modifications. In addition, all of the mitigation measures

Table 11
Comparison of Impacts Under Original Project and Modified Project

Issue	Original Project	Modified Project
Visual Resources		
Construction	Less than Significant	Less than Significant
Operation	Less than Significant	Less than Significant
Agriculture Resources	No Impact	No Impact
Air Quality and Greenhouse Gas Emissions		
Construction		
Regional Emissions	Significant and Unavoidable	Significant and Unavoidable
Localized Emissions	Significant and Unavoidable	Less Than Significant with Mitigation
Operation		
Regional Emissions	Significant and Unavoidable	Significant and Unavoidable
Localized Emissions	Less Than Significant	Less Than Significant
Greenhouse Gas Emissions	N/A*	Less than Significant
Biological Resources	Less than Significant	Less than Significant
Cultural Resources	Less than Significant	Less than Significant
Geology and Soils	Less than Significant	Less than Significant
Hazards and Hazardous Materials	Less than Significant	Less than Significant
Surface Hydrology and Water Quality, and Groundwater		
Hydrology	Less than Significant	Less than Significant
Surface Water Quality	Less than Significant	Less than Significant
Groundwater	Less than Significant	Less than Significant
Land Use and Planning		
Consistency with Applicable Plans	Less than Significant	Less than Significant
Project Compatibility with Surrounding Land Uses	Less than Significant	Less than Significant
Mineral Resources	No Impact	No Impact
Noise		
Construction	Significant and Unavoidable	Significant and Unavoidable
Operation	Less than Significant	Less than Significant
Population and Housing	Less than Significant	Less than Significant
Public Services		
Fire	Less than Significant	Less than Significant
Police	Less than Significant	Less than Significant
Schools	Less than Significant	Less than Significant
Parks	Less than Significant	Less than Significant
Libraries and Other Public Services	Less than Significant	Less than Significant

Table 11 (Continued)
Comparison of Impacts Under Original Project and Modified Project

Issue	Original Project	Modified Project
Recreation	Less than Significant	Less than Significant
Traffic, Circulation, and Parking		
Construction	Less than Significant	Less than Significant
Operation		
Traffic	Significant and Unavoidable	Significant and Unavoidable
Access	Less than Significant	Less than Significant
Parking	Less than Significant	Less than Significant
Utilities/Service Systems		
Water	Less than Significant	Less than Significant
Sewer	Less than Significant	Less than Significant
Solid Waste	Less than Significant	Less than Significant

**Until the passage of AB 32 in 2006, CEQA documents generally did not evaluate GHG emissions or impacts on global climate change. In addition, subsequent to the completion of the Original Project's Certified EIR, the state's Office of Planning and Research's recommended amendments to the CEQA Guidelines for GHGs were adopted by the Resources Agency on December 30, 2009. The Draft Environmental Impact Report for the USC Health Sciences Project was completed in May 2005.*

Source: Matrix Environmental, 2013.

included as part of the Certified EIR would continue to be implemented under the Modified Project. As all of the impacts would be within the envelope of impacts analyzed in the Certified EIR, no additional environmental analysis of the Modified Project is necessary.

APPENDIX B – HYDROLOGY MEMORANDUM

MEMORANDUM OF HYDROLOGY MODELING RESULTS

Project: **LAC+USC Medical Center EIR**

Client: ICF International/Los Angeles County

Prepared By: Jennifer J. Walker, P.E., D.WRE, CFM, QSD

Date: 7/15/2014

Purpose: Memorandum of Hydrology Modeling Results

Note: Draft memorandum released under the authority of Jennifer J. Walker, P.E. (C77079), D.WRE, CFM on 7/15/2014 and should not be used for design or construction.

This memorandum documents hydrologic and Low Impact Development (LID) modeling results for ultimate build-out of the LAC+USC Medical Center project as described in the October, 2013 *LAC+USC Master Plan.* The project is anticipated to include post-construction stormwater Best Management Practices (BMPs) and Low Impact Development (LID) features. Because a detailed plan has not been developed hydrologic and LID analyses are based on the general concept and layout described in the *Master Plan* rather than a detailed, fixed plan.

As shown on Exhibit 1 (Appendix A), the project site is located just north of Interstate Highway (IH) 10 and just east of IH-5. The site is bounded by Cornwell to the east, Zonal to the north, Marengo to the south, and North Mission to the west. Three additional tracts are located at northeast, northwest, and southwest corners of the intersection of Zonal and North Mission.

The project site is currently fully developed and land cover consists primarily of buildings and pavement with an existing impervious cover of 95% (Exhibit 2 in Appendix A). While limited, vegetation on the site includes trees, shrubs, and turf grass scattered within the project site and dense plantings of trees and groundcovers within the northeastern portion of the site ("the hill").

The Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1) illustrates the location of the following LID features at the site:

- Bioretention
- Permeable Pavement
- Wetlands/Detention

While the *Master Plan* indicates that stormwater harvesting and reuse may be included and that a green roof will be installed for agricultural and urban farming purposes, these LID features are not included in the modeling for the project as they are not specifically programmed at this time.

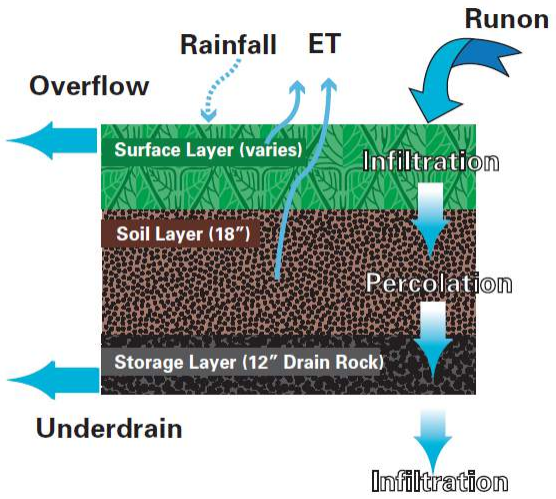
The goals established for this project include:

- ✓ Meet Los Angeles County LID and stormwater treatment criteria
- ✓ Reduce proposed LID conditions peak flows and runoff volumes to below existing conditions
- ✓ Shift the water budget and site hydrology towards undeveloped conditions with improved infiltration and groundwater recharge as compared to existing conditions

Modeling/Hydrologic Methodology

The U.S. Environmental Protection Agency's (EPA)'s Storm Water Management Model (SWMM) 5.0.022 was utilized for the LID design storm and continuous simulation modeling in this project. The current version of SWMM includes LID controls and detailed analysis options not previously included in SWMM5. The SWMM model is also a publicly-available model. The SWMM model accounts for infiltration through various LID layers, evapotranspiration, infiltration into the native soil, and overflows and discharge from the LID facilities as illustrated in Figure 1. Note that the underdrain and drain rock layer are used only in Permeable Pavement and Bioretention for this project.

Figure 1: LID Components and Processes Modeled in SWMM



Recent studies by the EPA cited in the report entitled *SUSTAIN – A Framework for Placement of Best Management Practices in Urban Watersheds to Protect Water Quality* found similar results for analysis of aggregated (lumped) LID controls in drainage sub-areas of 100 ac or more as compared to micro-drainage sub-areas for each lot and LID control (distributed approach). For a 128-acre drainage sub-area, the difference in peak flows between the aggregated and distributed approaches computed in the EPA study is four-percent. Similar positive findings with regards to the aggregated approach were also reported by the City of Portland's Bureau of Environmental Services in a paper entitled *Modeling Non-Directly Connected Impervious Areas in Dense Neighborhoods.*

Since the area of the LAC+USC Medical Center EIR site is approximately 84 ac and well under the threshold for using the aggregated method, the aggregated modeling approach was used for this project to increase modeling efficiencies. Peak flow rates are expected to be within one-percent of those computed using the distributed approach and volumes are expected to be within approximately three-percent.

Table 1 in Appendix B lists hydrologic parameters associated with the site. Proposed conditions parameters are based on the LID layout included in the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1). Existing and undeveloped conditions parameters are estimated and may not precisely reflect conditions as soils, topographic, and other detailed data is not available.

The Direct Determination Runoff method is used to estimate runoff and generate hydrographs from the site within the SWMM model. As described below, the design storm rainfall data is obtained from National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 6. Rainfall hyetographs are developed using the U.S. Army Corps of Engineers (USACE) HEC-HMS (Hydrologic Engineering Center-Hydrologic Modeling System) software program, which is publicly available.

The Green & Ampt method, which is based on physically-measurable soil parameters and has been used successfully on other LID projects in the region, is used to estimate losses due to infiltration. Based on Exhibit 7 in Appendix A, native underlying soils at the sites are assumed to be a mix of clay loam and loam with saturated hydraulic conductivity rates of approximately 0.085 inches/hour. The suction head and initial deficit parameters shown in Table 2 are estimated for a mix of clay loam and loam from standard soils texture tables.

Table 3 provides details on the area draining to each LID feature at the site based on the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1). Table 4 includes details on the configuration modeled for each type of LID feature at the site. As indicated in these tables, the project site includes the following LID features:

- Permeable Pavement
- Bioretention
- Wetlands/Detention

To facilitate planning-level modeling, the Wetlands/Detention areas are modeled as bioretention. Additionally, the impervious area treated by each type of LID is assumed based on the LID features and site layout shown in the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1).

The proposed LID features are also planned to meet requirements in the Los Angeles County *Low Impact Development Standards Manual.* The goal of the LID features is to provide stormwater quality benefits and to more closely mimic undeveloped site hydrology. LID features are required to retain 100-percent of the stormwater quality design volume (SWQDv) on-site through a combination of infiltration, evapotranspiration, and stormwater harvest and use unless it is demonstrated that it is technically infeasible to do so. For this project, the SWQDv is 0.95 in, which is the 85th-percentile, 24-hour event obtained from the Los Angeles County 85th percentile precipitation isoheytal map for the project site location.

Based on the LID features illustrated in the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1) and assumed configurations documented in Table 4, the proposed LID features seem adequate to meet SWQDv requirements assuming storage within the growing

media and drain rock layers is considered (Table 4A). With these layers, the total provided volume is estimated at 9.26 acre-feet (ac-ft), while the required SWQDv is calculated at 6.62 ac-ft. Without these layers, additional LID features may be needed to meet requirements as a deficit of 2.73 ac-ft is estimated. Additionally, note that retention, harvest and use on-site, or infiltration must be provided for the total SWQDv and the size and configuration of the LID features may need to be modified to meet this requirement. Regardless, the proposed site will be required to meet SWQDv requirements and the LID extent may be increased as needed or stormwater harvesting and use may be incorporated. The project is likely to be exempt from hydromodification management requirements as it is a redevelopment project anticipated to result in less impervious cover than existing conditions.

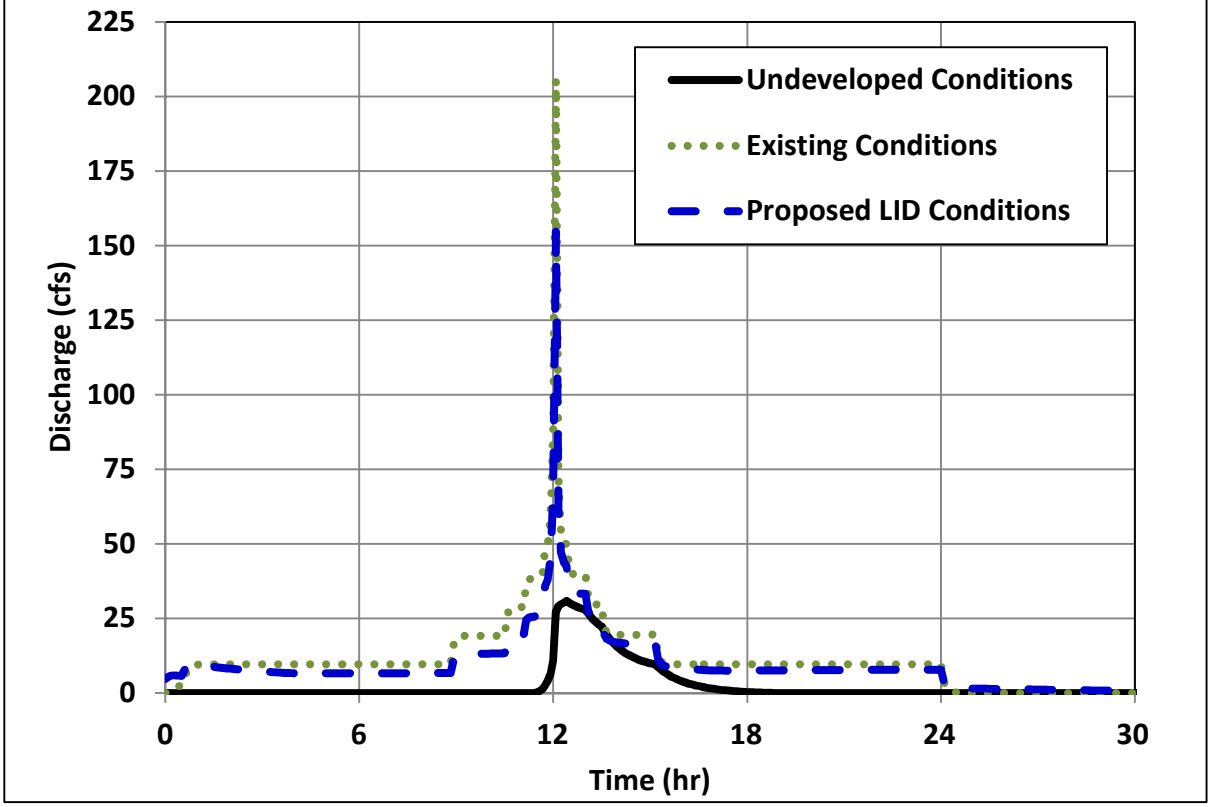
Design Storm Results

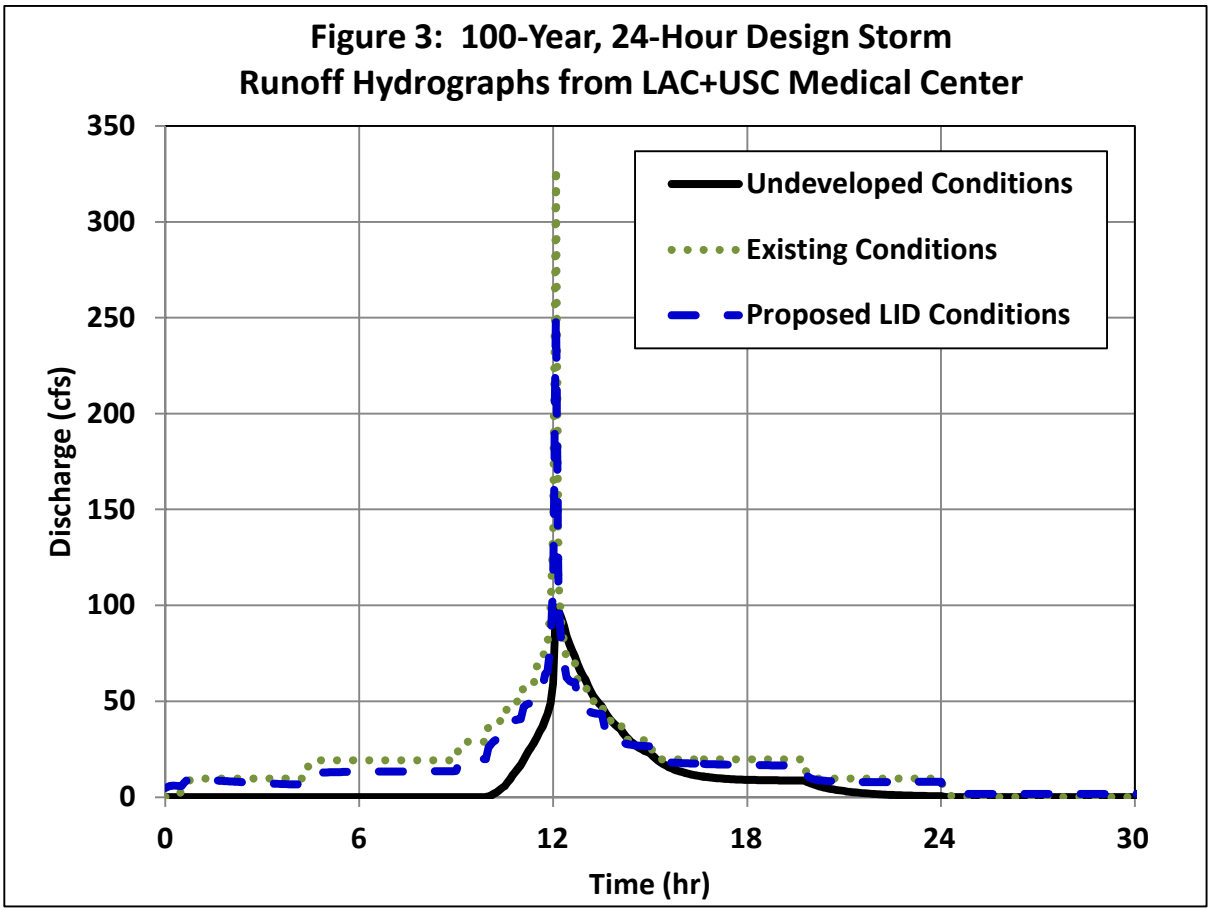
The 100-year, 24-hour and 10-year, 24-hour design storm events are modeled to assess runoff during an extreme flood control event and an event representative of storm drain sizing, respectively. As shown in Table 1, the 10-year, 24-hour and 100-year, 24-hour rainfall depths fare 4.84 and 7.87 inches (in), respectively. As indicated, the design storm rainfall data is obtained from NOAA Atlas 14, Volume 6 for the Ascot Reservoir gauge and rainfall hyetographs are developed using the USACE HEC-HMS software program, which is publicly available. A peak center of 50% is assumed for all design storm events. The rainfall hyetographs are used by SWMM to develop the design storm runoff hydrographs from the LAC+USC site.

As shown in Table 5, proposed conditions peak flows with the planned LID features are 25-percent less than existing flows from the site for the 10-year, 24-hour event and 23-percent less than existing for the 100-year, 24-hour event. Runoff volumes are reduced by 18-percent and 14-percent, respectively, for the 10-year and 100-year events. While the project goals did not include matching undeveloped conditions, it is also listed for comparison purposes. Note that the initial growing media saturation of 50-percent adds volume to the proposed LID conditions that is not included in the other conditions models. Use of different initial growing media saturation values may change resulting reductions.

Figures 2 and 3 depict runoff hydrographs from the site for the 10-year, 24-hour and 100-year, 24-hour design storm events, respectively. As described, both proposed LID conditions peak flows and runoff volumes as illustrated by the area under the hydrograph curves are reduced by approximately 25-percent below existing conditions. Additionally, the shapes of the proposed LID conditions runoff hydrographs generally match the shapes of the undeveloped conditions runoff hydrographs. Note that final modeling of underdrain sizes and retention times may result in additional hydrograph lagging.

Figure 2: 10-Year, 24-Hour Design Storm
Runoff Hydrographs from LAC+USC Medical Center





Figures 4 to 13 illustrate storage depths within the following layers of the LID features at the LAC+USC Medical Center site:

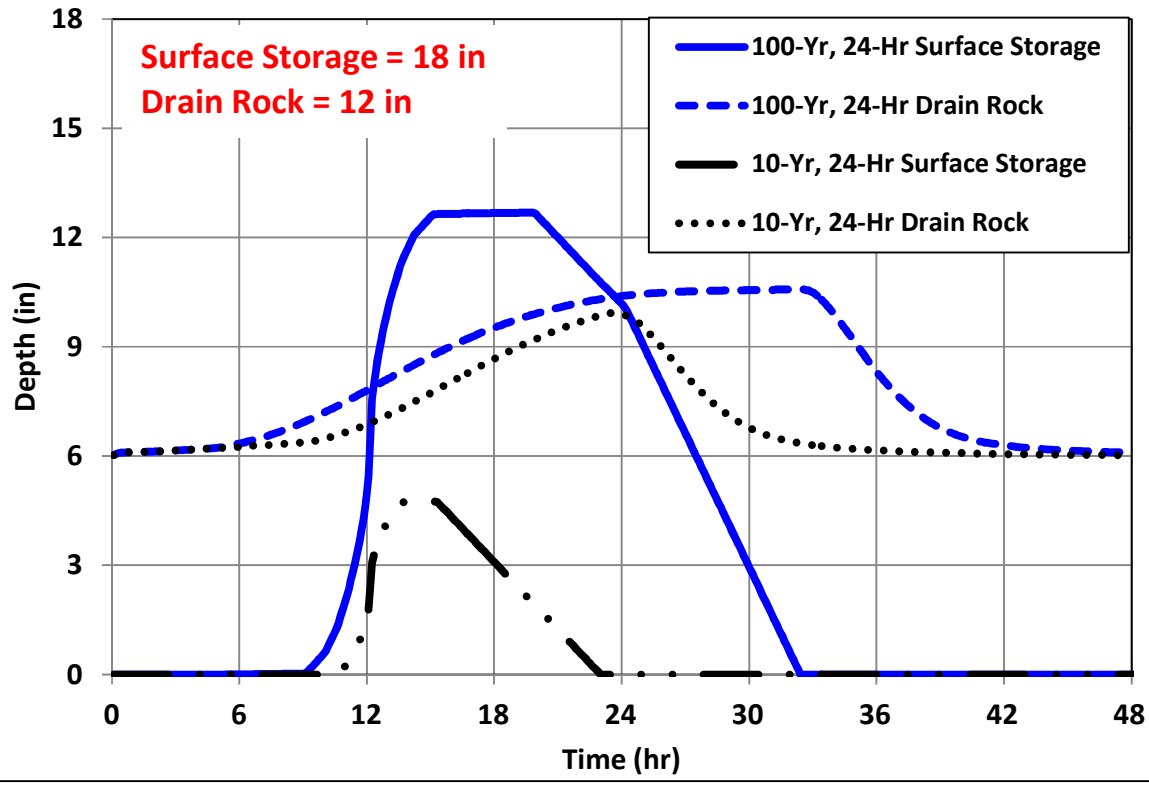
- 18-inch surface storage layer of Bioretention
- 24-inch surface storage layer of Wetlands/Detention
- 12-inch drain rock layer of Bioretention
- 24-inch gravel storage reservoir of Permeable Pavement

Due to hydraulic conductivity rates, underdrains are included in both Bioretention and Permeable Pavement and assumed to be elevated six inches above the bottom of the drain rock layer. Wetlands/detention is assumed not to include an underdrain due to type of LID feature and centralized nature of this stormwater control.

Note that typical assumptions were made regarding the geometric configuration of the LID features (Table 4). Additionally, assumptions on impervious area treated by each type of LID feature are listed in Table 3. During the final design and modeling, it is likely that the hydrologic performance of the various LID features can be improved through changes in geometric configuration and optimization of contributing drainage areas.

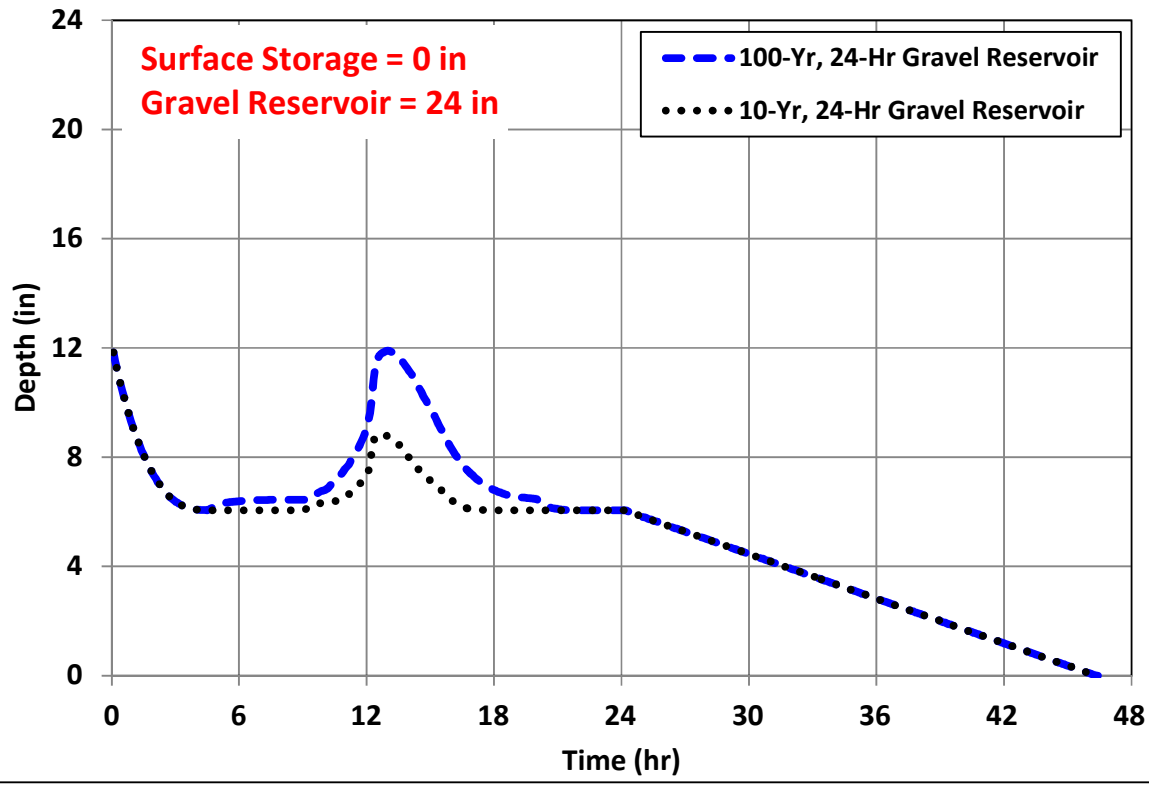
The proposed Bioretention features function as expected and fill to a depth of approximately 13 in in the 100-year, 24-hour event with a drain down time of approximately 32 hours. The maximum level during the 10-year, 24-hour event is approximately 4.8 in with a corresponding drain down time of approximately 24 hours. Initial storage depth in the Bioretention drain rock layer is due to the simulated 50-percent growing media saturation at the beginning of the design storm event. The Bioretention configuration is assumed to include a four-inch perforated underdrain pipe elevated six inches above the bottom of the drain rock layer. Since the Bioretention surface storage does not fill completely, during final design it may be determined to serve additional drainage area or be reduced in depth to less than 18 in.

Figure 4: Design Storm Hydrographs from Bioretention



The drain rock layer of the Permeable Pavement fills to approximately 12 in during the 100-year, 24-hour event and 9 in during the 10-year, 24-hour event. The drain down time fin both events is approximately 48 hours due to the initial saturation of 50%, which causes the initial ponding in the drain rock layer at the beginning of the design storm simulations. The Permeable Pavement LID features are assumed to include a four-inch perforated underdrain pipe elevated six inches below the bottom of the 24-inch gravel storage reservoir. The elevated underdrain enhances infiltration during the historical period of record analyzed in the continuous simulation modeling discussed below. Since the Permeable Pavement drain rock layer does not fill completely, during final design it may be determined to serve additional drainage area or be reduced in depth to less than 24 in.

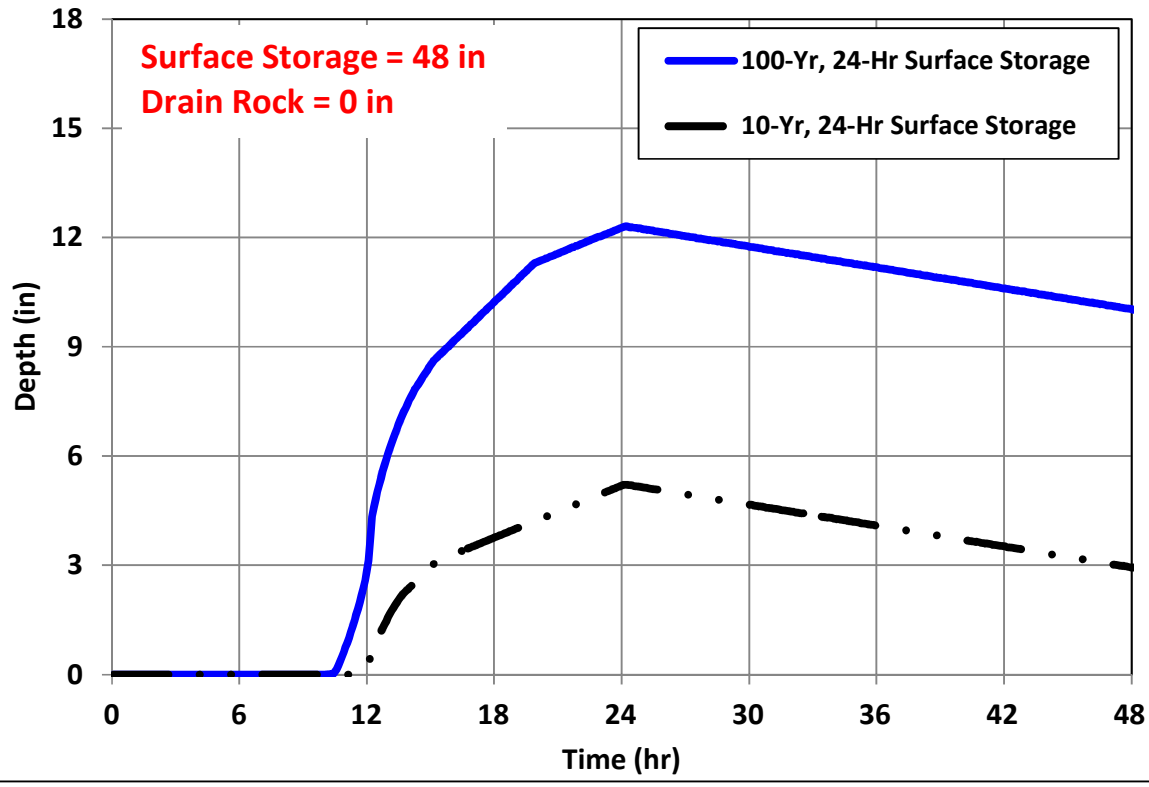
Figure 5: Design Storm Hydrographs from Permeable Pavement



The proposed Wetlands/Detention features fill to a depth of approximately 12 in in the 100-year, 24-hour event with a drain down time in excess of 48 hours. The maximum level during the 10-year, 24-hour event is approximately 5.2 in with a corresponding drain down time of in excess of 48 hours. While the proposed Wetlands/Detention stormwater features was modeled as an LID control using bioretention parameters due to the planning-level nature of this analysis, it may be better represented as a storage reservoir in the final modeling during the design phase as it is a centralized BMP and detention routing may be needed depending on the area served by the Wetlands/Detention.

The Wetlands/Detention configuration is assumed to not require an underdrain as it is a centralized stormwater facility and may be geared towards flood control. The Wetlands/Detention does not fill completely in the modeling performed as part of the LA+USC Medical Center EIR and the actual configuration and dimensions should be refined to meet project goals during the final design phase.

Figure 6: Design Storm Hydrographs from Wetlands/Detention



Continuous Simulation Results

A continuous simulation modeling analysis was performed based on 1970 – 2006 rainfall data obtained from the U.S. EPA's National Stormwater Calculator for the Los Angeles Downtown/USC gauge, which is located in closest proximity to the site. Average monthly evaporation data is also used from this gauge. While hourly data is used in the continuous simulation modeling analysis, daily events are summarized in this figure. Figure 7 illustrates historical daily rainfall depths during the period of record from 1970 – 2006 recorded at the Los Angeles Downtown/USC gauge. Days without rain are not shown on this graph.

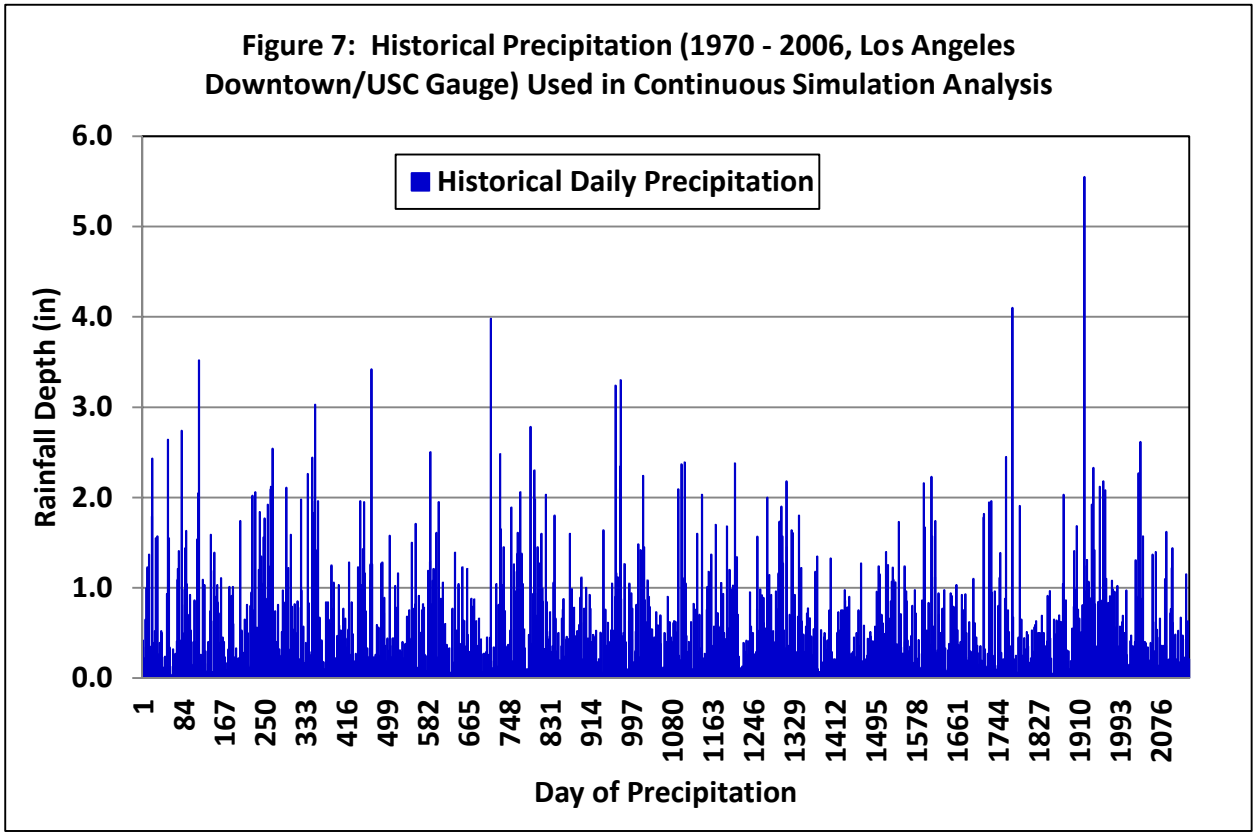
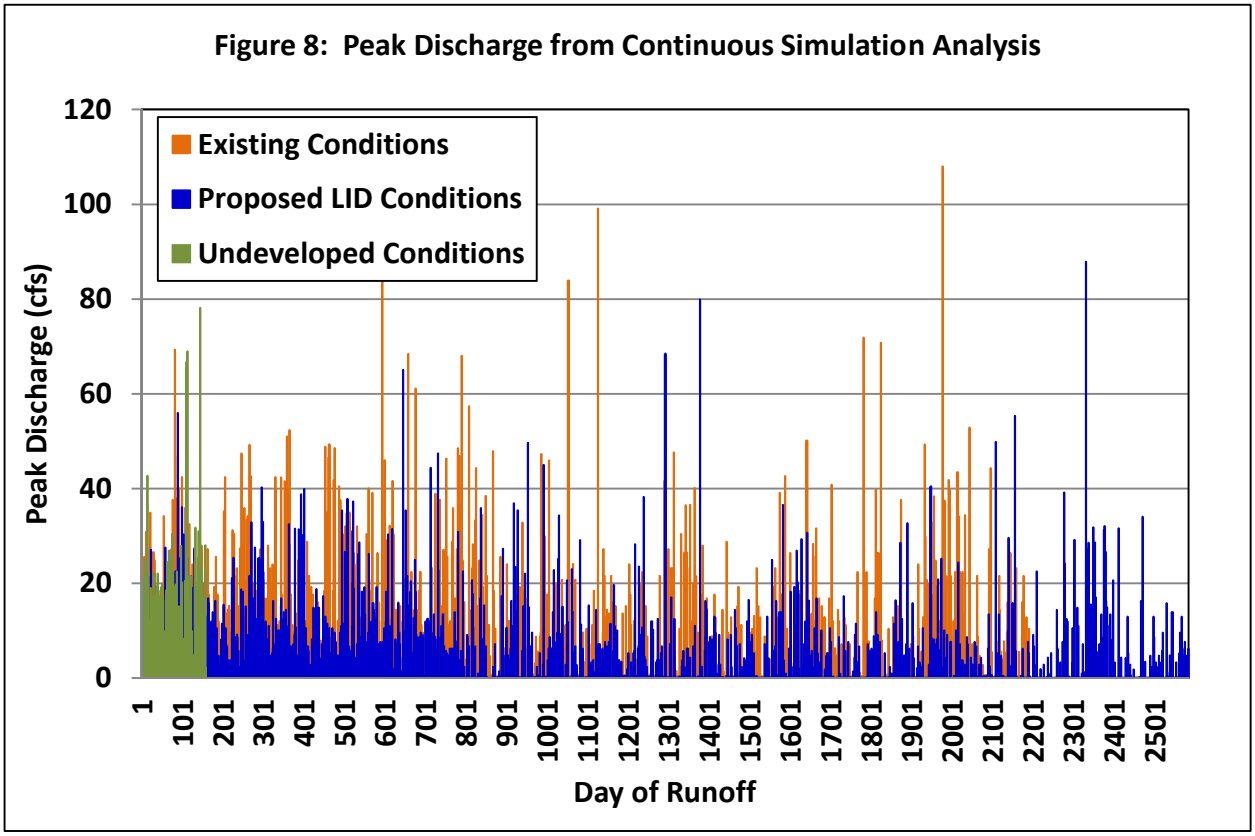


Figure 7: Historical Precipitation (1970 - 2006, Los Angeles Downtown/USC Gauge) Used in Continuous Simulation Analysis

Table 6 includes water balance results for the continuous simulation analysis and summarizes infiltration, runoff, evapotranspiration, and precipitation. During the simulated time period, 570.79 in. of rain occurred. Proposed LID conditions runoff is reduced by 35-percent as compared to existing conditions.

Information on the number of rainfall events producing runoff is summarized in Table 7. There are 991 proposed LID conditions runoff events as compared to 1,052 existing conditions runoff events and 131 undeveloped conditions runoff events. Due to limited data, undeveloped conditions are approximated rather than accurately measured from physical parameters at the site (i.e., soils, slopes, etc.). Figure 8 graphically illustrates runoff in existing and proposed conditions at the site. Note that the day of runoff (x-axis) is for each event and that the days do not correlate for each event. The general pattern is that proposed LID peak discharges are less than existing peak discharges and the proposed site is more similar to the undeveloped site than is the existing site.

Figure 8: Peak Discharge from Continuous Simulation Analysis



Annual maximum peak discharges are depicted in Figure 9 on the following page. Proposed LID conditions maximum annual discharges from the site more closely approximate undeveloped conditions than do discharges from the existing site. In most years, maximum annual discharges from the site are less than existing discharges from the site during the period of record between 1970 and 2006. Note that the actual results are anticipated to change somewhat during final design and modeling depending on the final extent and configuration of LID features and impervious cover within the site.

Since the project in not anticipated to require hydromodification management controls as it is a redevelopment project resulting in lower impervious cover, discharge exceedance frequency curves and flow duration graphs are not included.

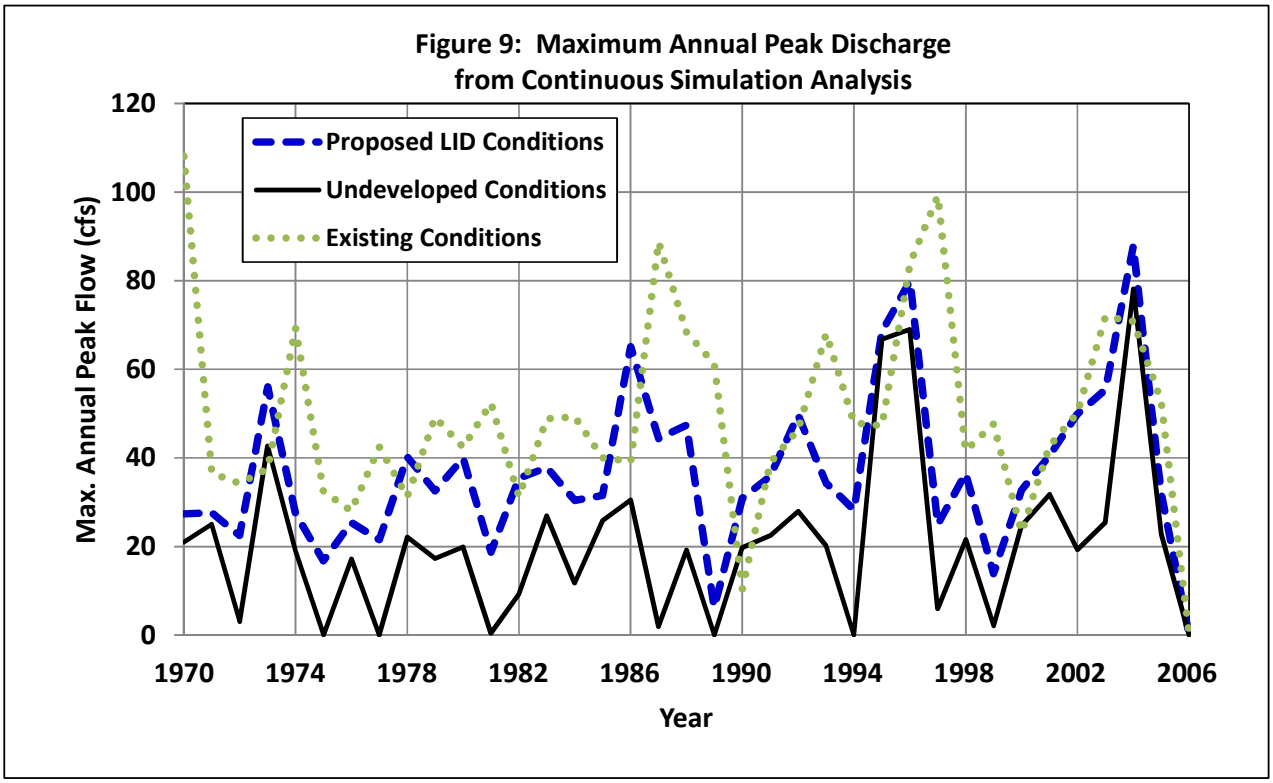


Figure 9: Maximum Annual Peak Discharge
from Continuous Simulation Analysis
Proposed LID Conditions
Undeveloped Conditions
Existing Conditions
Max. Annual Peak Flow (cfs)
120
100
80
60
40
20
0
1970
1974
1978
1982
1986
1990
1994
1998
2002
2006
Year

Conclusions

The LAC+USC Medical Center project meets established project goals:

- ✓ Meet Los Angeles County LID and stormwater treatment criteria
- ✓ Reduce proposed LID conditions peak flows and runoff volumes to below existing conditions
- ✓ Shift the water budget and site hydrology towards undeveloped conditions with improved infiltration and groundwater recharge as compared to existing conditions

Detailed water budget modeling results from EPA SWMM are included in Appendix C.

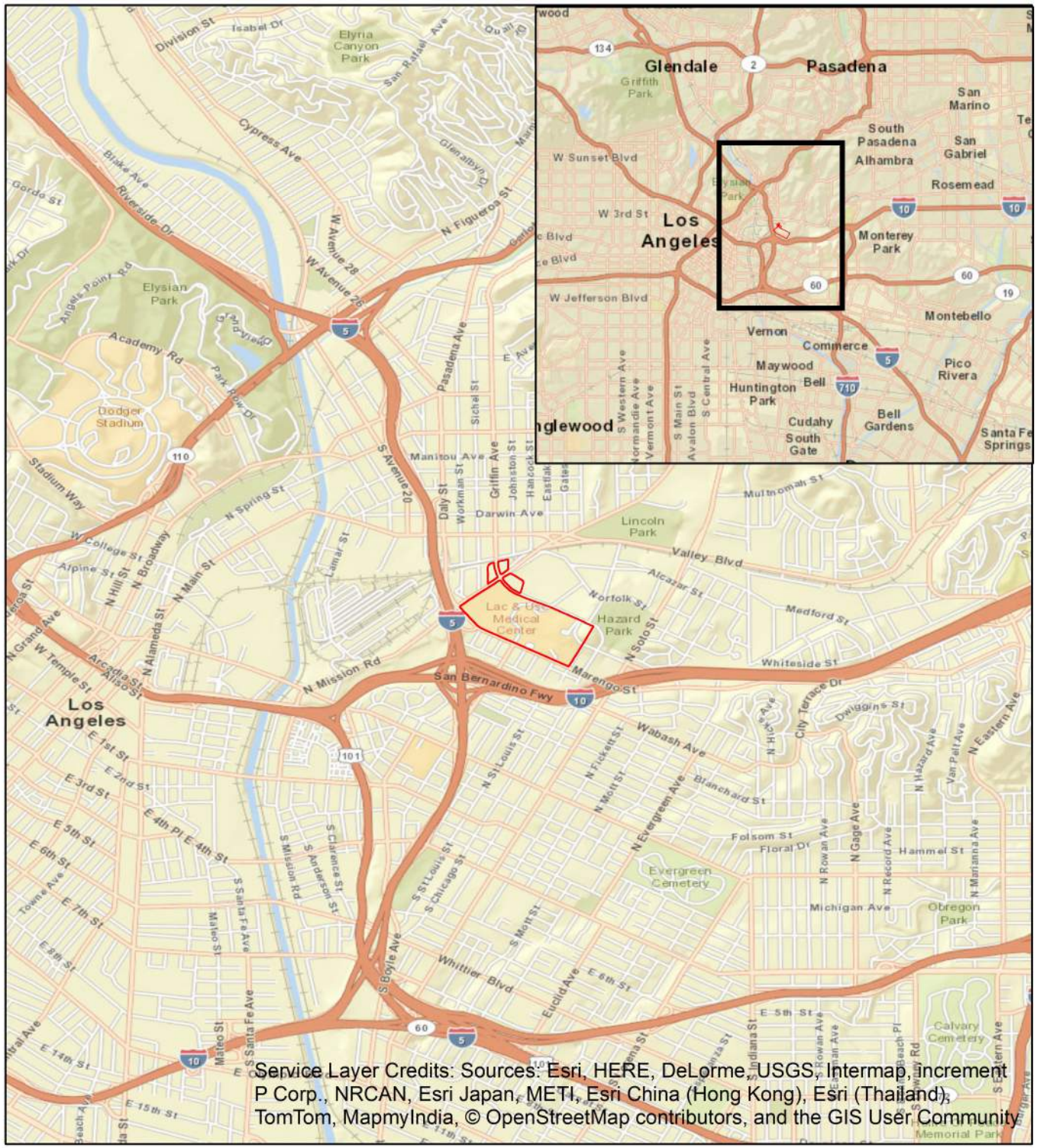
To ensure the long-term functionality of the LID features and performance of the site, development of and compliance with an Operations & Maintenance (O&M) Plan is critical. Additionally, proper construction sequencing is critical to avoid premature sedimentation of the facilities.

Redevelopment of the LAC+USC Medical Center site represents a significant opportunity for sustainability and LID retrofits within a densely urbanized area and for implementation of Green Infrastructure and LID for Los Angeles County. Thank-you for the opportunity to collaborate on this visionary project.

APPENDICES

Appendix A – Exhibits
Appendix B – Tables of Modeling Data and Results
Appendix C – EPA SWMM Water Budget Results

APPENDIX A - EXHIBITS



North

0 2,500 5,000 10,000 Feet

1 inch = 4,000 feet

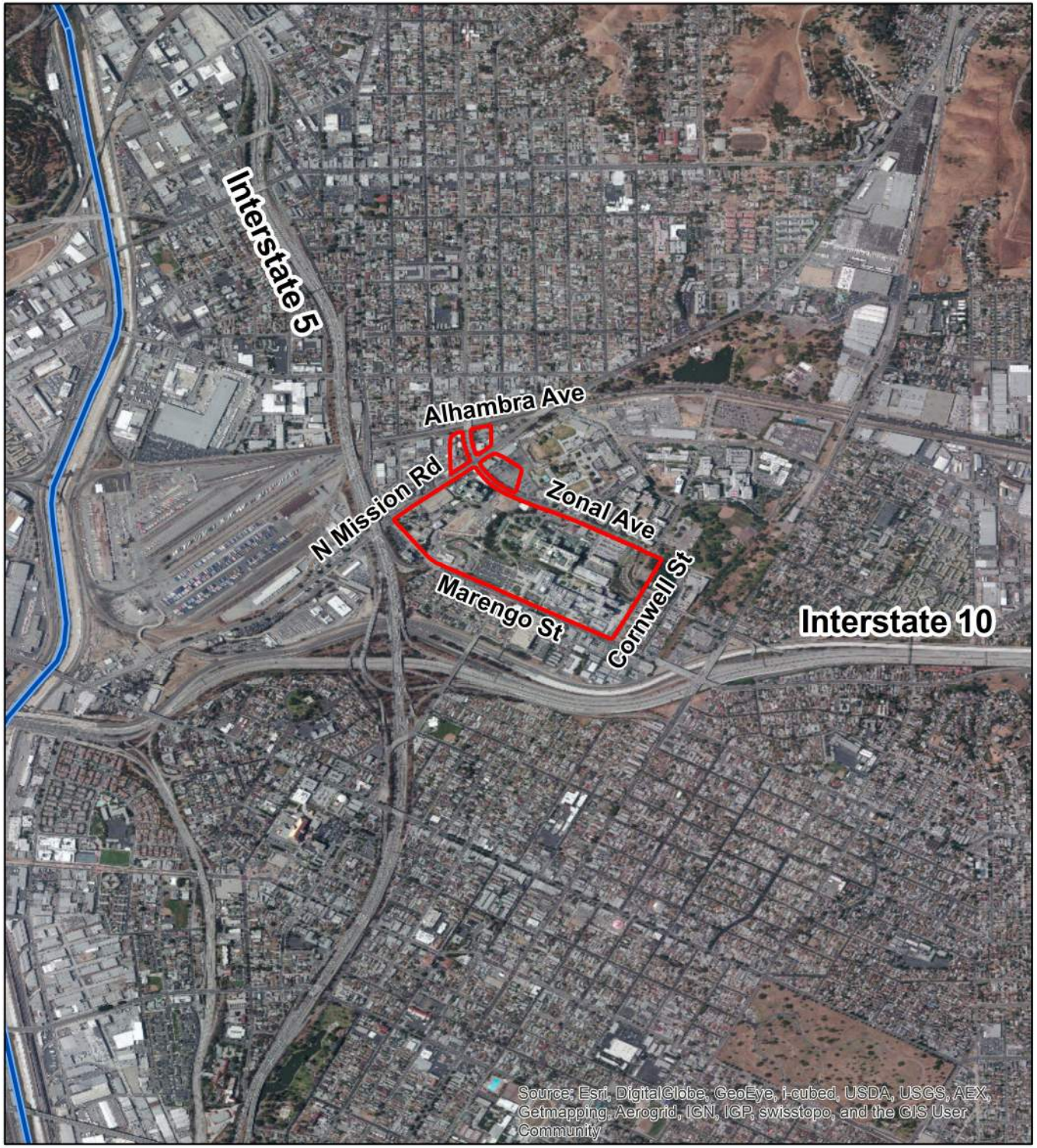
Legend

Project Boundary

Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 1
VICINITY MAP



North

Feet

0 1,250 2,500 5,000

1 inch = 2,000 feet

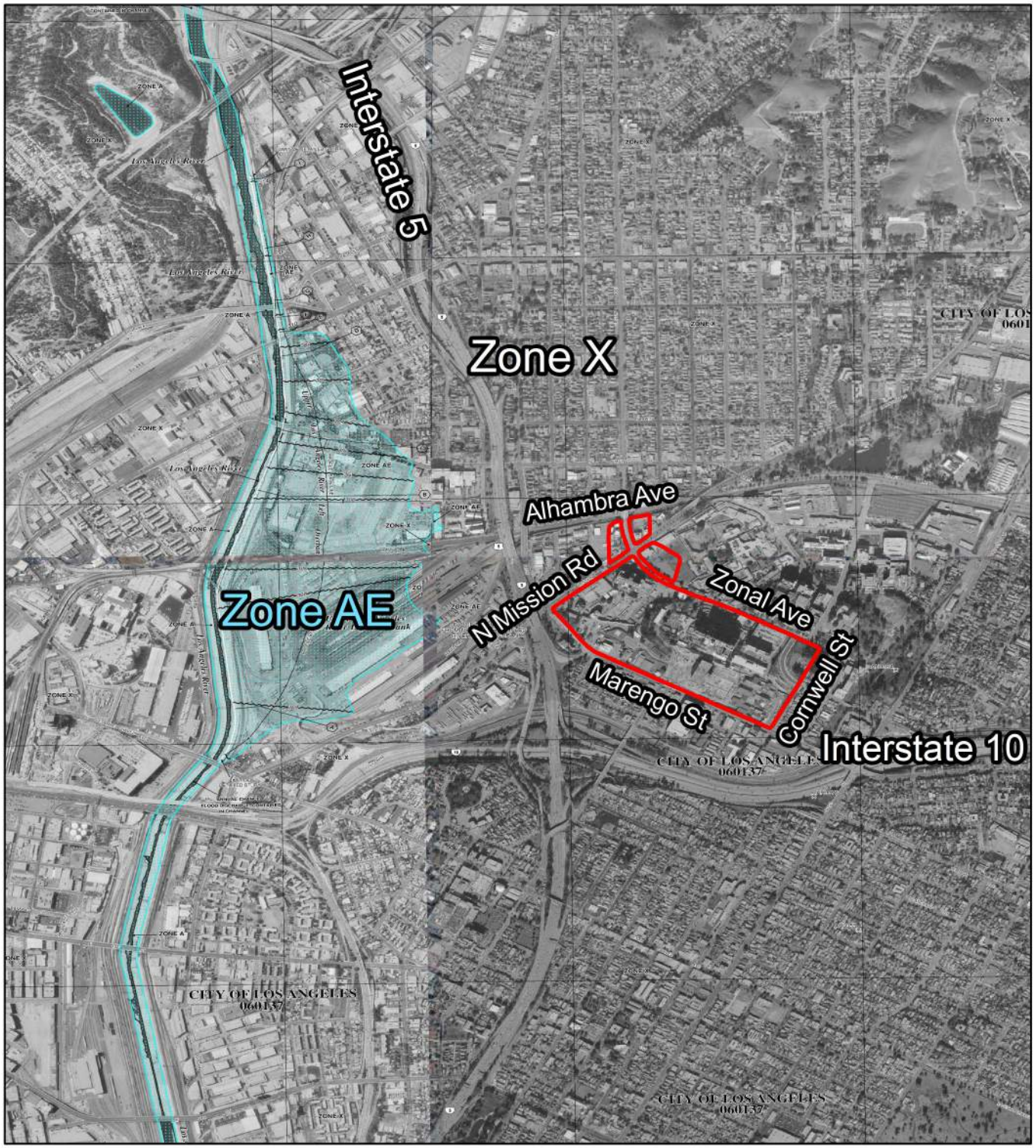
Legend

- Los Angeles River
- Project Boundary

Watearth™

LA+USC Medical Center Master Plan

EXHIBIT 2
AERIAL PHOTOGRAPH



North

0 1,200 2,400 4,800 Feet

1 inch = 2,000 feet

Legend

Project Boundary

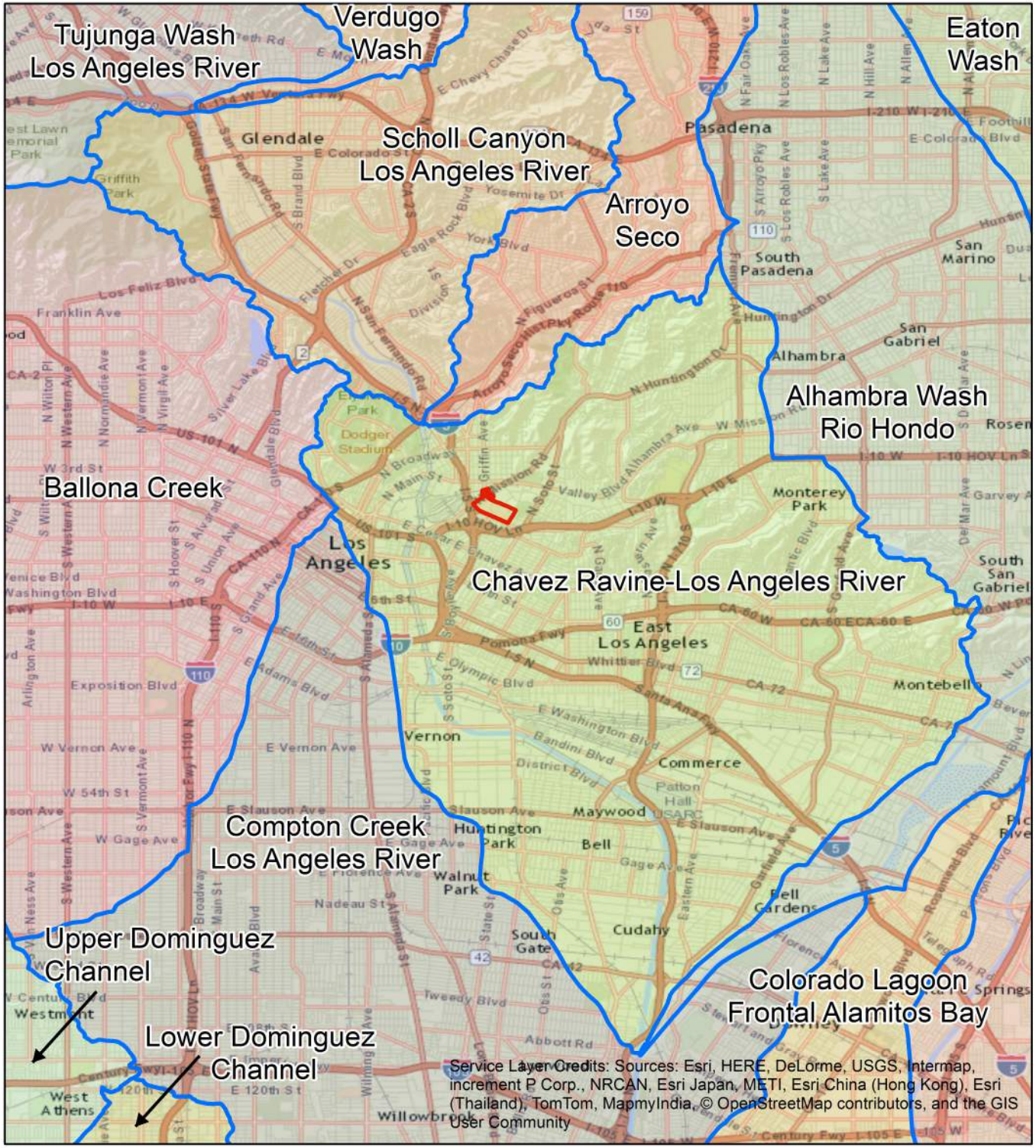
Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 3

FIRM PANELS

06037C1628F, 06037C1629F,
06037C1636F, 06037C1637F
Panels updated 9/26/2008



North

Feet

0 7,500 15,000 30,000

1 inch = 12,500 feet

Legend

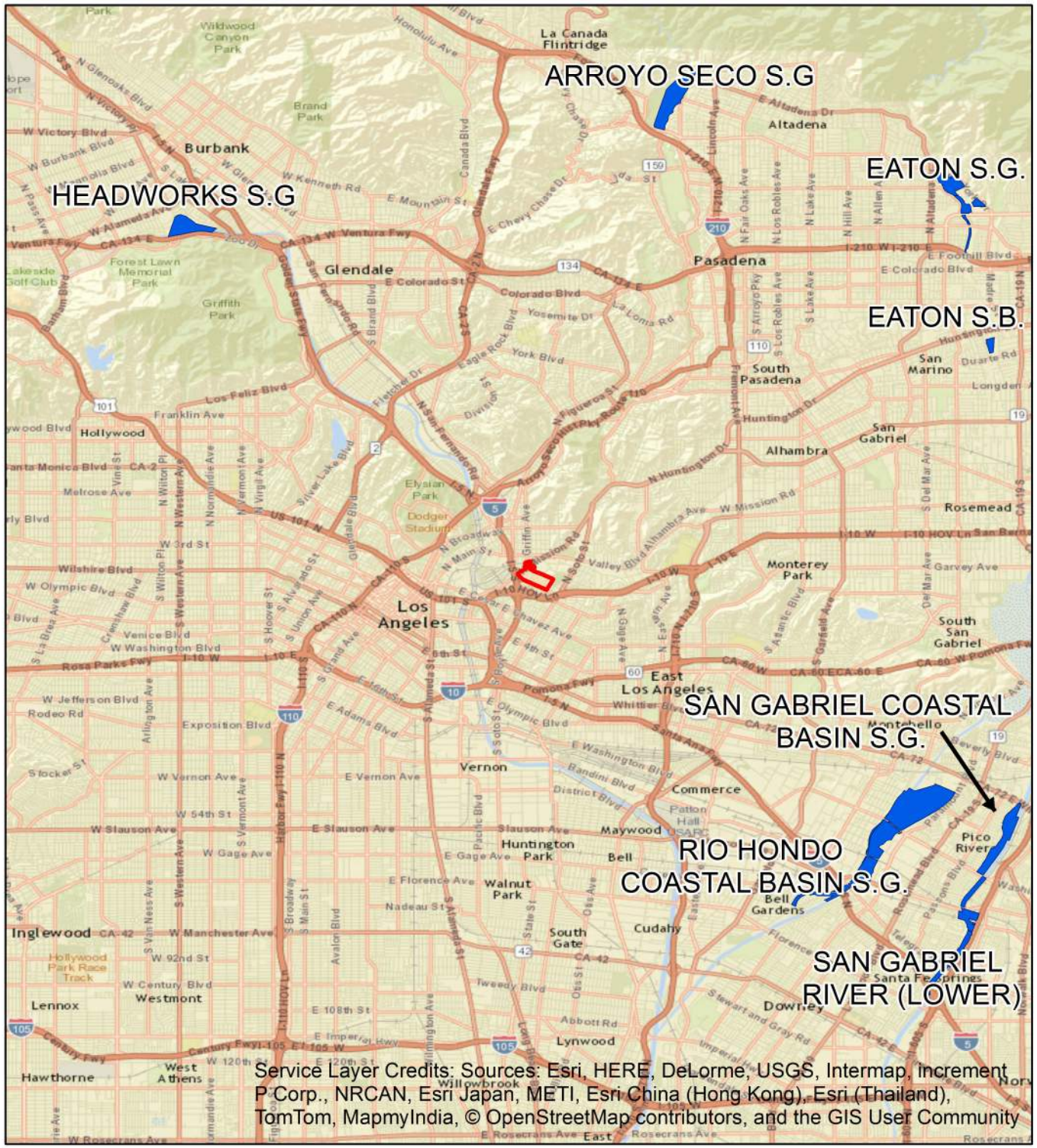
- USGS NHD Subwatershed
- Project Boundary

Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 4

Subwatershed Boundaries



North

Feet

0 9,000 18,000 36,000

1 inch = 15,000 feet

Legend

Spreading Grounds

Project Boundary

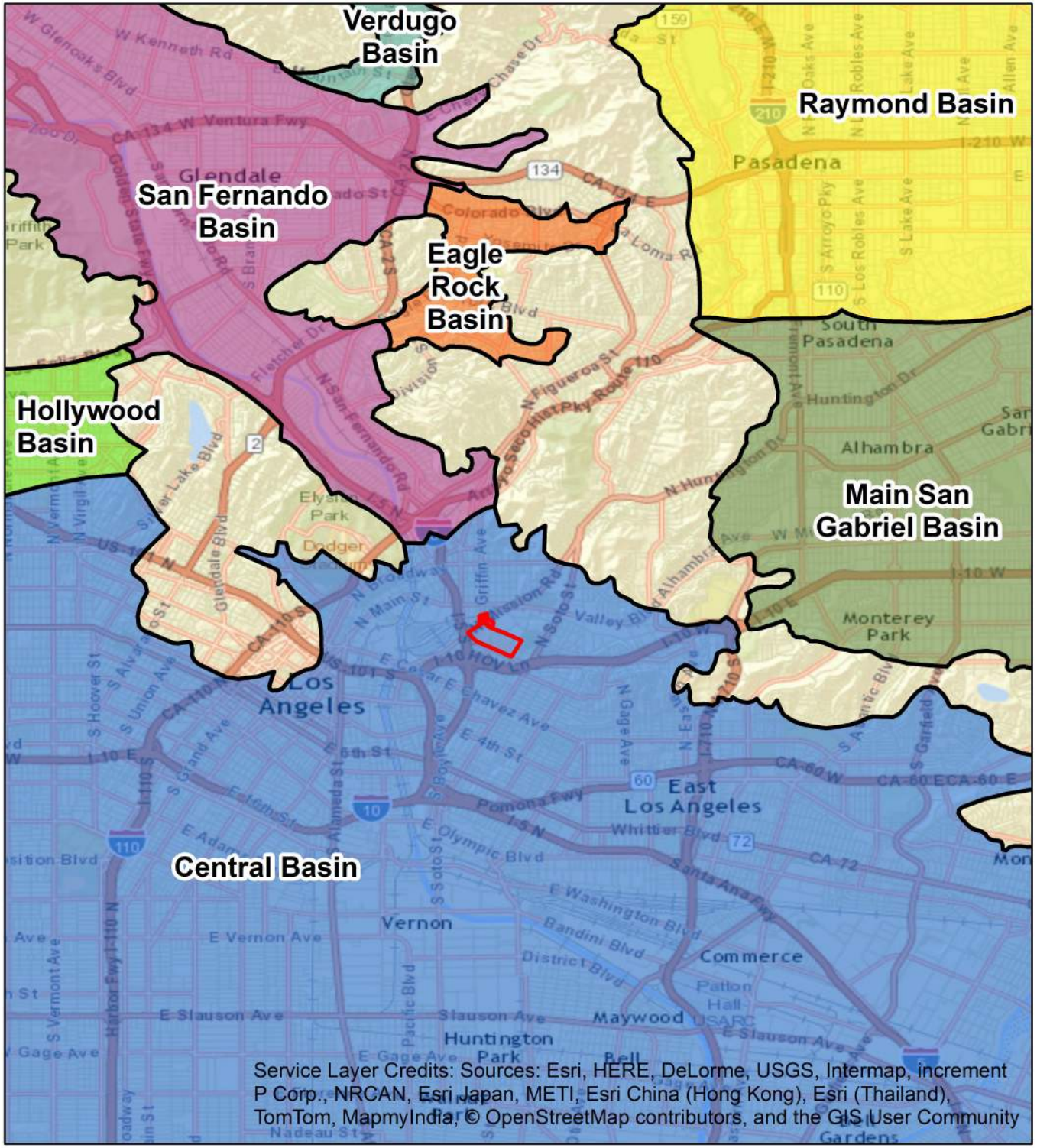
Watearth™

LA+USC Medical Center

EXHIBIT 5

Stormwater Spreading Grounds

Spreading Grounds data from Los Angeles Co. Dept. of Public Works



North

Feet

0 6,250 12,500 25,000

1 inch = 10,000 feet

Legend

- Ground Water Basins
- Project Boundary

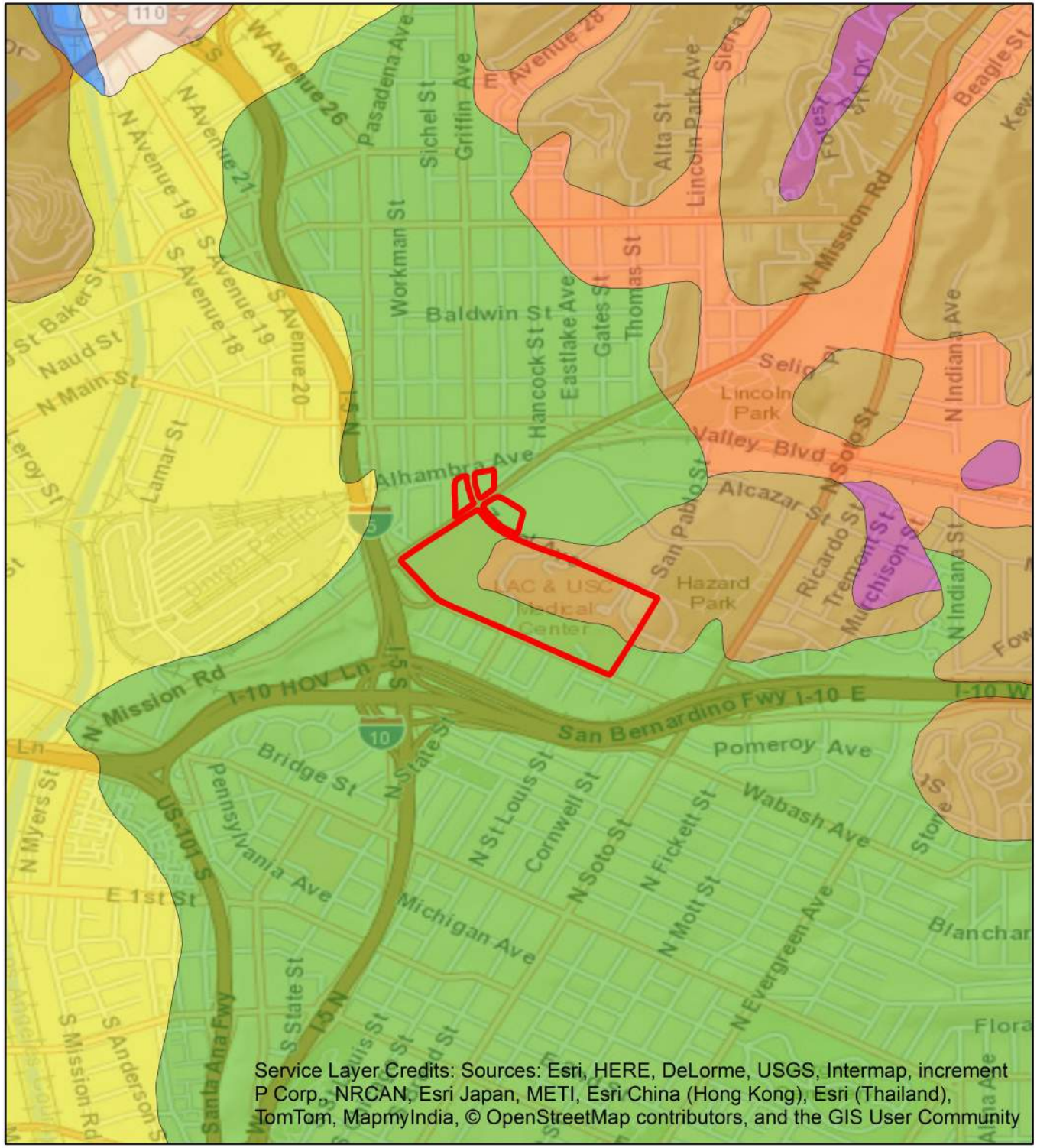
Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 6

Groundwater Basins

Ground water basin data from
Los Angeles Co. Dept. of Public Works



North

Feet

0 1,300 2,600 5,200

1 inch = 2,000 feet

- Project Boundary
- Altamont Clay Loam
- Ramona Loam
- Yolo Clay Loam
- Tujunga Fine Sandy Loam
- Handford Gravelly Sandy Loam
- Handford Fine Sandy Loam
- Diablo Clay Loam

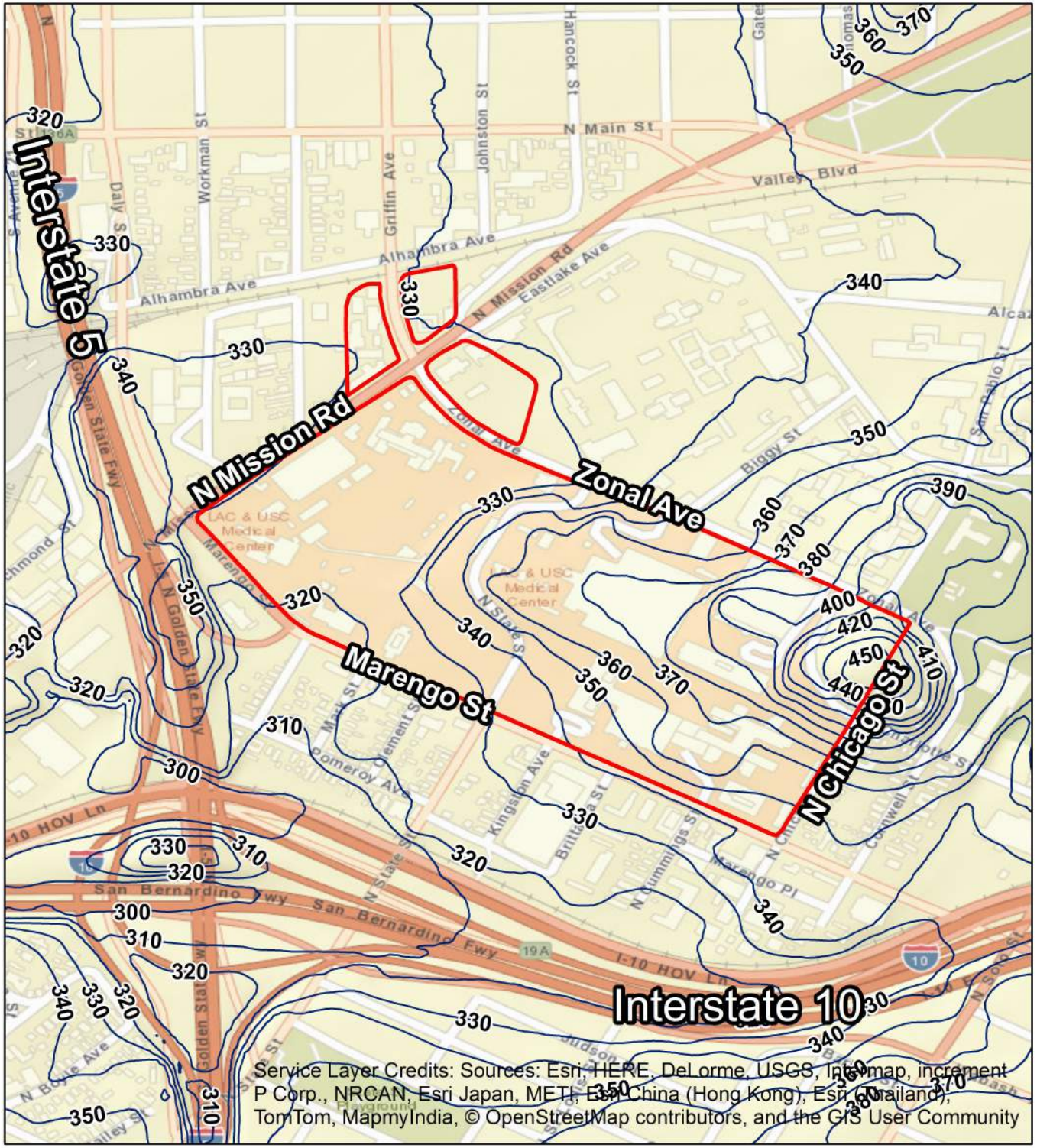
Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 7

Soil Types

Soil data from Los Angeles Co. Dept. of Public Works, Water Resources Division



North

0 500 1,000 2,000 Feet

1 inch = 750 feet

Legend

- Project Boundary
- 10ft Contour

Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 8

Topographic Map

Elevation data from
USGS National Elevation Dataset

APPENDIX A1 - LAC+USC MEDICAL CAMPUS PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS

LAC+USC MEDICAL CAMPUS
PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS

LOS ANGELES, CALIFORNIA

Kimley-Horn and Associates, Inc.

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Engineering, Planning, and Environmental Consultants

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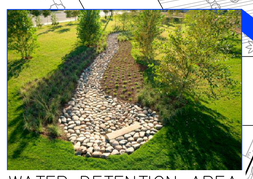
Orange, California 92868 (714) 939-1030



WATER DETENTION AREA

BIOSWALE/RAINGARDENS

PERVIOUS PAVEMENT

Q_{25}=21.53 CFS, T_C=7 MIN
Q_{50}=24.35 CFS, T_C=7 MIN
Q_{100}=29.13 CFS, T_C=6 MIN
Q_{SUSMP}=1.47 CFS, T_C=28 MIN

Q_{25}=27.53 CFS, T_C=5 MIN
Q_{50}=31.12 CFS, T_C=5 MIN
Q_{100}=24.71 CFS, T_C=5 MIN
Q_{SUSMP}=1.83 CFS, T_C=21 MIN

Q_{25}=42.8 CFS, T_C=5 MIN
Q_{50}=48.48 CFS, T_C=5 MIN
Q_{100}=54.08 CFS, T_C=5 MIN
Q_{SUSMP}=2.20 CFS, T_C=22 MIN

Q_{25}=8.91 CFS, T_C=7 MIN
Q_{50}=10.82 CFS, T_C=6 MIN
Q_{100}=12.05 CFS, T_C=6 MIN
Q_{SUSMP}=0.63 CFS, T_C=26 MIN

Q_{25}=31.01 CFS, T_C=5 MIN
Q_{50}=35.05 CFS, T_C=5 MIN
Q_{100}=39.10 CFS, T_C=5 MIN
Q_{SUSMP}=1.69 CFS, T_C=23 MIN

Q_{25}=20.34 CFS, T_C=10 MIN
Q_{50}=24.09 CFS, T_C=9 MIN
Q_{100}=26.89 CFS, T_C=9 MIN
Q_{SUSMP}=1.59 CFS, T_C=30 MIN

Q_{25}=24.51 CFS, T_C=6 MIN
Q_{50}=27.66 CFS, T_C=6 MIN
Q_{100}=33.62 CFS, T_C=5 MIN
Q_{SUSMP}=1.70 CFS, T_C=23 MIN

Q_{25}=10.14 CFS, T_C=5 MIN
Q_{50}=11.47 CFS, T_C=5 MIN
Q_{100}=12.79 CFS, T_C=5 MIN
Q_{SUSMP}=0.79 CFS, T_C=15 MIN

ZONAL AVENUE
STATE ST.
BIGGY ST.
N. MISSION ROAD
SICHEL ST.
WORKMAN ST.
STATE STREET
N. CUMMINGS STREET
N. CHICAGO STREET
MARENGO STREET
LORD ST.
MARK ST.
CLEMENT ST.
STATE ST.
KINGSTON AVE.
BRITANNIA ST.
N. CUMMINGS ST.
CHICAGO ST.

PHASE 2 B-08
PHASE 2 B-06
PROPOSED CENTRAL PLANT
PHASE 2 P-IV A
PHASE 2 P-IV B HELIPAD
PHASE 2 B-07
PHASE 1 B-03
PHASE 1 B-01
PHASE 2 B-04
PHASE 1 B-02
X"S.D.

A1 14.8
A2 8.7
A3 9.5
A4 3.6
A5 10.7
A6 9.7
A7 9.2
A8 3.5

LEGEND:

- RIGHT-OF-WAY LINE
- CENTER LINE
- EXISTING OFF-SITE STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING BUILDING TO REMAIN
- PROPOSED BUILDING
- WETLAND/DETENTION AREA
- PERVIOUS PAVEMENT
- BIOSWALE AREA
- SUB-AREA LINE
- LONGEST FLOW PATH
- (X) FLOW PATH ANNOTATION
- (AX / X) HYDROLOGY SUB-AREA NUMBER AND ACREAGE
- HYDROLOGY AREA CONFLUENCE POINT
- DIRECTIONAL FLOW ARROW

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

APPENDIX B – TABLES OF MODELING DATA AND RESULTS

TABLE 1: LAC+USC MEDICAL CENTER EIR SUMMARY OF HYDROLOGIC PARAMETERS

Hydrologic Parameters																	
Area (ac)	24-hr Rainfall Data		Impervious Cover (%)			Overland Flow Length (ft)		Width (A/L) (ft)		Slope (%)			Depression Storage (in)		Manning's n-value Impervious	Manning's n-value Pervious		
	10-yr	100-yr	Undev	Exist	Prop	Undev	Exist & Prop	Undev	Exist & Prop	Undev	Exist	Prop	Impervious	Pervious		Undev	Exist	Prop
83.61	4.84	7.87	0.0%	95%	75.0%	500	200	7,284	18,210	4.8%	4.8%	4.8%	0.06	0.25	0.011	0.32	0.24	0.24

Notes:

1. Hydrologic modeling performed in EPA SWMM5.0.022.
2. Site assumed to route to outlet in undeveloped conditions and 0% disconnected impervious cover assumed in existing conditions as detailed topographic and grading data not available.
3. Undeveloped conditions assumed.
4. Tree canopy interception neglected as not significant for this project.
5. Evaporation data based on 1970 - 2006 data from Los Angeles Downtown/USC gauge obtained from the EPA National Stormwater Calculator.
6. Undeveloped Manning's n-value for pervious areas assumed between dense grass and woods with light underbrush. Existing Manning's n-value for pervious areas assumed as dense grass.
7. Proposed Manning's n-value for pervious areas assumed as dense grass or an approximate average between turf grass and native vegetation.
8. Continuous simulation model based on 1970 - 2006 data from Los Angeles Downtown/USC gauge obtained from the EPA National Stormwater Calculator.
9. Existing impervious cover of 95% approximated from aerial photograph and proposed impervious cover assumed from campus rendering from *Master Plan* .
10. Proposed includes ultimate redevelopment of LA+USC Medical Center with Low Impact Development (LID) features.
11. Existing slope assumed as typical site average and proposed slope assumed same as existing based on information in *Master Plan* . Since no data available, undeveloped slope assumed same as existing.
12. Overland flow length of 500 feet (ft) assumed as maximum for undeveloped conditions based on SWMM User's Manual. Existing and proposed conditions limited to 200 ft due to channelized flow on paved surfaces.
13. Rainfall data based on National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 6 from the Ascot Reservoir gauge.

TABLE 2: LAC+USC MEDICAL CENTER EIR GREEN & AMPT SOILS PARAMETERS

Native Soil Green & Ampt Parameters			Growing Media Green & Ampt Parameters						
Suction Head (in)	Conductivity (in/hr)	Initial Deficit	Suction Head (in)	Conductivity (in/hr)	Initial Deficit	Field Capacity	Effective Porosity	Wilting Point	Conductivity Slope
5.885	0.085	0.305	2.4	1.18	0.382	0.105	0.437	0.047	8.0

Notes:

1. Native soil classified as Ramona Loam and Altamont Clay Loam from LA County soils and GIS data.
2. Suction head and hydraulic conductivity for native soil based on average of clay loam and loam values from EPA *SUSTAIN User's Manual*
3. Initial moisture deficit for Western U.S. assumed as average of clay loam and loam from www.water-research.net
4. Conductivity and suction head values assumed for growing media from EPA *SUSTAIN User's Manual* .
   The conductivity value was selected to simulate long-term saturated hydraulic conductivity in the event of loss of capacity over time.
5. Loamy sand classification assumed for growing media and depths shown on Table 4.
6. Conductivity slope assumed from standard tables in SWMM5.0.021 User's Manual based on sandy loam growing media.

TABLE 3: LAC+USC MEDICAL CENTER EIR LID FEATURES AREAS AND CONTRIBUTING AREAS

LID Feature	LID Area (sq. ft.)	Drainage Area/ Area Treated (ft^2)	Pervious Area Treated (ft^2)	Impervious Area Treated (ft^2)	% Impervious Area Treated	Outflow to Pervious
Bioretention	70,436	414,167	0	414,167	11%	No
Permeable Pavement	170,446	170,446	0	170,446	5%	No
Wetlands/Detention	31,804	68,681	0	68,681	2%	No
TOTALS		653,294	0	653,294	18%	

Notes:

1. Surface areas based on LAC+USC MEDICAL CAMPUS PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS prepared by Kimley-Horn & Associates, Inc.
2. Total Area Treated = drainage area contributing to LID feature.
2. % impervious area treated is percent of impervious area in entire project drainage area as the aggregated method of LID modeling is used due to the site size.
3. Permeable pavement modeled as 100% impervious and perviousness and storage handled as an LID control.
4. Green roof (agricultural/urban farm) and cisterns for stormwater harvesting and use not included as they are not specifically programmed.

TABLE 4: LAC+USC MEDICAL CENTER EIR LID CONFIGURATIONS

LID Feature	Perm. Pvmt. Thickness (in)	Perm. Pvmt. Infilt. (in/hr)	Perm. Pvmt. Void Ratio	Avg. Surface Depth (in)	Surface Slope (%)	Top Width (ft)	Surface Veg. Volume Fraction	Manning's n-value	Depth Soil Media (in)	Initial Media Saturation (%)	Drain Rock (in)	Void Ratio	Underdrain?
Bioretention	---	---	---	18	---	25	0.05	---	36	0/50	12	0.5	yes
Permeable Pavement	4	100	0.18	---	2.00	50	---	0.011	---	0/50	24	0.5	yes
Wetlands/Detention	---	---	---	48	---	50	0.05	---	24	0/50	---	---	no

Notes:

1. Green & Ampt hydraulic parameters for growing media (amended soil) based on sandy loam with a hydraulic conductivity of 1.18 in/hr (see Table 2 for details).
2. Hydraulic conductivity of 0.085 in/hr assumed for underlying (native) soil (see Table 2 for details).
3. No clogging assumed on permeable pavement (i.e., maintenance at appropriate intervals assumed).
4. Initial media saturation used for design storm events only and not continuous simulation model.
5. Surface depth and growing media depth for bioretention and wetlands/detention based on required two to three feet from February, 2014 County of Los Angeles Department of Public Works *Low Impact Development Standards Manual* .
6. Wetlands/detention modeled as bioretention due to planning-level nature of analysis.
7. Thickness of porous asphalt and void ratio of gravel reservoir assumed.
8. Permeable pavement infiltration rate assumed and void ratio based on average between typical range of 0.12 - 0.21 from SWMM5.0.022 documentation.
9. Slope of 2% for permeable pavement assumed as located in flatter portions of site.
10. Manning's n-value for permeable pavement based on typical asphalt n-values.
11. 4-inch underdrains in Permeable Pavement and Bioretention assumed to be elevated 6 inches above bottom of gravel reservoir.
12. Void ratios assumed for gravel storage reservoirs.

TABLE 4A: LAC+USC MEDICAL CENTER EIR STORMWATER QUALITY VOLUME

LID Feature	Storage Volume (cu. ft.)			
	Surface Storage	Growing Media	Drain Rock	Total
Bioretention	2.43	1.46	0.42	4.30
Permeable Pavement	0.00	0.00	2.03	2.03
Wetlands/Detention	1.46	1.46	0.00	2.92
TOTAL	3.89	2.92	2.46	9.26
REQUIRED	6.62			6.62
EXCESS/DEFICIT	-2.73			2.64

Notes:

1. Surface areas based on LAC+USC MEDICAL CAMPUS PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS prepared by Kimley-Horn & Associates, Inc.
2. Water quality volume required based on 0.95-inch 85th-percentile, 24-hour rainfall event.
3. Storage volumes approximate based on surface area of LID features. Final designs may need to vary to meet required stormwater quality volumes.
4. Effective porosities of 30% and 26% used for growing media and drain rock, respectively. Effective porosites based on data in NCSU *Urban Waterways* article entitled Designing Bioretention with an Internal Water Storage (IWS) Layer.

TABLE 5: LAC+USC MEDICAL CENTER EIR DESIGN STORM EVENTS RESULTS

System Results	10-yr, 24-hr Design Storm					100-yr, 24-hr Design Storm				
	Undev.	Exist.	Prop.	% from Undev.	% from Exist.	Undev.	Exist.	Prop.	% from Undev.	% from Exist.
Initial LID Storage (in)	---	---	0.402	---	---	---	---	0.402	---	---
Precipitation (in)	4.540	4.540	4.540	0%	0%	7.140	7.140	7.140	0%	0%
Surface Runoff (in)	3.655	4.322	3.543	-3%	-18%	3.062	6.901	5.953	94%	-14%
Infiltration (in)	0.878	0.177	1.121	28%	533%	4.066	0.198	1.219	-70%	516%
Evaporation (in)	0.008	0.047	0.045	---	-4%	0.013	0.047	0.046	---	-2%
Peak Flows (cfs)	30.9	205.5	154.7	401%	-25%	98.8	328.1	252.9	156%	-23%

Notes:

1. Undeveloped conditions refers to historical site with no development.
2. Existing conditions refers to current conditions at site with existing development.
3. Proposed conditions is proposed ultimate build-out of *Master Plan* facilities with LID features.
4. Initial LID Storage due to assumed 50% saturation used in design storm models.

TABLE 6: LAC+USC MEDICAL CENTER EIR
CONTINUOUS SIMULATION WATER BALANCE OUTPUT

System Results	Analysis Period Results			Difference Between LID Model and Other Conditions			
	Undeveloped	Existing	Proposed	vs. Undeveloped	vs. Existing	% from Undeveloped	% from Existing
Precipitation (in)	570.79	570.79	570.79	0.00	0.00	0%	0%
Surface Runoff (in)	46.59	494.94	323.42	276.84	-171.51	594%	-35%
Infiltration (in)	521.49	25.39	192.27	-329.22	166.87	-63%	657%
Evaporation (in)	2.86	51.54	56.74	53.88	5.20	1881%	10%

Notes:

1. Water balance output is for full continuous simulation run.
2. Initial saturation of 0% (wilting point) used for growing media at start of continuous simulation run.
3. Undeveloped conditions refers to historical site with no development.
4. Existing conditions refers to current conditions at site with existing development.
5. Proposed conditions is proposed ultimate build-out of *Master Plan* facilities with LID features.

TABLE 7: LAC+USC MEDICAL CENTER EIR NUMBER OF RUNOFF EVENTS FROM CONTINUOUS SIMULATION ANALYSIS

Run	Number Runoff Events
Undeveloped Conditions	131
Existing Conditions	1,052
Proposed LID Conditions	991

Notes:

1. 589 precipitation events ≥ 0.10 in.
2. 6-hour inter-event duration used.

APPENDIX C – EPA SWMM WATER BUDGET RESULTS

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)
--------------------------------------------------------------


***********************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
***********************************************************

***************
Analysis Options
***************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ JAN-01-2000 00:00:00
Ending Date .............. JAN-03-2000 00:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


*************************        Volume         Depth
Runoff Quantity Continuity     acre-feet        inches
*************************     ---------       -------
Total Precipitation ......        31.632         4.540
Evaporation Loss .........         0.054         0.008
Infiltration Loss ........        25.463         3.655
Surface Runoff ...........         6.121         0.878
Final Surface Storage ....         0.000         0.000
Continuity Error (%) .....        -0.018


**************************
Subcatchment Runoff Summary
**************************

-----------------------------------------------------------------------------------------------------------
                         Total      Total      Total      Total      Total       Total     Peak  Runoff
                        Precip      Runon       Evap      Infil     Runoff      Runoff   Runoff   Coeff
Subcatchment                in         in         in         in         in    10^6 gal      CFS
-----------------------------------------------------------------------------------------------------------
LA+USC                    4.54       0.00       0.01       3.65       0.88        1.99    30.85   0.193


Analysis begun on:  Sun Jul 13 05:32:37 2014
Analysis ended on:  Sun Jul 13 05:32:37 2014
Total elapsed time: < 1 sec
```

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	31.632	4.540
Evaporation Loss	0.327	0.047
Infiltration Loss	1.232	0.177
Surface Runoff	30.112	4.322
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.124	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	4.54	0.00	0.05	0.18	4.32	9.81	205.49	0.952

Analysis begun on: Sun Jul 13 05:24:08 2014
Analysis ended on: Sun Jul 13 05:24:08 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Initial LID Storage	2.804	0.402
Total Precipitation	31.632	4.540
Evaporation Loss	0.311	0.045
Infiltration Loss	7.808	1.121
Surface Runoff	24.689	3.543
Final Surface Storage	1.672	0.240
Continuity Error (%)	-0.124	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	4.54	0.00	0.04	1.12	3.54	8.04	154.70	0.780

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Init. Storage in	Final Storage in	Po Er
LA+USC	Wetlands/Detention	11.69	0.14	4.09	0.00	0.00	4.68	12.15	
LA+USC	PermeablePavement	7.87	0.13	3.94	0.00	7.81	4.00	0.00	-
LA+USC	Bioretention	22.29	0.14	4.09	0.00	20.20	9.02	6.92	-0

Analysis begun on: Mon Jul 14 14:25:07 2014
Analysis ended on: Mon Jul 14 14:25:07 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	49.748	7.140
Evaporation Loss	0.091	0.013
Infiltration Loss	28.332	4.066
Surface Runoff	21.336	3.062
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.023	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	7.14	0.00	0.01	4.07	3.06	6.95	98.84	0.429

Analysis begun on: Mon Jul 14 14:34:39 2014
Analysis ended on: Mon Jul 14 14:34:39 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	49.748	7.140
Evaporation Loss	0.329	0.047
Infiltration Loss	1.381	0.198
Surface Runoff	48.084	6.901
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.093	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	7.14	0.00	0.05	0.20	6.90	15.67	328.14	0.967

Analysis begun on: Mon Jul 14 14:31:38 2014
Analysis ended on: Mon Jul 14 14:31:38 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Initial LID Storage	2.804	0.402
Total Precipitation	49.748	7.140
Evaporation Loss	0.321	0.046
Infiltration Loss	8.493	1.219
Surface Runoff	41.475	5.953
Final Surface Storage	2.317	0.333
Continuity Error (%)	-0.101	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	7.14	0.00	0.05	1.22	5.95	13.51	252.86	0.834

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Init. Storage in	Final Storage in	Po Er
LA+USC	Wetlands/Detention	18.42	0.14	4.09	0.00	0.00	4.68	18.88	
LA+USC	PermeablePavement	12.40	0.13	3.94	0.02	12.32	4.00	0.00	-
LA+USC	Bioretention	35.15	0.14	4.09	0.00	31.35	9.02	8.67	-0

Analysis begun on: Mon Jul 14 14:27:16 2014
Analysis ended on: Mon Jul 14 14:27:16 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-1970 00:00:00
Ending Date DEC-31-2006 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
045115	JAN-09-1970	DEC-27-2006	60 min	7468	0	0

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	3976.951	570.786
Evaporation Loss	19.953	2.864
Infiltration Loss	3633.484	521.490
Surface Runoff	324.597	46.587
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.027	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	570.79	0.00	2.86	521.49	46.59	105.77	78.18	0.082

Analysis begun on: Sun Jul 13 07:29:52 2014
Analysis ended on: Sun Jul 13 07:29:57 2014
Total elapsed time: 00:00:05

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-1970 00:00:00
Ending Date DEC-31-2006 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
045115	JAN-09-1970	DEC-27-2006	60 min	7468	0	0

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	3976.951	570.786
Evaporation Loss	359.099	51.539
Infiltration Loss	176.927	25.393
Surface Runoff	3448.476	494.937
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.190	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	570.79	0.00	51.54	25.39	494.94	1123.65	108.03	0.867

Analysis begun on: Sun Jul 13 07:24:33 2014
Analysis ended on: Sun Jul 13 07:24:38 2014
Total elapsed time: 00:00:05

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-1970 00:00:00
Ending Date DEC-31-2006 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
045115	JAN-09-1970	DEC-27-2006	60 min	7468	0	0

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	3976.951	570.786
Evaporation Loss	395.353	56.742
Infiltration Loss	1339.615	192.266
Surface Runoff	2253.459	323.424
Final Surface Storage	0.084	0.012
Continuity Error (%)	-0.291	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	570.79	0.00	56.74	192.27	323.42	734.27	87.88	0.567

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Init. Storage in	Final Storage in	Po Er
LA+USC	Wetlands/Detention	1394.91	498.62	897.73	0.00	0.00	0.00	0.00	

LA+USC	PermeablePavement	955.23	33.20	849.72	0.00	82.63	0.00	0.00	-
LA+USC	Bioretention	2617.43	682.84	1381.41	0.00	563.01	0.00	0.62	-0

Analysis begun on: Mon Jul 14 13:22:50 2014
Analysis ended on: Mon Jul 14 13:23:02 2014
Total elapsed time: 00:00:12

APPENDIX C – SITE PHOTOGRAPHS

Photo 1: Los Angeles River Sign on East Cesar Chavez Avenue Crossing Near Mission Road

Photo 2: Los Angeles River Looking North from East Cesar Chavez Avenue Crossing Near Mission Road

Photo 3: Los Angeles River Looking North from East Cesar Chavez Avenue Crossing Near Mission Road

Photo 4: Los Angeles River Looking North from East Cesar Chavez Avenue Crossing Near Mission Road

Photo 5: Storm Drain Inlet Along Zonal Avenue

Photo 6: Storm Drain Inlet Along Zonal Avenue

Photo 7: Storm Drain Inlet Along Zonal Avenue

Photo 8: Storm Drain Inlet Along Zonal Avenue

Photo 9: Storm Drain Inlet Along Zonal Avenue

Photo 10: 1744 Zonal Avenue

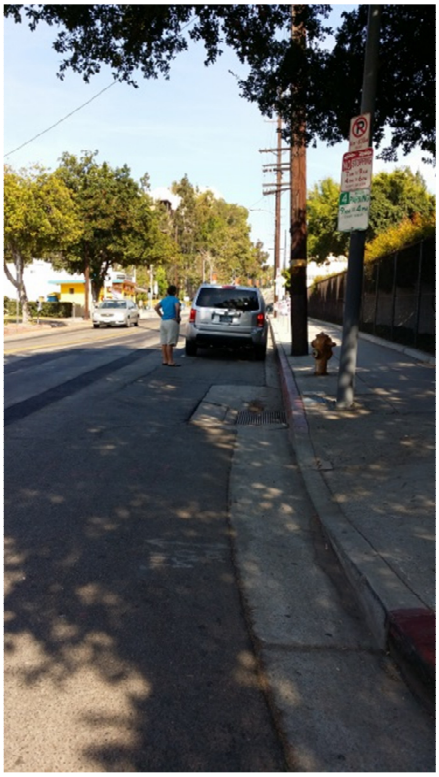


Photo 11: Storm Drain Inlet Along Zonal Avenue

Photo 12: Storm Drain Inlet Along Zonal Avenue

Photo 13: Storm Drain Inlet Along Zonal Avenue

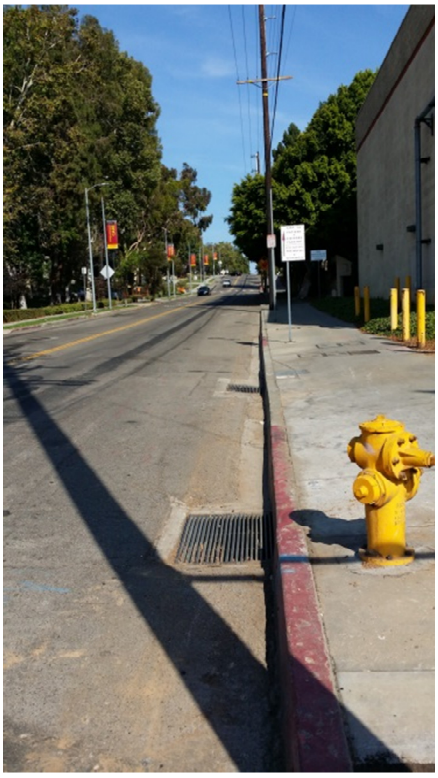


Photo 14: Storm Drain Inlet Along Zonal Avenue

Photo 15: Storm Drain Inlet Along Zonal Avenue

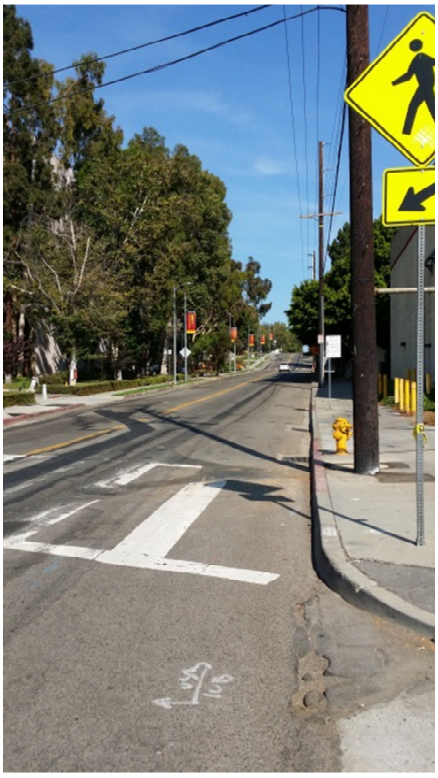


Photo 16: Storm Drain Inlet Along Zonal Avenue

Photo 17: Storm Drain Inlet Along Zonal Avenue at Biggy Street Intersection

Photo 18: Storm Drain Inlet Along Zonal Avenue at Biggy Street Intersection

Photo 19: Storm Drain Inlet Along Zonal Avenue

Photo 20: Storm Drain Inlet Along Zonal Avenue

Photo 21: Storm Drain Inlet Along Zonal Avenue

Photo 22: Storm Drain Inlet Along Cornwell Street at Marengo Street Intersection

Photo 23: Storm Drain Inlet Along Marengo Street

Photo 24: Intersection of Cornwell Street and Marengo Street

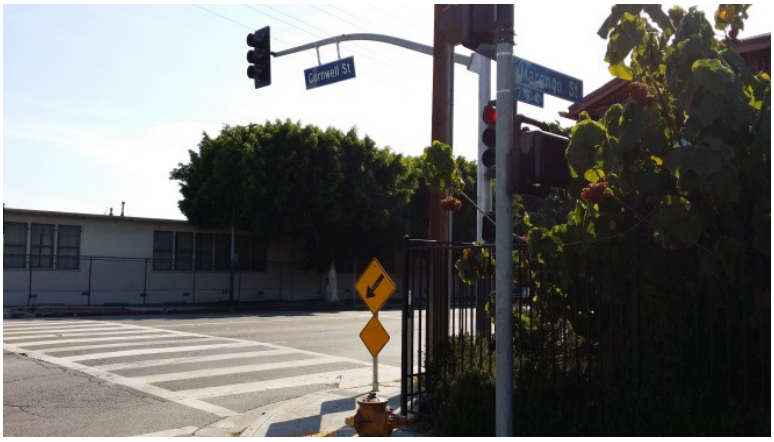


Photo 25: Intersection of Cornwell Street and Marengo Street

Photo 26: Storm Drain Inlet Along Marengo Street

Photo 27: Storm Drain Inlet with Screens Along Marengo Street

Photo 28: Storm Drain Inlet Along Marengo Street

Photo 29: Storm Drain Inlet with Screens Along Marengo Street

Photo 30: Storm Drain Inlet Along Marengo Street

Photo 31: Storm Drain Inlet with Screens Along Marengo Street

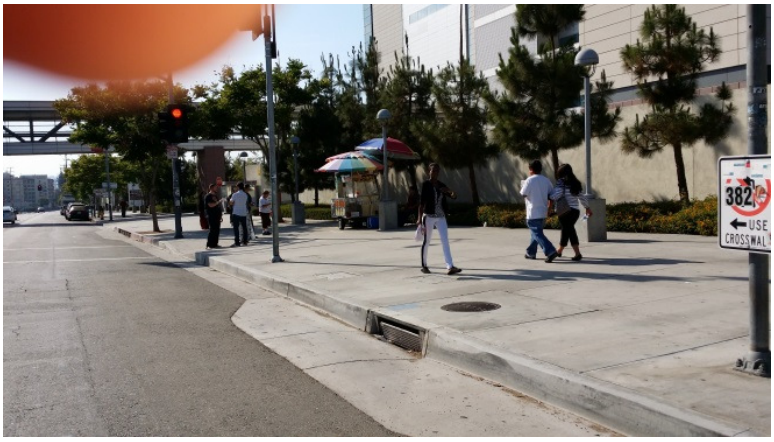


Photo 32: Storm Drain Inlet with Screens Along Marengo Street

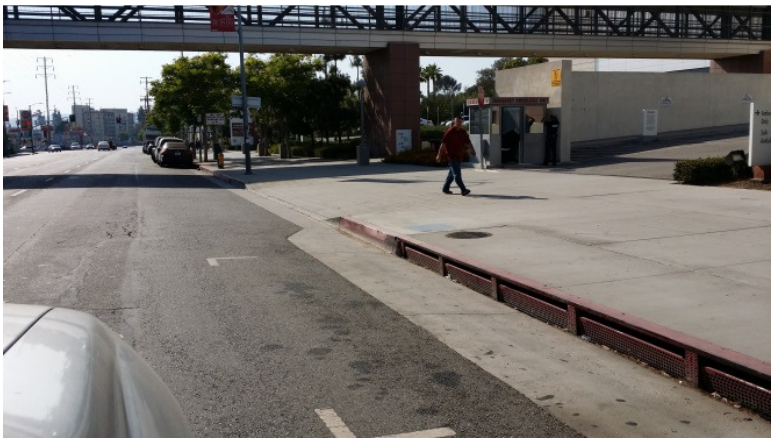


Photo 33: Storm Drain Inlet with Screens Along Marengo Street

Photo 34: Intersection of Marengo Street and Kingston

Photo 35: Storm Drain Inlet Along Marengo Street

Photo 36: Storm Drain Inlet with Screens Along Marengo Street

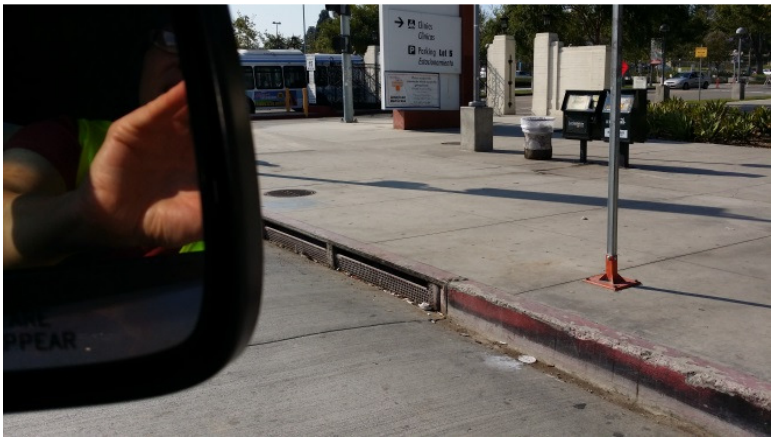


Photo 37: Storm Drain Inlet with Screens Along Marengo Street

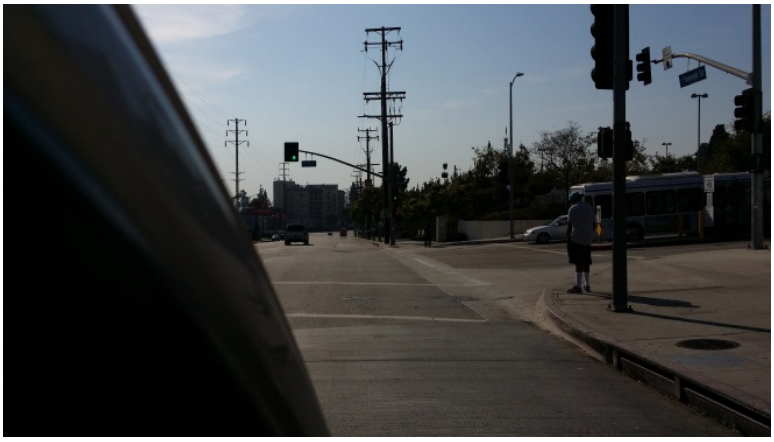


Photo 38: Storm Drain Inlet with Screens Along Marengo Street at State Street Intersection

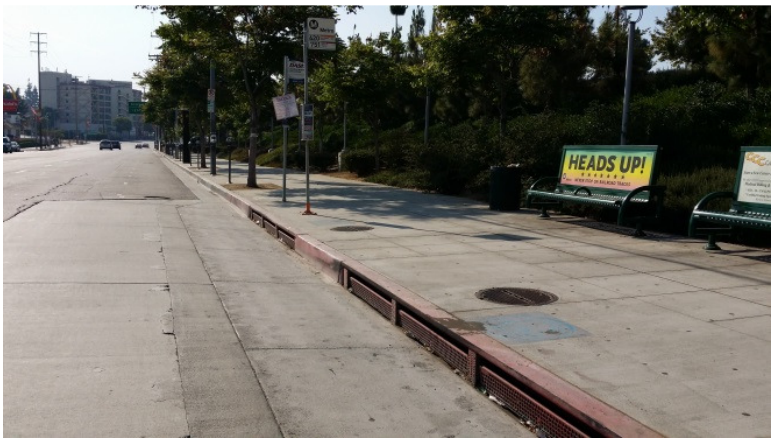


Photo 39: Storm Drain Inlet with Screens Along Marengo Street

Photo 40: Storm Drain Inlet with Screens Along Marengo Street

Photo 41: Storm Drain Inlet with Screens Along Marengo Street

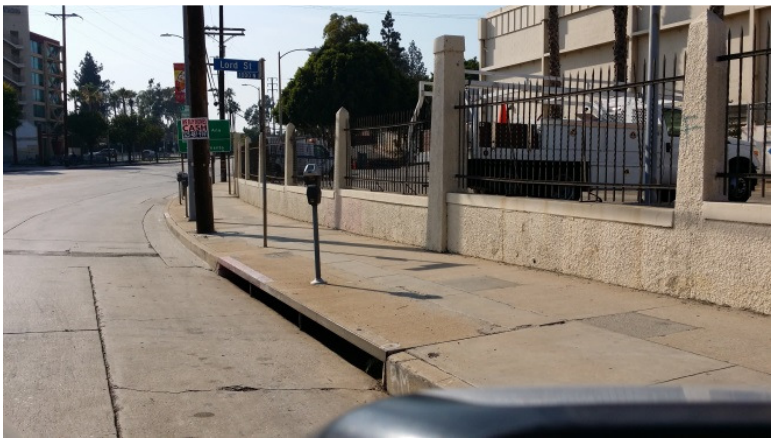


Photo 42: Storm Drain Inlet Along Marengo Street at Lord Street Intersection

Photo 43: Storm Drain Inlet Along Mission Road

Photo 44: Storm Drain Inlet Along Mission Road

Photo 45: Storm Drain Inlet with Screens Along Mission Road

Photo 46: No Dumping Stencil at Storm Drain Inlet Along Mission Road

Photo 47: Looking at Off-Site Portion of Site from Intersection of Zonal Avenue and Mission Road

Photo 48: Looking at Off-Site Portion of Site from Intersection of Zonal Avenue and Mission Road

Photo 49: Looking at Off-Site Portion of Site from Intersection of Zonal Avenue and Mission Road

Photo 50: Looking at Off-Site Portion of Site from Intersection of Zonal Avenue and Mission Road

Photo 51: Looking at Zonal Avenue to West from Intersection of Zonal Avenue and Mission Road

Photo 52: Looking at Off-Site Portion of Site from Intersection of Zonal Avenue and Mission Road

Photo 53: Looking Along Zonal Avenue Near Intersection with Cummings

Photo 54: Looking Along Zonal Avenue Near Intersection with Cummings

Photo 55: Looking Off-Site Towards Hazard Park

Photo 56: Looking Off-Site Towards Hazard Park

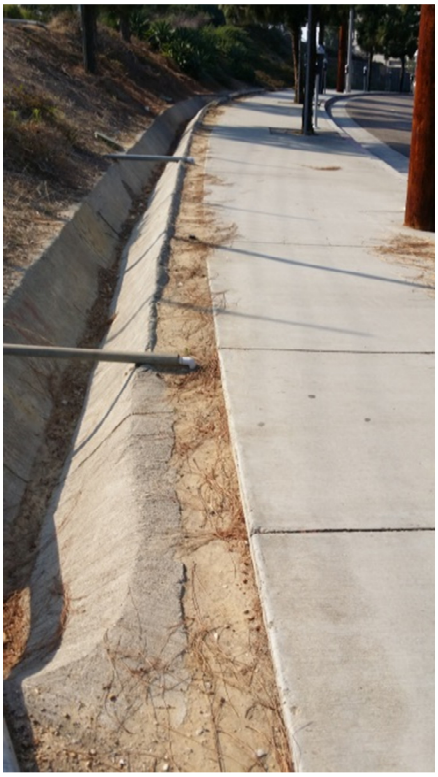


Photo 57: Looking at Concrete Conveyance Swale Along Cornwell that Flows Perpendicular to Slope of "the Hill" in Northeastern Portion of Site

Photo 58: Hazard Park to Right Along Cornwell Street

Photo 59: Looking at Concrete Conveyance Swale Running Perpendicular to Slope of "the Hill" in Northeastern Portion of Site

Photo 60: Looking at Existing Vegetation on "the Hill" in Northeastern Portion of Site

Photo 61: Looking at Existing Vegetation on "the Hill" in Northeastern Portion of Site

Photo 62: Looking at Concrete Conveyance Swale Running Perpendicular to Slope of "the Hill" in Northeastern Portion of Site

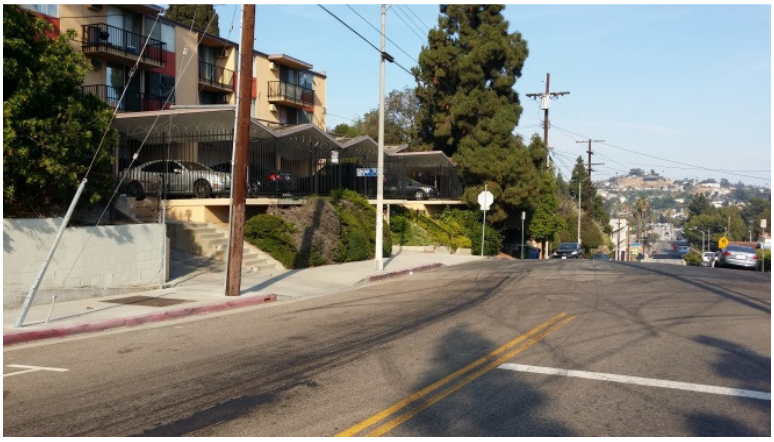


Photo 63: Looking Along Cornwell

Photo 64: Looking at Existing Vegetation and Bare Soil on "the Hill" in Northeastern Portion of Site

Photo 65: Looking at Existing Vegetation and Bare Soil on "the Hill" in Northeastern Portion of Site

Photo 66: Looking at Existing Vegetation on "the Hill" in Northeastern Portion of Site

Photo 67: Looking at Existing Vegetation and Bare Soil on "the Hill" in Northeastern Portion of Site

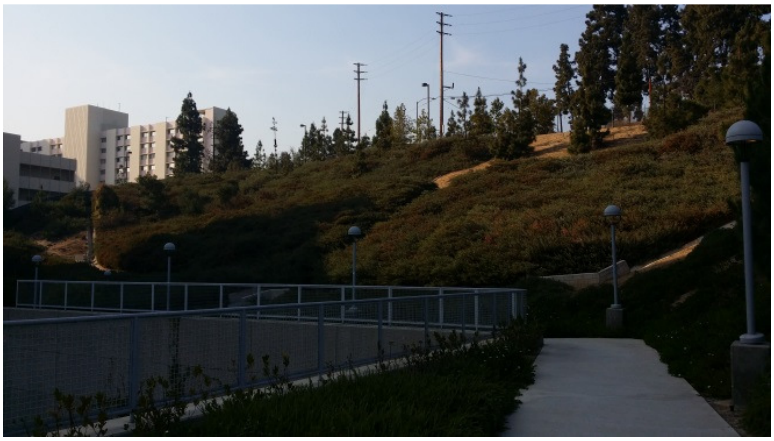


Photo 68: Looking at Existing Vegetation and Bare Soil on "the Hill" in Northeastern Portion of Site

Photo 69: Looking at Existing Vegetation and Bare Soil on "the Hill" in Northeastern Portion of Site

Photo 70: Looking at Existing Vegetation and Bare Soil on "the Hill" in Northeastern Portion of Site

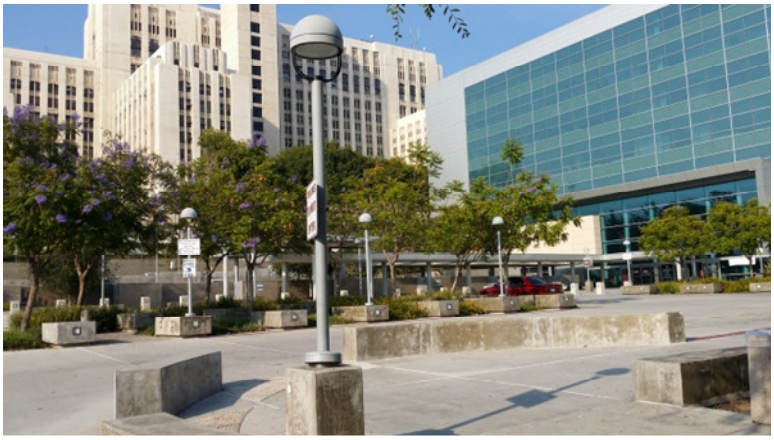


Photo 71: Looking at Existing Vegetation from State Street within LAC+USC Medical Center

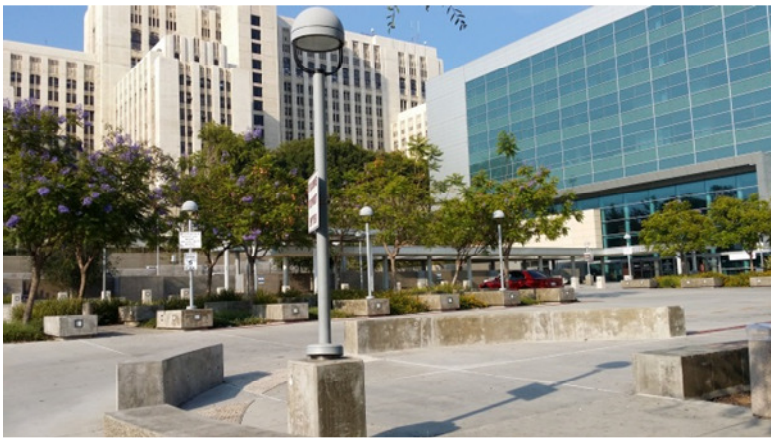


Photo 72: Looking at Existing Vegetation from State Street within LAC+USC Medical Center

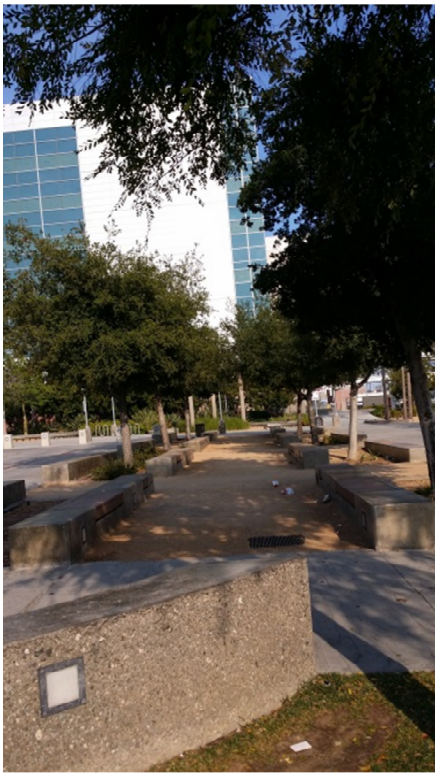


Photo 73: Looking at Existing Vegetation from State Street within LAC+USC Medical Center

Photo 74: Looking at Existing Vegetation from State Street within LAC+USC Medical Center

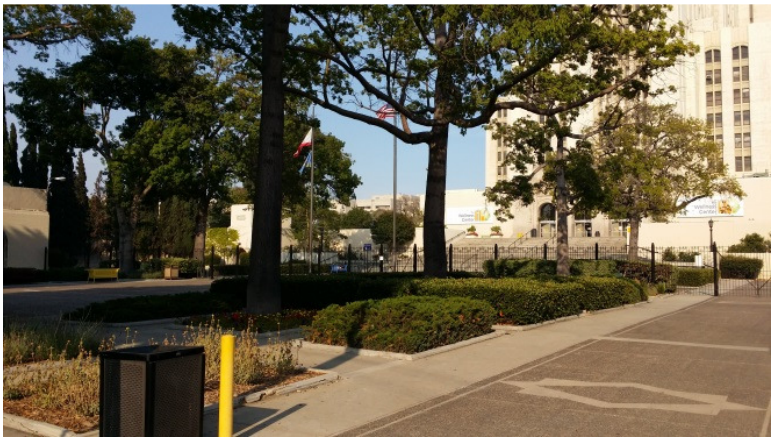


Photo 75: Looking at Existing Vegetation from State Street within LAC+USC Medical Center

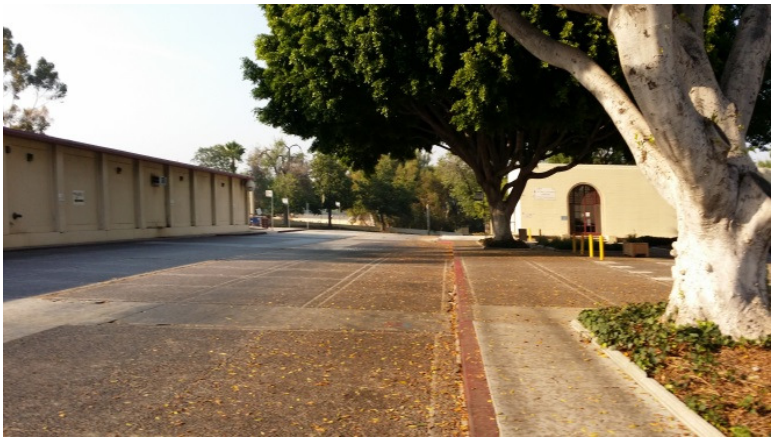


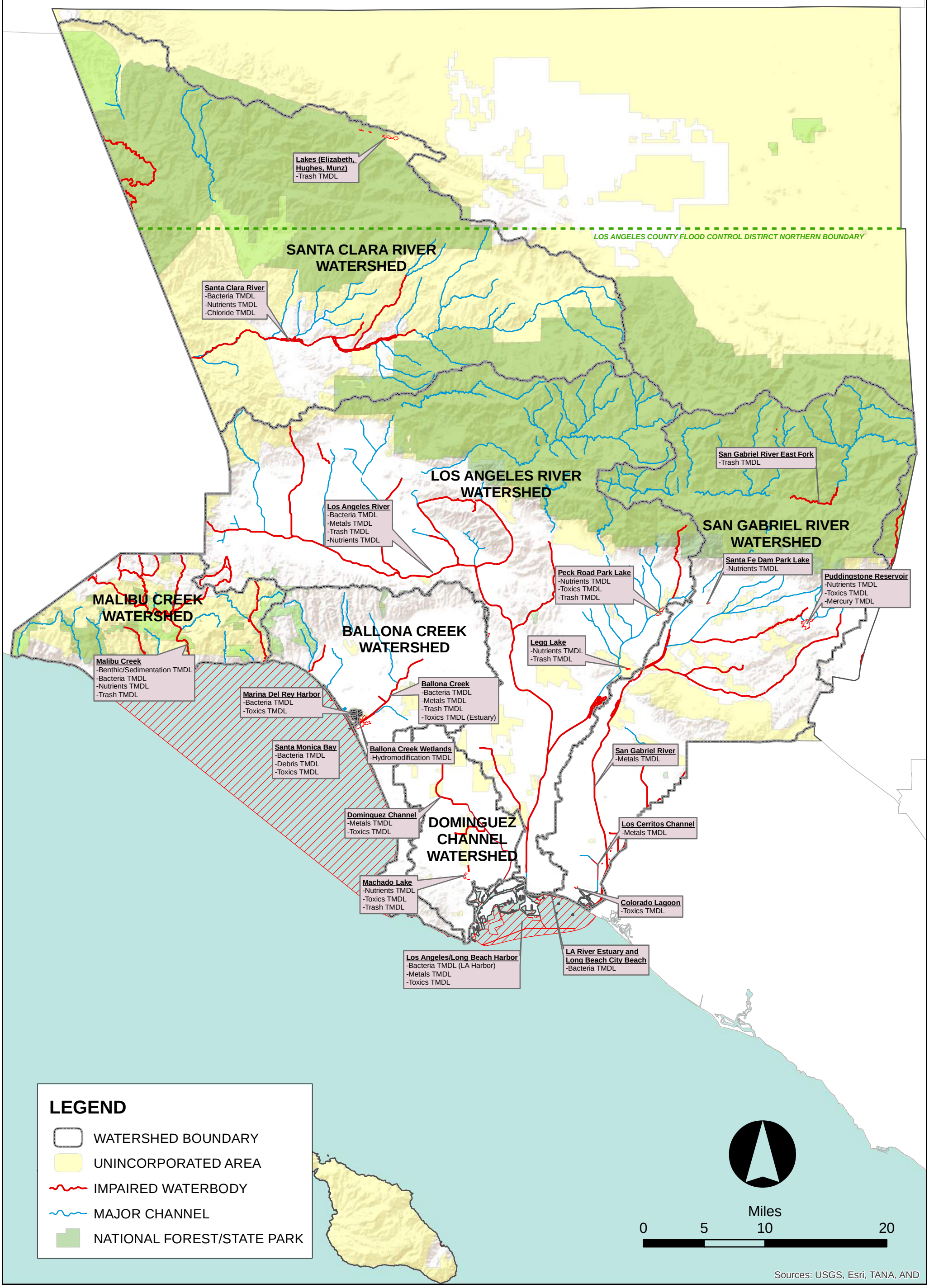
Photo 76: Looking to North on State Street within LAC+USC Medical Center

APPENDIX D – LOS ANGELES RIVER TMDLS AND WATERSHED MANAGEMENT POLLUTANTS OF CONCERN

COUNTY OF LOS ANGELES

MAJOR WATERSHEDS and EFFECTIVE TOTAL MAXIMUM DAILY LOADS

(as of October 2013)



APPENDIX B

Tier 3 Pollutants of Concern

BALLONA CREEK WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Cyanide, Total Recoverable
E. coli Bacteria	Copper, Total Recoverable
Total Coliform Bacteria[1]	Lead, Total Recoverable
Fecal Coliform Bacteria[1]	Mercury, Total Recoverable
Enterococcus Bacteria[1]	Selenium, Total Recoverable

[1] Apply only to discharges to the estuary and the ocean

DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Cyanide, Total Recoverable
E. coli Bacteria	Copper, Total Recoverable
Total Coliform Bacteria[1]	Lead, Total Recoverable
Fecal Coliform Bacteria[1]	Mercury, Total Recoverable
Enterococcus Bacteria[1]	Selenium, Total Recoverable

[1] Apply only to discharges to the estuary and the ocean

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Total Dissolved Solids
E. coli Bacteria	Turbidity
Total Coliform Bacteria[1]	Aluminum, Total Recoverable
Fecal Coliform Bacteria[1]	Cyanide, Total Recoverable
Enterococcus Bacteria[1]	Copper, Total Recoverable
Chloride	Mercury, Total Recoverable
Nitrite Nitrogen, Total (as N)	Selenium, Total Recoverable
Sulfate	

[1] Apply only to discharges to the estuary and the ocean

MALIBU CREEK WATERSHED MANAGEMENT AREA

Parameter	Parameter
E. coli Bacteria	Total Dissolved Solids
Cyanide, Total Recoverable	
Mercury, Total Recoverable	
Selenium, Total Recoverable	
Sulfate	

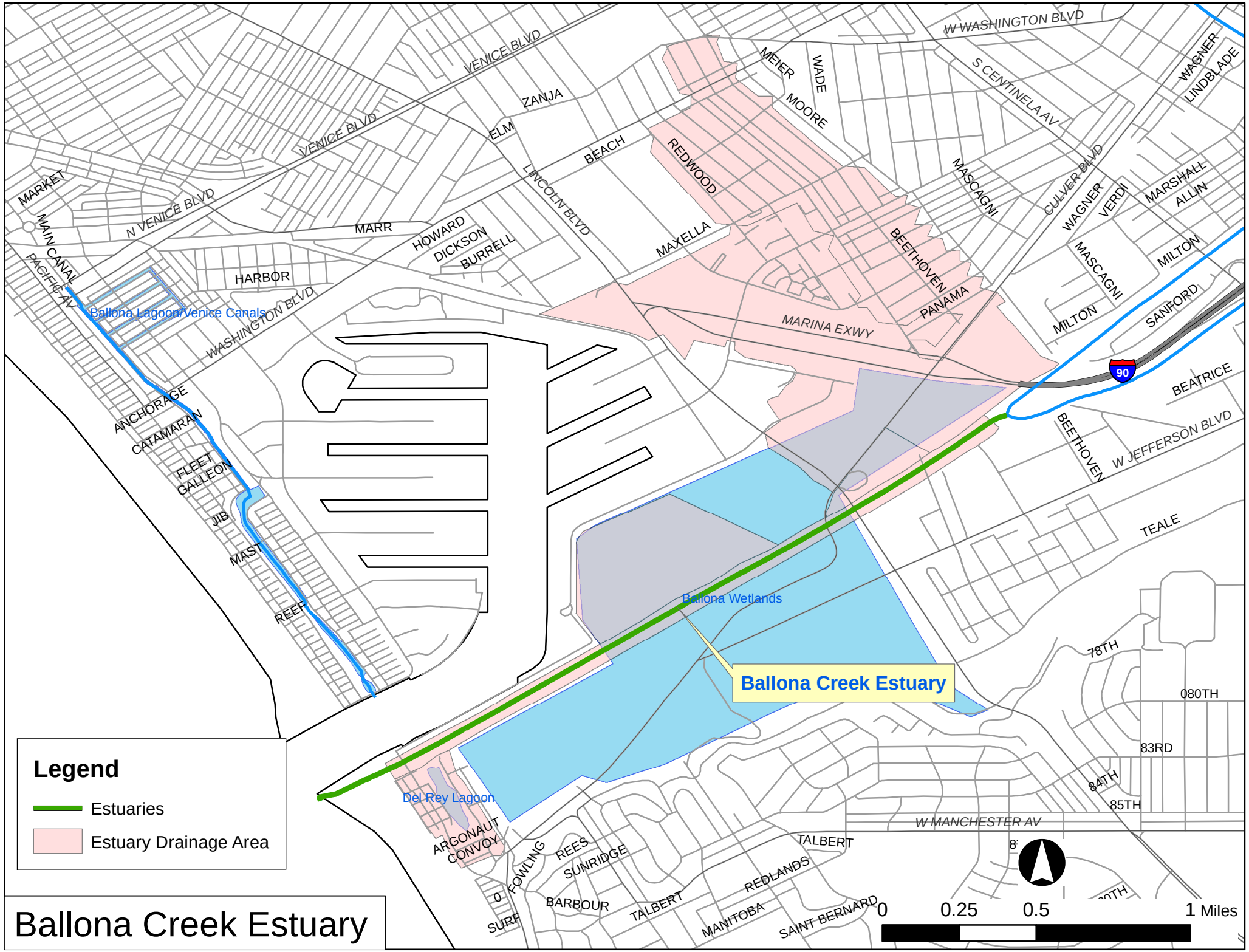
SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Cyanide, Total Recoverable
E. coli Bacteria	Cadmium, Total Recoverable
Total Coliform Bacteria[1]	Copper, Total Recoverable
Fecal Coliform Bacteria[1]	Lead, Total Recoverable
Enterococcus Bacteria[1]	Mercury, Total Recoverable
Chloride	Nickel, Total Recoverable
Nitrate Nitrogen, Total (as N)	Selenium, Total Recoverable
Sulfate	Silver, Total Recoverable
Total Dissolved Solids	Zinc, Total Recoverable
Aluminum, Total Recoverable	

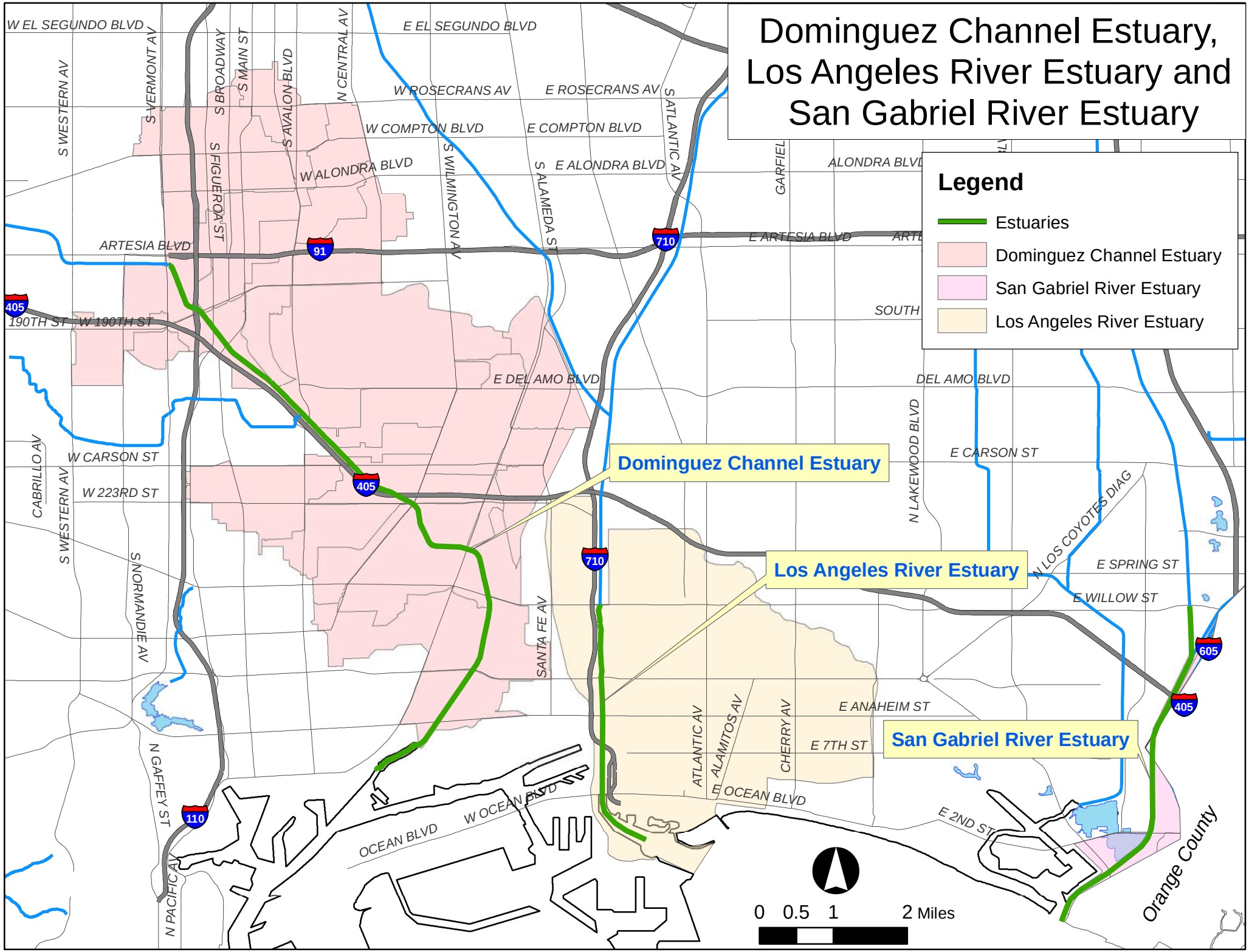
[1] Apply only to discharges to the estuary and the ocean

SANTA CLARA RIVER WATERSHED AREA (LA County portion only)

Parameter	Parameter
E. coli Bacteria	Aluminum, Total Recoverable
Chloride	Cyanide, Total Recoverable
Sulfate	Copper, Total Recoverable
Total Dissolved Solids	Mercury, Total Recoverable
Methylene Blue Active Substances	Selenium, Total Recoverable



Ballona Creek Estuary



Document Name: Basin Plan_LAR-DC

APPENDIX E – LOCATION OF HISTORIC UNDERGROUND ARROYO DE LA PASA RIVER

FINAL

LOS ANGELES COUNTY+ UNIVERSITY OF SOUTHERN CALIFORNIA (LAC+USC) MEDICAL CENTER REPLACEMENT PROJECT

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

SEISMIC HAZARD MITIGATION PROGRAM FOR HOSPITALS

DSR # 47463, 47464, 47465, 47466

P.A. ID # 037-91033

June 2000

RECEIVED
LAC+USC MCRP/PUBLIC WORKS
FILE
PD
PM
DHS
CAO
JUL 11 2000
SPM
PM
COST
SCHED
OTHER
A/E
OTHER

Prepared by:

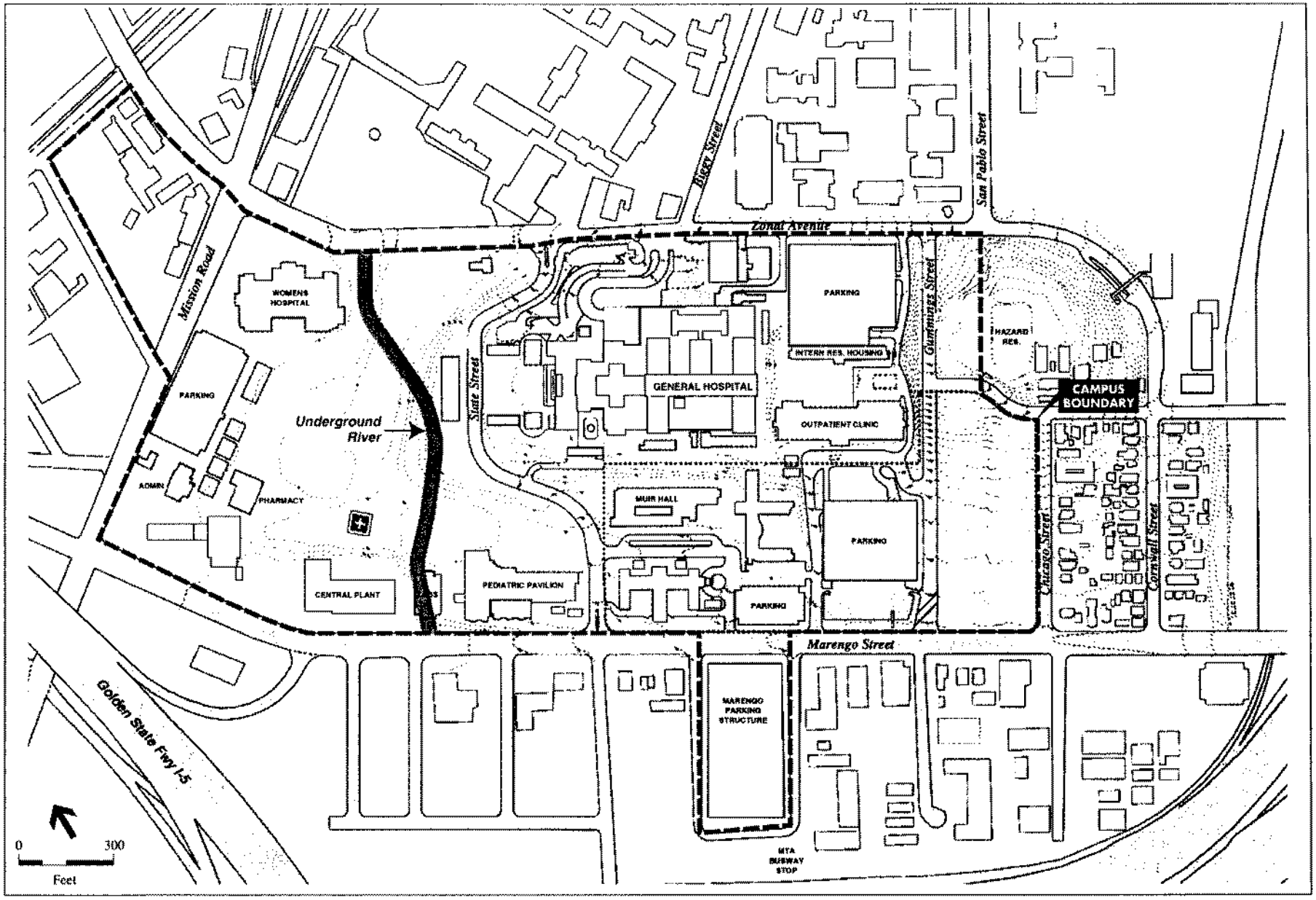
Environmental Science Associates
4221 Wilshire Boulevard, Los Angeles, CA 90010-3512

for

Emergency Management Agency
Parsons East Annex
Third Floor
75 N. Fairoaks Avenue
Pasadena, CA 91103

County of Los Angeles
Department of Public Works
LAC+USC Medical Center Replacement Project
2000 Zonal Avenue, 7th Floor
Los Angeles, CA 90033

Con#:99008569.TIF



SOURCE: Hellmuth Obata Kassabaum + Lee Burkhart Liu. 1998.

Exhibit 35

Location of Historic Underground River
Arroyo De La Pasa

APPENDIX F – LOCATION OF PETROLEUM CONTAMINATED GROUNDWATER SITES

Phase I Environmental Site Assessment
Report Issuance Date: October 21, 2013

LAC+USC Medical Center
1744 Zonal Avenue
Los Angeles, Los Angeles County, California

Brownfield Assessment Grant BF-00T53201-0

Prepared for:

Lee, Burkhart, Liu, Inc.
13335 Maxella Avenue
Marina del Rey, CA 90292

And

Los Angeles County
Chief Executive Office
754 Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Prepared by:

Kimley-Horn and Associates, Inc.
765 The City Drive
Suite 200
Orange, CA 92686

Kimley-Horn
and Associates, Inc.

Project No. 094633002
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Phase I Environmental Site Assessment Report

LAC+USC Medical Center
1744 Zonal Avenue
Los Angeles, Los Angeles County, California

Brownfield Assessment Grant BF-00T53201.0

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765 The City Drive
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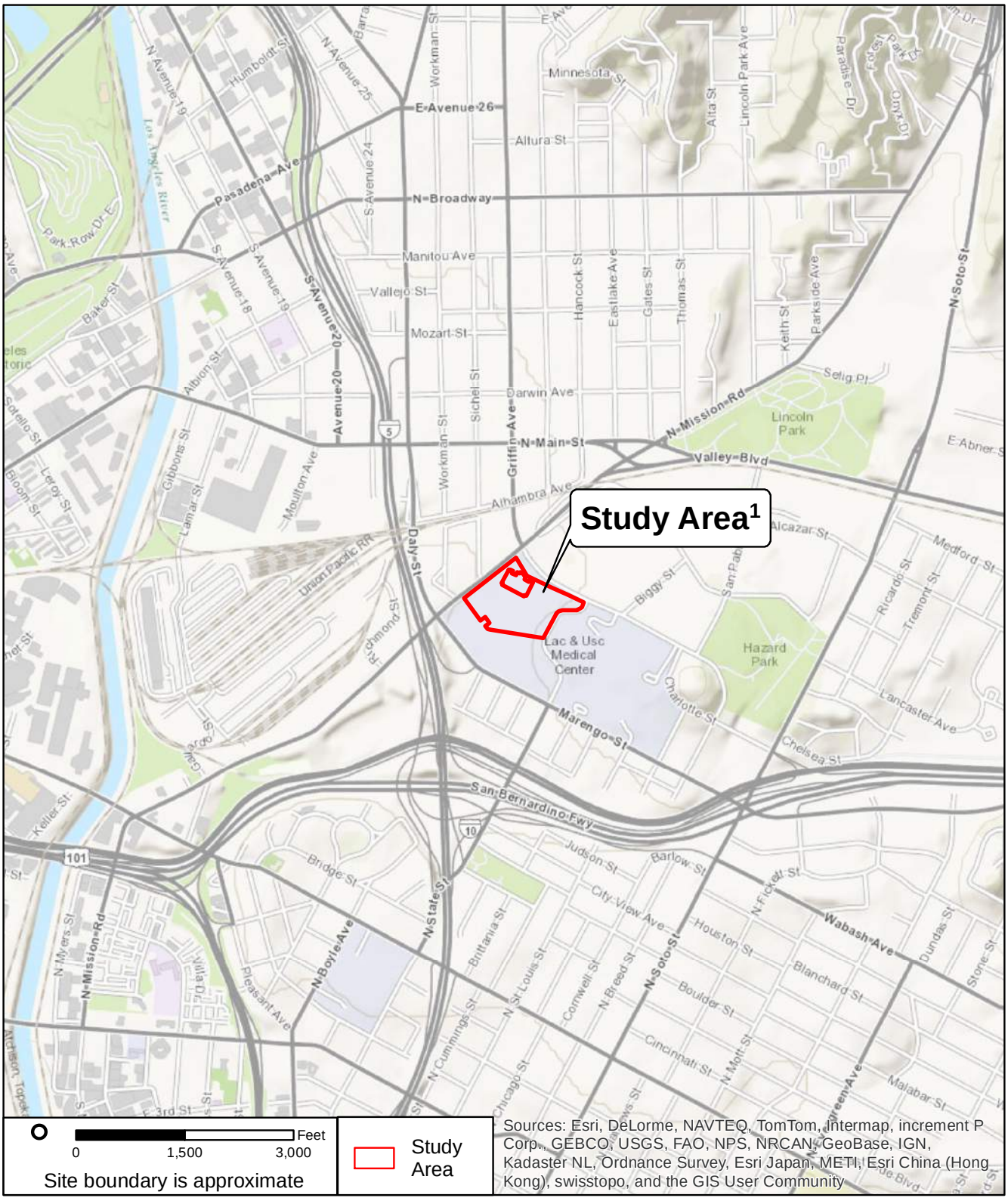
Orange, CA 92686



Kimley-Horn and Associates, Inc.

765 The City Drive, Ste 200
Orange, CA 92868
Phone: (714) 939-1030

Vicinity Map

1200 N. State Street
Los Angeles County, California

PHASE I ESA | FIGURE 1

[1] Women and Children's Hospital Excluded from Study Area

Kimley-Horn and Associates, Inc.
765 The City Drive, Ste 200
Orange, CA 92868
Phone: (714) 939-1030

REC Location Map

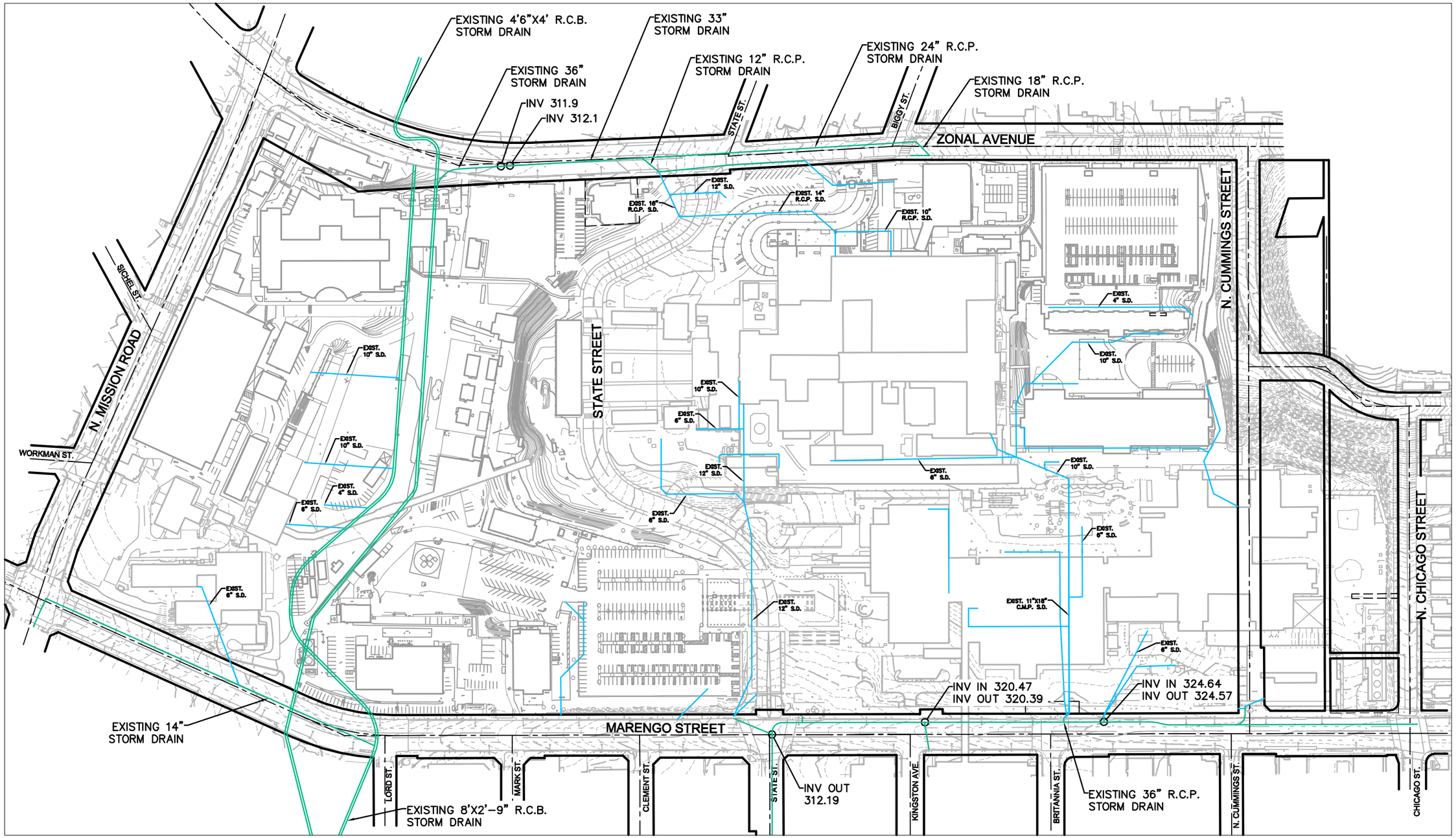
1200 N. State Street
Los Angeles County, California

PHASE I ESA

FIGURE 6

Imagery Source: (c) ESRI, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community
Transportation Source: (c) 2013 Esri, DeLorme, NAVTEQ, TomTom

APPENDIX G – EXISTING AND PROPOSED STORM DRAIN CONVEYANCE PLANS FROM MASTER PLAN



LAC+USC MEDICAL CAMPUS
EXISTING STORM DRAIN
CONVEYANCE CONCEPT PLANS

LOS ANGELES, CALIFORNIA

LEGEND:

- RIGHT-OF-WAY LINE
- CENTER LINE
- EXISTING ON-SITE STORM DRAIN TO PROTECT IN PLACE
- EXISTING OFF-SITE STORM DRAIN TO PROTECT IN PLACE

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

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Engineering, Planning, and Environmental Consultants
765 The City Drive, Suite 200
Orange, California 92868 (714) 939-1030

LAC+USC MEDICAL CAMPUS
PROPOSED STORM DRAIN
CONVEYANCE CONCEPT PLANS

LOS ANGELES, CALIFORNIA

EXISTING 4'6"X4' R.C.B. STORM DRAIN
EXISTING 33" STORM DRAIN
EXISTING 36" STORM DRAIN
INV 311.9
INV 312.1
EXISTING 12" R.C.P. STORM DRAIN
EXISTING 24" R.C.P. STORM DRAIN
EXISTING 18" R.C.P. STORM DRAIN
STATE ST.
BIGGY ST.
ZONAL AVENUE
N. CUMMINGS STREET
N. CHICAGO STREET
SICKEL ST.
N. MISSION ROAD
WORKMAN ST.
STATE STREET
PHASE 2 B-08
PHASE 2 B-06
PROPOSED CENTRAL PLANT
PHASE 2 P-IV A
PHASE 2 P-IV B HELIPAD
PHASE 2 B-07
PROPOSED S.D.
PHASE 1 B-03
PHASE 1 B-01
PHASE 2 B-04
PHASE 1 B-02
EXISTING 14" STORM DRAIN
INV IN 320.47
INV OUT 320.39
INV IN 324.64
INV OUT 324.57
MARENGO STREET
LORD ST.
MARK ST.
CLEMENT ST.
STATE ST.
INV OUT 312.19
KINGSTON AVE.
BRITANNIA ST.
EXISTING 36" R.C.P. STORM DRAIN
N. CUMMINGS ST.
CHICAGO ST.
EXISTING 8'X2'-9" R.C.B. STORM DRAIN

LEGEND:

- RIGHT-OF-WAY LINE
- CENTER LINE
- EXISTING ON-SITE STORM DRAIN TO PROTECT IN PLACE
- EXISTING OFF-SITE STORM DRAIN TO PROTECT IN PLACE
- STORM DRAIN TO BE REMOVED
- PROPOSED STORM DRAIN (PHASE 1 DEVELOPMENT)
- PROPOSED STORM DRAIN (MASTER DEVELOPMENT PHASE)
- EXISTING BUILDING TO REMAIN
- PROPOSED BUILDING

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

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765 The City Drive, Suite 200
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APPENDIX H – TABLE OF EXISTING STORM DRAIN SYSTEMS FROM MASTER PLAN

Project: LAC+USC Medical Campus Master Plans

Existing Onsite Potable Water, Fire System, and Irrigation System Utility

BUILDING NAME	Water Service	Fire System Service	Irrigation Service
Original Hospital Building	4"		2"
Parking Structure (Corner of Marengo and N. Chicago)		6"	
Psychiatric Hospital	8"		2" & 3"
Pediatric Pavilion	6" & 2"	6"	1"
General Laboratories	3"		
Centeral Steam Plant (with Auxiliary Chillers Building)	8" & 6"		
Graduate Hall	6" & 4"	4"	2", 1.5" & 0.75"
School of Nursing	6"	Unknown	2" & 1"
Medical Examiner Building	2"		
Administration Building	4"		
Parking Structure (Along N. Mission Road)	(2)-3"		
Gatehouse (Along N. Mission Road)	2"		
Women's Hospital Patient Financial Service	4"		
Laundry Building	2"		
Publing and Carpentry Building	2"		
Power Plant Building	8"		
Patient Service Building	4"		3" & 1"
Telephone Exchange Building	2"		
Flammable Storage Building		6"	
Outpatient Clinic	8" & 3" (Swimming Pool)	6"	
Parking Structure (corner of Zonal & N. Cummings)	Unknown	Unknown	Unknown
Clinical Research Building	3"		
Women's Hospital	(2)-8"	8"	
Gatehouse (Corner of N. Mission & Zonal)	1.5"		
Intern's residence	8"	6"	
New Hospital Building	N/A	N/A	N/A

This list is based on as-built documentation
"LAC/USC medical Center Utility Systems Record Drawing"
- 1975 by The Ralph M. parsons Company

Project: LAC+USC Medical Campus Master Plans

Existing Offsite Sewer Lines Utility

On N. Mission Road

Location	Size	Slope	Capacity (cfs)
From Zonal Avenue to Sichel Street	8" VCP	0.40%	0.710
From S. of Sichel Street to Workman Streeet	8" VCP	0.40%	0.710
Fron S. of Workman Street to Marengo Street	8" VCP	0.80%	1.004

In between Mission Road and State Street

Location	Size	Slope	Capacity (cfs)
From Zonal Avenue to Marengo Street	12" VCP	0.36%	1.985

On Marengo Street

Location	Size	Slope	Capacity (cfs)
From E. of Mission Road to Lord Street	12" VCP	0.50%	2.339
From W. of State Street to Lord Street	8" VCP	2.70%(+)	1.840-1.851
From Britannia Street to State Street	8" VCP	1.44%	1.347
From Chicago Street to Britannia Street	8" VCP	0.40%	0.710

On Cummings Street

Location	Size	Slope	Capacity (cfs)
From S. of Charlotte Street to Marengo Street (Vacate Portion)	6" VCP	21.60%-4.40%	1.093-2.422
From N. of Charlotte Street to Zonal Avenue	6" VCP	2.00%-6.60%	0.737-2.151

On Zonal Avenue

Location	Size	Slope	Capacity (cfs)
From Cummings Street to Biggy Street	8" VCP	9.80%-2.56%	2.519-3.513
From Biggy Street to N. Mission Road	8"-12"-24" VCP	4.36%-0.16%	4.209-11.503
From Biggy Street to State Street	6" RCP	3.52%	0.978
From State Street to E. of N. Mission Road	8" VCP	2.24%-5.92%	1.679-2.730

VCP: Vitrified Clay Pipe
RCP: Reinforced Concrete Pipe

Project: LAC+USC Medical Campus Master Plans

Existing Onsite Sewer lines Utility

BUILDING NAME	Sewer Drain To
Original Hospital Building	Zonal Avenue
Parking Structure (Corner of Marengo and N. Chicago)	N/A
Psychiatric Hospital	Marengo Street
Pediatric Pavilion	Marengo Street (2 connections)
General Laboratories	Marengo Street
Centeral Steam Plant (with Auxiliary Chillers Building)	Marengo Street
Graduate Hall	Marengo Street
School of Nursing	Zonal Avenue
Medical Examiner Building	Marengo Street
Administration Building	N. Mission Road
Parking Structure (Along N. Mission Road)	N/A
Gatehouse (Along N. Mission Road)	N. Mission Road
Women's Hospital Patient Financial Service	Marengo Street
Laundry Building	Marengo Street
Publing and Carpentry Building	Marengo Street
Power Plant Building	Marengo Street
Patient Service Building	Zonal Avenue
Telephone Exchange Building	N/A
Flammable Storage Building	Zonal Avenue
Outpatient Clinic	Zonal Avenue
Parking Structure (corner of Zonal & N. Cummings)	N/A
Clinical Research Building	Marengo Street
Women's Hospital	Zonal Avenue
Gatehouse (Corner of N. Mission & Zonal)	Zonal Avenue
Intern's residence	Zonal Avenue
New Hospital Building	

Project: LAC+USC Medical Campus Master Plans

Existing Offsite Storm draine Lines Utility

ID OF STORM DRAIN	OWNER	SIZE	TYPE	SLOPE	Location
D-5999	LAFCD	4'-0" x 4'-6"	Reinforced Concrete Box	0.252% -22.5%	See Plan
D-22640	LAFCD	36"	Reinforced Concrete Pipe	1.06%-6.70%	See Plan
26567	City of Los Angeles	7'-0" (B) x 3'-6" (H)	Brick Arch	0.31%	See Plan
26959	City of Los Angeles	14"	Vitrified Pipe	Unknown	See Plan

LAFCD: Los Angeles Flood Control District

APPENDIX I – HAZARDS GRAPHICS

City *of* Los Angeles

Hazard Mitigation Plan

REVISED
January 2011

ADOPTED
July 2011

These assets are included on Figure M-1 along with the Dam Inundation area. The replacement values of critical response facilities and their contents that fall in the hazard areas are in the following section, “Estimating Potential Losses”.

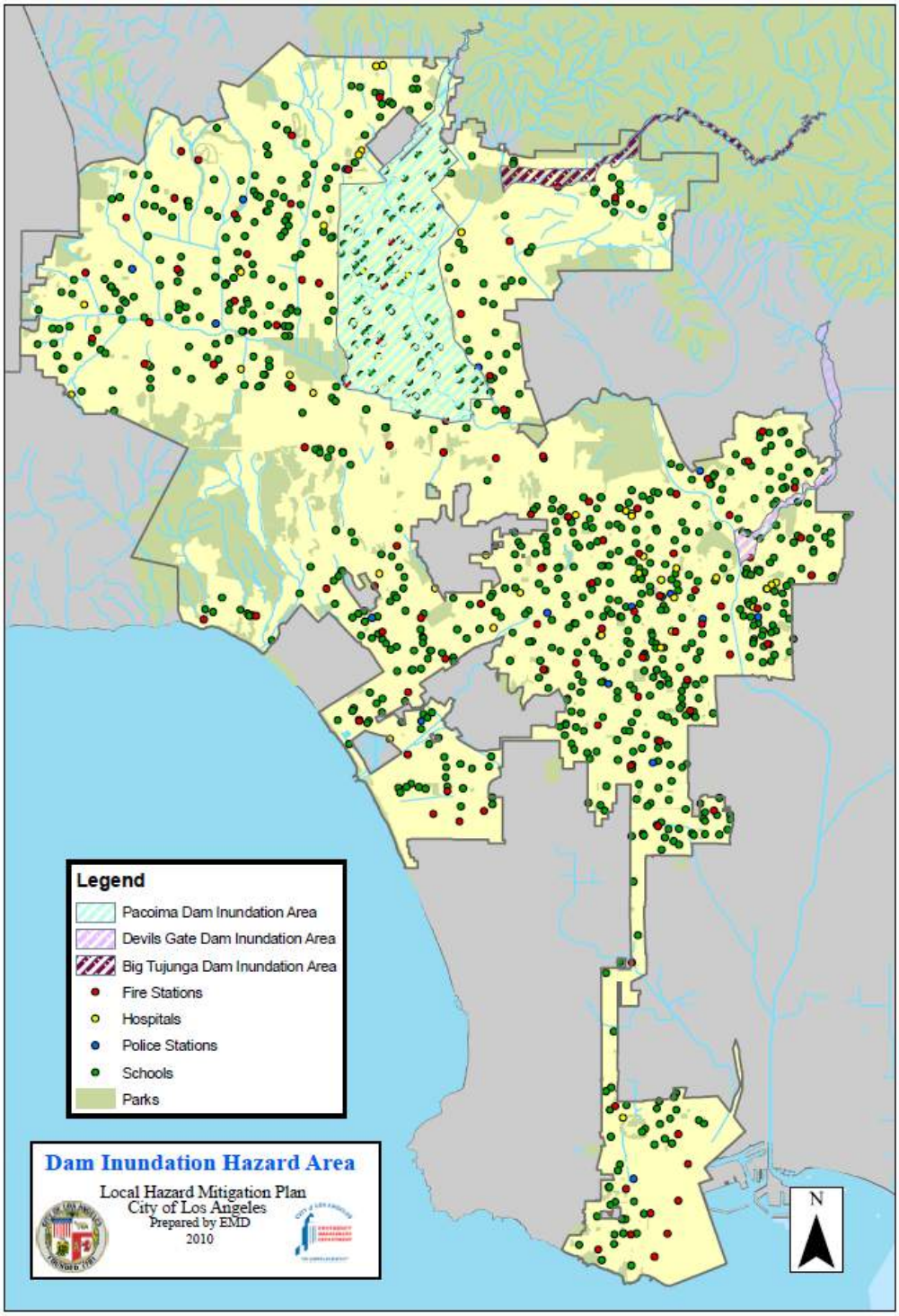

Figure M-1. Critical Response Facilities identified in the Dam Inundation Hazard area.

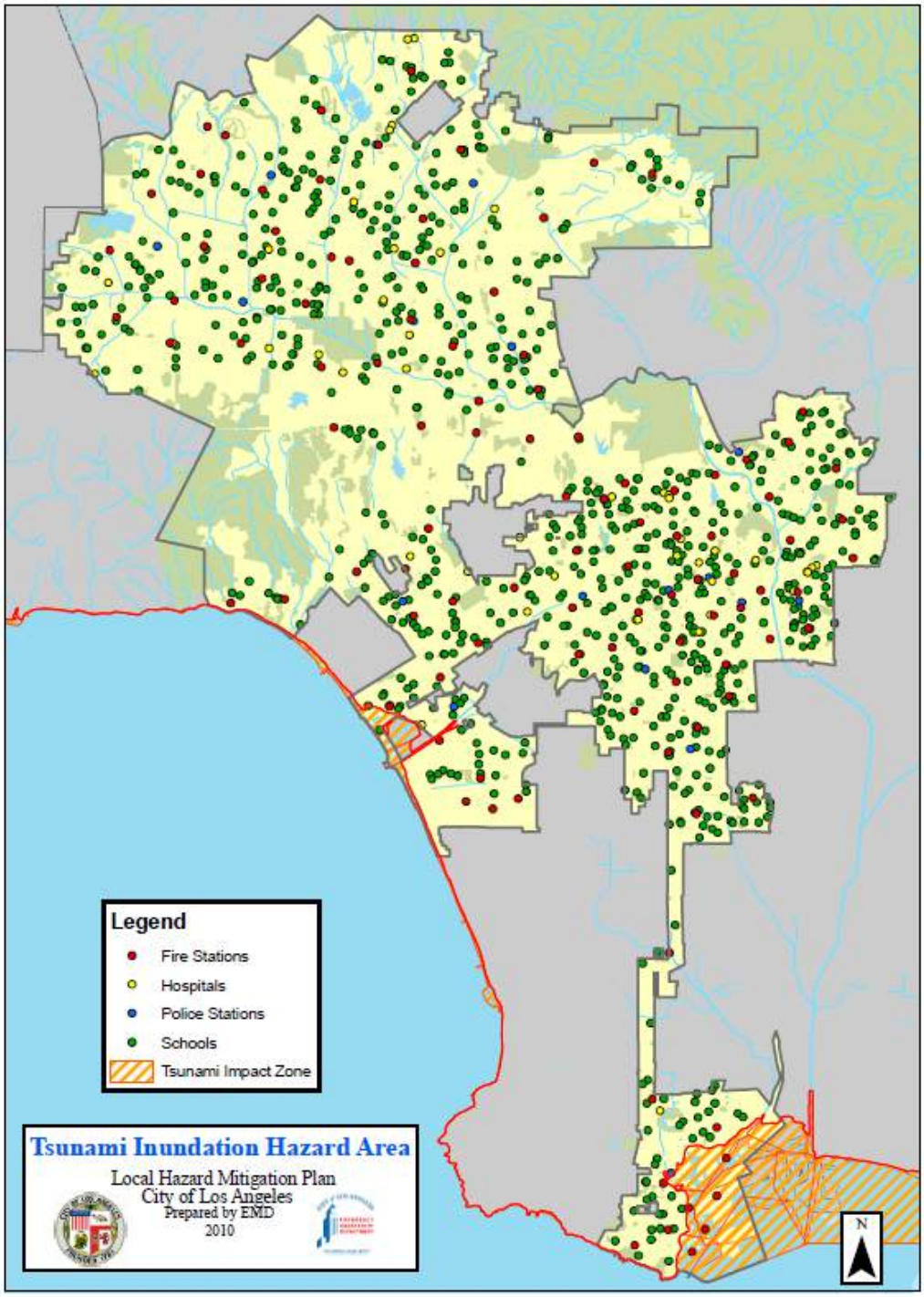

Figure O-1. Critical Response Facilities identified in the Tsunami Inundation Hazard area. Tsunami inundation data provided by the USGS.

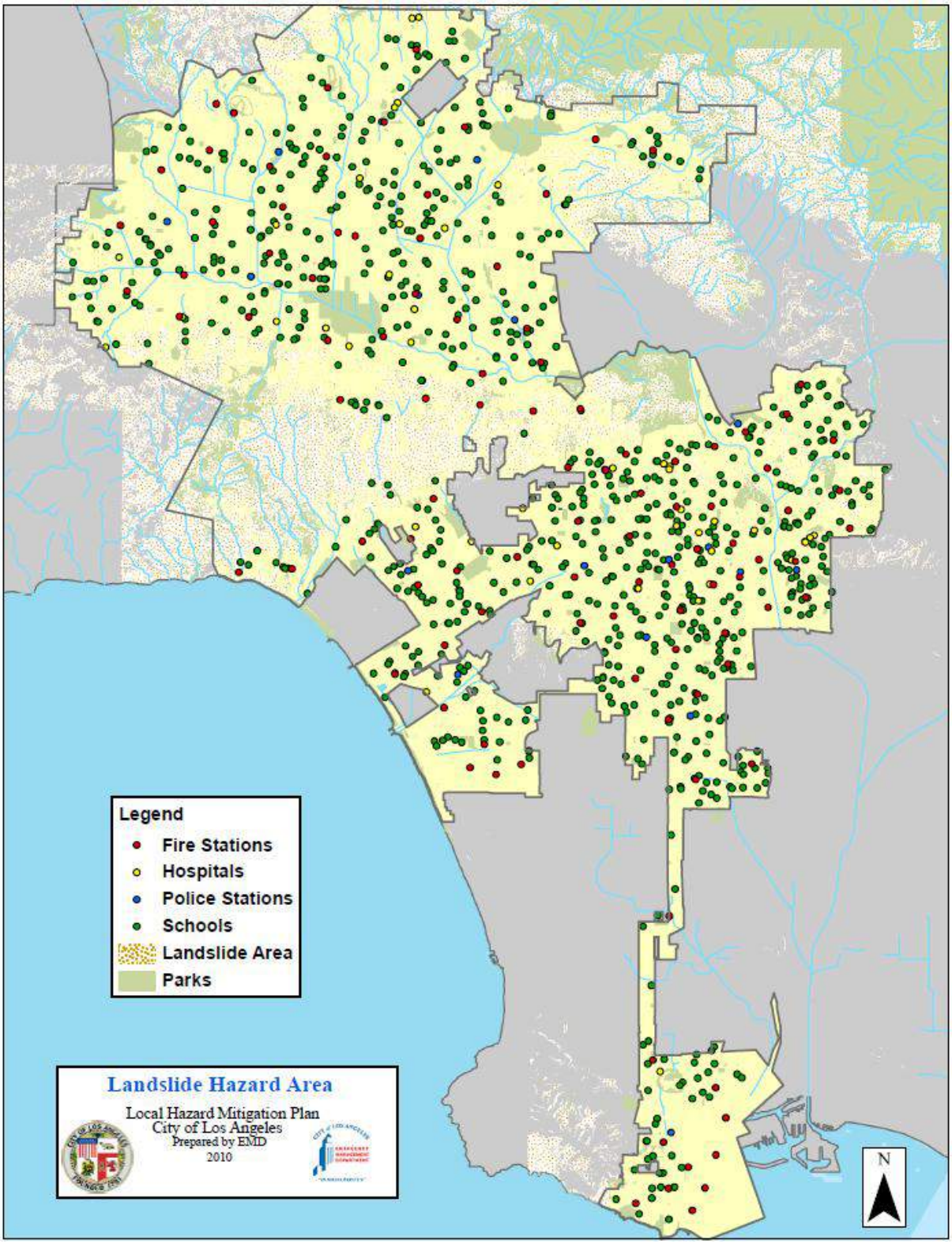

Figure P-1. Critical Response Facilities identified in the Landslide Hazard Area in the City of Los Angeles.

APPENDIX J – EXAMPLE O&M FACT SHEETS FOR LID FEATURES ANTICIPATED AT SITE

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O&M FACT SHEET 1: PERMEABLE PAVEMENT

What To Look For	What To Do as Required
Structural Components, including surface materials, shall evenly infiltrate storm water.	
➢ Clogged surface/Ponded Water	➢ Vacuum sweep at least twice a year. ➢ Powerwash annually or as needed. Do not use surfactants. ➢ Record instances of excessive ponding on maintenance logs.
➢ Cracked or moving edge restraints	➢ Repair per manufacturer's specifications.
➢ Cracked or settled pavement	➢ Repair per manufacturer's specifications.
➢ Resurfacing	➢ Do not replace or cover with impermeable surface.
➢ Materials Storage	➢ Do not store loose materials, sand, bark, mulch, etc. on pavement.
Vegetation, including vegetation growing within Permeable Pavement system or with adjacent roots.	
➢ Large shrubs or trees	➢ Sweep leaf litter, debris, and sediment to prevent surface clogging and ponding. ➢ Prevent large root systems from damaging subsurface structural components.
➢ Weeds	➢ Manually remove weeds. Do not use herbicides.

Maintenance Schedule:
Summer. Make necessary structural repairs.
Fall. Vacuum sweep.
Winter. Monitor infiltration rate with visual observation.
Spring. Powerwash, with proper disposal. Vacuum sweep.
All seasons. Weed as necessary. Remove trash and debris. Sweep or rake leaf litter and sediment.

Maintenance Records:
Inspect and maintain facilities to ensure proper function and aesthetic appearance. Record date, description, and contractor or staff for all structural repairs and facility clean-out activities in maintenance logs (Appendix C).

Replacement and Reconstruction:
Provide adaptive management to determine reconstruction or replacement of the facilities. Use adaptive management to restore original or revised design and function or hydrologic equivalent.

Infiltration/Flow Control: All facilities shall drain within three days (72 hours) after introduction, especially during the peak mosquito breeding months of April through October. Record time, date, and weather conditions when excessive ponding occurs.

Pollution Prevention: Implement Best Management Practices (BMPs) to prevent hazardous or solid wastes or excessive oil and sediment from contaminating stormwater.

Vectors (Mosquitoes & Rodents): Stormwater facilities shall be in compliance with the local jurisdictions so as to not cause a public nuisance or undermine the facility structure. Note holes/burrows in and around facilities. Comply with the September, 2011 or current edition of the Riverside County Flood Control and Water Conservation District *Low Impact Development Best Management Practice Design Handbook* criteria regarding vector control.

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O&M FACT SHEET 2: INFILTRATION TRENCHES

What To Look For	What To Do as Required
Structural Components, including curb cut inlets, depressed sediment basins, and surface materials, shall evenly infiltrate stormwater.	
➢ Clogged inlets or depressed sediment basins at curb cut inlets	➢ Clean gutters, curb cut inlets, and depressed sediment basins twice a year.
➢ Cracked curb cuts or inlets	➢ Repair/seal cracks. Replace when repair is insufficient.
Vegetation, including vegetation growing within Infiltration Trenches or with adjacent roots.	
➢ Large Shrubs and Trees	➢ Prevent large root systems from damaging subsurface structural components.
Filter Layer, including pea gravel and rock/gravel bed.	
➢ Ponding water	➢ Remove sediment and debris from all accessible components. ➢ Clogging and excessive ponding may require decommissioning and replacement.

Maintenance Schedule:
Summer: Make necessary structural repairs. Clean depressed sediment basins at curb cut inlet into infiltration trenches.
Fall: Clean curb cut inlets, gutters, and depressed sediment basins.
Winter. Monitor infiltration rate with visual observation.
Spring: Clean curb cut inlets, gutters, and depressed sediment basins.
All seasons. Weed as necessary. Remove trash and debris. Sweep or rake leaf litter and sediment.

Maintenance Records:
Inspect and maintain facilities to ensure proper function and aesthetic appearance. Record date, description, and contractor or staff for all structural repairs and facility clean-out activities in maintenance logs (Appendix C).

Replacement and Reconstruction:
Provide adaptive management to determine reconstruction or replacement of the facilities. Use adaptive management to restore original or revised design and function or hydrologic equivalent.

Infiltration/Flow Control: All facilities shall drain within three days (72 hours) after introduction, especially during the peak mosquito breeding months of April through October. Record time, date, and weather conditions when excessive ponding occurs.

Pollution Prevention: Implement Best Management Practices (BMPs) to prevent hazardous or solid wastes or excessive oil and sediment from contaminating stormwater.

Vectors (Mosquitoes & Rodents): Stormwater facilities shall be in compliance with the local jurisdictions so as to not cause a public nuisance or undermine the facility structure. Note holes/burrows in and around facilities. Comply with the September, 2011 or current edition of the Riverside County Flood Control and Water Conservation District *Low Impact Development Best Management Practice Design Handbook* criteria regarding vector control.

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O&M FACT SHEET 3: BIORETENTION, RAIN GARDENS, AND BIOSWALES

What To Look For	What To Do as Required
Structural Components, including inlets and outlets/overflows, shall freely convey stormwater.	
➢ Clogged inlets or outlets	➢ Remove sediment and debris from catch basins, trench drains, curb inlets, and pipes to maintain at least 50% conveyance capacity at all times.
➢ Cracked drain pipes or grates	➢ Repair/seal cracks. Replace when repair is insufficient.
➢ Check dams	➢ Maintain as designed (if present).
Vegetation shall cover a minimum of 75% of the facility for Rain Gardens.	
➢ Dead or strained vegetation	➢ Manually remove sediment accumulation. ➢ Replant per original planting plan. Maintain minimum 75% vegetative cover.
➢ Grasses and vegetation	➢ Irrigate as needed. ➢ Remove and replace mulch annually (shredded hardwood mulch preferred)[1]. DO NOT apply fertilizers, herbicides, or pesticides [2]. ➢ Cut back grass 1-2 times each year if desired to remove seed heads in mid- and late spring. Do not cut more than 1/3 of height during single mowing. Use weed eater or string trimmer. ➢ Prune other vegetation overgrowth. ➢ Prune to allow sight lines and foot traffic.
➢ Weeds	➢ Manually remove weeds. Remove all plant debris.
Growing/Filter Medium, including soil and gravels, shall sustain healthy plant cover and infiltrate within 72 hours of introduction of runoff, without isolated ponding areas or pockets of ponding.	
➢ Gullies	➢ Fill, lightly compact, and install plant vegetation to disperse flow.
➢ Erosion	➢ Repair inlet gravel/rock or other erosion control elements.
➢ Slopes	➢ Stabilize 3:1 (i.e., maximum slope of 33%) slopes/banks with plantings from original planting plan.
➢ Ponding	➢ Remove accumulated sediment. ➢ Rake, till or amend to restore infiltration rate[1]. ➢ Inspect annually upstream facilities and/or land use that may contribute to sediment loading issues. ➢ Use compost and mulch without animal products to avoid leaching of nutrients in stormwater facilities.

[1]Use compost and mulch without animal manure to avoid leaching of contaminants in stormwater facilities.
[2]The use of fertilizers, herbicides, or pesticides shall be approved by City as these are water quality facilities and stormwater runoff typically contains nutrients. At a minimum, follow Integrated Pest Management (IPM) practices. See U.S. Environmental Protection Agency (EPA) website at www.epa.gov/opp00001/factsheets/ipm.htm for details, the River Friendly Landscaping Program at http://www.msa.saccounty.net/sactostormwater/RFL/, and the University of California Statewide Integrated Pest Management Program at www.ipm.ucdavis.edu/ for additional general information on IPM.

Note: Refer to Landscape Specifications for project for additional details on plant lists and species-specific maintenance.

See Landscape-Based LID Maintenance Schedule and Inspection Guidelines on page six of this O&M Plan for additional details.

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LANDSCAPE-BASED LID MAINTENANCE SCHEDULE AND INSPECTION GUIDELINES

The following apply to Bioretention:

Maintenance Records:
Inspect and maintain facilities to ensure proper function and aesthetic appearance. Record date, description, and contractor or staff for all structural repairs and facility clean-out activities in maintenance logs (Appendix B).

Replacement and Reconstruction:
Provide adaptive management to determine reconstruction or replacement of the facilities. Use adaptive management to restore original or revised design and function or hydrologic equivalent. See Table 1 for projected life-cycle of system. The City's Civil Engineer will determine the need for reconstruction or replacement of the facilities.

Infiltration/Flow Control: All facilities shall drain within three days (72 hours) after introduction, especially during the peak mosquito breeding months of April through October. Record time, date, and weather conditions when excessive ponding occurs. Use practices specified under Growing/Filter Medium maintenance to restore capacity, if needed.

Pollution Prevention: Implement Best Management Practices (BMPs) to prevent hazardous or solid wastes or excessive oil and sediment from contaminating stormwater. See Appendix D for the City's materials management guidelines. Use compost and mulch without animal manure to avoid leaching of contaminants in stormwater facilities, where feasible.

Vectors (Mosquitoes & Rodents): Stormwater facilities shall be in compliance with the local jurisdictions so as to not cause a public nuisance or undermine the facility structure. Note holes/burrows in and around facilities. Comply with the November, 2013 or current edition of the Sacramento Region *Stormwater Quality Design Manual* criteria regarding vector control.

Access: Maintain ingress/Egress, including access roads, to design standards.

Maintenance Schedule as Required:
Summer. Make any structural repairs. Improve filter medium as needed. Clear drain. Irrigate as needed.
Fall. Replant exposed soil and replace dead plants. Remove sediment and plant debris.
Winter. Monitor infiltration/flow-through rates. Clear inlets and outlets/overflows to maintain conveyance. Prune/mulch as needed.
Spring. Remove sediment and plant debris. Replant exposed soil and replace dead plants. Remove and replace mulch to maintain/restore pre-treatment capacity for sediment and metals removal. Cut back Biofiltration Sod in Bioswales (Vegetated Swales) and grasses in Rain Gardens to remove seed heads, if desired.
All seasons. Weed as necessary. Remove litter and debris.

O&M FACT SHEET 4: CUDO STORMWATER CUBE SYSTEM[1] (SUBSURFACE INFILTRATION BENEATH PERMEABLE PAVEMENT)

What To Look For	What To Do
Inspection, including structural components and storage capacity (see Appendix B for additional details).	
➢ Ponded Water	➢ Note ponded water in excess of 72 hours (see Infiltration/Flow Control and Vectors guidelines below for additional guidelines and details on emergency overflow valve)
➢ Structural Components	➢ Inspect inlets and outlets for obstructions[3]. ➢ Inspect structural components.
➢ Storage Capacity	➢ Insert measuring device into inspection and cleanout ports[2] to remotely measure quantity of sediment. Do not enter system without appropriate equipment and certified personnel.[3] Removal required when sediment and other materials reach a depth of two inches.
Maintenance, including sediment and floatables removal and sediment disposal (see Appendix B for details).	
➢ Sediment Removal	➢ Remove obstructions, trash, and debris from inlets and outlets. ➢ Use vacuum truck or manual methods to thoroughly remove sediment from the s system, including: inlets, outlets, ports, and inlet bays.
➢ Sediment Disposal	➢ Use DOT approved containers for disposal. Dispose of floatables (gross pollutants) and sediment as EPA Class 2 hazardous waste.

[1]See Appendix B for manufacturer's recommendations for O&M activities and inspection procedures summarized in this Fact Sheet.
[2]Document location of inspection ports, access, and clean-out locations in photographs during first inspection and maintain with maintenance records for future reference.
[3]Personnel must have OSHA confined space training and be CalOSHA certified to enter system.

Maintenance Schedule:
Summer. Same as fall and spring if significant dry weather flows enter system or excessive sedimentation noted.
Fall. Inspect system just prior to rainy season. Remove sediment, trash, and debris if needed.
Winter. Remove sediment, trash, and debris if needed.
Spring. Inspect system immediately following rainy season. Remove sediment, trash, and debris if needed.
All seasons. Open valve in emergency overflow line to drain Cudo system if required for vector control issues.

Maintenance Records:
Inspect and maintain facilities to ensure proper function. Record date, description, and contractor for all structural repairs and facility clean-out activities. Include photographs of sediment level noted during inspection, if visible. During first inspection, photograph location of access ports and clean-outs and maintain in records for reference.

Replacement and Reconstruction:
Provide adaptive management to determine reconstruction or replacement of the facilities. Use adaptive management to restore original or revised design and function or hydrologic equivalent. The City's Civil Engineer will determine the need for reconstruction or replacement of the facilities.

Infiltration/Flow Control: All facilities shall drain within three days (72 hours) after introduction, especially during the peak mosquito breeding months of April through October. Drain-down times up to 14 days or longer for larger rainfall events may be acceptable during the months of September through March. Record time, date, and weather conditions when excessive drain-down occurs.

Pollution Prevention: Implement Best Management Practices (BMPs) to prevent hazardous or solid wastes or excessive oil and sediment from contaminating stormwater. See Appendix E for City's materials management guidelines.

Vectors (Mosquitoes & Rodents): Stormwater facilities shall be in compliance with the local jurisdictions so as to not cause a public nuisance or undermine the facility structure. Note holes/burrows in and around facilities. Seal openings in stormwater manholes, access and inspection ports, and clean-outs with mosquito-proof materials. Comply with *Sacramento County Low Impact Development Criteria Manual* criteria regarding vector control. Manual is anticipated for release in 2012.

At the discretion of the City's Stormwater Manager, the valve in the emergency overflow line may be opened to drain the Cudo system and eliminate standing water below ground, if requested by vector control or needed to eliminate mosquito-breeding. The valve is located in the southwestern portion of the site near the edge of the Permeable Pavement.

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O&M FACT SHEET 5: RAIN BARREL

What To Look For	What To Do
Inlet, Outlet, and Overflow shall be tight-fitting and free-draining.	
➢ Inlet, Downspout, and Leaf Screens	➢ Remove leaf, debris, and organic litter from screens.
➢ Outlet	➢ Confirm outlet is accessible and shuts on/off.
➢ Overflow	➢ Ensure overflow is free-draining away from building and into Vegetated Filter Strip. Remove clogs manually.
Rain Barrel shall be maintained to remain free of trash, debris, and sediment with tight-fitting fixtures.	
➢ Screen/LID	➢ Remove leaf, debris, and organic litter from screens. ➢ Confirm lid and screen is tight-fitting and fully closed.
➢ Rain Barrel	➢ Check for and remove debris/trash from inside rain barrel. ➢ Check for sediment build-up. Remove sediment and dispose of with landscape waste/debris. Do not rinse into LID facilities. ➢ Use collected rainwater for landscape irrigation. ➢ Replace Non-Potable Sign as needed with English and Spanish wording similar to: "***Do not drink. Water is non-potable.***" and ***"No Beber – Agua No Potable."***

Maintenance Schedule:
Summer. Remove sediment build-up. Do not dispose of or rinse into LID facilities.
Fall. Confirm function of inlet, outlet, and overflow. Use harvested rainwater for landscape irrigation.
Winter. Confirm function of inlet, outlet, and overflow. Use harvested rainwater for landscape irrigation.
Spring. Confirm function of inlet, outlet, and overflow. Use harvested rainwater for landscape irrigation.
All seasons. Remove trash and debris. Remove leaf, debris, and organic litter from screens. .

Maintenance Records:
Inspect and maintain facilities to ensure proper function and aesthetic appearance. Record date, description, and contractor or staff for all structural repairs and facility clean-out activities in maintenance logs (Appendix D).

APPENDIX K – PROPOSED STORMWATER FEATURES PLAN FROM MASTER PLAN

WATER DETENTION AREA

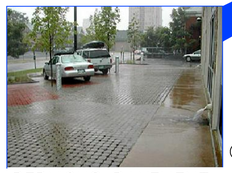
Q_{25}=42.8 CFS, T_C=5 MIN
Q_{50}=48.48 CFS, T_C=5 MIN
Q_{100}=54.08 CFS, T_C=5 MIN
Q_{SUSMP}=2.20 CFS, T_C=22 MIN

Q_{25}=21.53 CFS, T_C=7 MIN
Q_{50}=24.35 CFS, T_C=7 MIN
Q_{100}=29.13 CFS, T_C=6 MIN
Q_{SUSMP}=1.47 CFS, T_C=28 MIN

Q_{25}=27.53 CFS, T_C=5 MIN
Q_{50}=31.12 CFS, T_C=5 MIN
Q_{100}=24.71 CFS, T_C=5 MIN
Q_{SUSMP}=1.83 CFS, T_C=21 MIN

BIOSWALE/RAINGARDENS

Q_{25}=8.91 CFS, T_C=7 MIN
Q_{50}=10.82 CFS, T_C=6 MIN
Q_{100}=12.05 CFS, T_C=6 MIN
Q_{SUSMP}=0.63 CFS, T_C=26 MIN



PERVIOUS PAVEMENT

Q_{25}=31.01 CFS, T_C=5 MIN
Q_{50}=35.05 CFS, T_C=5 MIN
Q_{100}=39.10 CFS, T_C=5 MIN
Q_{SUSMP}=1.69 CFS, T_C=23 MIN

Q_{25}=20.34 CFS, T_C=10 MIN
Q_{50}=24.09 CFS, T_C=9 MIN
Q_{100}=26.89 CFS, T_C=9 MIN
Q_{SUSMP}=1.59 CFS, T_C=30 MIN

Q_{25}=24.51 CFS, T_C=6 MIN
Q_{50}=27.66 CFS, T_C=6 MIN
Q_{100}=33.62 CFS, T_C=5 MIN
Q_{SUSMP}=1.70 CFS, T_C=23 MIN

Q_{25}=10.14 CFS, T_C=5 MIN
Q_{50}=11.47 CFS, T_C=5 MIN
Q_{100}=12.79 CFS, T_C=5 MIN
Q_{SUSMP}=0.79 CFS, T_C=15 MIN

LAC+USC MEDICAL CAMPUS
PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS

LOS ANGELES, CALIFORNIA

LEGEND:

- RIGHT-OF-WAY LINE
- CENTER LINE
- EXISTING OFF-SITE STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING BUILDING TO REMAIN
- PROPOSED BUILDING
- WETLAND/DETENTION AREA
- PERVIOUS PAVEMENT
- BIOSWALE AREA
- SUB-AREA LINE
- LONGEST FLOW PATH
- FLOW PATH ANNOTATION
- HYDROLOGY SUB-AREA NUMBER AND ACREAGE
- HYDROLOGY AREA CONFLUENCE POINT
- DIRECTIONAL FLOW ARROW

GRAPHIC SCALE IN FEET
0 40 80 160

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765 The City Drive, Suite 200
Orange, California 92868 (714) 939-1030

MEMORANDUM OF HYDROLOGY MODELING RESULTS

Project: **LAC+USC Medical Center EIR**

Client: ICF International/Los Angeles County

Prepared By: Jennifer J. Walker, P.E., D.WRE, CFM, QSD

Date: 7/15/2014

Purpose: Memorandum of Hydrology Modeling Results

Note: Draft memorandum released under the authority of Jennifer J. Walker, P.E. (C77079), D.WRE, CFM on 7/15/2014 and should not be used for design or construction.

This memorandum documents hydrologic and Low Impact Development (LID) modeling results for ultimate build-out of the LAC+USC Medical Center project as described in the October, 2013 *LAC+USC Master Plan*. The project is anticipated to include post-construction stormwater Best Management Practices (BMPs) and Low Impact Development (LID) features. Because a detailed plan has not been developed hydrologic and LID analyses are based on the general concept and layout described in the *Master Plan* rather than a detailed, fixed plan.

As shown on Exhibit 1 (Appendix A), the project site is located just north of Interstate Highway (IH) 10 and just east of IH-5. The site is bounded by Cornwell to the east, Zonal to the north, Marengo to the south, and North Mission to the west. Three additional tracts are located at northeast, northwest, and southwest corners of the intersection of Zonal and North Mission.

The project site is currently fully developed and land cover consists primarily of buildings and pavement with an existing impervious cover of 95% (Exhibit 2 in Appendix A). While limited, vegetation on the site includes trees, shrubs, and turf grass scattered within the project site and dense plantings of trees and groundcovers within the northeastern portion of the site ("the hill").

The Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1) illustrates the location of the following LID features at the site:

- Bioretention
- Permeable Pavement
- Wetlands/Detention

While the *Master Plan* indicates that stormwater harvesting and reuse may be included and that a green roof will be installed for agricultural and urban farming purposes, these LID features are not included in the modeling for the project as they are not specifically programmed at this time.

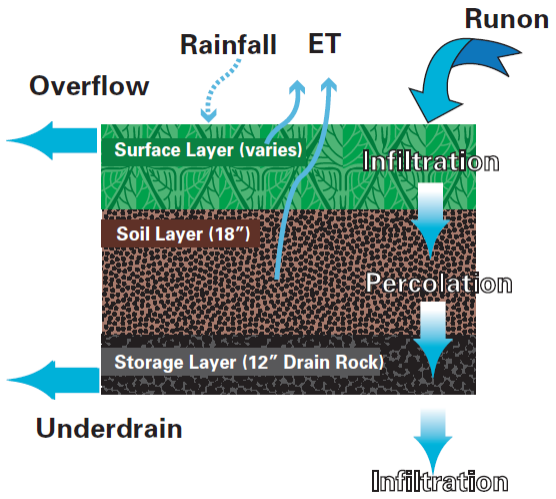
The goals established for this project include:

- ✓ Meet Los Angeles County LID and stormwater treatment criteria
- ✓ Reduce proposed LID conditions peak flows and runoff volumes to below existing conditions
- ✓ Shift the water budget and site hydrology towards undeveloped conditions with improved infiltration and groundwater recharge as compared to existing conditions

Modeling/Hydrologic Methodology

The U.S. Environmental Protection Agency's (EPA)'s Storm Water Management Model (SWMM) 5.0.022 was utilized for the LID design storm and continuous simulation modeling in this project. The current version of SWMM includes LID controls and detailed analysis options not previously included in SWMM5. The SWMM model is also a publicly-available model. The SWMM model accounts for infiltration through various LID layers, evapotranspiration, infiltration into the native soil, and overflows and discharge from the LID facilities as illustrated in Figure 1. Note that the underdrain and drain rock layer are used only in Permeable Pavement and Bioretention for this project.

Figure 1: LID Components and Processes Modeled in SWMM



Recent studies by the EPA cited in the report entitled *SUSTAIN – A Framework for Placement of Best Management Practices in Urban Watersheds to Protect Water Quality* found similar results for analysis of aggregated (lumped) LID controls in drainage sub-areas of 100 ac or more as compared to micro-drainage sub-areas for each lot and LID control (distributed approach). For a 128-acre drainage sub-area, the difference in peak flows between the aggregated and distributed approaches computed in the EPA study is four-percent. Similar positive findings with regards to the aggregated approach were also reported by the City of Portland's Bureau of Environmental Services in a paper entitled *Modeling Non-Directly Connected Impervious Areas in Dense Neighborhoods.*

Since the area of the LAC+USC Medical Center EIR site is approximately 84 ac and well under the threshold for using the aggregated method, the aggregated modeling approach was used for this project to increase modeling efficiencies. Peak flow rates are expected to be within one-percent of those computed using the distributed approach and volumes are expected to be within approximately three-percent.

Table 1 in Appendix B lists hydrologic parameters associated with the site. Proposed conditions parameters are based on the LID layout included in the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1). Existing and undeveloped conditions parameters are estimated and may not precisely reflect conditions as soils, topographic, and other detailed data is not available.

The Direct Determination Runoff method is used to estimate runoff and generate hydrographs from the site within the SWMM model. As described below, the design storm rainfall data is obtained from National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 6. Rainfall hyetographs are developed using the U.S. Army Corps of Engineers (USACE) HEC-HMS (Hydrologic Engineering Center-Hydrologic Modeling System) software program, which is publicly available.

The Green & Ampt method, which is based on physically-measurable soil parameters and has been used successfully on other LID projects in the region, is used to estimate losses due to infiltration. Based on Exhibit 7 in Appendix A, native underlying soils at the sites are assumed to be a mix of clay loam and loam with saturated hydraulic conductivity rates of approximately 0.085 inches/hour. The suction head and initial deficit parameters shown in Table 2 are estimated for a mix of clay loam and loam from standard soils texture tables.

Table 3 provides details on the area draining to each LID feature at the site based on the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1). Table 4 includes details on the configuration modeled for each type of LID feature at the site. As indicated in these tables, the project site includes the following LID features:

- Permeable Pavement
- Bioretention
- Wetlands/Detention

To facilitate planning-level modeling, the Wetlands/Detention areas are modeled as bioretention. Additionally, the impervious area treated by each type of LID is assumed based on the LID features and site layout shown in the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1).

The proposed LID features are also planned to meet requirements in the Los Angeles County *Low Impact Development Standards Manual*. The goal of the LID features is to provide stormwater quality benefits and to more closely mimic undeveloped site hydrology. LID features are required to retain 100-percent of the stormwater quality design volume (SWQDv) on-site through a combination of infiltration, evapotranspiration, and stormwater harvest and use unless it is demonstrated that it is technically infeasible to do so. For this project, the SWQDv is 0.95 in, which is the 85th-percentile, 24-hour event obtained from the Los Angeles County 85th percentile precipitation isoheytal map for the project site location.

Based on the LID features illustrated in the Proposed Stormwater Conveyance Concept Plan from the *Master Plan* (Appendix A1) and assumed configurations documented in Table 4, the proposed LID features seem adequate to meet SWQDv requirements assuming storage within the growing

media and drain rock layers is considered (Table 4A). With these layers, the total provided volume is estimated at 9.26 acre-feet (ac-ft), while the required SWQDv is calculated at 6.62 ac-ft. Without these layers, additional LID features may be needed to meet requirements as a deficit of 2.73 ac-ft is estimated. Additionally, note that retention, harvest and use on-site, or infiltration must be provided for the total SWQDv and the size and configuration of the LID features may need to be modified to meet this requirement. Regardless, the proposed site will be required to meet SWQDv requirements and the LID extent may be increased as needed or stormwater harvesting and use may be incorporated. The project is likely to be exempt from hydromodification management requirements as it is a redevelopment project anticipated to result in less impervious cover than existing conditions.

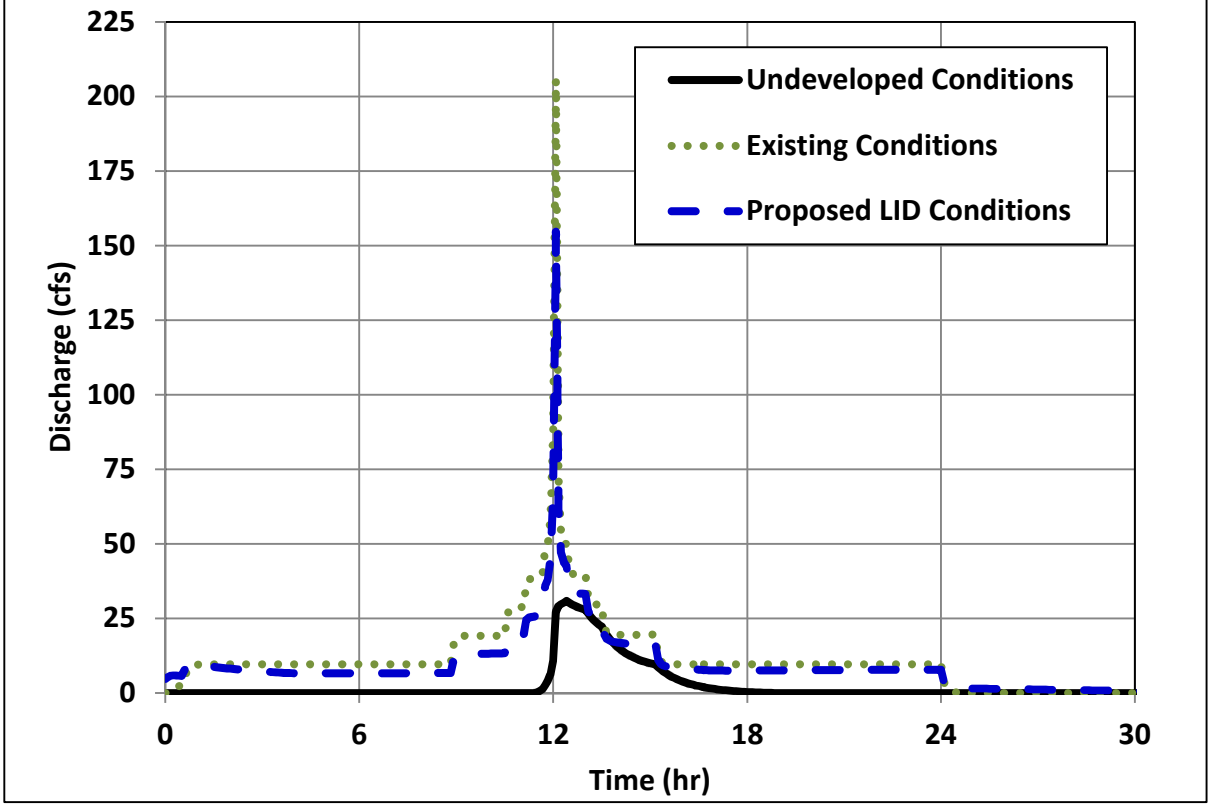
Design Storm Results

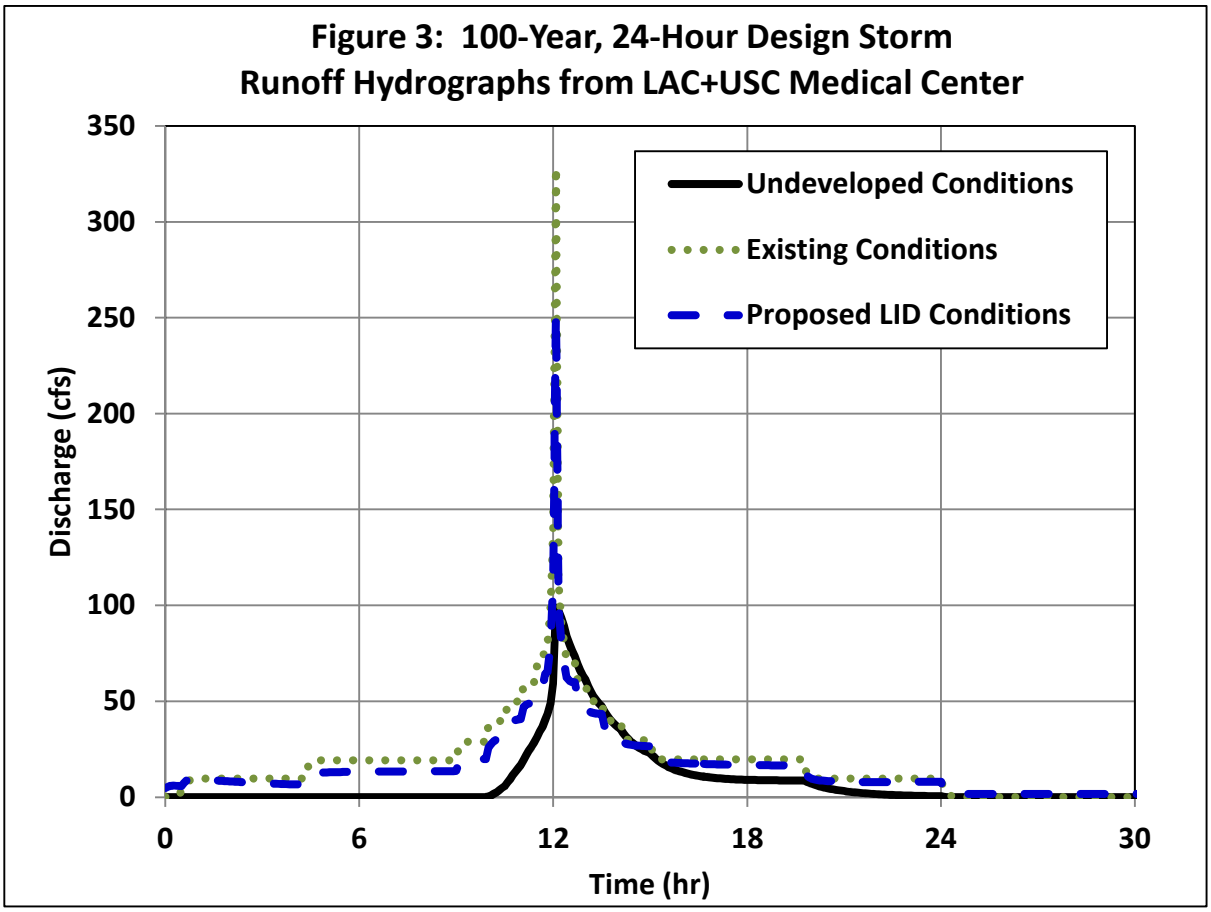
The 100-year, 24-hour and 10-year, 24-hour design storm events are modeled to assess runoff during an extreme flood control event and an event representative of storm drain sizing, respectively. As shown in Table 1, the 10-year, 24-hour and 100-year, 24-hour rainfall depths fare 4.84 and 7.87 inches (in), respectively. As indicated, the design storm rainfall data is obtained from NOAA Atlas 14, Volume 6 for the Ascot Reservoir gauge and rainfall hyetographs are developed using the USACE HEC-HMS software program, which is publicly available. A peak center of 50% is assumed for all design storm events. The rainfall hyetographs are used by SWMM to develop the design storm runoff hydrographs from the LAC+USC site.

As shown in Table 5, proposed conditions peak flows with the planned LID features are 25-percent less than existing flows from the site for the 10-year, 24-hour event and 23-percent less than existing for the 100-year, 24-hour event. Runoff volumes are reduced by 18-percent and 14-percent, respectively, for the 10-year and 100-year events. While the project goals did not include matching undeveloped conditions, it is also listed for comparison purposes. Note that the initial growing media saturation of 50-percent adds volume to the proposed LID conditions that is not included in the other conditions models. Use of different initial growing media saturation values may change resulting reductions.

Figures 2 and 3 depict runoff hydrographs from the site for the 10-year, 24-hour and 100-year, 24-hour design storm events, respectively. As described, both proposed LID conditions peak flows and runoff volumes as illustrated by the area under the hydrograph curves are reduced by approximately 25-percent below existing conditions. Additionally, the shapes of the proposed LID conditions runoff hydrographs generally match the shapes of the undeveloped conditions runoff hydrographs. Note that final modeling of underdrain sizes and retention times may result in additional hydrograph lagging.

Figure 2: 10-Year, 24-Hour Design Storm
Runoff Hydrographs from LAC+USC Medical Center





Figures 4 to 13 illustrate storage depths within the following layers of the LID features at the LAC+USC Medical Center site:

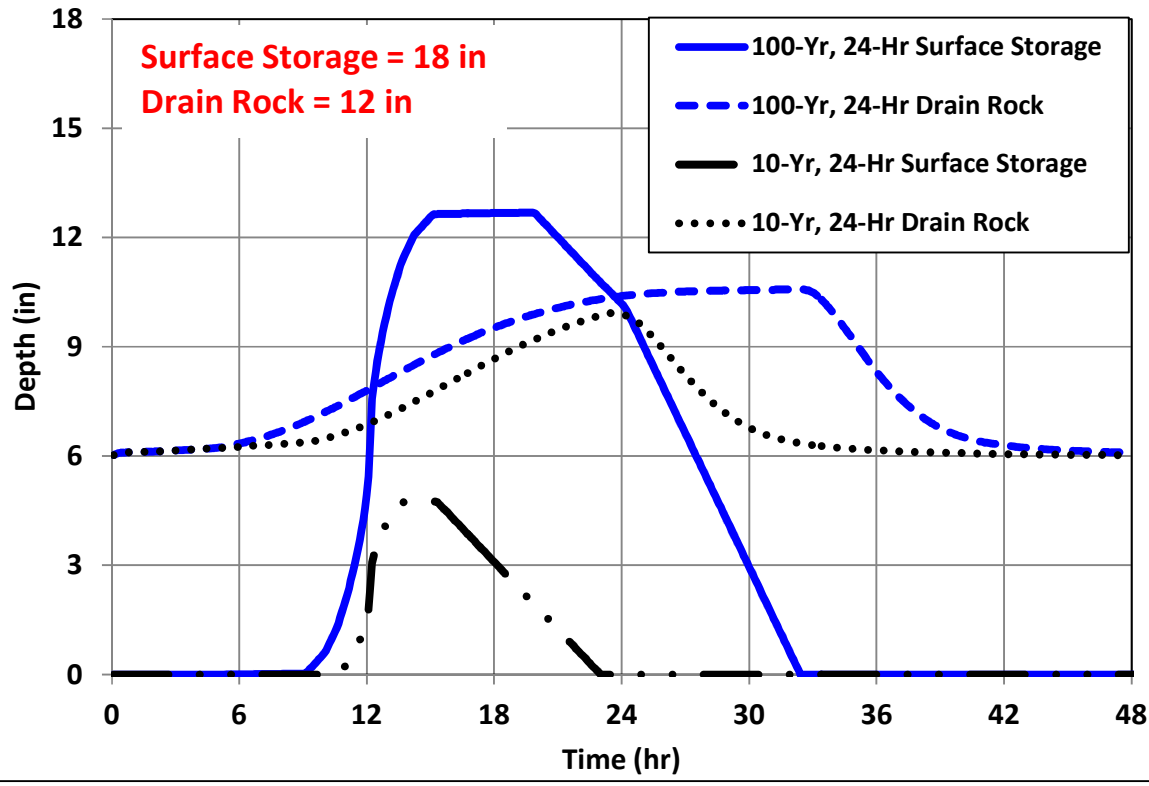
- 18-inch surface storage layer of Bioretention
- 24-inch surface storage layer of Wetlands/Detention
- 12-inch drain rock layer of Bioretention
- 24-inch gravel storage reservoir of Permeable Pavement

Due to hydraulic conductivity rates, underdrains are included in both Bioretention and Permeable Pavement and assumed to be elevated six inches above the bottom of the drain rock layer. Wetlands/detention is assumed not to include an underdrain due to type of LID feature and centralized nature of this stormwater control.

Note that typical assumptions were made regarding the geometric configuration of the LID features (Table 4). Additionally, assumptions on impervious area treated by each type of LID feature are listed in Table 3. During the final design and modeling, it is likely that the hydrologic performance of the various LID features can be improved through changes in geometric configuration and optimization of contributing drainage areas.

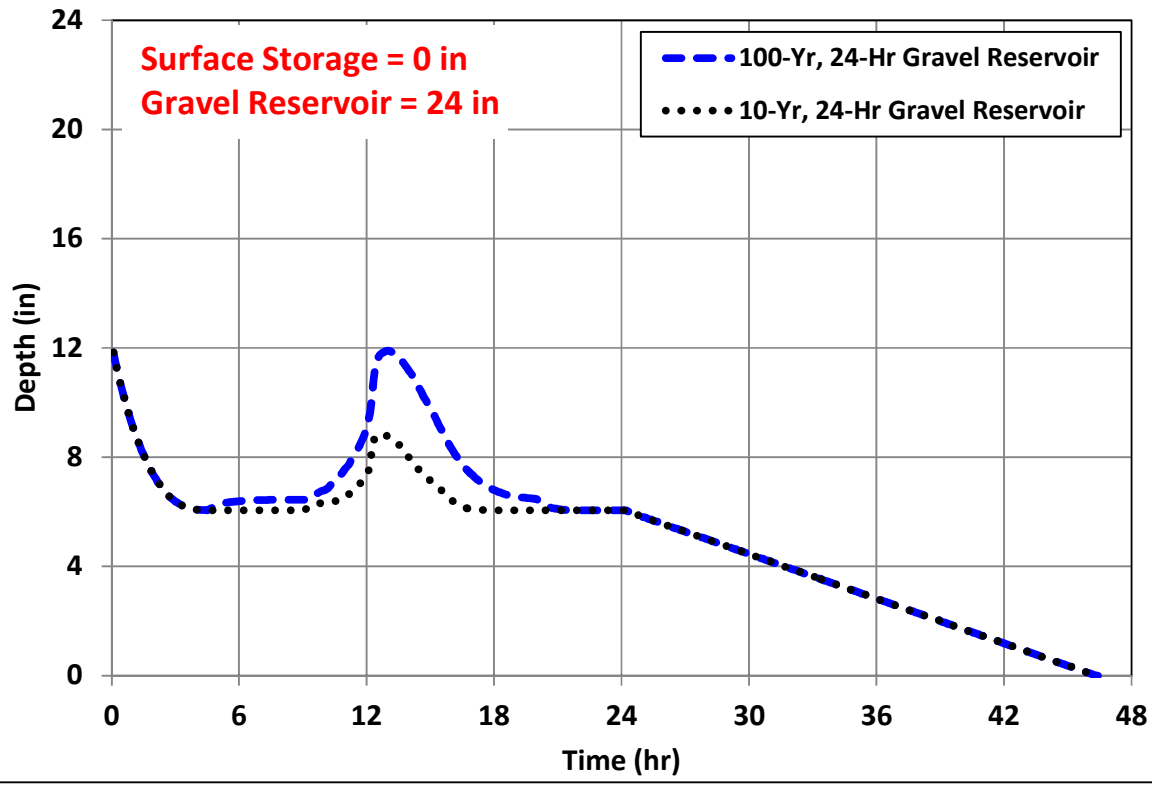
The proposed Bioretention features function as expected and fill to a depth of approximately 13 in in the 100-year, 24-hour event with a drain down time of approximately 32 hours. The maximum level during the 10-year, 24-hour event is approximately 4.8 in with a corresponding drain down time of approximately 24 hours. Initial storage depth in the Bioretention drain rock layer is due to the simulated 50-percent growing media saturation at the beginning of the design storm event. The Bioretention configuration is assumed to include a four-inch perforated underdrain pipe elevated six inches above the bottom of the drain rock layer. Since the Bioretention surface storage does not fill completely, during final design it may be determined to serve additional drainage area or be reduced in depth to less than 18 in.

Figure 4: Design Storm Hydrographs from Bioretention



The drain rock layer of the Permeable Pavement fills to approximately 12 in during the 100-year, 24-hour event and 9 in during the 10-year, 24-hour event. The drain down time fin both events is approximately 48 hours due to the initial saturation of 50%, which causes the initial ponding in the drain rock layer at the beginning of the design storm simulations. The Permeable Pavement LID features are assumed to include a four-inch perforated underdrain pipe elevated six inches below the bottom of the 24-inch gravel storage reservoir. The elevated underdrain enhances infiltration during the historical period of record analyzed in the continuous simulation modeling discussed below. Since the Permeable Pavement drain rock layer does not fill completely, during final design it may be determined to serve additional drainage area or be reduced in depth to less than 24 in.

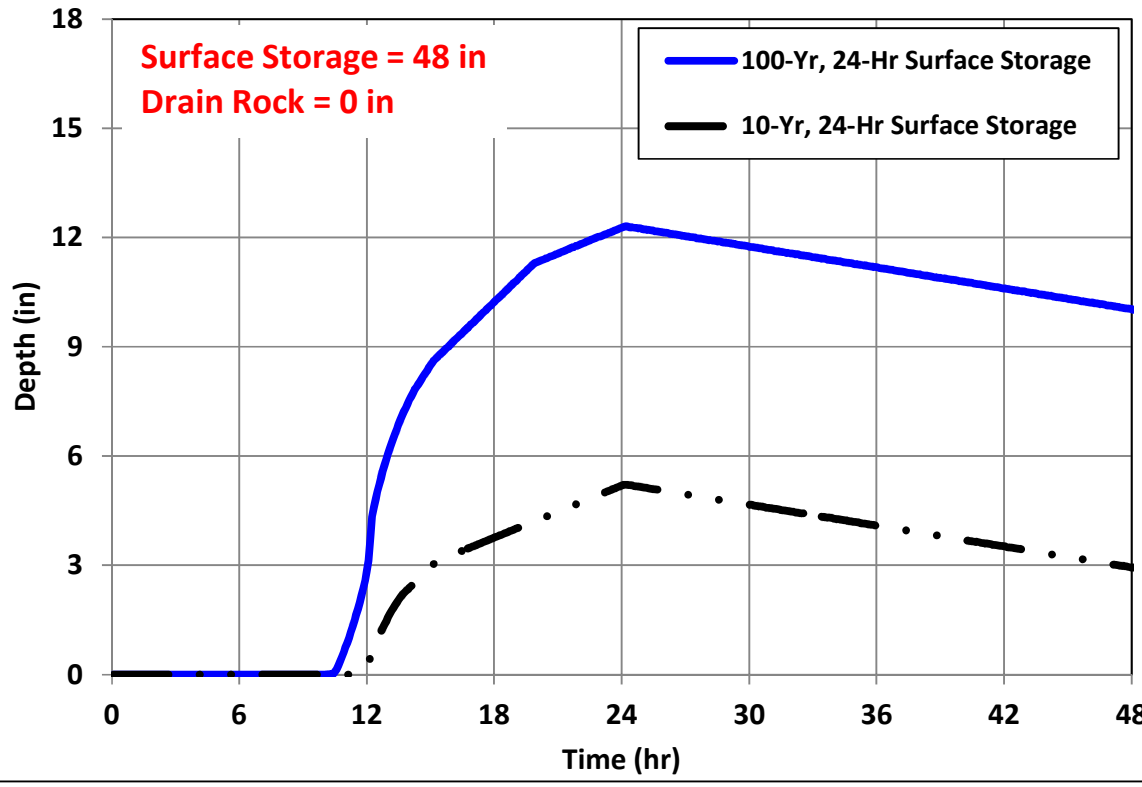
Figure 5: Design Storm Hydrographs from Permeable Pavement



The proposed Wetlands/Detention features fill to a depth of approximately 12 in in the 100-year, 24-hour event with a drain down time in excess of 48 hours. The maximum level during the 10-year, 24-hour event is approximately 5.2 in with a corresponding drain down time of in excess of 48 hours. While the proposed Wetlands/Detention stormwater features was modeled as an LID control using bioretention parameters due to the planning-level nature of this analysis, it may be better represented as a storage reservoir in the final modeling during the design phase as it is a centralized BMP and detention routing may be needed depending on the area served by the Wetlands/Detention.

The Wetlands/Detention configuration is assumed to not require an underdrain as it is a centralized stormwater facility and may be geared towards flood control. The Wetlands/Detention does not fill completely in the modeling performed as part of the LA+USC Medical Center EIR and the actual configuration and dimensions should be refined to meet project goals during the final design phase.

Figure 6: Design Storm Hydrographs from Wetlands/Detention



Continuous Simulation Results

A continuous simulation modeling analysis was performed based on 1970 – 2006 rainfall data obtained from the U.S. EPA's National Stormwater Calculator for the Los Angeles Downtown/USC gauge, which is located in closest proximity to the site. Average monthly evaporation data is also used from this gauge. While hourly data is used in the continuous simulation modeling analysis, daily events are summarized in this figure. Figure 7 illustrates historical daily rainfall depths during the period of record from 1970 – 2006 recorded at the Los Angeles Downtown/USC gauge. Days without rain are not shown on this graph.

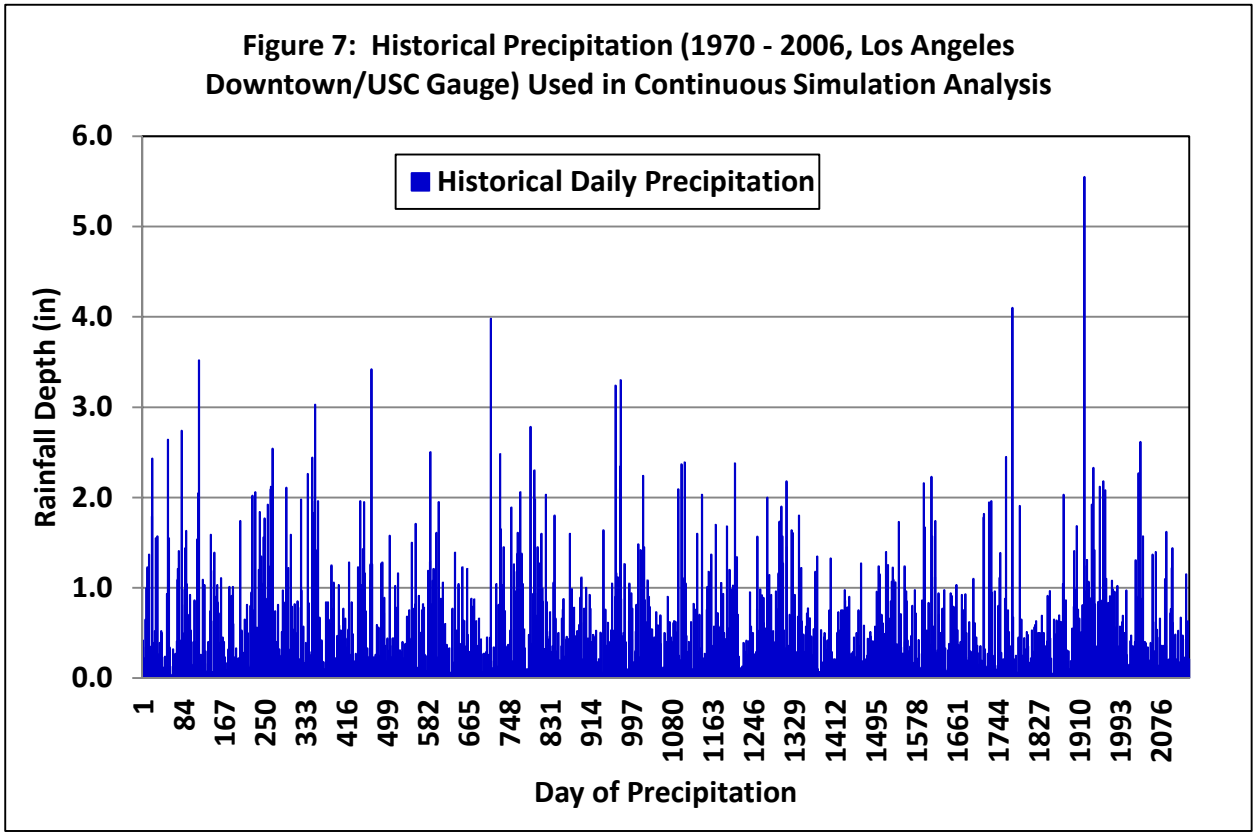
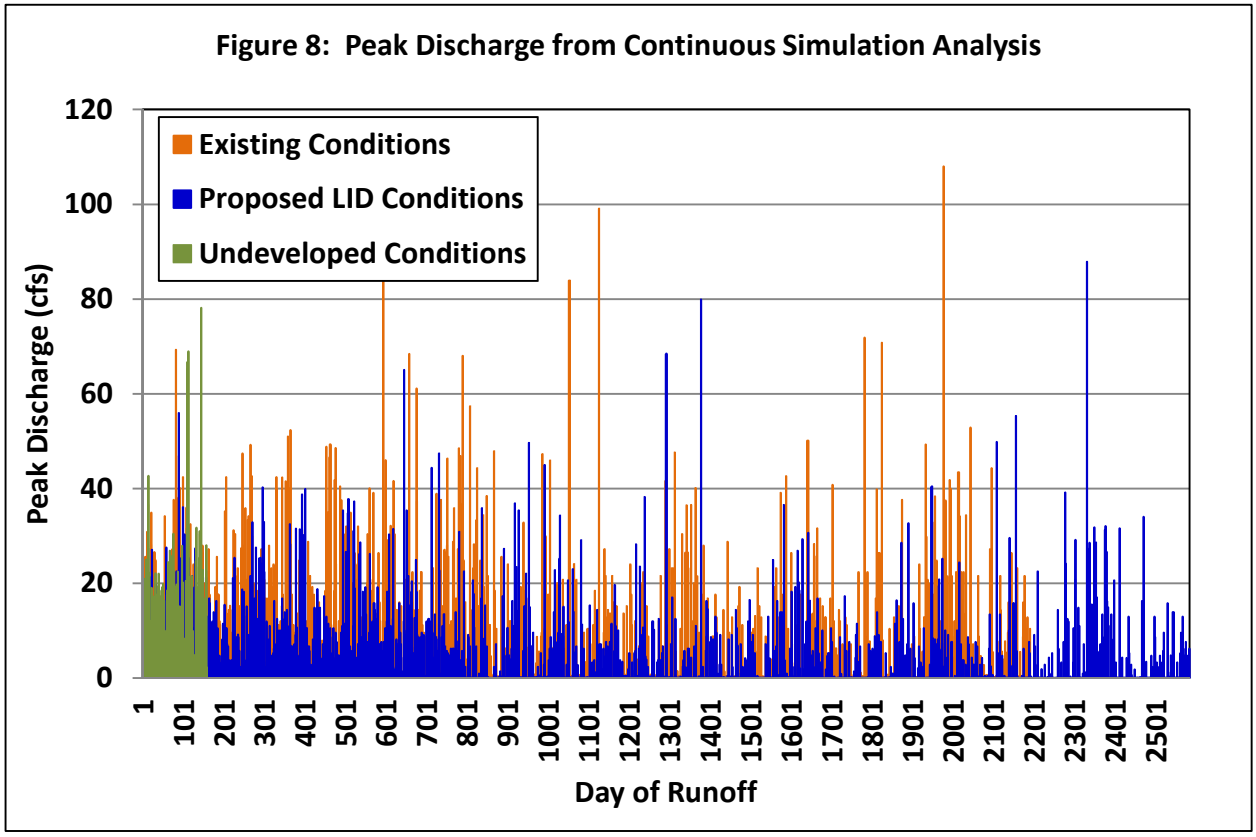


Figure 7: Historical Precipitation (1970 - 2006, Los Angeles Downtown/USC Gauge) Used in Continuous Simulation Analysis

Table 6 includes water balance results for the continuous simulation analysis and summarizes infiltration, runoff, evapotranspiration, and precipitation. During the simulated time period, 570.79 in. of rain occurred. Proposed LID conditions runoff is reduced by 35-percent as compared to existing conditions.

Information on the number of rainfall events producing runoff is summarized in Table 7. There are 991 proposed LID conditions runoff events as compared to 1,052 existing conditions runoff events and 131 undeveloped conditions runoff events. Due to limited data, undeveloped conditions are approximated rather than accurately measured from physical parameters at the site (i.e., soils, slopes, etc.). Figure 8 graphically illustrates runoff in existing and proposed conditions at the site. Note that the day of runoff (x-axis) is for each event and that the days do not correlate for each event. The general pattern is that proposed LID peak discharges are less than existing peak discharges and the proposed site is more similar to the undeveloped site than is the existing site.



Annual maximum peak discharges are depicted in Figure 9 on the following page. Proposed LID conditions maximum annual discharges from the site more closely approximate undeveloped conditions than do discharges from the existing site. In most years, maximum annual discharges from the site are less than existing discharges from the site during the period of record between 1970 and 2006. Note that the actual results are anticipated to change somewhat during final design and modeling depending on the final extent and configuration of LID features and impervious cover within the site.

Since the project in not anticipated to require hydromodification management controls as it is a redevelopment project resulting in lower impervious cover, discharge exceedance frequency curves and flow duration graphs are not included.

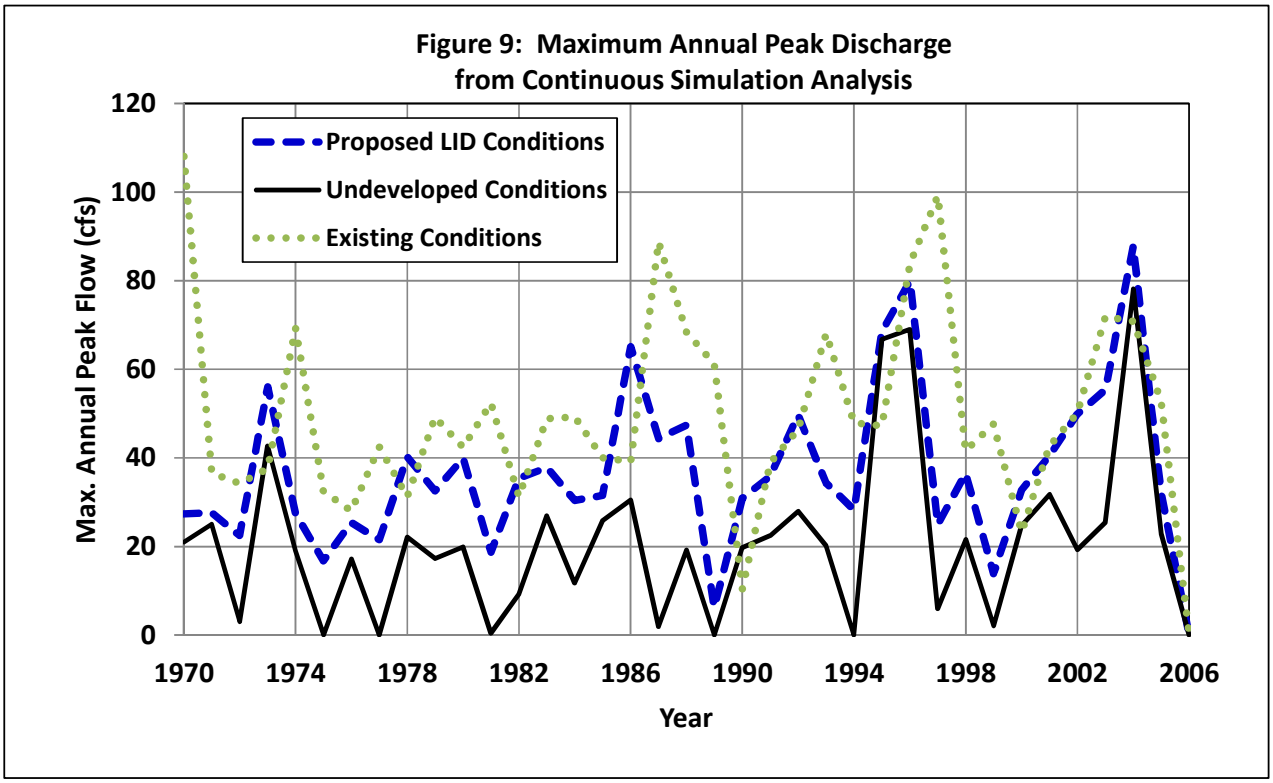


Figure 9: Maximum Annual Peak Discharge
from Continuous Simulation Analysis
Proposed LID Conditions
Undeveloped Conditions
Existing Conditions
Max. Annual Peak Flow (cfs)
120
100
80
60
40
20
0
1970
1974
1978
1982
1986
1990
1994
1998
2002
2006
Year

Conclusions

The LAC+USC Medical Center project meets established project goals:

- ✓ Meet Los Angeles County LID and stormwater treatment criteria
- ✓ Reduce proposed LID conditions peak flows and runoff volumes to below existing conditions
- ✓ Shift the water budget and site hydrology towards undeveloped conditions with improved infiltration and groundwater recharge as compared to existing conditions

Detailed water budget modeling results from EPA SWMM are included in Appendix C.

To ensure the long-term functionality of the LID features and performance of the site, development of and compliance with an Operations & Maintenance (O&M) Plan is critical. Additionally, proper construction sequencing is critical to avoid premature sedimentation of the facilities.

Redevelopment of the LAC+USC Medical Center site represents a significant opportunity for sustainability and LID retrofits within a densely urbanized area and for implementation of Green Infrastructure and LID for Los Angeles County. Thank-you for the opportunity to collaborate on this visionary project.

APPENDICES

Appendix A – Exhibits
Appendix B – Tables of Modeling Data and Results
Appendix C – EPA SWMM Water Budget Results

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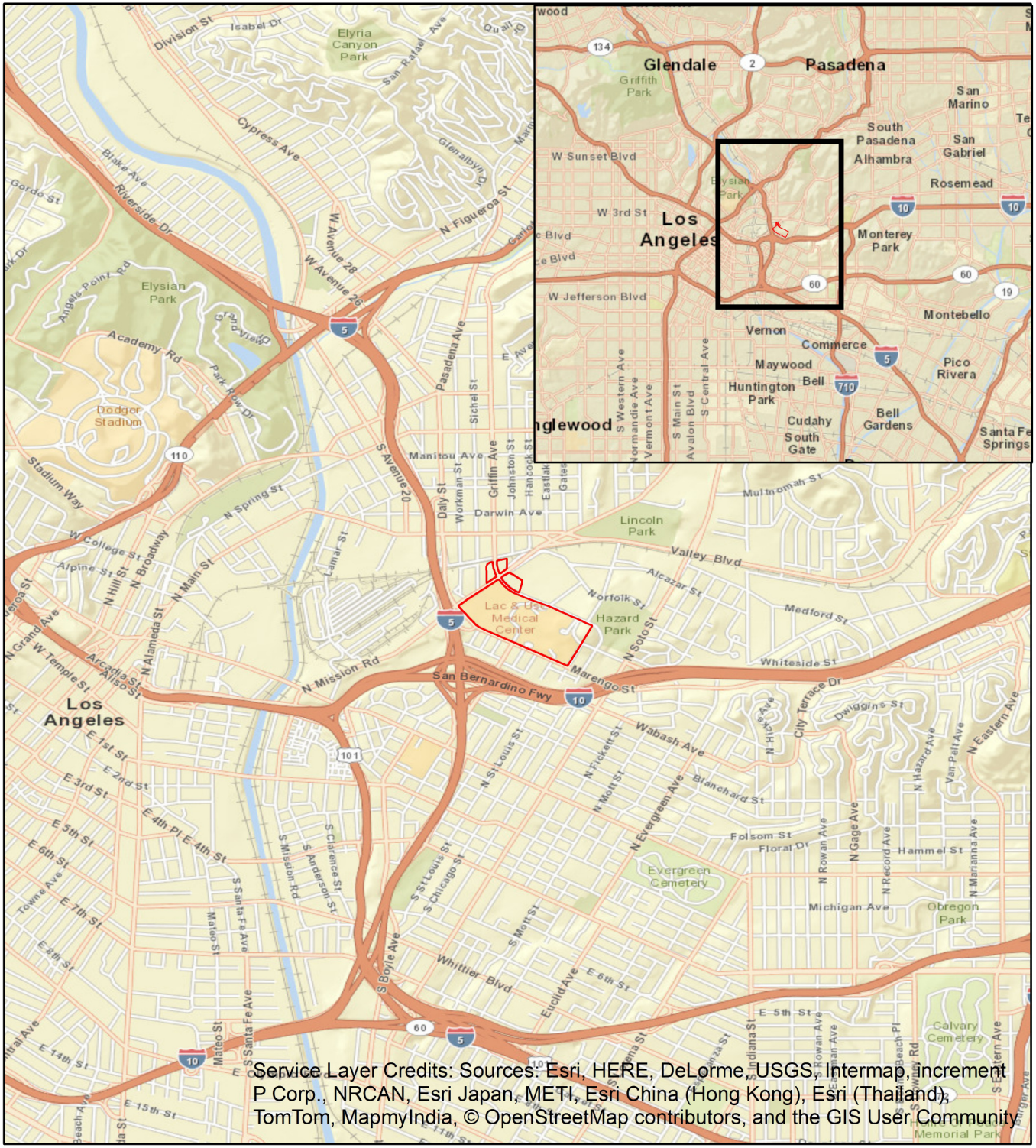
APPENDIX A - EXHIBITS



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

North

0 2,500 5,000 10,000 Feet

1 inch = 4,000 feet

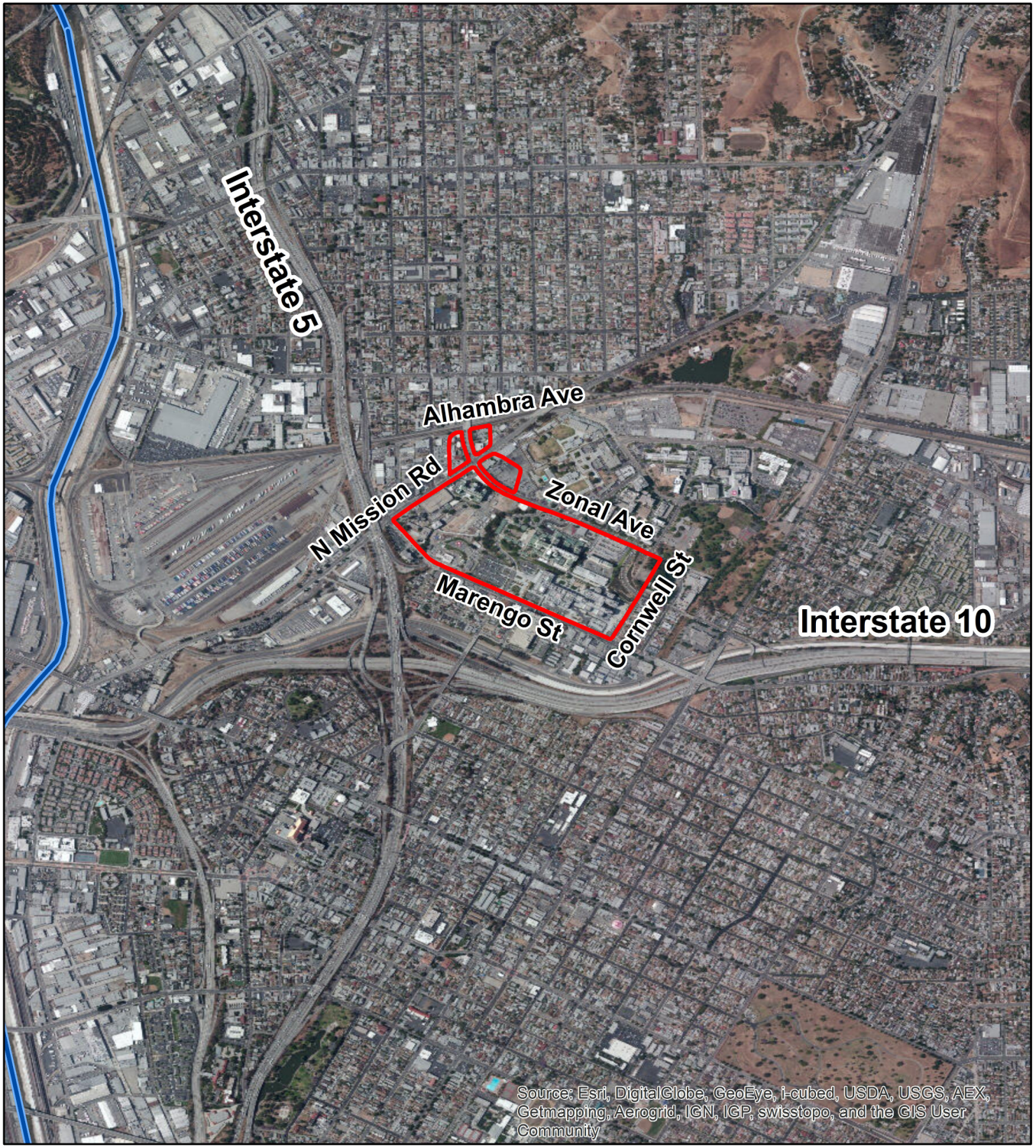
Legend

Project Boundary

Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 1
VICINITY MAP



North

Feet

0 1,250 2,500 5,000

1 inch = 2,000 feet

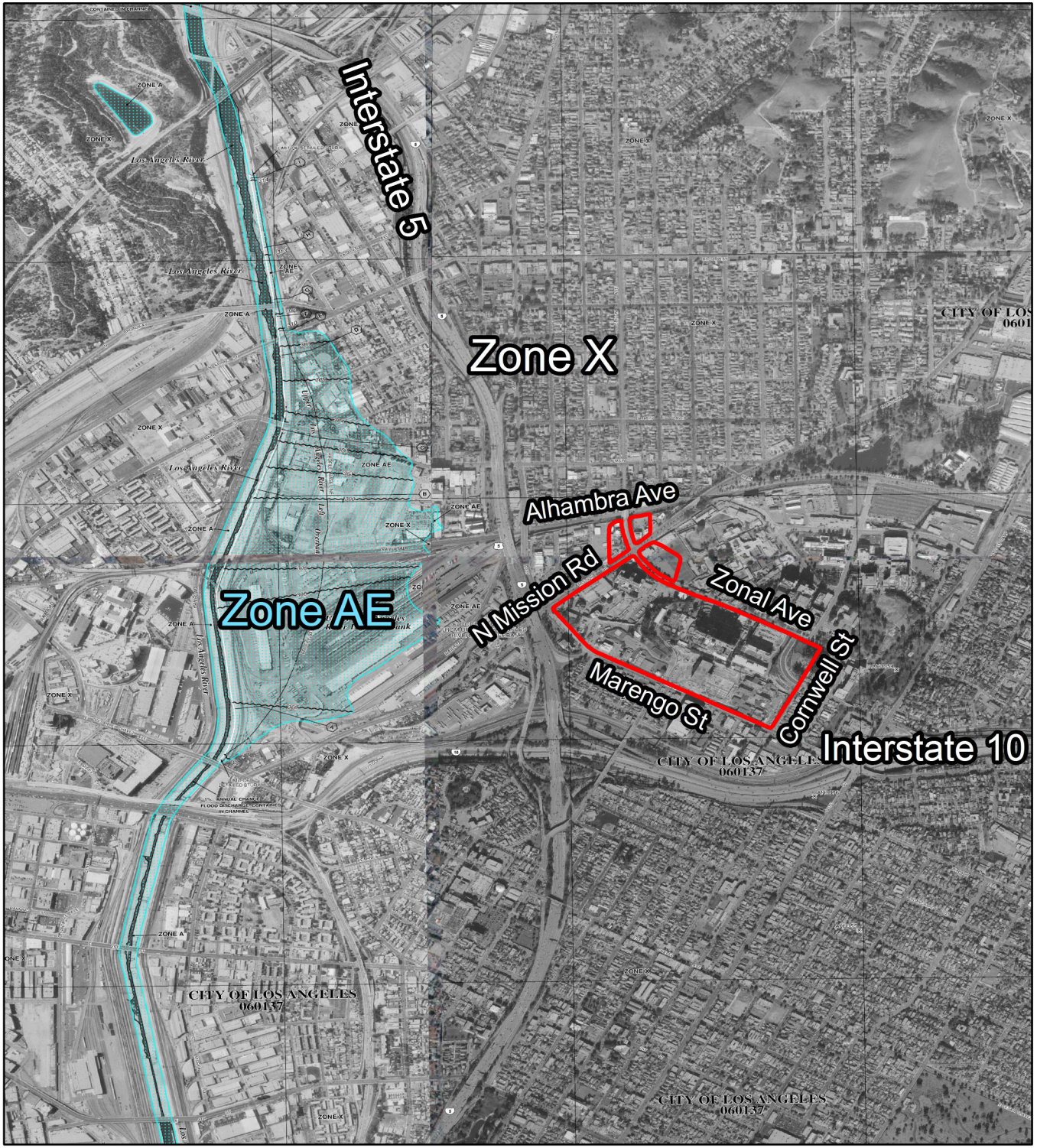
Legend

- Los Angeles River
- Project Boundary

Watearth™

LA+USC Medical Center Master Plan

EXHIBIT 2
AERIAL PHOTOGRAPH



North

Feet

0 1,200 2,400 4,800

1 inch = 2,000 feet

Legend

Project Boundary

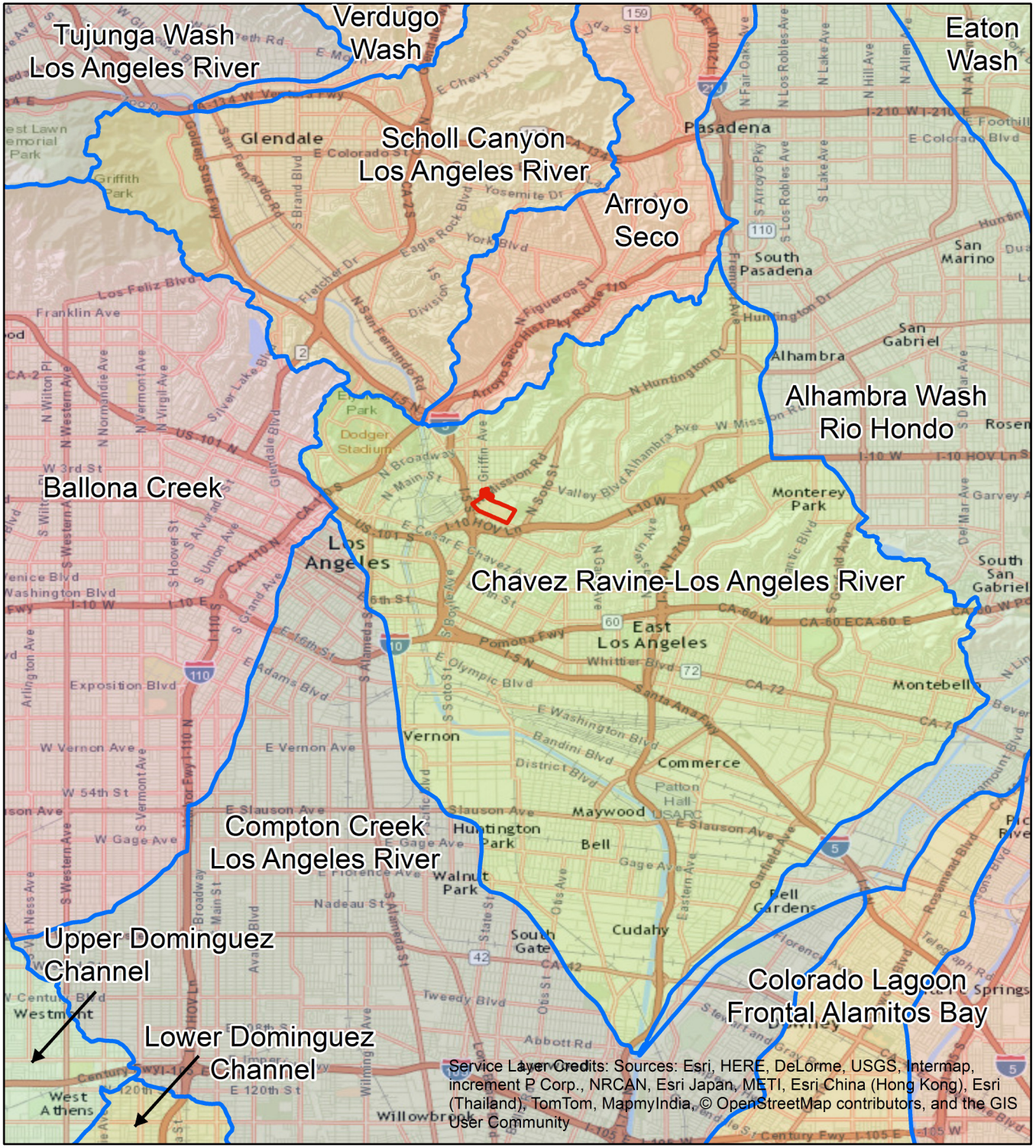
Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 3

FIRM PANELS

06037C1628F, 06037C1629F,
06037C1636F, 06037C1637F
Panels updated 9/26/2008



North

Feet

0 7,500 15,000 30,000

1 inch = 12,500 feet

Legend

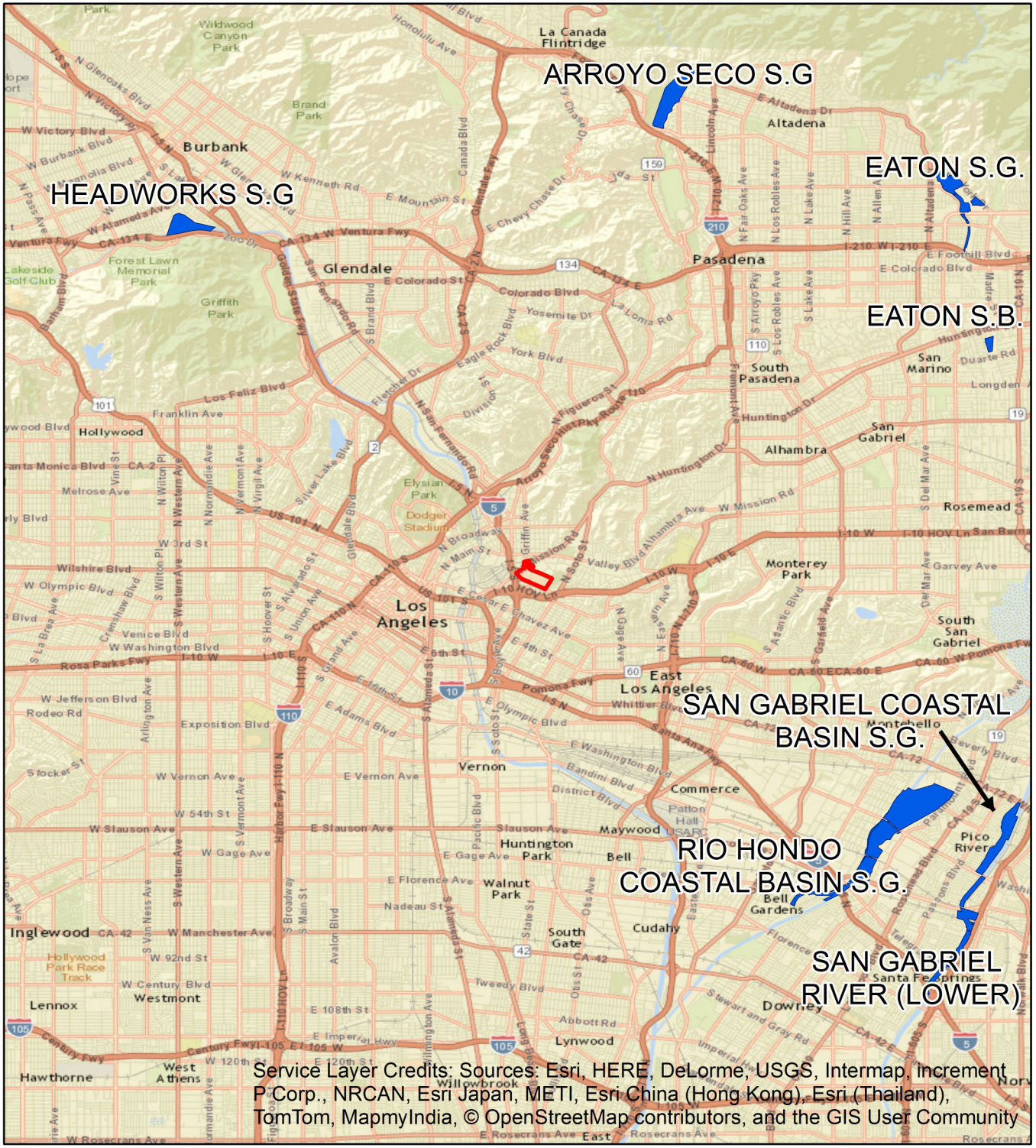
- USGS NHD Subwatershed
- Project Boundary

Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 4

Subwatershed Boundaries



North

Feet

0 9,000 18,000 36,000

1 inch = 15,000 feet

Legend

Spreading Grounds

Project Boundary

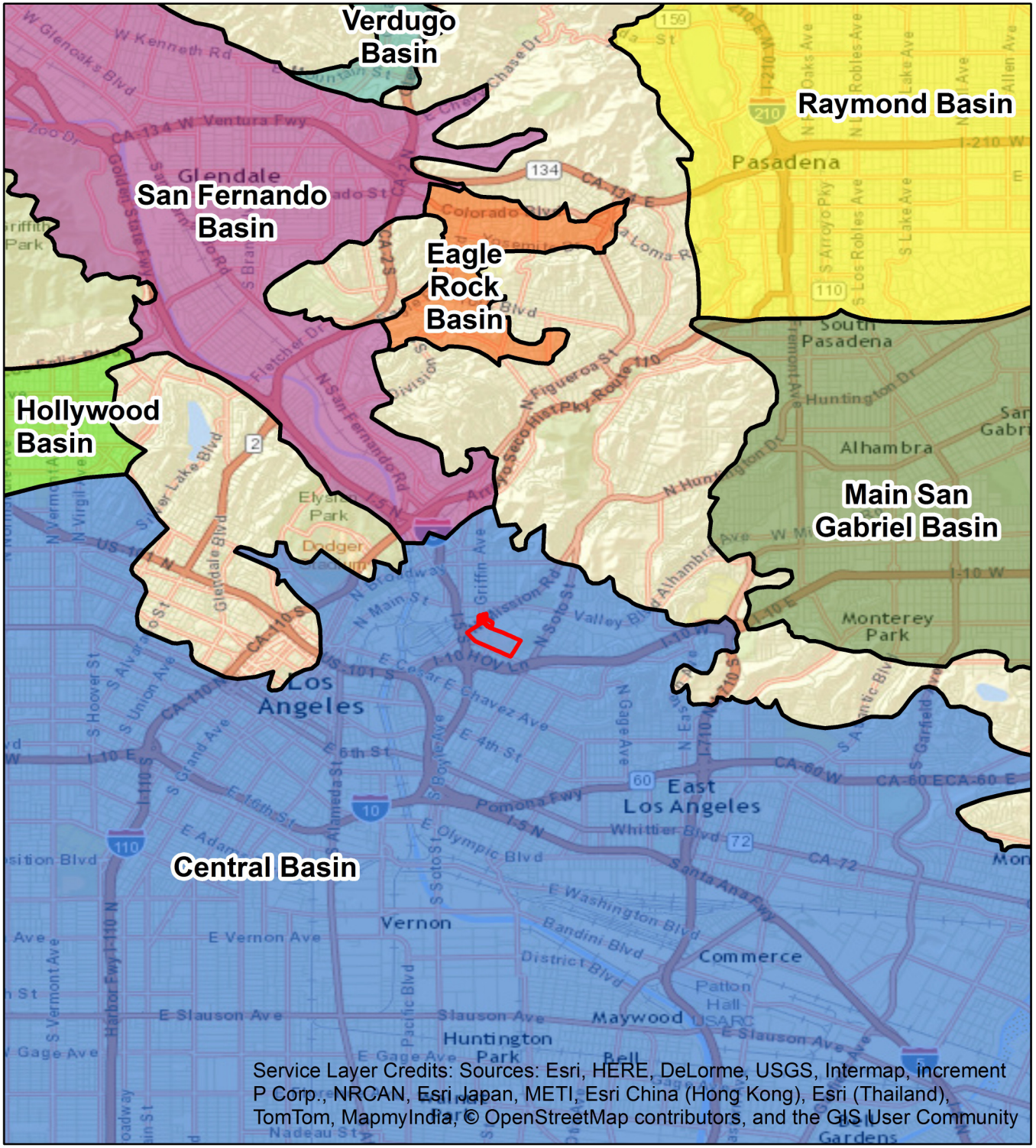
Watearth™

LA+USC Medical Center

EXHIBIT 5

Stormwater Spreading Grounds

Spreading Grounds data from Los Angeles Co. Dept. of Public Works



North

0 6,250 12,500 25,000 Feet

1 inch = 10,000 feet

Legend

- Ground Water Basins
- Project Boundary

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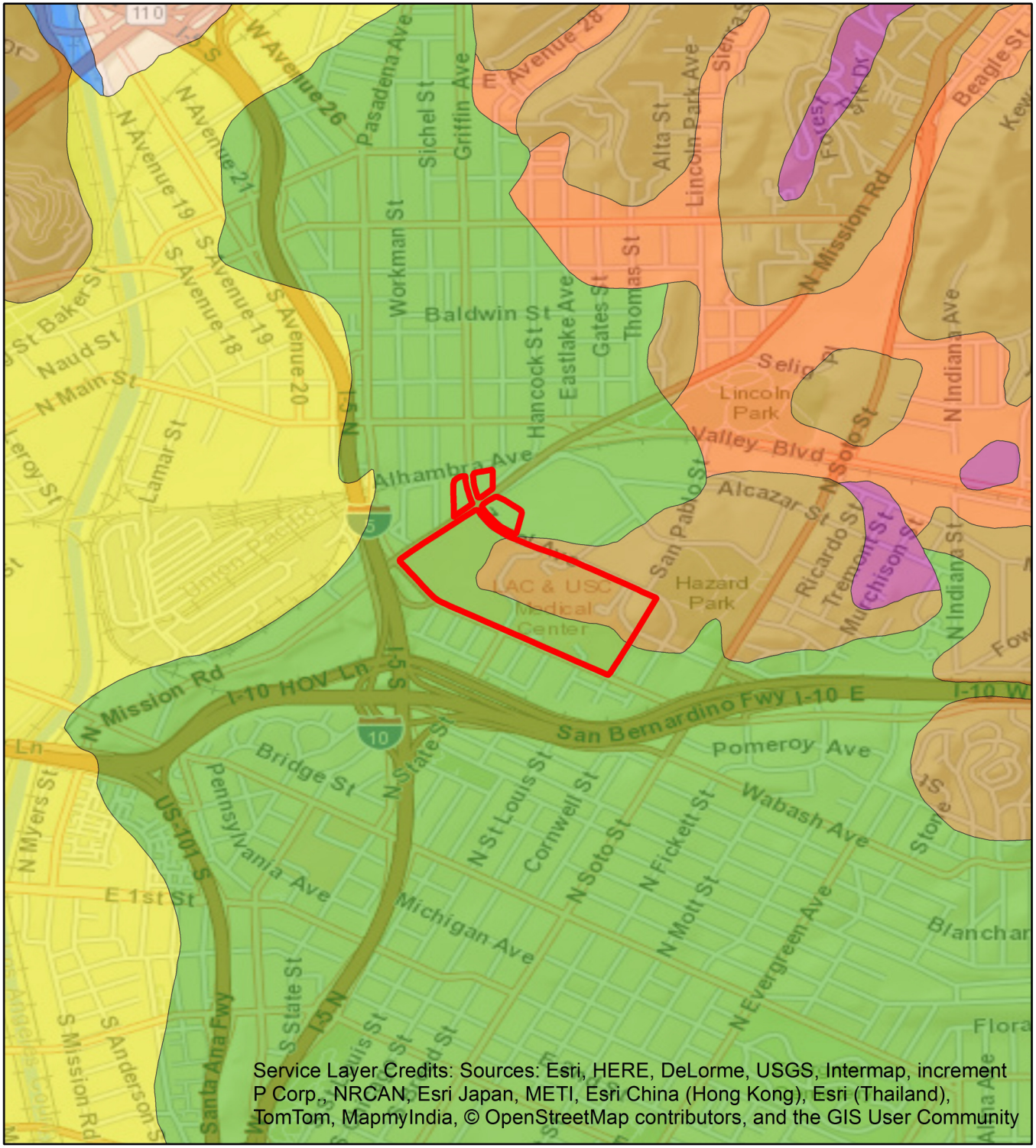
LA+USC Medical Center Master Plan EIR

EXHIBIT 6

Groundwater Basins

Ground water basin data from
Los Angeles Co. Dept. of Public Works



North

Feet

0 1,300 2,600 5,200

1 inch = 2,000 feet

- Project Boundary
- Altamont Clay Loam
- Ramona Loam
- Yolo Clay Loam
- Tujunga Fine Sandy Loam
- Handford Gravelly Sandy Loam
- Handford Fine Sandy Loam
- Diablo Clay Loam

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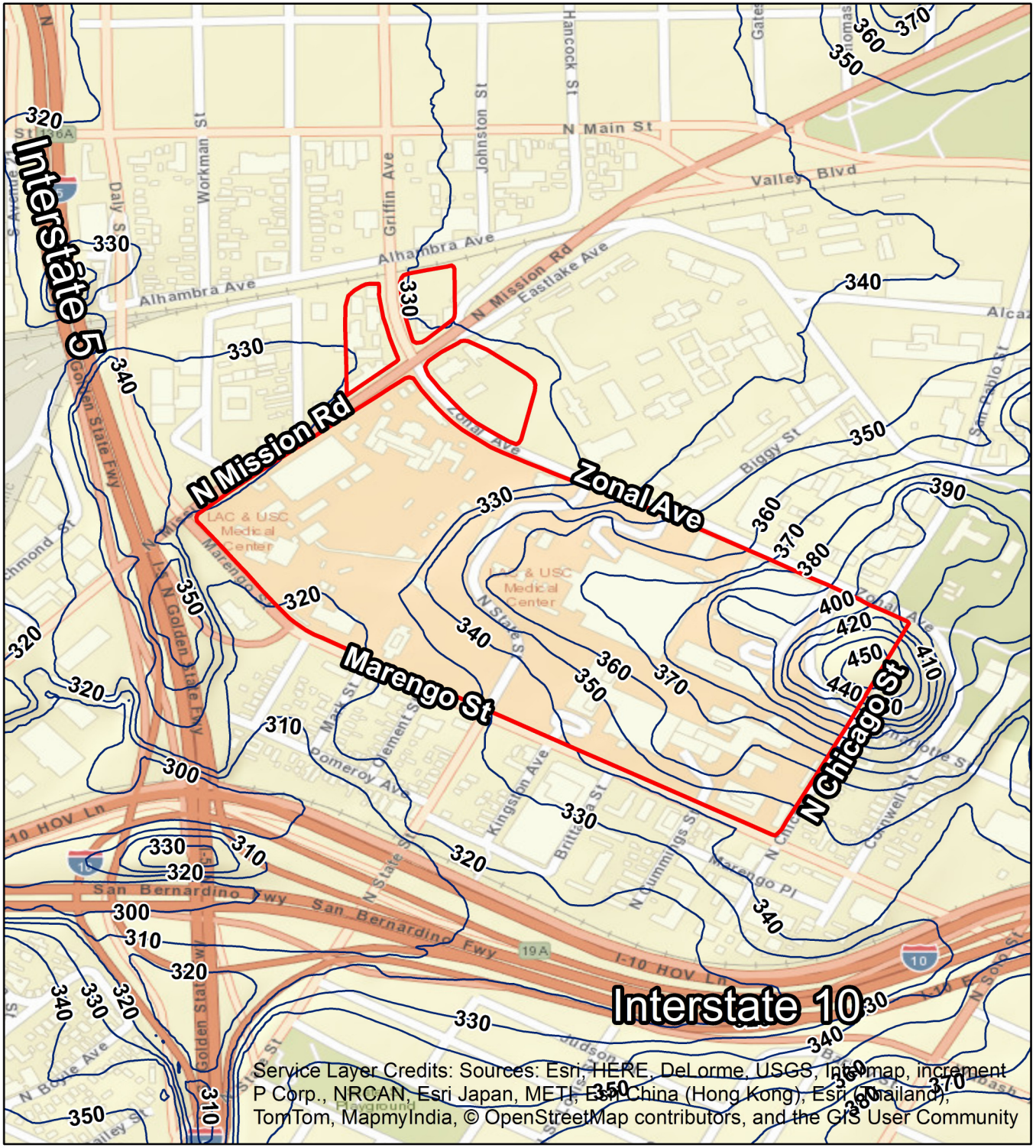
LA+USC Medical Center Master Plan EIR

EXHIBIT 7

Soil Types

Soil data from Los Angeles Co.
Dept. of Public Works, Water Resources Division



North

0 500 1,000 2,000 Feet

1 inch = 750 feet

Legend

- Project Boundary
- 10ft Contour

Watearth™

LA+USC Medical Center Master Plan EIR

EXHIBIT 8

Topographic Map

Elevation data from
USGS National Elevation Dataset

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Water Resources + Green Infrastructure

APPENDIX A1 - LAC+USC MEDICAL CAMPUS PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS

WATER DETENTION AREA

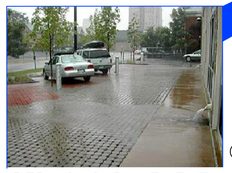
Q_{25}=42.8 CFS, T_C=5 MIN
Q_{50}=48.48 CFS, T_C=5 MIN
Q_{100}=54.08 CFS, T_C=5 MIN
Q_{SUSMP}=2.20 CFS, T_C=22 MIN

Q_{25}=21.53 CFS, T_C=7 MIN
Q_{50}=24.35 CFS, T_C=7 MIN
Q_{100}=29.13 CFS, T_C=6 MIN
Q_{SUSMP}=1.47 CFS, T_C=28 MIN

Q_{25}=27.53 CFS, T_C=5 MIN
Q_{50}=31.12 CFS, T_C=5 MIN
Q_{100}=24.71 CFS, T_C=5 MIN
Q_{SUSMP}=1.83 CFS, T_C=21 MIN

BIOSWALE/RAINGARDENS

Q_{25}=8.91 CFS, T_C=7 MIN
Q_{50}=10.82 CFS, T_C=6 MIN
Q_{100}=12.05 CFS, T_C=6 MIN
Q_{SUSMP}=0.63 CFS, T_C=26 MIN



PERVIOUS PAVEMENT

Q_{25}=31.01 CFS, T_C=5 MIN
Q_{50}=35.05 CFS, T_C=5 MIN
Q_{100}=39.10 CFS, T_C=5 MIN
Q_{SUSMP}=1.69 CFS, T_C=23 MIN

Q_{25}=20.34 CFS, T_C=10 MIN
Q_{50}=24.09 CFS, T_C=9 MIN
Q_{100}=26.89 CFS, T_C=9 MIN
Q_{SUSMP}=1.59 CFS, T_C=30 MIN

Q_{25}=24.51 CFS, T_C=6 MIN
Q_{50}=27.66 CFS, T_C=6 MIN
Q_{100}=33.62 CFS, T_C=5 MIN
Q_{SUSMP}=1.70 CFS, T_C=23 MIN

Q_{25}=10.14 CFS, T_C=5 MIN
Q_{50}=11.47 CFS, T_C=5 MIN
Q_{100}=12.79 CFS, T_C=5 MIN
Q_{SUSMP}=0.79 CFS, T_C=15 MIN

LAC+USC MEDICAL CAMPUS
PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS

LOS ANGELES, CALIFORNIA

LEGEND:

- RIGHT-OF-WAY LINE
- CENTER LINE
- EXISTING OFF-SITE STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING BUILDING TO REMAIN
- PROPOSED BUILDING
- WETLAND/DETENTION AREA
- PERVIOUS PAVEMENT
- BIOSWALE AREA
- SUB-AREA LINE
- LONGEST FLOW PATH
- FLOW PATH ANNOTATION
- HYDROLOGY SUB-AREA NUMBER AND ACREAGE
- HYDROLOGY AREA CONFLUENCE POINT
- DIRECTIONAL FLOW ARROW

GRAPHIC SCALE IN FEET
0 40 80 160

Kimley-Horn and Associates, Inc.
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Engineering, Planning, and Environmental Consultants
765 The City Drive, Suite 200
Orange, California 92868 (714) 939-1030

APPENDIX B – TABLES OF MODELING DATA AND RESULTS

TABLE 1: LAC+USC MEDICAL CENTER EIR SUMMARY OF HYDROLOGIC PARAMETERS

Hydrologic Parameters																	
Area (ac)	24-hr Rainfall Data		Impervious Cover (%)			Overland Flow Length (ft)		Width (A/L) (ft)		Slope (%)			Depression Storage (in)		Manning's n-value Impervious	Manning's n-value Pervious		
	10-yr	100-yr	Undev	Exist	Prop	Undev	Exist & Prop	Undev	Exist & Prop	Undev	Exist	Prop	Impervious	Pervious		Undev	Exist	Prop
83.61	4.84	7.87	0.0%	95%	75.0%	500	200	7,284	18,210	4.8%	4.8%	4.8%	0.06	0.25	0.011	0.32	0.24	0.24

Notes:

1. Hydrologic modeling performed in EPA SWMM5.0.022.
2. Site assumed to route to outlet in undeveloped conditions and 0% disconnected impervious cover assumed in existing conditions as detailed topographic and grading data not available.
3. Undeveloped conditions assumed.
4. Tree canopy interception neglected as not significant for this project.
5. Evaporation data based on 1970 - 2006 data from Los Angeles Downtown/USC gauge obtained from the EPA National Stormwater Calculator.
6. Undeveloped Manning's n-value for pervious areas assumed between dense grass and woods with light underbrush. Existing Manning's n-value for pervious areas assumed as dense grass.
7. Proposed Manning's n-value for pervious areas assumed as dense grass or an approximate average between turf grass and native vegetation.
8. Continuous simulation model based on 1970 - 2006 data from Los Angeles Downtown/USC gauge obtained from the EPA National Stormwater Calculator.
9. Existing impervious cover of 95% approximated from aerial photograph and proposed impervious cover assumed from campus rendering from *Master Plan* .
10. Proposed includes ultimate redevelopment of LA+USC Medical Center with Low Impact Development (LID) features.
11. Existing slope assumed as typical site average and proposed slope assumed same as existing based on information in *Master Plan* . Since no data available, undeveloped slope assumed same as existing.
12. Overland flow length of 500 feet (ft) assumed as maximum for undeveloped conditions based on SWMM User's Manual. Existing and proposed conditions limited to 200 ft due to channelized flow on paved surfaces.
13. Rainfall data based on National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 6 from the Ascot Reservoir gauge.

TABLE 2: LAC+USC MEDICAL CENTER EIR GREEN & AMPT SOILS PARAMETERS

Native Soil Green & Ampt Parameters			Growing Media Green & Ampt Parameters						
Suction Head (in)	Conductivity (in/hr)	Initial Deficit	Suction Head (in)	Conductivity (in/hr)	Initial Deficit	Field Capacity	Effective Porosity	Wilting Point	Conductivity Slope
5.885	0.085	0.305	2.4	1.18	0.382	0.105	0.437	0.047	8.0

Notes:

1. Native soil classified as Ramona Loam and Altamont Clay Loam from LA County soils and GIS data.
2. Suction head and hydraulic conductivity for native soil based on average of clay loam and loam values from EPA *SUSTAIN User's Manual*
3. Initial moisture deficit for Western U.S. assumed as average of clay loam and loam from www.water-research.net
4. Conductivity and suction head values assumed for growing media from EPA *SUSTAIN User's Manual* .
   The conductivity value was selected to simulate long-term saturated hydraulic conductivity in the event of loss of capacity over time.
5. Loamy sand classification assumed for growing media and depths shown on Table 4.
6. Conductivity slope assumed from standard tables in SWMM5.0.021 User's Manual based on sandy loam growing media.

TABLE 3: LAC+USC MEDICAL CENTER EIR LID FEATURES AREAS AND CONTRIBUTING AREAS

LID Feature	LID Area (sq. ft.)	Drainage Area/ Area Treated (ft^2)	Pervious Area Treated (ft^2)	Impervious Area Treated (ft^2)	% Impervious Area Treated	Outflow to Pervious
Bioretention	70,436	414,167	0	414,167	11%	No
Permeable Pavement	170,446	170,446	0	170,446	5%	No
Wetlands/Detention	31,804	68,681	0	68,681	2%	No
TOTALS		653,294	0	653,294	18%	

Notes:

1. Surface areas based on LAC+USC MEDICAL CAMPUS PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS prepared by Kimley-Horn & Associates, Inc.
2. Total Area Treated = drainage area contributing to LID feature.
2. % impervious area treated is percent of impervious area in entire project drainage area as the aggregated method of LID modeling is used due to the site size.
3. Permeable pavement modeled as 100% impervious and perviousness and storage handled as an LID control.
4. Green roof (agricultural/urban farm) and cisterns for stormwater harvesting and use not included as they are not specifically programmed.

TABLE 4: LAC+USC MEDICAL CENTER EIR LID CONFIGURATIONS

LID Feature	Perm. Pvmt. Thickness (in)	Perm. Pvmt. Infilt. (in/hr)	Perm. Pvmt. Void Ratio	Avg. Surface Depth (in)	Surface Slope (%)	Top Width (ft)	Surface Veg. Volume Fraction	Manning's n-value	Depth Soil Media (in)	Initial Media Saturation (%)	Drain Rock (in)	Void Ratio	Underdrain?
Bioretention	---	---	---	18	---	25	0.05	---	36	0/50	12	0.5	yes
Permeable Pavement	4	100	0.18	---	2.00	50	---	0.011	---	0/50	24	0.5	yes
Wetlands/Detention	---	---	---	48	---	50	0.05	---	24	0/50	---	---	no

Notes:

1. Green & Ampt hydraulic parameters for growing media (amended soil) based on sandy loam with a hydraulic conductivity of 1.18 in/hr (see Table 2 for details).
2. Hydraulic conductivity of 0.085 in/hr assumed for underlying (native) soil (see Table 2 for details).
3. No clogging assumed on permeable pavement (i.e., maintenance at appropriate intervals assumed).
4. Initial media saturation used for design storm events only and not continuous simulation model.
5. Surface depth and growing media depth for bioretention and wetlands/detention based on required two to three feet from February, 2014 County of Los Angeles Department of Public Works *Low Impact Development Standards Manual* .
6. Wetlands/detention modeled as bioretention due to planning-level nature of analysis.
7. Thickness of porous asphalt and void ratio of gravel reservoir assumed.
8. Permeable pavement infiltration rate assumed and void ratio based on average between typical range of 0.12 - 0.21 from SWMM5.0.022 documentation.
9. Slope of 2% for permeable pavement assumed as located in flatter portions of site.
10. Manning's n-value for permeable pavement based on typical asphalt n-values.
11. 4-inch underdrains in Permeable Pavement and Bioretention assumed to be elevated 6 inches above bottom of gravel reservoir.
12. Void ratios assumed for gravel storage reservoirs.

TABLE 4A: LAC+USC MEDICAL CENTER EIR STORMWATER QUALITY VOLUME

LID Feature	Storage Volume (cu. ft.)			
	Surface Storage	Growing Media	Drain Rock	Total
Bioretention	2.43	1.46	0.42	4.30
Permeable Pavement	0.00	0.00	2.03	2.03
Wetlands/Detention	1.46	1.46	0.00	2.92
TOTAL	3.89	2.92	2.46	9.26
REQUIRED	6.62			6.62
EXCESS/DEFICIT	-2.73			2.64

Notes:

1. Surface areas based on LAC+USC MEDICAL CAMPUS PROPOSED STORMWATER CONVEYANCE CONCEPT PLANS prepared by Kimley-Horn & Associates, Inc.
2. Water quality volume required based on 0.95-inch 85th-percentile, 24-hour rainfall event.
3. Storage volumes approximate based on surface area of LID features. Final designs may need to vary to meet required stormwater quality volumes.
4. Effective porosities of 30% and 26% used for growing media and drain rock, respectively. Effective porosites based on data in NCSU *Urban Waterways* article entitled Designing Bioretention with an Internal Water Storage (IWS) Layer.

TABLE 5: LAC+USC MEDICAL CENTER EIR DESIGN STORM EVENTS RESULTS

System Results	10-yr, 24-hr Design Storm					100-yr, 24-hr Design Storm				
	Undev.	Exist.	Prop.	% from Undev.	% from Exist.	Undev.	Exist.	Prop.	% from Undev.	% from Exist.
Initial LID Storage (in)	---	---	0.402	---	---	---	---	0.402	---	---
Precipitation (in)	4.540	4.540	4.540	0%	0%	7.140	7.140	7.140	0%	0%
Surface Runoff (in)	3.655	4.322	3.543	-3%	-18%	3.062	6.901	5.953	94%	-14%
Infiltration (in)	0.878	0.177	1.121	28%	533%	4.066	0.198	1.219	-70%	516%
Evaporation (in)	0.008	0.047	0.045	---	-4%	0.013	0.047	0.046	---	-2%
Peak Flows (cfs)	30.9	205.5	154.7	401%	-25%	98.8	328.1	252.9	156%	-23%

Notes:

1. Undeveloped conditions refers to historical site with no development.
2. Existing conditions refers to current conditions at site with existing development.
3. Proposed conditions is proposed ultimate build-out of *Master Plan* facilities with LID features.
4. Initial LID Storage due to assumed 50% saturation used in design storm models.

TABLE 6: LAC+USC MEDICAL CENTER EIR
CONTINUOUS SIMULATION WATER BALANCE OUTPUT

System Results	Analysis Period Results			Difference Between LID Model and Other Conditions			
	Undeveloped	Existing	Proposed	vs. Undeveloped	vs. Existing	% from Undeveloped	% from Existing
Precipitation (in)	570.79	570.79	570.79	0.00	0.00	0%	0%
Surface Runoff (in)	46.59	494.94	323.42	276.84	-171.51	594%	-35%
Infiltration (in)	521.49	25.39	192.27	-329.22	166.87	-63%	657%
Evaporation (in)	2.86	51.54	56.74	53.88	5.20	1881%	10%

Notes:

1. Water balance output is for full continuous simulation run.
2. Initial saturation of 0% (wilting point) used for growing media at start of continuous simulation run.
3. Undeveloped conditions refers to historical site with no development.
4. Existing conditions refers to current conditions at site with existing development.
5. Proposed conditions is proposed ultimate build-out of *Master Plan* facilities with LID features.

TABLE 7: LAC+USC MEDICAL CENTER EIR NUMBER OF RUNOFF EVENTS FROM CONTINUOUS SIMULATION ANALYSIS

Run	Number Runoff Events
Undeveloped Conditions	131
Existing Conditions	1,052
Proposed LID Conditions	991

Notes:

1. 589 precipitation events ≥ 0.10 in.
2. 6-hour inter-event duration used.

APPENDIX C – EPA SWMM WATER BUDGET RESULTS

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	31.632	4.540
Evaporation Loss	0.054	0.008
Infiltration Loss	25.463	3.655
Surface Runoff	6.121	0.878
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.018	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	4.54	0.00	0.01	3.65	0.88	1.99	30.85	0.193

Analysis begun on: Sun Jul 13 05:32:37 2014
Analysis ended on: Sun Jul 13 05:32:37 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	31.632	4.540
Evaporation Loss	0.327	0.047
Infiltration Loss	1.232	0.177
Surface Runoff	30.112	4.322
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.124	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	4.54	0.00	0.05	0.18	4.32	9.81	205.49	0.952

Analysis begun on: Sun Jul 13 05:24:08 2014
Analysis ended on: Sun Jul 13 05:24:08 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Initial LID Storage	2.804	0.402
Total Precipitation	31.632	4.540
Evaporation Loss	0.311	0.045
Infiltration Loss	7.808	1.121
Surface Runoff	24.689	3.543
Final Surface Storage	1.672	0.240
Continuity Error (%)	-0.124	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	4.54	0.00	0.04	1.12	3.54	8.04	154.70	0.780

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Init. Storage in	Final Storage in	Po Er
LA+USC	Wetlands/Detention	11.69	0.14	4.09	0.00	0.00	4.68	12.15	
LA+USC	PermeablePavement	7.87	0.13	3.94	0.00	7.81	4.00	0.00	-
LA+USC	Bioretention	22.29	0.14	4.09	0.00	20.20	9.02	6.92	-0

Analysis begun on: Mon Jul 14 14:25:07 2014
Analysis ended on: Mon Jul 14 14:25:07 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	49.748	7.140
Evaporation Loss	0.091	0.013
Infiltration Loss	28.332	4.066
Surface Runoff	21.336	3.062
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.023	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	7.14	0.00	0.01	4.07	3.06	6.95	98.84	0.429

Analysis begun on: Mon Jul 14 14:34:39 2014
Analysis ended on: Mon Jul 14 14:34:39 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	49.748	7.140
Evaporation Loss	0.329	0.047
Infiltration Loss	1.381	0.198
Surface Runoff	48.084	6.901
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.093	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	7.14	0.00	0.05	0.20	6.90	15.67	328.14	0.967

Analysis begun on: Mon Jul 14 14:31:38 2014
Analysis ended on: Mon Jul 14 14:31:38 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-2000 00:00:00
Ending Date JAN-03-2000 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Initial LID Storage	2.804	0.402
Total Precipitation	49.748	7.140
Evaporation Loss	0.321	0.046
Infiltration Loss	8.493	1.219
Surface Runoff	41.475	5.953
Final Surface Storage	2.317	0.333
Continuity Error (%)	-0.101	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	7.14	0.00	0.05	1.22	5.95	13.51	252.86	0.834

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Init. Storage in	Final Storage in	Po Er
LA+USC	Wetlands/Detention	18.42	0.14	4.09	0.00	0.00	4.68	18.88	
LA+USC	PermeablePavement	12.40	0.13	3.94	0.02	12.32	4.00	0.00	-
LA+USC	Bioretention	35.15	0.14	4.09	0.00	31.35	9.02	8.67	-0

Analysis begun on: Mon Jul 14 14:27:16 2014
Analysis ended on: Mon Jul 14 14:27:16 2014
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-1970 00:00:00
Ending Date DEC-31-2006 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
045115	JAN-09-1970	DEC-27-2006	60 min	7468	0	0

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	3976.951	570.786
Evaporation Loss	19.953	2.864
Infiltration Loss	3633.484	521.490
Surface Runoff	324.597	46.587
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.027	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	570.79	0.00	2.86	521.49	46.59	105.77	78.18	0.082

Analysis begun on: Sun Jul 13 07:29:52 2014
Analysis ended on: Sun Jul 13 07:29:57 2014
Total elapsed time: 00:00:05

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-1970 00:00:00
Ending Date DEC-31-2006 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
045115	JAN-09-1970	DEC-27-2006	60 min	7468	0	0

********** Runoff Quantity Continuity **********	Volume acre-feet	Depth inches
Total Precipitation	3976.951	570.786
Evaporation Loss	359.099	51.539
Infiltration Loss	176.927	25.393
Surface Runoff	3448.476	494.937
Final Surface Storage	0.000	0.000
Continuity Error (%)	-0.190	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	570.79	0.00	51.54	25.39	494.94	1123.65	108.03	0.867

Analysis begun on: Sun Jul 13 07:24:33 2014
Analysis ended on: Sun Jul 13 07:24:38 2014
Total elapsed time: 00:00:05

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-01-1970 00:00:00
Ending Date DEC-31-2006 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
045115	JAN-09-1970	DEC-27-2006	60 min	7468	0	0

Runoff Quantity Continuity	Volume acre-feet	Depth inches
Total Precipitation	3976.951	570.786
Evaporation Loss	395.353	56.742
Infiltration Loss	1339.615	192.266
Surface Runoff	2253.459	323.424
Final Surface Storage	0.084	0.012
Continuity Error (%)	-0.291	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
LA+USC	570.79	0.00	56.74	192.27	323.42	734.27	87.88	0.567

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Init. Storage in	Final Storage in	Po Er
LA+USC	Wetlands/Detention	1394.91	498.62	897.73	0.00	0.00	0.00	0.00	

LA+USC	PermeablePavement	955.23	33.20	849.72	0.00	82.63	0.00	0.00	-
LA+USC	Bioretention	2617.43	682.84	1381.41	0.00	563.01	0.00	0.62	-0

Analysis begun on: Mon Jul 14 13:22:50 2014
Analysis ended on: Mon Jul 14 13:23:02 2014
Total elapsed time: 00:00:12

Appendix G
Traffic Study for the LAC+USC Medical Center Master Plan Project Environmental Impact Report

Draft

August 2014

Traffic Study for the LAC+USC Medical Center Master Plan Environmental Impact Report

Submitted by

FEHR PEERS

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DRAFT
TRAFFIC IMPACT STUDY
FOR THE
LAC+USC MEDICAL CENTER MASTER PLAN
ENVIRONMENTAL IMPACT REPORT

August 2014

Prepared for:
ICF INTERNATIONAL

Prepared by:

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Ref: LA14-2663

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I. INTRODUCTION

This report documents the results of a study evaluating potential traffic impacts of the proposed LAC+USC Medical Center Master Plan. The study was conducted by Fehr & Peers in support of the environmental impact report (EIR) for the Master Plan.

PROJECT DESCRIPTION

The LAC+USC Medical Center is located at 2051 Marengo Street and 1200 North State Street on a number of parcels of land owned by Los Angeles County (County), wholly surrounded by communities of Boyle Heights and Lincoln Heights within the City of Los Angeles (City). The main portion of the medical center campus is bounded by Zonal Street, Mission Road, Marengo Street, and Chicago Street. The campus also includes parcels on the northeast, northwest and southwest corners of Mission Road & Zonal Avenue/Griffin Avenue. The site is located east of the I-5 (Golden State) Freeway and north of the I-10 (San Bernardino) Freeway. Figure 1 shows the location of the project site in the context of the surrounding street system.

The proposed Master Plan envisions a series of improvements to the campus' medical facilities, including new or renovated buildings and facilities for in-patient and out-patient care, 450 new hospital beds, medical offices, laboratories and other supporting functions. The master plan also anticipates the development of community-oriented and wellness-related facilities, educational uses, and retail opportunities and enhanced outdoor space. The western area of the master plan allows for the development of bio-tech research and development facilities. Supporting parking facilities would be located throughout the campus. No specific project is proposed for development at this time. With a planning horizon of 2040, the master plan provides a framework within which the site can develop in the coming decades.

A majority of the parking within the LAC+USC campus is currently provided in three large parking structures (Structure 9 south of Marengo Street, Structure 10 east of Mission Road and Structure 12 south of Zonal Avenue) as well as numerous parking lots throughout the site and metered and unmetered parking on the surrounding streets. Driveways are located on each of the streets bounding the campus and on State Street, which runs through the campus. The proposed Master Plan allows for the removal of Structures 10 and 12 and construction of new parking structures on the west side of State Street, on Zonal Avenue, and on Sichel Street. Access would continue to be located on the perimeter streets and on State Street.

An illustrative rendering of full buildout of the proposed master plan is presented in Figure 2. Further project description data is presented as appropriate in the discussions of trip generation and parking impacts later in this report.

Figure 1

Study Area and Analyzed Intersections

N:\Jobs\Active\2600s\2663_LAC USC MP EIR\Graphics\AI

Figure 2

LAC+USC Illustrative Master Plan

STUDY SCOPE

The scope of work for this study was determined in consultation with the Los Angeles County Department of Public Works (LACDPW) and the Los Angeles Department of Transportation (LADOT). The study analyzed the potential project-generated traffic impacts on the street and highway system surrounding and serving the LAC+USC medical center campus. The following traffic scenarios were analyzed in the study:

- Existing Year (2014) Conditions – The analysis of existing traffic conditions provided a basis for the remainder of the study. The existing conditions analysis included an assessment of streets, traffic volumes, operating conditions, transit services, and on-campus parking conditions.

- Existing Year (2014) plus Project Conditions – This traffic scenario provides forecasts of traffic volumes and an assessment of operating conditions under baseline conditions with the addition of project generated traffic. The impacts of the proposed Project on baseline traffic operating conditions were then identified.

- Cumulative Base Year (2040) Conditions – Future traffic projections without the proposed Project were developed for the year 2040. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the Project Site by the year 2040.

- Cumulative Year (2040) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of project-generated traffic. The impacts of the proposed Project on future traffic operating conditions were then identified.

The potential for project impacts is evaluated in the study for weekday AM and PM peak hours of traffic at 21 intersections in the City of Los Angeles near the LAC+USC Medical Center. The analysis locations are illustrated in Figure 1 and are listed below. The streets in the study area are under the jurisdiction of the City of Los Angeles. Freeways are under the jurisdiction of the California Department of Transportation (Caltrans).

1. Daly Street & Main Street
2. I-5 Southbound Ramps/1-10 On-Ramp & Mission Road
3. Daly Street/Marengo Street & Mission Road
4. Workman Street& Mission Road
5. Sichel Street & Mission Road
6. Griffin Avenue/Zonal Avenue & Mission Road
7. Mission Road & Valley Boulevard
8. Mission Road & Main Street
9. State Street & Cesar E. Chavez Avenue
10. State Street & I-10 Eastbound Ramps
11. State Street & I-10 Westbound Off-Ramp

12. State Street & Pomeroy Avenue
13. State Street & Marengo Street
14. I-5 Northbound Off-Ramp & Cesar E. Chavez Avenue
15. Brittania Street & Marengo Street
16. Chicago Street & Marengo Street
17. San Pablo Street & Valley Boulevard
18. Soto Street & I-10 Eastbound Off-Ramp/Wabash Avenue
19. Soto Street & Marengo Street
20. Soto Street & Charlotte Street/I-10 Westbound Ramps
21. Soto Street & Alcazar Street

In addition, the unsignalized intersection of State Street & Zonal Avenue was selected for traffic signal warrant analysis. Per *Traffic Study Policies and Procedures* (LADOT, June 2013), a significant impact analysis was not conducted.

Finally, the study includes an analysis of potential project impacts on the regional highway and transit systems in accordance with requirements of the Los Angeles County Congestion Management Program (CMP).

ORGANIZATION OF REPORT

This report is divided into six chapters. Chapter II describes the existing circulation system, traffic volumes, and traffic conditions in the study area. The methodologies used to forecast cumulative and project traffic volumes, and the resultant forecasts, are described in Chapter III. Chapter IV presents an assessment of potential traffic impacts and identifies potential traffic mitigation measures. Chapter V presents the results of the Congestion Management Program regional transportation system impact analysis. Finally, conclusions and recommendations of the study are summarized in Chapter VI. Appendices to this report include details of the technical analysis.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study include a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities and current operating conditions, and an assessment of existing transit service in the study area. A detailed description of these elements is presented in this chapter.

EXISTING STREET SYSTEM

The area around the medical center is surrounded by a mature network of freeways and arterial, collector and local streets. The site is readily accessible to drivers, both from a local and from a regional perspective and lies approximately three miles northeast of the center of downtown Los Angeles.

Major freeways near the medical center include the Golden State Freeway (I-5) and the San Bernardino Freeway (I-10). I-5, with access ramps at State Street and Cesar E. Chavez Avenue, extends along a north/south path throughout the region and provides access to Orange County and to the San Fernando Valley, as well as beyond. I-10, with access ramps at State Street and Soto Street, extends along an east/west path throughout the region, providing access to Santa Monica to the west, and to the San Gabriel Valley to the east, and beyond. High occupancy/toll (HOT) lanes, available to vehicles with more than one occupant or to those with pre-paid transponders, are provided on I-10 between Union Station and El Monte, with in-line stations adjacent to the LAC+USC Medical Center and at the campus of the California State University, Los Angeles.

The area around the medical center is served by a network of streets that generally run north/south and east/west, varying according to local topography and historic development patterns. Major elements of the street system in the study area are illustrated above in Figure 1. Mission Road and Soto Street to the west and east of the campus are north/south arterial facilities. Main Street/Valley Boulevard and Cesar E. Chavez Boulevard are east/west arterial facilities. Descriptions of key roadways serving the study area are provided below and summarized in Table 1.

- Daly Street – Daly Street is a north/south street located west of the project site. There are four travel lanes divided by a striped double yellow median. Separated left turn lanes are provided at Mission and Main. The intersections with Mission and Main are signalized. At the intersection with Mission Road, Daly becomes Marengo Street and re-orients as an east/west street. Daly Street is classified as a Secondary Highway.

TABLE 1
EXISTING SURFACE STREET CHARACTERISTICS

Street	From	To	Lanes		Median	Parking Restrictions / Bus		Speed
			NB/EB	SB/WB	Type	NB/EB	SB/WB	Limit
GRIFFIN AVE	MAIN ST	ALHAMBRA AVE	2	2	DY	TANSAT	TANSAT	30
	ALHAMBRA AVE	MISSION RD	2	2	DY	TANSAT	TANSAT	30
ZONAL AVE	MISSION RD	STATE ST	2	2	2WLTL	MP 4HR 8A-8P	MP 4HR 8A-8P	30
	STATE ST	BIGGY ST	1	1	DY	MP 4HR 9A-4P / NS 7-9A 4-6P	MP 4HR 9A-4P / NS 7-9A 4-6P	30
	BIGGY ST	SAN PABLO ST	1	1	DY	TANSAT	TANSAT	30
	SAN PABLO ST	CHARLOTTE ST	1	1	DY	MP 4HR 8A-8P / SCHOOL ZONE	2HR 9A-1:30P / PASSENGER LOADING 6:30-9A 1:30-4P / SCHOOL ZONE	30
CORNWELL ST	CHARLOTTE ST	MARENGO ST	1	1	NONE	PARKING RESTRICTIONS / BUS	PA	25
STATE ST	ZONAL AVE	MARENGO ST	1	1	DY	RC	PA	25
CUMMINGS ST	ZONAL AVE	CHICAGO ST	1	1	DY	MP 4HR 8A-8P	MP 4HR 8A-8P	25
CHARLOTTE ST	CHICAGO ST	CORNWELL ST	1	1	SDY	PA	PA	25
	CORNWELL ST	SOTO ST	1	1	DY	PA / TANSAT	PA / TANSAT	25
CHICAGO ST	CUMMINGS/CHARLOTTE ST	MARENGO ST	1	1	DY	1 HR 8A-6P	MP 4HR 8A-8P	25
DALY ST	MAIN ST	ALHAMBRA AVE	2	2	DY	PA	PA	35
	ALHAMBRA AVE	MISSION RD	2	2	DY	TANSAT	TANSAT	35
MARENGO ST	MISSION RD	I-5	2	2	DY	MP 10HR 8A-8P	MP 10HR 8A-8P	35
	I-5	MARK ST	2	2	DY	MP 2HR 8A-8P	MP 4HR 8A-8P	35
	MARK ST	CLEMENT ST	2	2	DY	MP 2HR 8A-8P	MP 4HR 8A-8P	35
	CLEMENT ST	STATE ST	2	2	DY	MP 2HR 8A-8P	MP 4HR 8A-8P	35
	STATE ST	KINGSTON AVE	2	2	DY	MP 2HR 8A-8P	MP 4HR 8A-8P	35
	KINGSTON AVE	BRITTANIA ST	2	2	DY	MP 2HR 8A-8P	MP 4HR 8A-8P	35
	BRITTANIA ST	CUMMINGS ST	2	2	2WLTL	MP 2HR 8A-8P	TANPAT	35
	CUMMINGS ST	CHICAGO ST	2	2	2WLTL	RC / LOADING	M 4H 8A-8P	35
	CHICAGO ST	CORNWELL ST	2	2	DY	TANSAT	TANSAT	35
	CORNWELL ST	SOTO ST	2	2	DY	NS 7A-6P SCHOOL DAYS	PA	35
ALHAMBRA AVE	DALY ST	GRIFFIN AVE	1	1	UD	TANSAT	PA	25
MISSION RD	RICHMOND ST	MARENGO ST	2	2	2WLTL/DY	NSAT	NSAT	35
	MARENGO ST	WORKMAN ST	2	2	DY	TANSAT	RC	35
	WORKMAN ST	SICHEL ST	2	2	DY	MP 4HR 8A-8P	RC	35
	SICHEL ST	GRIFFIN/ZONAL AVE	2	2	2WLTL	MP 4HR 8A-8P	MP 4HR 8A-8P	35
	GRIFFIN/ZONAL AVE	VALLEY BLVD	3	2	DY	TANSAT	TANSAT	35
	VALLEY BLVD	ALTA ST	2	2	DY	PARKING	PARKING	35
KINGSTON AVE	MARENGO ST	POMEROY AVE	1	1	ONE WAY	MP 4HR 8A-8P	PA	25
POMEROY AVE	KINGSTON AVE	BRITTANIA ST	1	1	ONE WAY	NPAT	NPAT	25
BRITTANIA ST	POMEROY AVE	MARENGO ST	1	1	ONE WAY	MP 4HR 8A-8P	MP 4HR 8A-8P	25
MAIN ST	DALY ST	WORKMAN ST	2	2	DY	PA / NP 4P-6P	PA / NP 7A-9A	35
	WORKMAN ST	SICHEL ST	2	2	DY	PA / NP 4P-6P	PA / NP 7A-9A	35
	SICHEL ST	GRIFFIN AVE	2	2	DY	1HR 8A-8P / NP 4P-6P	1HR 8A-8P / NP 7A-9A	35
	GRIFFIN AVE	MISSION RD	2	2	DY	PA / NP 4P-6P	PA / NP 7A-9A	35
ALLEY	N/O ZONAL AVE	@ STATE ST	1	1	UD	MP 4HR 8A-8P	NS 7A-7P	25
SAN PABLO ST	ZONAL AVE	EASTLAKE AVE	1	1	2WLTL	MP 4HR 8A-8P	MP 4HR 8A-8P	25
	EASTLAKE AVE	VALLEY BLVD	1	1	2WLTL	MP 10HR 8A-8P	MP 10HR 8A-8P	25
BIGGY ST	ZONAL AVE	EASTLAKE AVE	1	1	UD	MP 4HR 8A-8P	MP 4HR 8A-8P	25
SOTO ST	CITY VIEW AVE	E FAIRMOUNT ST	2	2	DY	NSAT 4P-6P, 1HR 8A-4P	NSAT 7A-9A, 1HR 9A-6P	35
	E FAIRMOUNT ST	BARLOW	2	2	2WLTL	NSAT	NSAT	35
	BARLOW ST	MARENGO ST	3	2	2WLTL	NSAT 4-6PM	NSAT	35
	MARENGO ST	CHELSEA ST	3	3	2WLTL	NSAT	NSAT	35
	CHELSEA ST	ZONAL AVE	2	2	DY	NSAT	NSAT 6A-9A, 3P-6P	35
	ZONAL AVE	NORFOLK ST	2	2	DY	NSAT 6A-9A, 3P-6P	NSAT 6A-9A, 3P-6P	35
	NORFOLK ST	ALCAZAR ST	2	2	DY	NSAT 6A-9A, 3P-6P	NSAT	35
	ALCAZAR ST	VALLEY BLVD	2	2	DY	NSAT	NSAT	35
E. CESAR CHAVEZ AVE	BOYLE AVE	STATE ST	2	2	2WLTL	NSAT 4P-6P	NSAT 7A-9A, 1HR 9A-6P	30
	STATE ST	CUMMINGS ST	2	2	2WLTL	1HR 8A-8P	NSAT 7A-9A, 1HR 9A-6P	30
WABASH AVE	SOTO ST	MOTT ST	1	1	2WLTL	PARKING	PARKING	35
STATE ST	MICHIGAN AVE	E. CESAR CHAVEZ AVE	1	1	DY	SWEEP ONLY	SWEEP ONLY	30
	E. CESAR CHAVEZ AVE	MARENGO ST	2	2	DY	NSAT	NSAT	30
EASTLAKE AVE/NORFOLK ST	MISSION RD	SAN PABLO ST	1	1	2WLTL	MP 4HR 8A-8P	MP 4HR 8A-8P	25
	SAN PABLO ST	SOTO ST	1	1	UD	MP 10HR 8A-8P	MP 4HR 8A-8P	25
ALCAZAR ST	EASTLAKE AVE	SOTO ST	1	1	2WLTL	MP 10HR 8A-8P	MP 10HR 8A-8P	25
VALLEY BLVD	MISSION RD	SAN PABLO ST	2	2	DY/RM	NSAT	PARKING	40
	SAN PABLO ST	SOTO ST	2	2	2WLTL	PARKING	PARKING	40

Notes:

LANES: # = Number of lanes

MISC.: HR = Hour
MIN = Minutes
MP = Meter Parking

PARKING: Parking Allowed
NSAT = No Stopping Anytime
NPAT = No Parking Anytime
NP = No Parking
RD =Red curb
/ = Change in Parking Restriction

MEDIAN/CENTERLINE: DY = Double Yellow Centerline
SDY = Single Dashed Yellow Centerline
2WLTL = Two-Way Left-Turn Lane
UD = Undivided Lane
RM = Raise Median

SPEED LIMIT
NP() = Not Posted in Area (guess)

- Main Street – Main Street is a north/south oriented street, although for the duration of the street within the project area it runs east/west. The street is located north of the project site. There are four travel lanes available. Separate left-turn lanes are provided at major intersections. Parking is generally allowed on both sides of the street within the study area. The intersections with Mission, Griffin, Workman and Daly are signalized. At the intersection with Mission Road, Main Street becomes Valley Boulevard.

- Interstate-5 – Interstate 5 is a major north/south freeway connecting Southern California with Northern California, Oregon and Washington. I-5 contains eight travel lanes in each direction in the project vicinity. In the northbound direction, off ramps are provided at Cesar Chavez Avenue and Daly Street, and on-ramps to the freeway are provided at Marengo Street and State Street. In the Southbound direction, off-ramps from the freeway are provided at Main Street, Mission Road and Cesar Chavez Avenue (via State Street) and on-ramps to the freeway are provided at Mission Road and Cesar Chavez Avenue.

- Interstate-10 – Interstate 10 is a major east/west freeway connecting to Santa Monica to the west and the Inland Empire to the east. I-10 contains eight travel lanes in each direction in the project vicinity. In the eastbound direction, an off-ramp is provided at Soto Street/Wabash Avenue and an on-ramp is provided at Marengo Street. In the westbound direction, on- and off-ramps are provided at Soto Street/Charlotte Street.

- Mission Road – Mission Road is a north/south oriented street located just west of the project site. There are two travel lanes and a bicycle lane in each direction. Left-turn lanes are provided at major intersections, including Daly/Marengo, Workman and Zonal/Griffin. There are also separate right-turn lanes at the intersection with Daly/Marengo and Zonal/Griffin. The intersections with Daly/Marengo, Workman, and Zonal/Griffin are all signalized. Parking is prohibited on both sides of Mission. Mission Road is classified as a Major Highway (Class II).

- Marengo Street – Marengo Street is an east/west street south of the project site. There are four travel lanes available divided by a continuous left-turn lane. Metered parking is available along portions of Marengo Street. The intersections with Mission Road, State Street, Brittania Street and Chicago Street are signalized. Within the study area, the following land use elements exist adjacent to Marengo: the existing Medical Center, commercial uses and residential units. At the intersection with Mission Road, Marengo becomes Daly Street and re-orients as a north/south street. Marengo Street between Mission Road and Soto Street is classified as a Major Highway (Class II).

- Workman Street – Workman is a two-lane north/south street located north of the project site. The street has parking on both sides of the street, and is generally surrounded by residential uses. The intersections with Main Street and Mission Road are signalized. The north and south portions of the street are separated by railroad tracks.

- Sichel Street – Sichel is a two-lane north/south street located north of the project site. The street has parking on both sides of the street, and is generally surrounded by residential uses. The north and south portions of the street are separated by railroad tracks.

- Griffin Avenue – Griffin is a four-lane north/south street with a striped double yellow median located north of the project site. The intersections with Main Street and Mission Road are signalized and have left-turn lanes. Parking is prohibited between Main Street and Mission Road, and allowed on both sides north of Main Street. Griffin Avenue is classified as a Secondary Highway.

- Zonal Avenue – Zonal Avenue is an east/west street located north of the Medical Center. Between Mission Road and State Street, Zonal Avenue provides two travel lanes and two bicycle lanes divided by a continuous left-turn lane. From State Street to San Pablo Street, two travel lanes divided by a striped double yellow median are present. Metered parking is available along Zonal Avenue and a traffic signal is present at Mission Road. East of San Pablo Street, Zonal Avenue bends southward and becomes Cornwell Street. The primary land use to the north and south of Zonal Avenue is the LAC + USC Medical Center. However, towards its eastern terminus there is open space and a high school. Zonal Avenue is classified as a Secondary Highway.

- Valley Boulevard – Valley Boulevard is an east/west street to the north of the project site. There are four travel lanes divided by a striped double yellow median or two-way left-turn lane. There are left-turn lanes at Soto and San Pablo, which are also signalized. Parking is allowed on both sides of the street. The intersection with Soto Street is grade-separated. At the intersection with Mission Road, Valley Boulevard becomes Main Street.

- State Street – State Street is a private county-owned north/south street that cuts through the campus. This roadway provides two travel lanes between Zonal Avenue and Marengo Street, and widens to four travel lanes south of Marengo Street. The intersections with Marengo Street, Pomeroy Avenue and the I-10 westbound off-ramp are signalized. Parking is allowed on some portions of State Street north of Marengo Street. State Street south of Marengo Street is classified as a Secondary Highway.

- Cesar E. Chavez Avenue – Cesar Chavez Avenue is an east/west street located south of the project site. There are four travel lanes, with parking generally allowed on both sides of the street. The intersections with Soto, Breed, Chicago, St. Louis, I-5/I-10 and State are all signalized.

- Pomeroy Avenue – Pomeroy Avenue is an east/west local street with residential land uses fronting it. Pomeroy is a narrow roadway serving two-way traffic between Kingston Avenue and State Street.

- Brittania Street – Brittania Street is a north/south street providing two travel lanes. Traffic flow is one-way in the northbound direction. Parking is allowed on both sides of the street. Los Angeles County facilities/parking lots are located to the west of Brittania Street.

- Chicago Street – Chicago Street is a north/south local street providing two travel lanes. Chicago Street primarily serves the residential area north of Marengo Street and terminates at Charlotte Street. Parking is available on both sides of the street.

- San Pablo Street – San Pablo Street is a two-lane, north/south street. A striped double yellow median divides the lanes and parking is available along both sides of the street. Currently, the southern terminus of San Pablo Street occurs at Zonal Avenue. San Pablo Street is classified as a Secondary Highway.

- Soto Street – Soto Street is a north/south street providing four travel lanes north of Marengo Street. South of Marengo Street, the roadway provides three northbound lanes and two southbound lanes. Soto Street provides a continuous left-turn lane. Parking is allowed on the east side of the street, just south of Marengo Street, but is prohibited during the afternoon peak hour. The intersections with Charlotte Street and Marengo Street are signalized. Soto Street north of Wabash Avenue is classified as a Major Highway (Class II).

- Charlotte Street – Charlotte Street is an east/west street providing two travel lanes. The western terminus of Charlotte Street occurs at Cummings Street while the eastern terminus occurs at the I-10 WB on/off ramps. Parking is permitted on both sides of the street throughout the area.

- Alcazar Street – Alcazar Street is an east/west street that runs through the project site providing two travel lanes. Parking is generally allowed on both sides of the street. The intersection with Soto Street is signalized. There is a left-turn lane and a right-turn lane for eastbound vehicles at Soto Street, and a right-turn lane for westbound vehicles at Eastlake Avenue.

EXISTING TRAFFIC VOLUMES AND OPERATING CONDITIONS

The following sections present the existing peak hour traffic volumes at the study intersections, a description of the methodology used to analyze intersection operating conditions, and the resulting level of service at each location under existing conditions.

Existing Peak Hour Traffic Volumes

Weekday AM and PM peak period (7:00 to 10:00 AM and 3:00 to 6:00 PM) intersection turning movement counts were conducted at 20 study intersections in May 2014, and counts from December 2012 were used for Intersection 15: Brittania Street & Marengo Street. While local elementary and secondary schools were in normal session, the counts were conducted near the end of the Spring semester at the University of Southern California Health Sciences Campus, which lies immediately north of the LAC+USC Medical Center. The medical center functions at all times but because there may have been less student activity than under normal conditions, trips were estimated for 1,500 university students and assigned over the local street network. Those estimates are shown in Table 2. The resulting baseline counts were applied in the AM and PM peak hours for the existing weekday analysis and subsequent analysis. The existing weekday peak hour turning movement volumes and lane configurations at the analyzed intersections are shown on Figure 3 and the raw turning movement count sheets are provided in Appendix A.

TABLE 2
EXISTING TRIP GENERATION - USC HEALTH SCIENCES CAMPUS[1]

Land Use	Size	Trip Generation Rates[2]								Estimated Trip Generation						
		ITE Code	Daily Rate	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour			PM Peak Hour		
				Rate	In	Out	Rate	In	Out		In	Out	Total	In	Out	Total
USC Health Sciences Campus[3]	1,500 students	550	1.71	0.17	78%	22%	0.17	32%	68%	2,565	199	56	255	82	173	255
Less: Transit credit [4]	*-15%*									*(385)*	*(30)*	*(8)*	*(38)*	*(12)*	*(26)*	*(38)*
TOTAL VEHICLE TRIPS										**2,180**	**169**	**48**	**217**	**70**	**147**	**217**

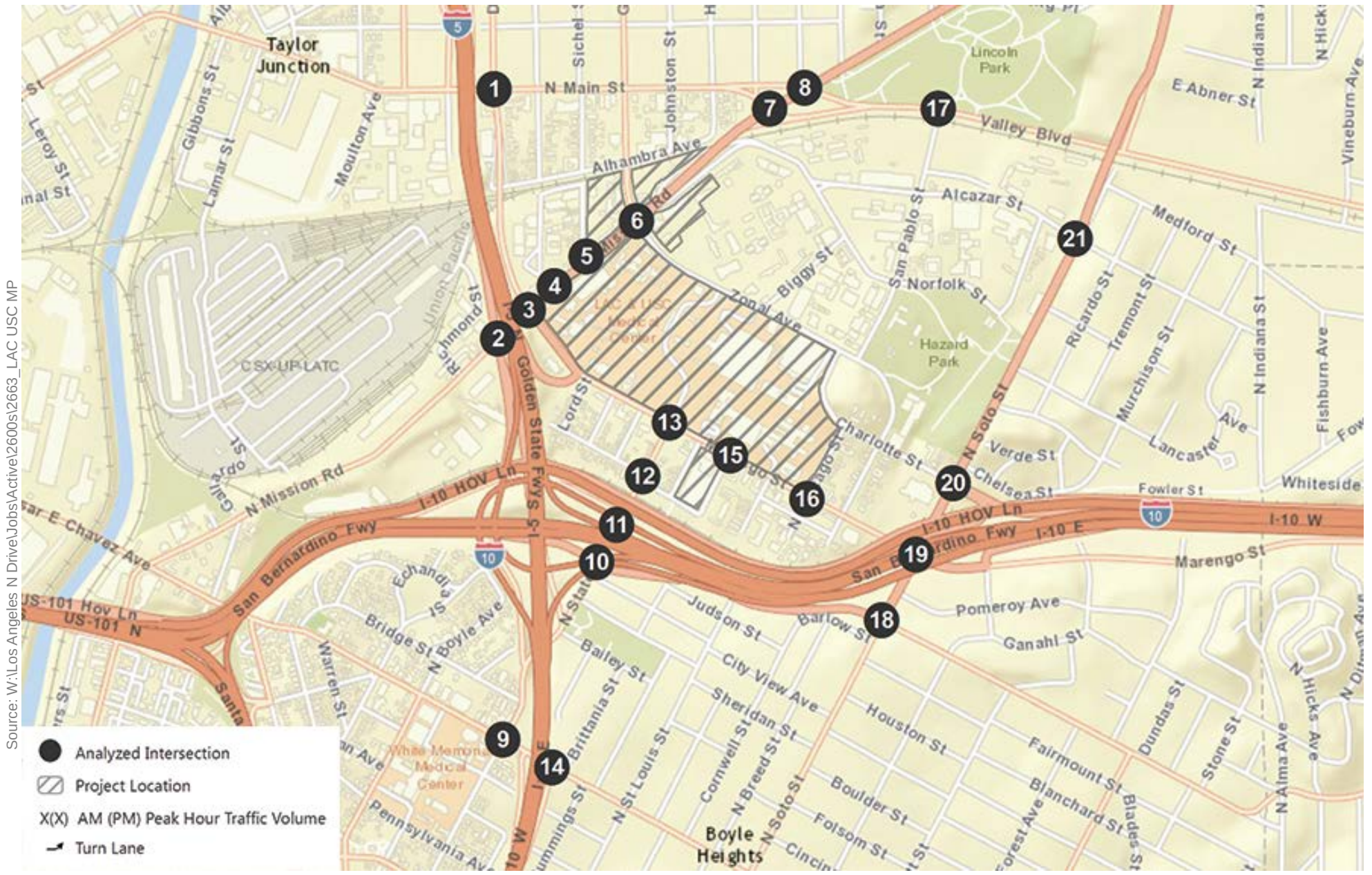
Notes:

Source: *Trip Generation, 9th Edition* , Institute of Transportation Engineers (ITE), 2012.

[1] Existing traffic counts were collected in mid-May 2014 toward the end of the Spring semester. The above USC Health Science Campus trip estimates were assigned to the existing roadway network in order to reflect school year conditions.

[2]According to the Keck School of Medicine website (http://keck.usc.edu/About/About_Keck/Facts_and_Figures.aspx), there were approximately 1,200 students in the 2013-2014 academic year. The number of students at the USC Health Sciences Campus is estimated at 1,500 students to account for the students enrolled at the School of Pharmacy and Independent Health Professions programs.

[3]The transit credit is based on LADOT's Traffic Study Policies and Procedures, June 2013. The guidelines state that a 15% transit credit may be taken for uses within 1/4 mile of a transit station. In addition to the public bus services in close proximity to the site, USC also offers an inter-campus shuttle service that runs between the Health Sciences Campus and the University Park Campus Monday through Friday from 7:30 AM to 6:45 PM.



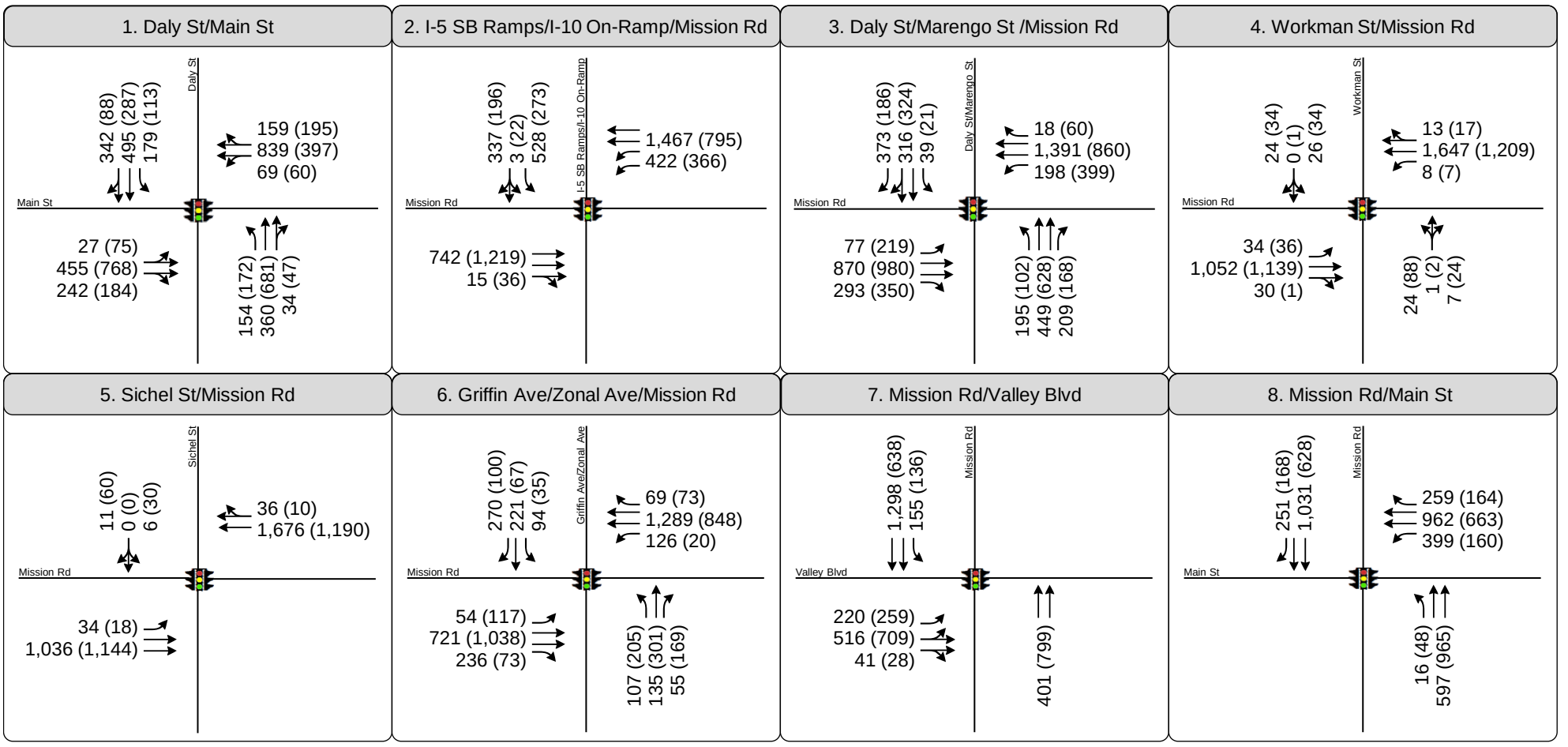


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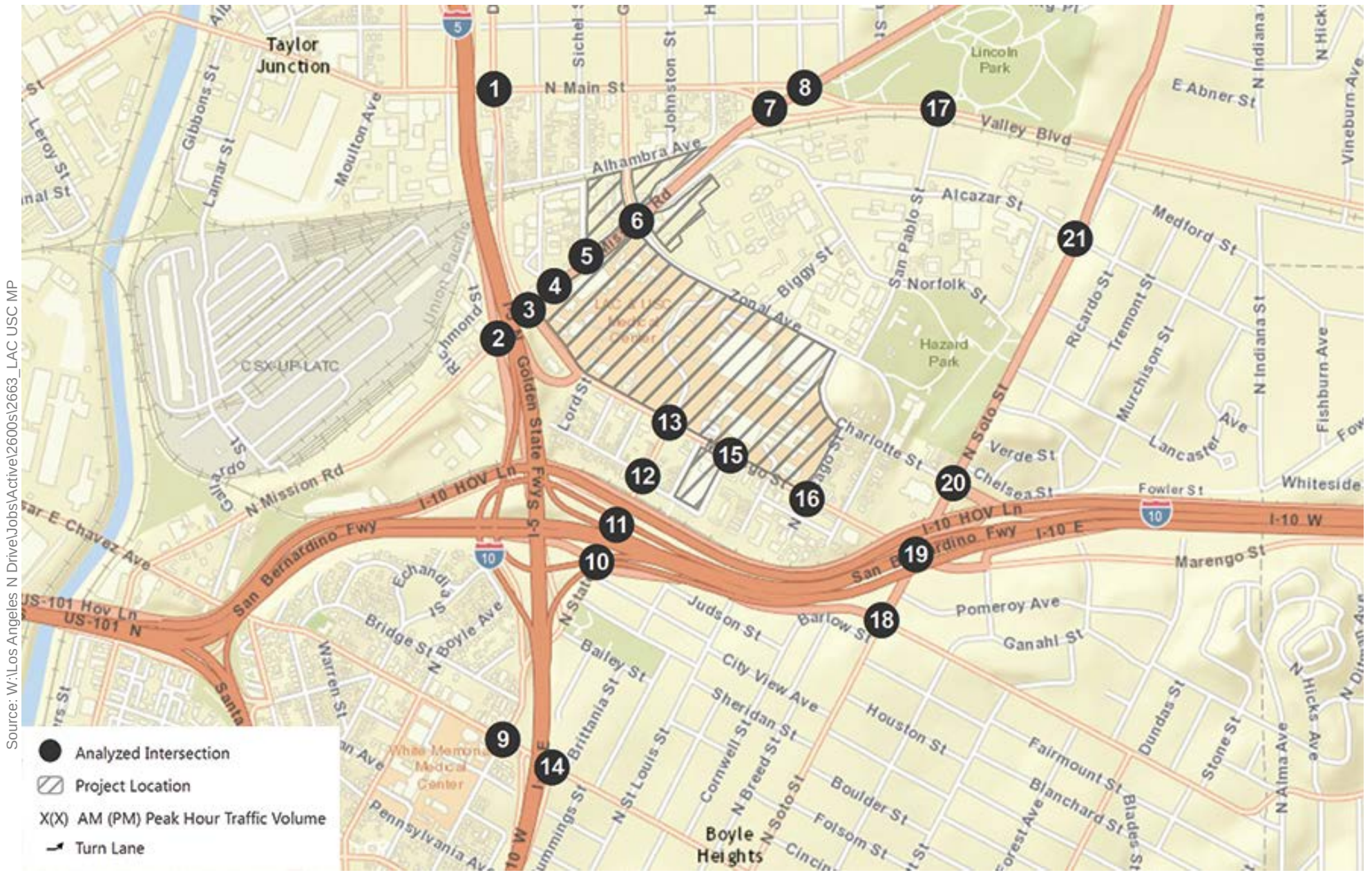
Figure 3

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Conditions



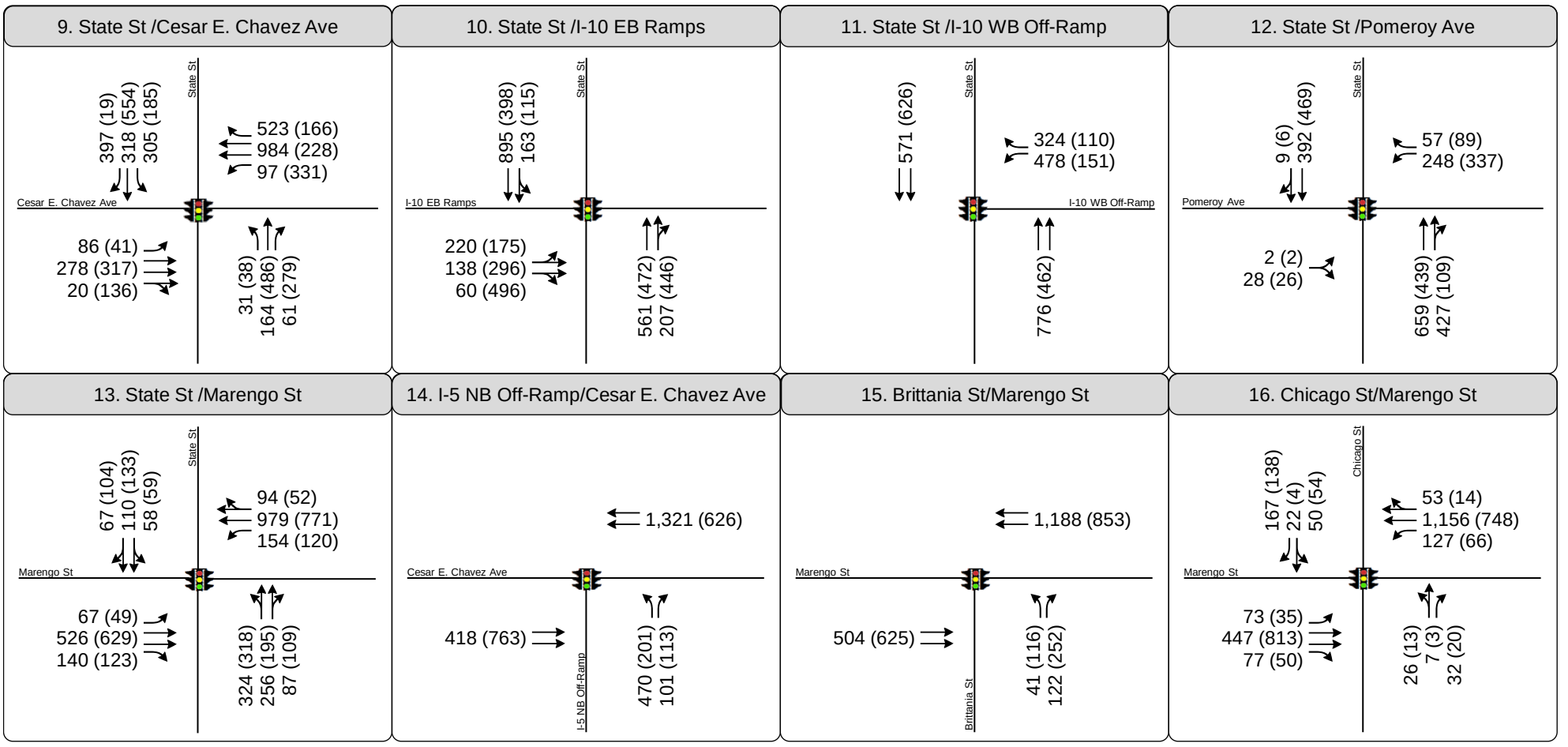


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Figure 3

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Conditions

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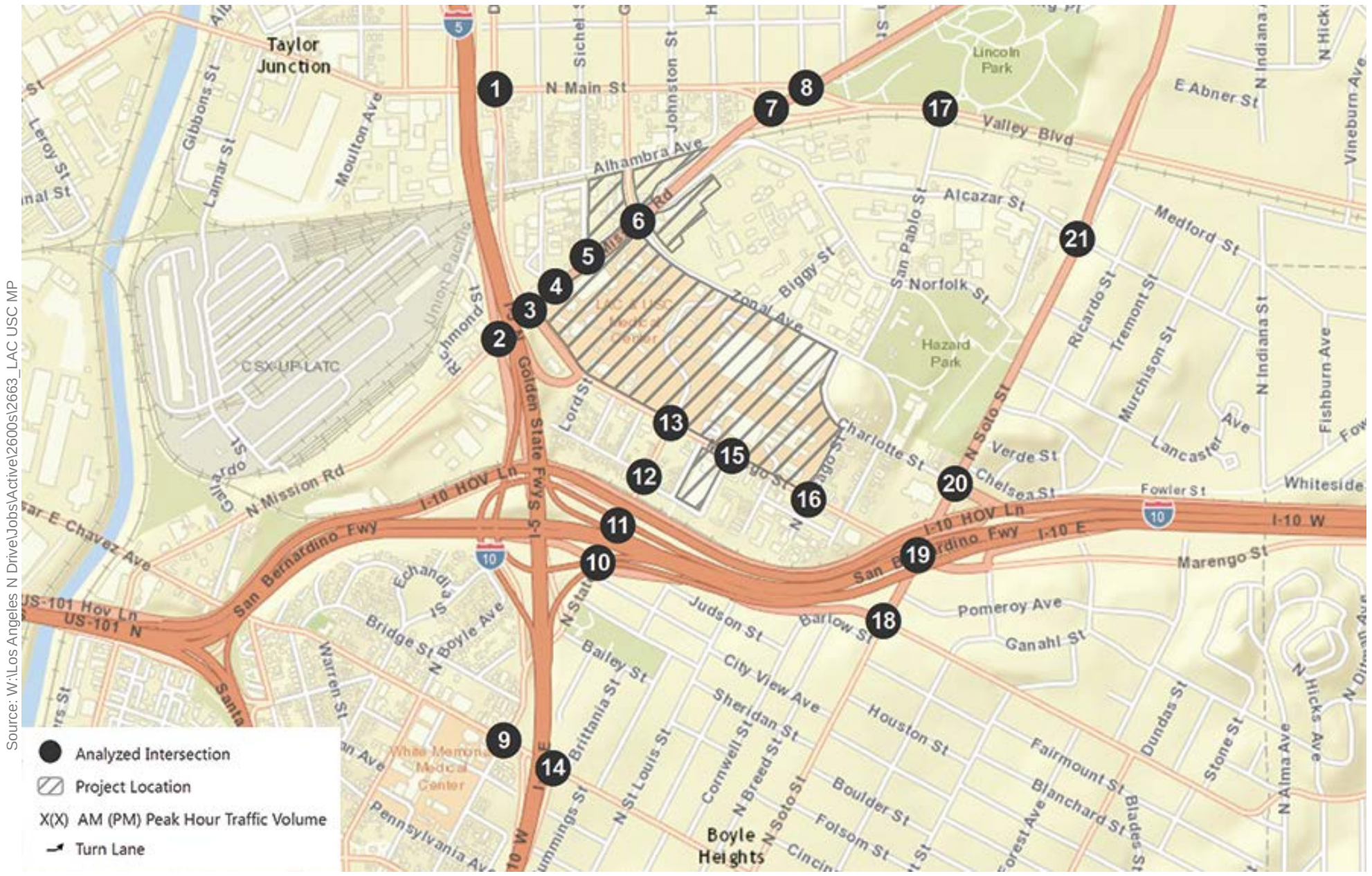

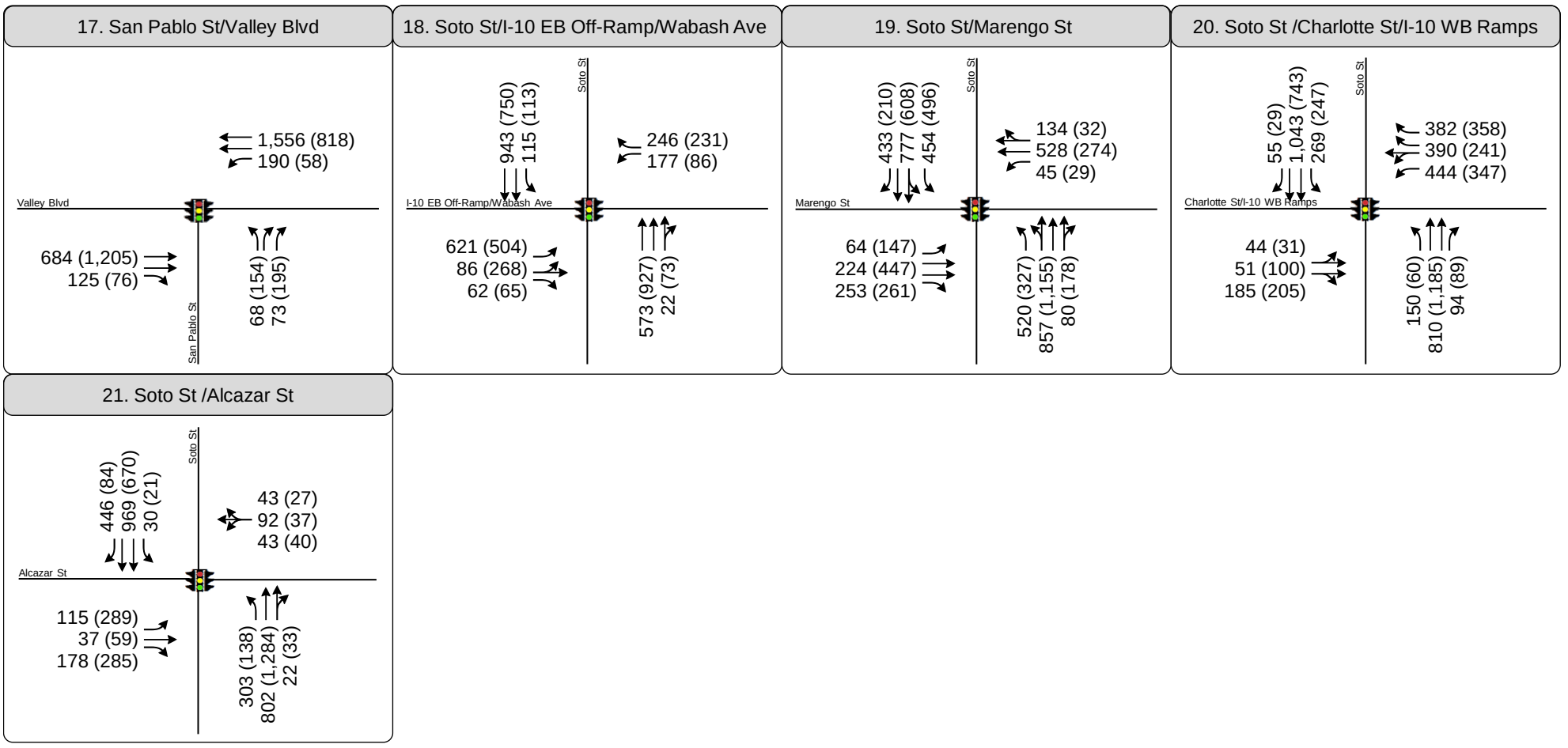

Figure 3

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Conditions

Intersection Level of Service Standards and Methodology

As required by *Traffic Study Policies and Procedures*, and as permitted by the *Los Angeles County Traffic Impact Analysis Report Guidelines* (LACDPW, 1997), the Critical Movement Analysis (CMA) method was used to determine the LOS grade for signalized intersections (Transportation Research Board, 1980). The CMA methodology determines the intersection volume to capacity (V/C) ratio. The V/C ratio is then used to determine the corresponding LOS grade. Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. The City of Los Angeles typically uses LOS D as a standard, meaning that LOS D or better is considered to represent satisfactory conditions, while LOS E or F is generally considered to be substandard. Table 3 provides level of service definitions for signalized intersections per LADOT traffic study guidelines.

The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC operations to manage signal timing to improve traffic flow conditions. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. All of the 21 signalized study intersections in the City of Los Angeles are currently operating under the City's ATSAC system. Deployment of ATCS control has not yet been completed, though it will be operational by 2016. ATSAC and, where installed, ATCS provide improved operating conditions. In accordance with City of Los Angeles procedures, a credit of 0.07 V/C reduction was applied at the study intersections to reflect the benefits of ATSAC.

Existing Peak Hour Intersection Levels of Service

The existing weekday AM and PM peak hour turning movements shown in Figure 3 were used in conjunction with the level of service methodology described above to determine existing operating conditions at each of the study intersections. Level of service calculation worksheets are provided in Appendix B.

Table 4 summarizes the existing AM and PM peak hour V/C ratios and corresponding levels of service at each of the study intersections. As shown, all 21 study intersections currently operate at fair to good levels of service (LOS D or better) during both the AM and PM peak hours.

TABLE 3
LEVEL OF SERVICE DEFINITIONS
FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.601-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Sources: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980; *Highway Capacity Manual (HCM)* , Transportation Research Board, 2010.

TABLE 4
EXISTING[1]
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing 2014[1] V/C[2]	Existing 2014[1] LOS
1	Daly Street	Main Street	AM PM	0.755 0.655	C B
2	I-5 SB Ramps/1-10 On-Ramp	Mission Road	AM PM	0.750 0.537	C A
3	Daly Street/Marengo Street	Mission Road	AM PM	0.801 0.820	D D
4	Workman Street	Mission Road	AM PM	0.555 0.467	A A
5	Sichel Street	Mission Road	AM PM	0.535 0.402	A A
6	Griffin Avenue/Zonal Avenue	Mission Road	AM PM	0.629 0.515	B A
7	Mission Road	Valley Boulevard	AM PM	0.734 0.779	C C
8	Mission Road	Main Street	AM PM	0.605 0.473	B A
9	State Street	Cesar E. Chavez Avenue	AM PM	0.691 0.769	B C
10	State Street	I-10 EB Ramps	AM PM	0.593 0.643	A B
11	State Street	I-10 WB Off-Ramp	AM PM	0.507 0.239	A A
12	State Street	Pomeroy Avenue	AM PM	0.506 0.378	A A
13	State Street	Marengo Street	AM PM	0.712 0.626	C B
14	I-5 NB Off-Ramp	Cesar E. Chavez Avenue	AM PM	0.684 0.319	B A
15	Brittania Street	Marengo Street	AM PM	0.407 0.383	A A
16	Chicago Street	Marengo Street	AM PM	0.487 0.335	A A
17	San Pablo Street	Valley Boulevard	AM PM	0.494 0.473	A A
18	Soto Street	I-10 EB Off-Ramp/Wabash Avenue	AM PM	0.642 0.637	B B
19	Soto Street	Marengo Street	AM PM	0.817 0.710	D C
20	Soto Street	Charlotte Street/I-10 WB Ramps	AM PM	0.873 0.882	D D
21	Soto Street	Alcazar Street	AM PM	0.689 0.683	B B

Notes:

** Indicated oversaturated conditions. Delay cannot be calculated.

[1] Existing traffic counts were collected in mid-May 2014 towards the end of the Spring semester at the USC Health Science Campus. In order to reflect regular school year conditions, student-related trip estimates were assigned to the existing roadway network.

[2] The signalized intersections listed above are currently operating under the ATSAC system. A total credit of 0.07 V/C ratio was included in this analysis for all signalized intersections.

EXISTING PUBLIC TRANSIT SERVICE

There are over 20 bus transit lines that serve the study area. They connect the study area to the various areas of Los Angeles and nearby cities, as well as local neighborhoods. In the study area, transit stops are located along Marengo Street, Mission Road, Zonal Avenue and State Street. Just south of the project site is an in-line stop along the El Monte Busway, an express bus corridor that connects Downtown Los Angeles with the City of El Monte. Fixed-route service in the study area is provided by the Los Angeles County Metropolitan Transportation Authority (Metro), the Los Angeles Department of Transportation (LADOT), Foothill Transit and Los Angeles County. Existing transit stops in the project area are shown in Figure 4. Figure 5 illustrates the bus routes operating on the streets around the medical center. A brief description of these bus lines follows:

- Metro Route 76 – Metro Route 76 is a local bus route running from the El Monte Transit Station to Downtown Los Angeles. Near the project site, the route runs east/west on Valley Boulevard and Main Street. Throughout the day, the line runs with average headways of 15 to 20 minutes. Near the project site, the route has stops approximately every four blocks.

- Metro Route 751 – Metro Route 751 is a rapid bus route running from Cypress Park in Northeast Los Angeles to Huntington Park. Near the project site, the route runs north/south on Soto Street, east/west on Marengo Street, and north/south on Daly Street. During peak periods, the line runs with average headways of 12 minutes. During non-peak periods, the line runs at approximately 20-minute headways. Near the campus, the route has stops at Marengo Street and State Street, Marengo Street and Mission Street, and Daly Street and Main Street.

- Metro Route 252 – Metro Route 252 is a local bus route running between the Los Angeles neighborhoods of Boyle Heights and Montecito Heights. Near the project site, the route runs north/south on Soto Street. During peak periods, the line runs at approximately 20-minute headways. During non-peak periods, the line runs at approximately 40-minute headways.

- Metro Route 605 – Metro Route 605 is a shuttle bus route running between the Los Angeles neighborhood of Boyle Heights and the LAC+USC Medical Center campus via the Soto Street Gold Line Station. Near the project site, the route runs north/south on Soto Street, east/west on Marengo Street, north/south on Mission Road, east/west on Zonal Avenue and north/south on State Street. The line runs with average headways of 15 minutes during the day between approximately 5:30 AM and 7:30 PM.

- Metro Route 70 – Metro Route 70 is a local bus route running from the El Monte Transit Station to Downtown Los Angeles. Near the project site, the route runs north/south on Mission Road and east/west on Marengo Street. The line runs with average headways of approximately 15 minutes. Near the project site, there are stops approximately every three blocks.

Figure 4

Existing Bus Stops

Figure 5

Existing Transit Lines

- Metro Route 71 – Metro Route 71 is a local bus route running from California State University at Los Angeles to Downtown Los Angeles. Near the project site, the route runs north/south on Mission Road, east/west on Marengo Street and north/south on Soto Street. Headways are approximately 10 to 20 minutes during the AM peak hour and approximately 35 minutes during the PM peak hour. Near the project site, there are stops approximately every three blocks.

- Metro Route 78/378 – Metro Routes 78 and 378 provide east/west service between downtown Los Angeles and South Arcadia along Mission Road and Las Tunas Drive. Route 78 is a local bus and Route 378 is a limited-stop service bus. Bus stops for Route 378 in the study area are located on Mission Road between Marengo Street/Daly Street and Griffin Avenue/Zonal Avenue. Headways for Line 78 are approximately 20 minutes during the AM and PM peak hours. Line 378 runs only during the AM and PM peak (westbound and eastbound, respectively) and provides headways of between 15 and 20 minutes.

- Metro Line 79 – Metro Line 79 provides east/west service between downtown Los Angeles and Arcadia along Mission Road and Huntington Drive. Bus stops in the study area are located on Mission Road between Marengo Street/Daly Street and Griffin Avenue/Zonal Avenue. In the study area, this line provides service along Mission Road. Headways are approximately 20 minutes during the AM and PM peak hours.

- Metro Route 620 – Metro Route 620 is a shuttle bus route that travels in a counterclockwise loop around Boyle Heights along State Street, Boyle Avenue, Whittier Boulevard, Soto Street, 3rd Place, 1st Street and Cesar Chavez Avenue. In the study area, this bus travels and stops along Marengo Street, Mission Road, Zonal Avenue and State Street. Headways are approximately one hour during the AM and PM peak hours. Stops in the project area are approximately every two blocks.

- Metro Route 251 – Metro Route 251 is a north/south local bus route running between the Los Angeles neighborhood of Cypress Park and the City of Lynwood. In the study area, this line provides service along Marengo Street and Soto Street. Bus stops in the study area are located on Marengo Street west of Soto Street and east of Mission Road. Headways are approximately 20 minutes during the AM and PM peak hours.

- Metro Route 485 – Metro Route 485 is an express bus providing north/south service from Altadena to Downtown Los Angeles. The route follows major boulevards through Pasadena and Alhambra, and in the study area the bus stops at the USC Medical Center stop along the El Monte Busway. Headways are approximately 45 minutes in the AM and PM peak hours, and the line does not run on weekends or holidays.

- Metro Route 487/489 – Metro Routes 487/489 are express bus routes providing east/west service from El Monte through Sierra Madre, and San Gabriel areas to Downtown Los Angeles. Line 487 runs in a north/south loop from El Monte north to Sierra Madre and back south towards Rosemead before following Interstate 10 to Los Angeles. Line 489 runs from East Pasadena south through Rosemead and follows the same route as Line 487 to Los Angeles. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. Headways are approximately 20 minutes in the AM peak hours for both lines, and 20 minutes and 15 minutes in the PM peak hours for Lines 487 and 489, respectively.

- Metro Silver Line – The Metro Silver Line, also known as Metro Route 910, is a Bus Rapid Transit line running east/west from El Monte to Downtown Los Angeles and then north/south to the Harbor Gateway Transit Center. Metro Line 910, the Silver Line, provides primarily north/south service from El Monte to Gardena by way of Downtown Los Angeles. The line follows Interstates 10 and 110 for much of its length. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. Headways are approximately five minutes in the AM and PM peak hours.

- Foothill Transit 481 – Foothill Transit Line 481 provides east/west service mostly along Interstate 10 from El Monte to the Metro subway station at Wilshire and Western Avenues. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. This stop is adjacent to State Street near Pomeroy Avenue and connects to the medical center via a pedestrian bridge. Headways are approximately 20 minutes in the AM and PM peak hours. The line runs only in the peak direction of traffic, west in the morning and east in the afternoon.

- Foothill Transit 493 – Foothill Transit Line 493 provides generally east/west service from Diamond Bar to downtown Los Angeles. The line follows State Route 60 through Hacienda Heights and travels along Interstate 10 to downtown Los Angeles. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. Headways are approximately 10 minutes in the AM and PM peak hours. The line runs only in the peak direction of traffic, west in the morning and east in the afternoon.

- Foothill Transit 497 – Foothill Transit Line 497 provides east/west service between Chino and downtown Los Angeles. The line follows State Route 60 from Chino to Interstate 605 and then Interstate 10 to Los Angeles. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. Headways are approximately 15 minutes during the AM and PM peak hours. The line runs only in the peak direction of traffic, west in the morning and east in the afternoon.

- Foothill Transit 498 – Foothill Transit Line 498 provides east/west service from Azusa and West Covina to downtown Los Angeles. The route is along Interstate 10 after stops along local streets in Azusa and West Covina. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. Headways average approximately seven to ten minutes in the AM and PM peak hours. The line runs only in the peak direction of traffic, west in the morning and east in the afternoon.

- Foothill Transit 499 – Foothill Transit Line 499 provides east/west service from San Dimas along Interstate 10 to downtown Los Angeles. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. Headways are approximately 10 to 15 minutes in the AM and PM peak hours. The line runs only in the peak direction of traffic, west in the morning and east in the afternoon.

- Foothill Transit 699 – Foothill Transit Line 699 provides east/west service along Interstate 10 from Montclair to downtown Los Angeles. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. Headways are approximately six to 15 minutes in the AM and

PM peak hours. The line runs only in the peak direction of traffic, west in the morning and east in the afternoon.

- Foothill Transit 707 – Foothill Transit Line 708, also known as Silver Streak, provides east/west service along Interstate 10 from Montclair to Downtown Los Angeles. In the study area, this bus stops at the USC Medical Center stop along the El Monte Busway. This line runs 24 hours a day and has headways of approximately 10 minutes in the AM peak and 15 minutes in the PM peak hours.

- LADOT Downtown Area Shuttle (DASH) Lincoln Heights/Chinatown Line provides service between Chinatown and Lincoln Heights, traveling along Broadway, Griffin Avenue/Zonal Avenue, Daly Street, Main Street and Cesar Chavez Avenue. In the study area, this bus travels and stops along Marengo Street/Daly Street, State Street and Zonal Avenue/Griffin Avenue.

- The LADOT DASH Boyle Heights/East Los Angeles line provides service between the LAC+USC Medical Center and the East Los Angeles Doctors Hospital, traveling along Marengo Street, Wabash Avenue, Blanchard Street and Rowan Avenue. In the study area, this bus travels in a clockwise loop and stops along Marengo Street, Mission Road, Zonal Avenue and State Street.

- The Wellness Center Shuttle is operated by Los Angeles County. It circulates over a loop through the LAC+USC Medical Center. Service is provided four times per hour Monday through Saturday between 7:00 AM and 7:00 PM.

In addition to the public transit routes described above, USC operates private transit shuttles between the Health Sciences Campus and four separate off-site locations, as well as two local area circulator shuttles. These fare-free shuttles are only available to individuals associated with USC (faculty, staff, students, patients), however, and are not public transit.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Bicycle Facilities

Currently, there is limited dedicated bicycle infrastructure in the study area. The nearest bicycle lanes (Class II facilities) are located on Griffin Avenue/Zonal Avenue west and east of Mission Road and on Mission Road itself. South of the medical center, there is a Class II facility along 1st Street east of Boyle Avenue. There is a sharrowed bicycle route on State Street south of Caesar E. Chavez Boulevard. Existing bicycle facilities are illustrated in Figure 6. Additionally, planned bicycle facilities are illustrated in Figure 7.

Pedestrian Facilities

Pedestrian traffic typically enters the campus from one of the parking structures or nearby transit stops. The medical center is located in an older neighborhood with a relatively high population density. All of the streets immediately bordering the medical center and nearly all of the other streets in the vicinity include sidewalks, facilitating pedestrian movement. Marked crosswalks are present at most intersections in the study area. Pedestrian walk phases are either automatically provided at the intersections or are actuated by pedestrians by push-buttons.

Figure 6

Existing Bikeways

Figure 7

Planned Bikeway Network

III. TRAFFIC PROJECTIONS

In order to evaluate potential impacts of the proposed project on the street system, it was necessary to develop estimates of future traffic conditions in the study area both with and without the project. Baseline and future traffic volumes were first estimated for the study area without the project. The future forecasts reflect traffic increases due to general regional growth and traffic expected to be generated by other specific developments in the vicinity of the project and represent cumulative base (no project) conditions. Because the proposed project includes demolition of some existing parking facilities and the construction of others, travel patterns in the immediate vicinity would change. Trips generated by existing uses to be removed were estimated and unassigned from the surrounding street system. Project traffic was estimated and separately assigned to the surrounding street system. The sum of the existing baseline and project-generated traffic represents the Existing Year plus Project scenario. The sum of the cumulative base and project-generated traffic represents the Cumulative Year plus Project conditions. Development of each of these traffic scenarios is described in this chapter.

PROJECT TRAFFIC PROJECTIONS

The development of trip generation estimates for the proposed project involves the use of a three-step process: trip generation, trip distribution, and traffic assignment.

Project Trip Generation

As discussed in Chapter I, the proposed project is a master plan to guide future development on the medical center campus. The central and eastern area of the project site includes new and renovated buildings for in-patient and out-patient care, including 450 new hospital beds, medical offices, laboratories and other supporting functions. Community-oriented and wellness-related community, education, retail opportunities and enhanced outdoor space are planned on the central and western area of the site. The western area of the master plan allows for the development of bio-tech research and development facilities. Demolition of some existing buildings and parking structures would be necessary to fully implement the master plan. Trip generation rates from *Trip Generation, 9th Edition* (Institute of Transportation Engineers [ITE], 2012) were used to estimate the number of trips associated with the project and are presented in Table 5.

The City of Los Angeles' Traffic Study Policies and Procedures state that developments within a ¼-mile walking distance of a transit station, or of a Rapid Bus stop, may qualify for up to a 15% transit credit. Given the medical center's adjacency to the in-line station on the El Monte Busway, stops for the 751 Rapid Bus and over local and express bus service on over 20 lines in the immediate vicinity, a 15% transit credit was applied to all existing and future land uses.

Marengo Street and Mission Road are both classified as Class II Major Highways and are major thoroughfares within the study area, carrying high traffic volumes. A small adjustment to the wellness-oriented community retail space (10%) and the other wellness-oriented and community uses (20%) to reflect pass-by trips to account for the patrons making an intermediate stop on the way from an origin to a primary trip destination without a route diversion were assumed.

Internal trip credits can be defined as a reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. Many of the buildings and activities on the LAC+USC medical center are related to one another, and this will continue as the master plan adds complementary uses. These internal trips are usually made via walking within the site. An internal trip credit of 15% of the daily and peak hour trips was applied to all land uses on the site.

As shown in Table 5, the Project would generate an estimated net increase of 3,944 daily trips, including 711 trips during the AM peak hour (547 inbound/164 outbound) and 502 trips during the PM peak hour (131 inbound/371 outbound).

Project Traffic Distribution and Assignment

The geographic distribution of trips generated by the proposed Project is dependent on characteristics of the street system serving the project site; the level of accessibility of routes to and from the proposed project site; and residential areas from which the employees, patients and other visitors would be drawn.

A trip distribution pattern was developed for the project based on two sources. Home zip code data of existing LAC+USC patients and employees was supplied by Los Angeles County staff and then mapped. This data was supplemented with a select zone analysis using the City of Los Angeles' Transportation Demand Model (Year 2010) to inform the general distribution pattern for this study. Taken together, this data was distributed approximately 25% to/from the north, 30% to/from the east, 25% to/from the south and 20% to/from the west. Taking this data into consideration along with the location of local arterial streets and access to the regional freeway system, a trip distribution pattern was developed for project trips as illustrated in Figure 8.

Using the estimated trip generation and the distribution patterns discussed above, the traffic generated by the proposed project was assigned to the street network. Figure 9 shows the negative assignment of trips associated with existing uses to be removed and the reassignment of trips associated with existing uses. Figure 10A shows the detailed estimated project traffic distribution percentages at each of the study intersections and Figure 10B shows the assignment of trips generated by the proposed new development.

TABLE 5
PROPOSED PROJECT TRIP GENERATION - LAC + USC MEDICAL CENTER MASTER PLAN

Land Use	Size	Trip Generation Rates [a]									Estimated Trip Generation						
		ITE Code	Daily Rate	AM Peak Hour			PM Peak Hour				Daily	AM Peak Hour			PM Peak Hour		
				Rate	In	Out	Rate	In	Out			In	Out	Total	In	Out	Total
Hospital Addition	450 beds	610	12.94	1.32	72%	28%	1.42	33%	67%		5,823	428	166	594	211	428	639
Less: Internal Trips credit	*-15% [b]*	*Hospital*									*(873)*	*(64)*	*(25)*	*(89)*	*(32)*	*(64)*	*(96)*
Less: Transit credit	*-15% [c]*										*(743)*	*(55)*	*(21)*	*(76)*	*(27)*	*(54)*	*(81)*
Net External Vehicle Trips											4,207	309	120	429	152	310	462
Wellness-Oriented Community Meeting Space & Community-Serving Uses	85.000 ksf	495	33.82	2.05	66%	34%	2.74	49%	51%		2,875	115	59	174	114	119	233
Less: Internal Trips credit	*-15% [b]*	*Recreational Community*									*(431)*	*(17)*	*(9)*	*(26)*	*(17)*	*(18)*	*(35)*
Less: Transit credit	*-15% [c]*	*Center*									*(367)*	*(14)*	*(8)*	*(22)*	*(15)*	*(15)*	*(30)*
Driveway Trips											2,077	84	42	126	82	86	168
Less: Pass-By credit	*-20% [d]*										*(415)*	*(17)*	*(8)*	*(25)*	*(17)*	*(17)*	*(34)*
Net External Vehicle Trips											1,662	67	34	101	65	69	134
Wellness-Oriented Community Retail Space [e]	20.000 ksf	826	44.32	0.70	62%	38%	2.71	44%	56%		886	9	5	14	24	30	54
Less: Internal Trips credit	*-15% [b]*	*Specialty Retail*									*(133)*	*(1)*	*(1)*	*(2)*	*(4)*	*(4)*	*(8)*
Less: Transit credit	*-15% [c]*										*(113)*	*(1)*	*(1)*	*(2)*	*(3)*	*(4)*	*(7)*
Driveway Trips											640	7	3	10	17	22	39
Less: Pass-By credit	*-10% [d]*										*(64)*	*(1)*	*0*	*(1)*	*(2)*	*(2)*	*(4)*
Net External Vehicle Trips											576	6	3	9	15	20	35
New Utility Plant and Facilities [f]	40.000 ksf	170	[f]	0.80	90%	10%	0.76	45%	55%		124	29	3	32	14	16	30
Less: Internal Trips credit	*-15% [b]*	*Utilities*									*(19)*	*(5)*	*0*	*(5)*	*(2)*	*(3)*	*(5)*
Less: Transit credit	*-15% [c]*										*(16)*	*(4)*	*0*	*(4)*	*(2)*	*(2)*	*(4)*
Net External Vehicle Trips											89	20	3	23	10	11	21
Outpatient Clinics	200.000 ksf	720	36.13	2.39	79%	21%	3.57	28%	72%		7,226	378	100	478	200	514	714
Less: Internal Trips credit	*-15% [b]*	*Medical Office Building*									*(1,084)*	*(57)*	*(15)*	*(72)*	*(30)*	*(77)*	*(107)*
Less: Transit credit	*-15% [c]*										*(921)*	*(48)*	*(13)*	*(61)*	*(25)*	*(66)*	*(91)*
Net External Vehicle Trips											5,221	273	72	345	145	371	516
Professional/Administrative Offices	265.000 ksf	710	11.03	[g]	88%	12%	[g]	17%	83%		2,923	367	50	417	64	311	375
Less: Internal Trips credit	*-15% [b]*	*General Office Building*									*(438)*	*(55)*	*(8)*	*(63)*	*(10)*	*(46)*	*(56)*
Less: Transit credit	*-15% [c]*										*(373)*	*(47)*	*(6)*	*(53)*	*(8)*	*(40)*	*(48)*
Net External Vehicle Trips											2,112	265	36	301	46	225	271
Biotech Research and Development [h]	635.000 ksf	760	8.11	1.22	83%	17%	1.07	15%	85%		5,150	643	132	775	102	577	679
Less: Internal Trips credit	*-15% [b]*	*Research & Development*									*(773)*	*(96)*	*(20)*	*(116)*	*(15)*	*(87)*	*(102)*
Less: Transit credit	*-15% [c]*										*(657)*	*(82)*	*(17)*	*(99)*	*(13)*	*(74)*	*(87)*
Net External Vehicle Trips											3,720	465	95	560	74	416	490
DRIVEWAY TRIPS											18,066	1,423	371	1,794	526	1,441	1,967
EXTERNAL VEHICLE TRIPS											**17,587**	**1,405**	**363**	**1,768**	**507**	**1,422**	**1,929**
EXISTING TRIPS TO BE REMOVED [i]																	
General Office Space	197.288 ksf	710	11.03	[g]	88%	12%	[g]	17%	83%		*(2,176)*	*(290)*	*(40)*	*(330)*	*(51)*	*(248)*	*(299)*
Laboratory and Clinic Buildings	457.727 ksf	720	36.13	2.39	79%	21%	3.57	28%	72%		*(16,538)*	*(864)*	*(230)*	*(1,094)*	*(458)*	*(1,176)*	*(1,634)*
Carpenter's Mill [j]	31.000 ksf	120	1.50	0.51	88%	12%	0.68	12%	88%		*(47)*	*(14)*	*(2)*	*(16)*	*(3)*	*(18)*	*(21)*
Central Power Plant and Cooling Towers	20.938 ksf	170	[f]	0.80	90%	10%	0.76	45%	55%		*(66)*	*(15)*	*(2)*	*(17)*	*(7)*	*(9)*	*(16)*
Warehouse and Storage Trailers	15.756 ksf	150	3.56	0.30	79%	21%	0.32	25%	75%		*(56)*	*(4)*	*(1)*	*(5)*	*(1)*	*(4)*	*(5)*
Existing Trips To Be Removed											*(18,883)*	*(1,187)*	*(275)*	*(1,462)*	*(520)*	*(1,455)*	*(1,975)*
Less: Internal Trips credit	*-15% [b]*										*2,832*	*178*	*41*	*219*	*78*	*218*	*296*
Less: Transit credit	*-15% [c]*										*2,408*	*151*	*35*	*186*	*66*	*186*	*252*
TOTAL EXISTING VEHICLE TRIPS TO BE REMOVED											***(13,643)***	***(858)***	***(199)***	***(1,057)***	***(376)***	***(1,051)***	***(1,427)***
TOTAL NET EXTERNAL VEHICLE TRIPS											**3,944**	**547**	**164**	**711**	**131**	**371**	**502**

Notes:

[a] Source: *Trip Generation, 9th Edition* , Institute of Transportation Engineers (ITE), 2012.

[b] Internal capture represents the percentage of trips between the land uses that occur within the LAC+USC Medical Center. Due to the synergy between the land uses of the proposed Project, an internal trips credit has been applied to some of the proposed uses in order to provide conservative AM and PM peak hour project traffic volume forecasts, as well as daily project traffic volume forecast. A 15% internal capture trip reduction has been applied to all of the Project land use components.

[c] The transit credit is based on LADOT's Traffic Study Policies and Procedures, June 2013. The guidelines state that a 15% transit credit may be taken for projects within 1/4 mile of a transit station.

[d] The pass-by credit is based on Attachment I of LADOT's Traffic Study Policies and Procedures, June 2013.

[e] The ITE rates for the Specialty Retail Land Use 826 were used to estimate trip generation for the wellness-oriented community retail space. No information was provided for AM peak hour trip generation and so the AM peak hour trip rate was derived by applying the ratio between the Shopping Center Land Use 820 PM peak hour trip rate and the Specialty Retail Land Use 826 PM peak hour trip rate to the Shopping Center Land Use 820 AM peak hour trip rate. The AM directional distribution assumed is from the Shopping Center Land Use AM peak hour.

[f] The ITE rates for the Utilities Land Use 170 were used to estimate trip generation for the new utility plant, central power plant, and cooling towers. No information was provided for daily trip generation and so daily trips were estimated by doubling the summation of the AM and PM peak trips. The directional distribution for the trip generation per 1 KSF is unavailable for the AM peak hour, therefore the directional distribution for the trip generation per employee was assumed.

[g] ITE General Office trip generation equations used rather than the linear trip generation rate:

AM Peak Hour: Ln(T) = 0.80 * Ln(A) + 1.57, where T = trips, A = area in ksf

PM Peak Hour: T = 1.12 * A + 78.45, where T = trips, A = area in ksf

[h] The ITE rates for the Research & Development Center Land Use 760 were used to estimate trip generation for the biotech research land uses proposed.

[i] Trip generated by existing LAC+USC Medical Center uses to be removed.

[j] The ITE rates for the General Heavy Industrial Land Use 120 were used to estimate trip generation for the carpenter's mill. Both the AM and PM peak hour directional distribution were unavailable and so General Light Industrial Land Use 110 directional distribution for the AM and PM peak hour were used respectively.

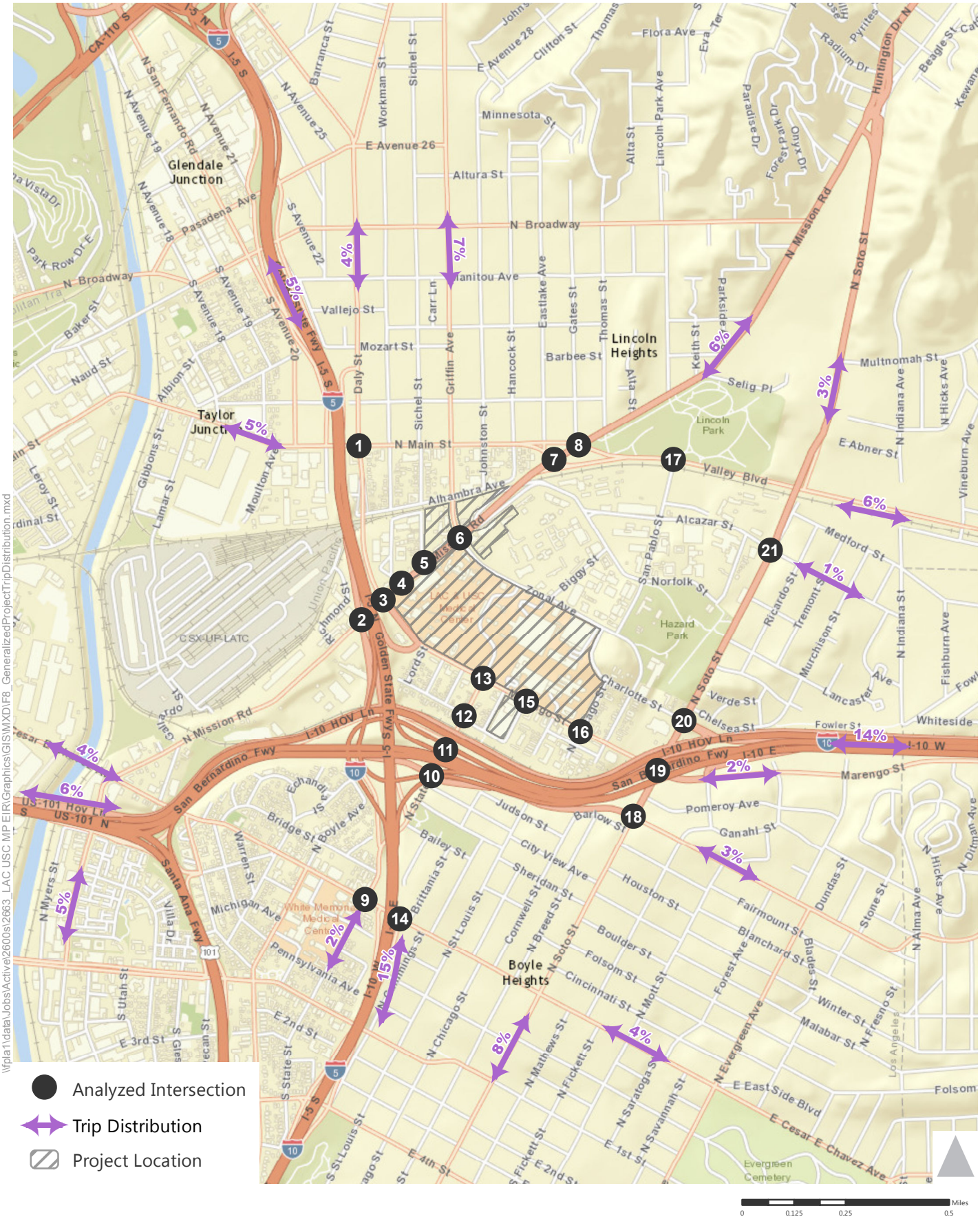

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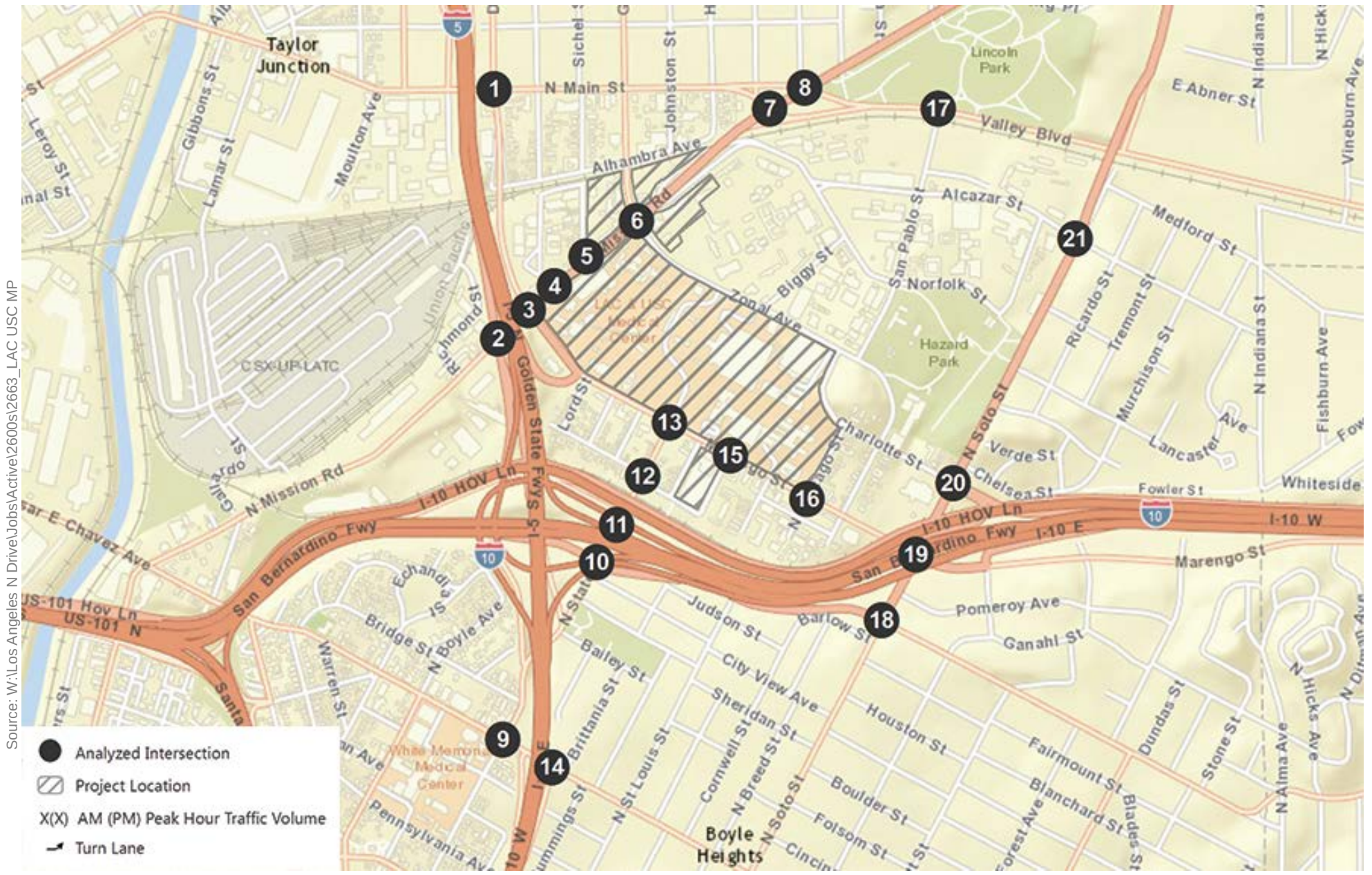
Figure 8

Generalized Project Trip Distribution



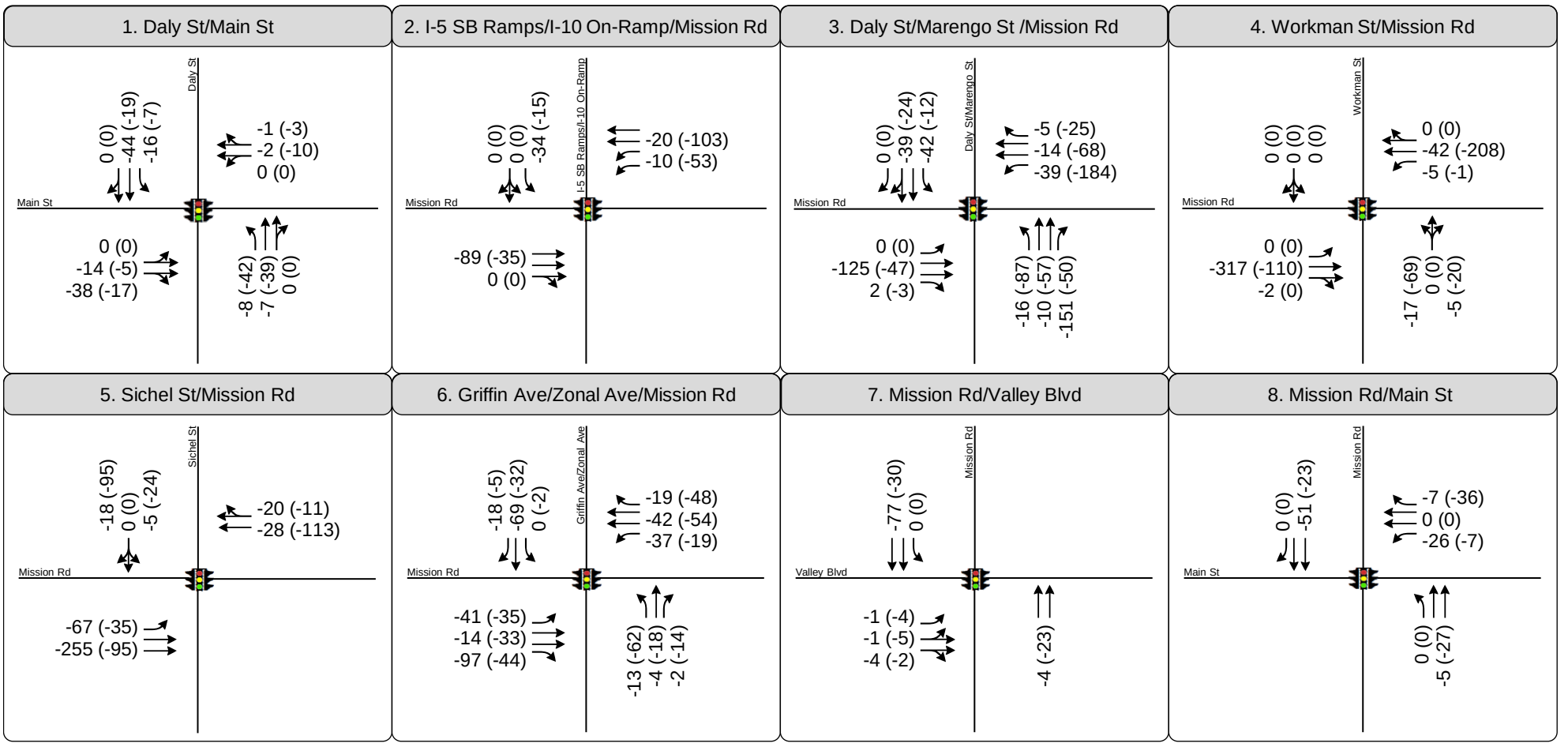


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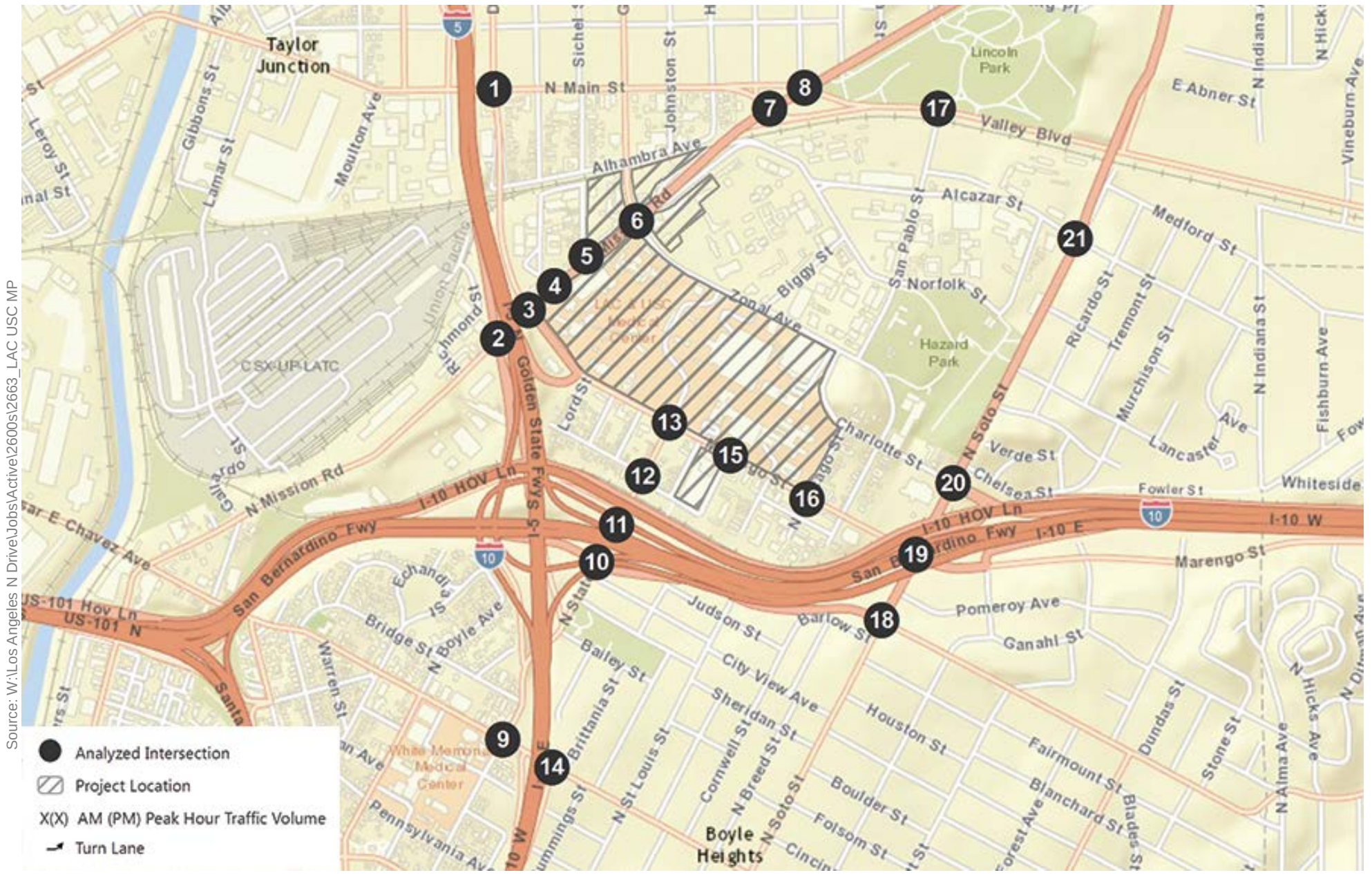
Figure 9

Peak Hour Traffic Volumes and Lane Configurations - Existing Uses for Removal or Reassignment



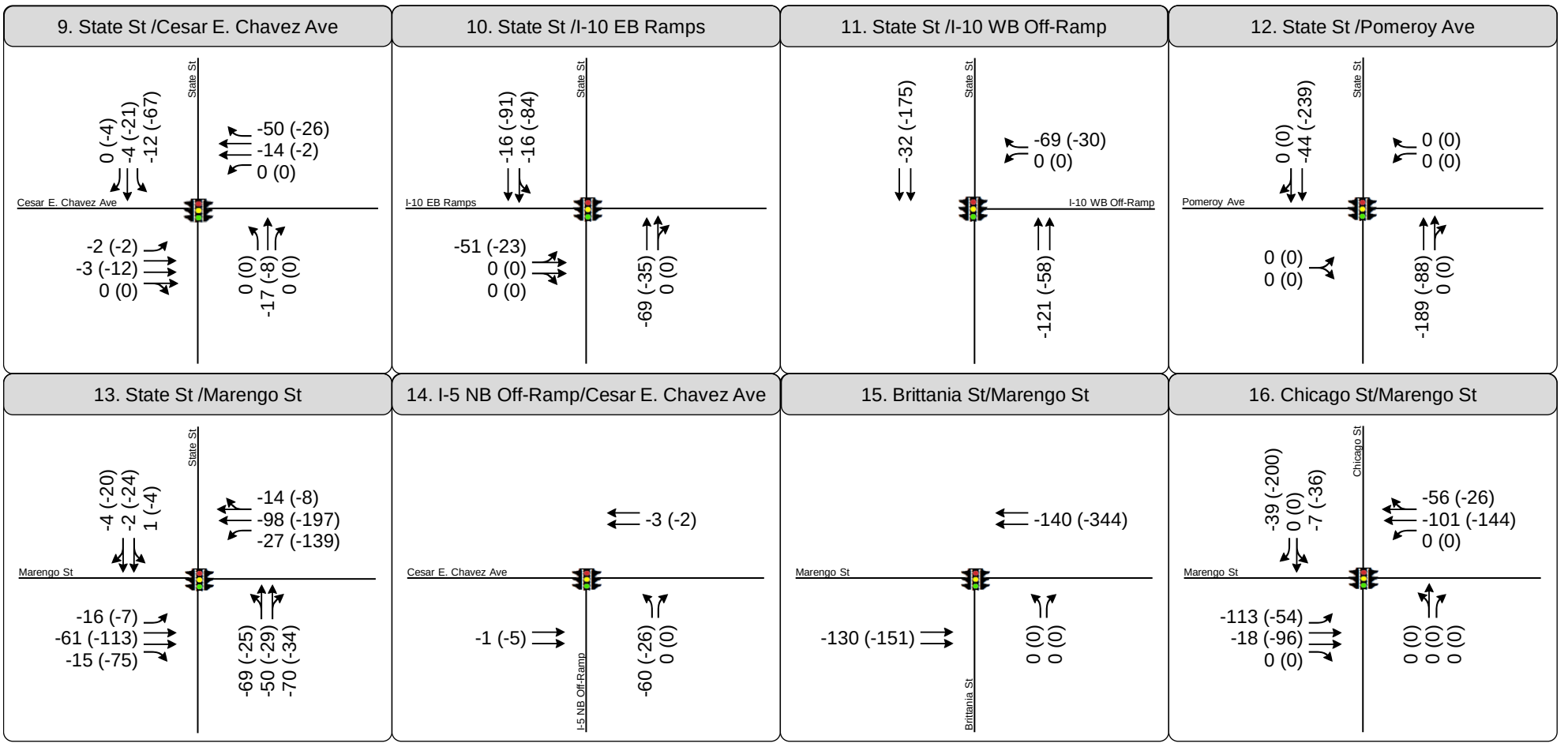


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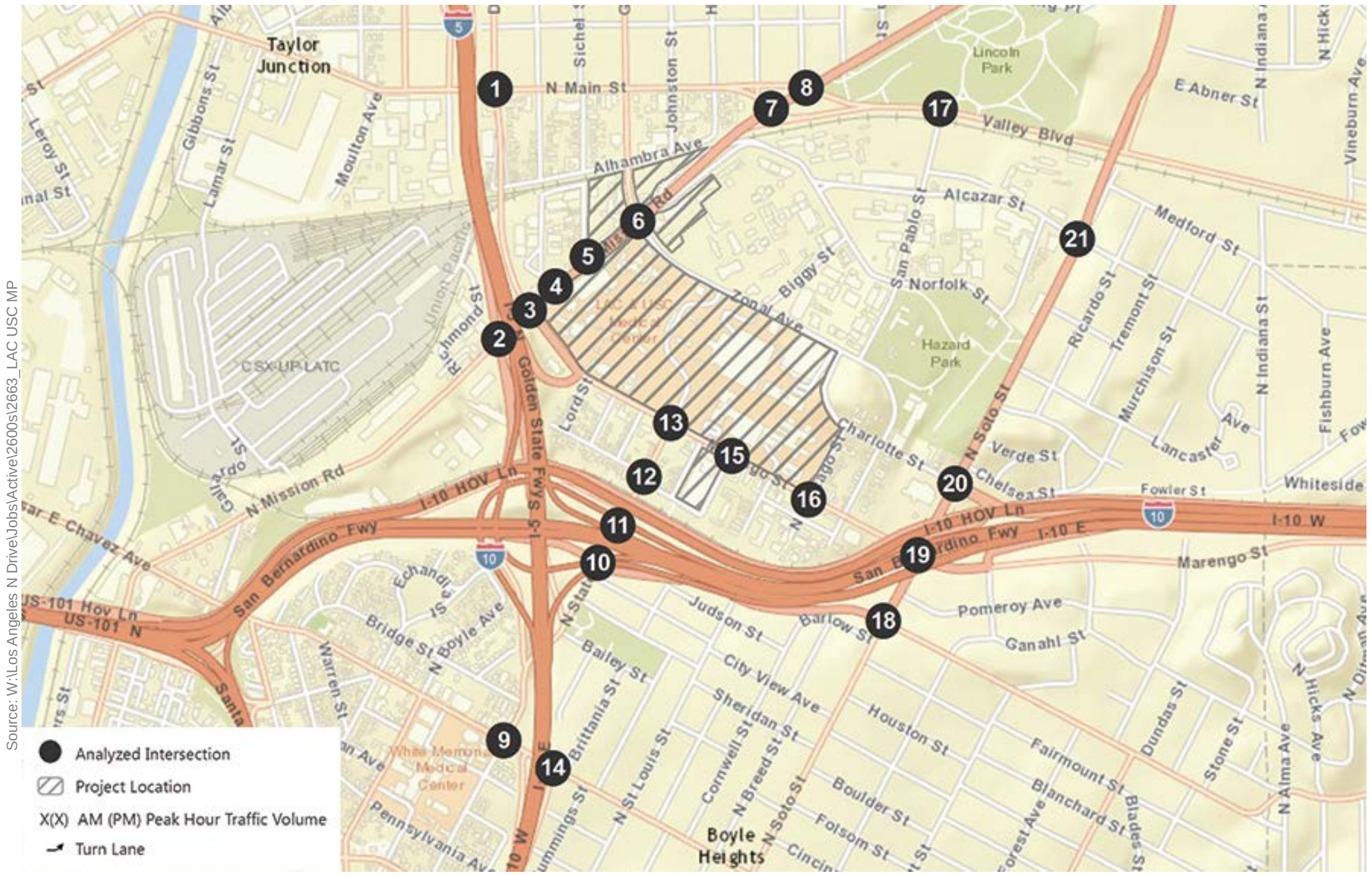
Figure 9

Peak Hour Traffic Volumes and Lane Configurations - Existing Uses for Removal or Reassignment



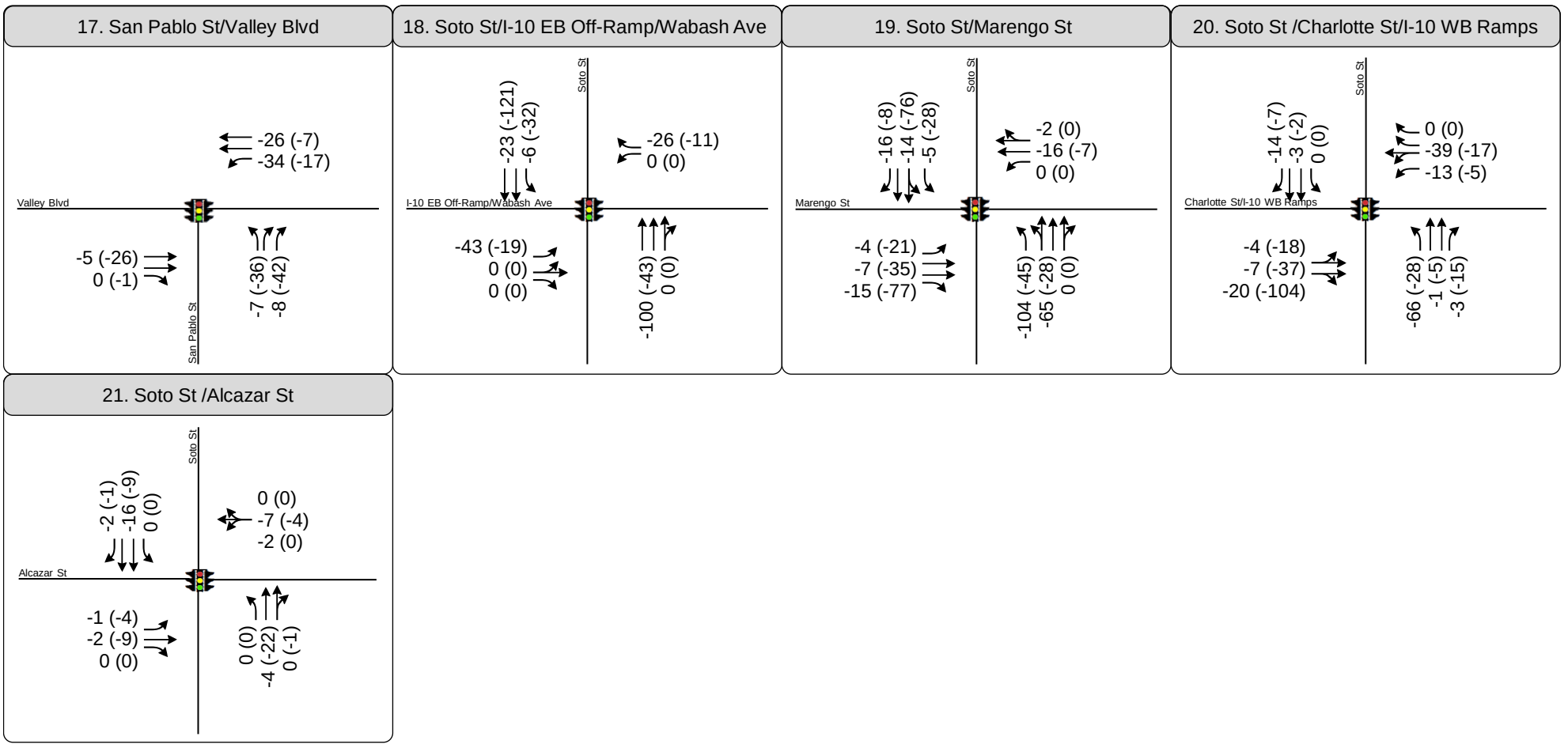


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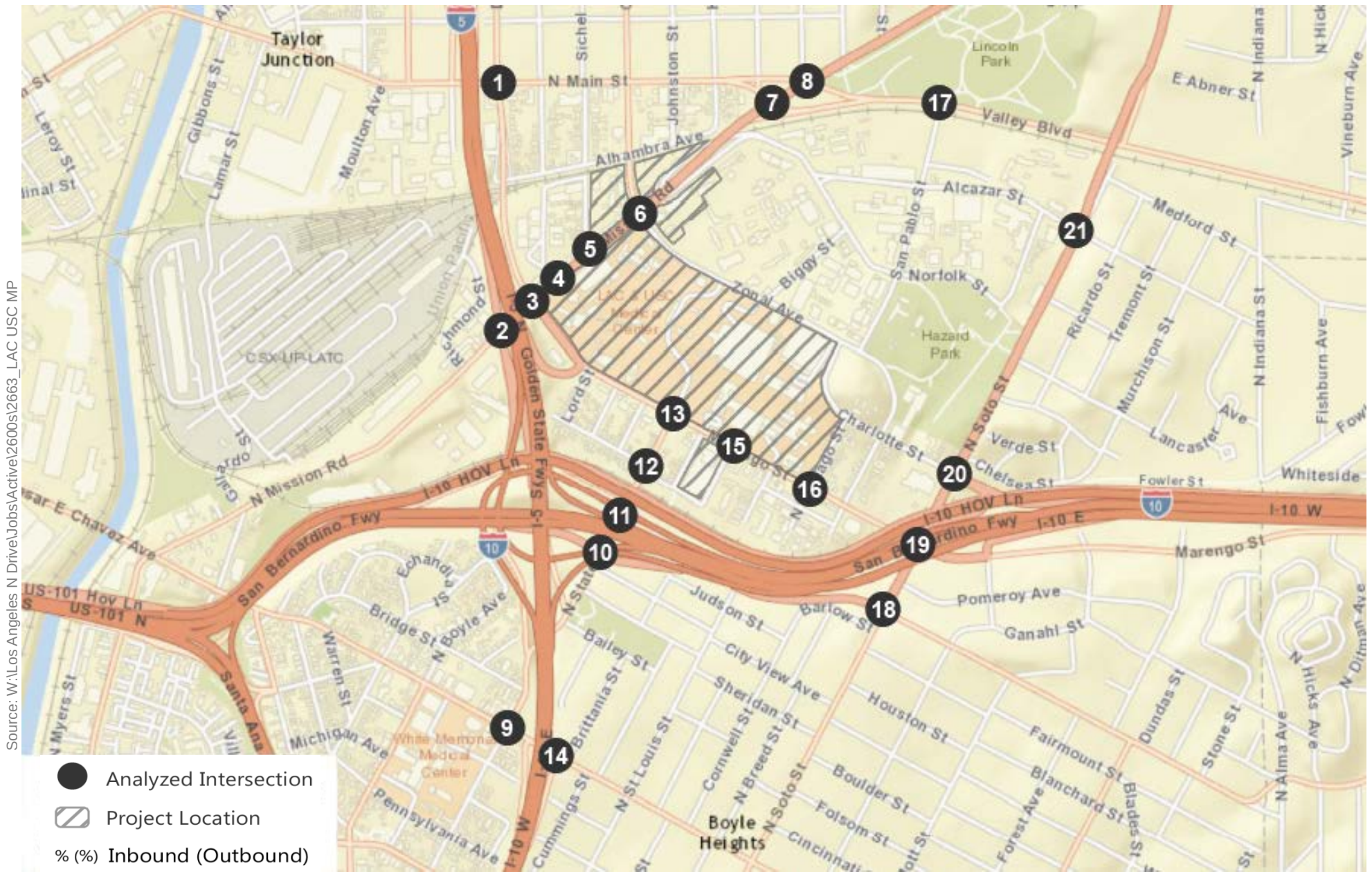
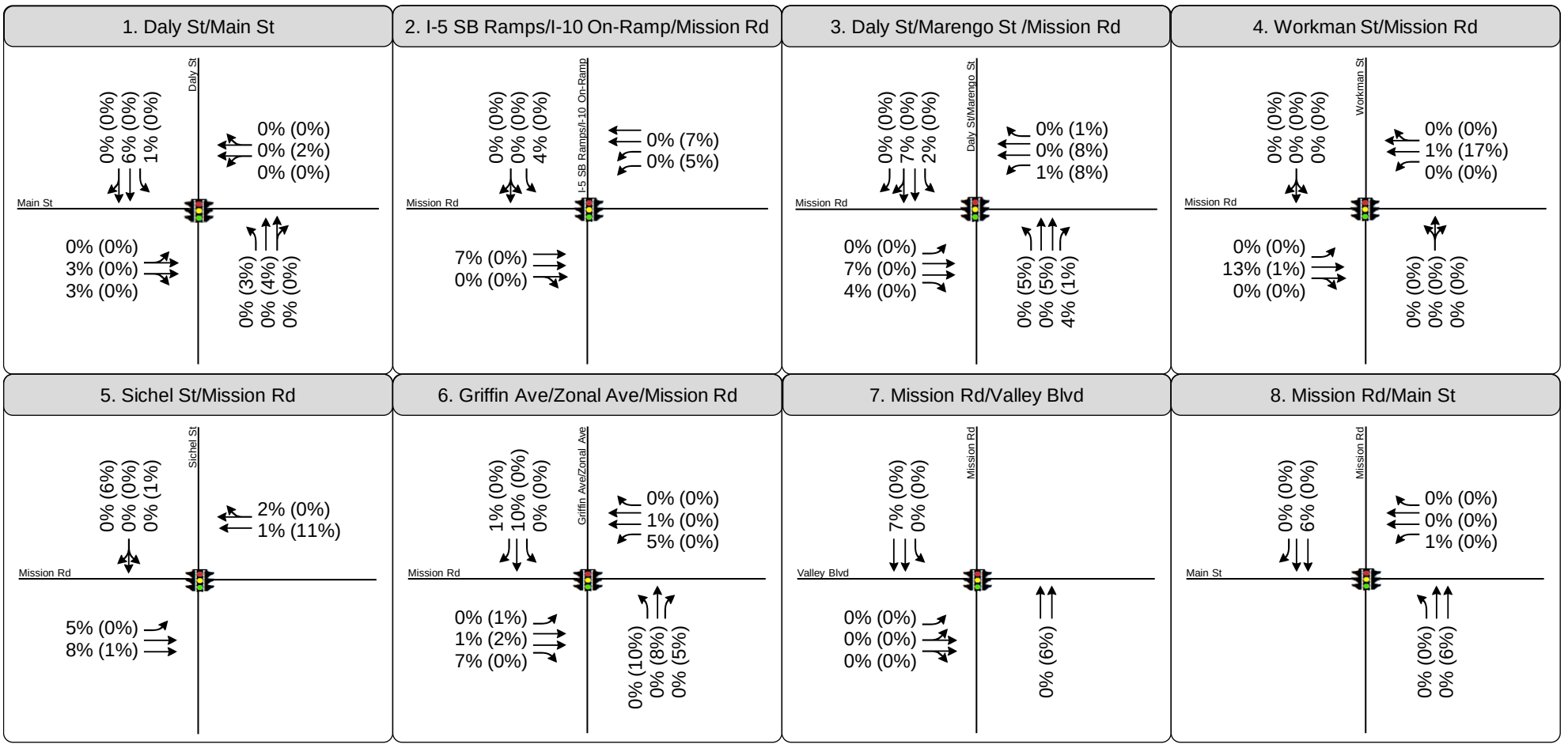
Figure 9

Peak Hour Traffic Volumes and Lane Configurations - Existing Uses for Removal or Reassignment

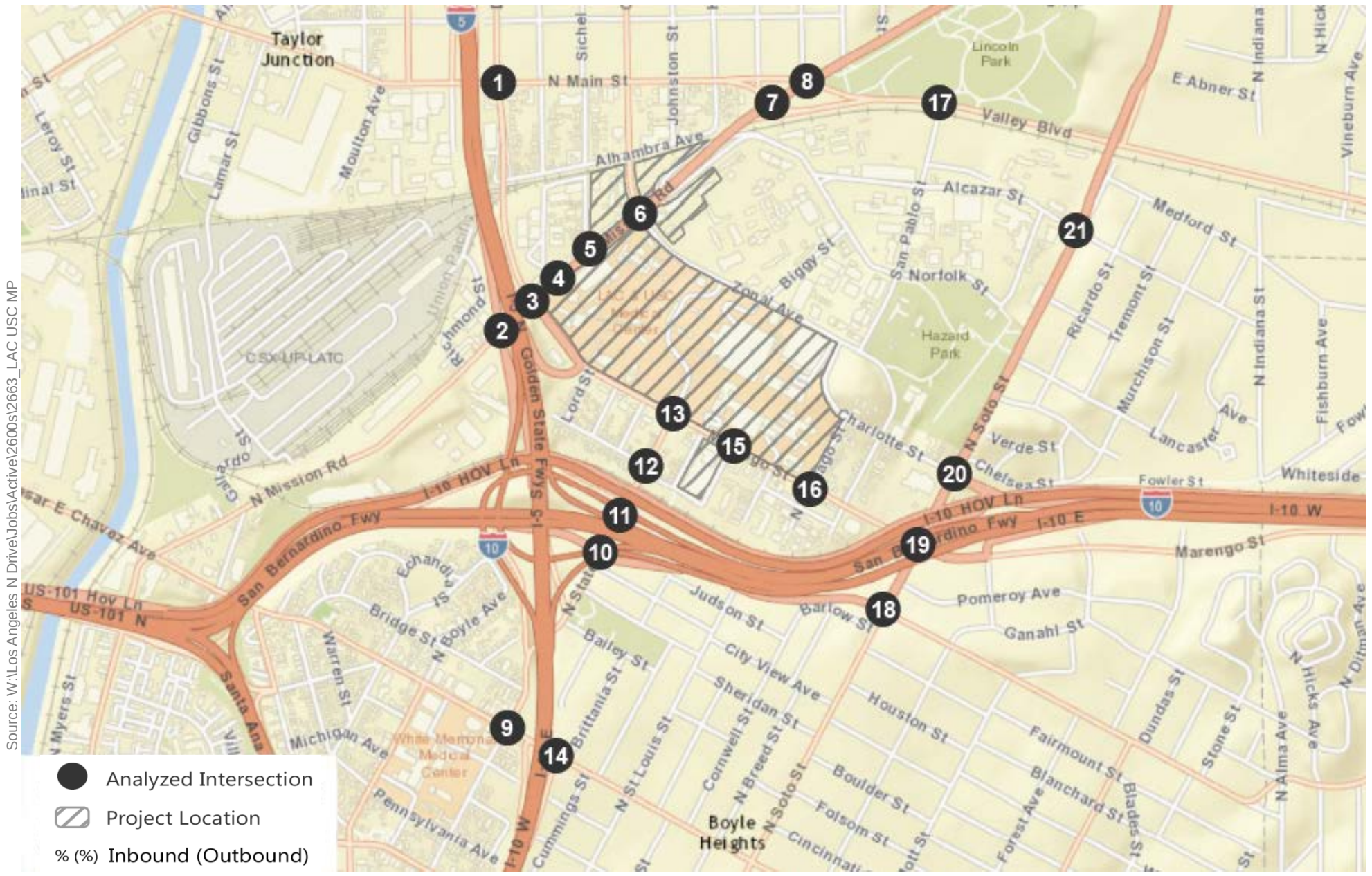


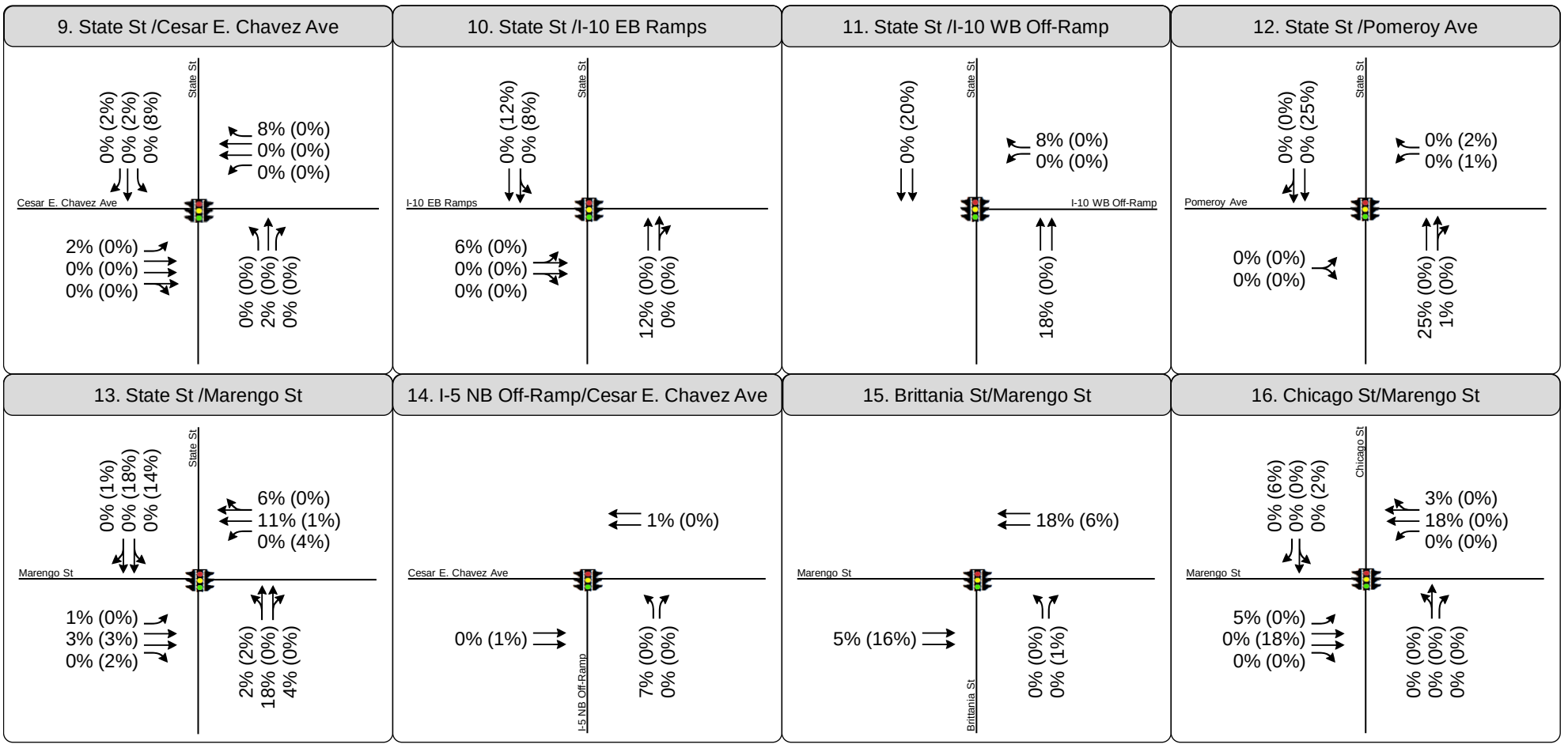


Note: Trip distribution percentages are rounded to the nearest whole percentage.

Figure 10A

Existing Year (2014) Project Trip Distribution and Lane Configurations





Note: Trip distribution percentages are rounded to the nearest whole percentage.

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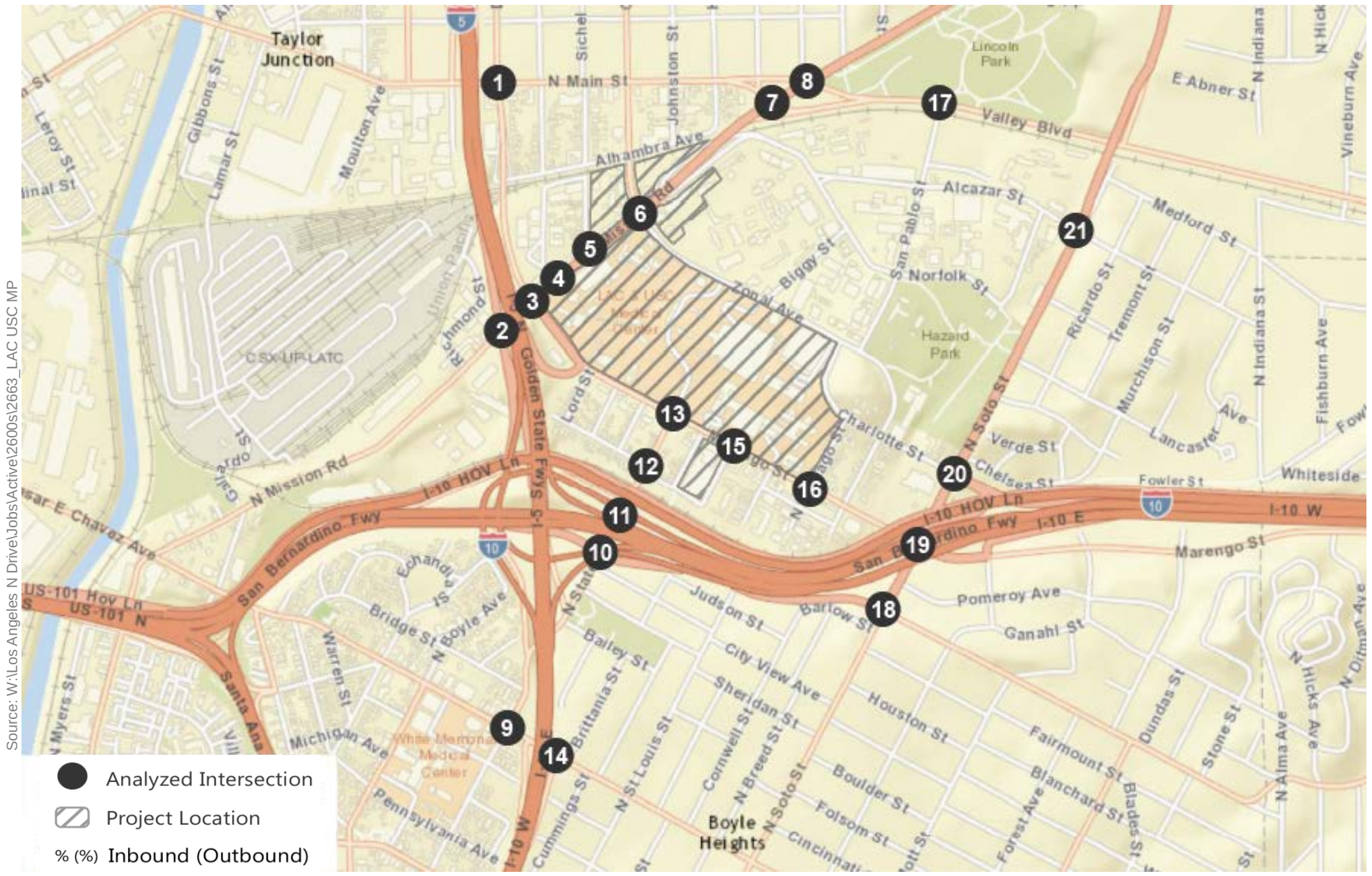
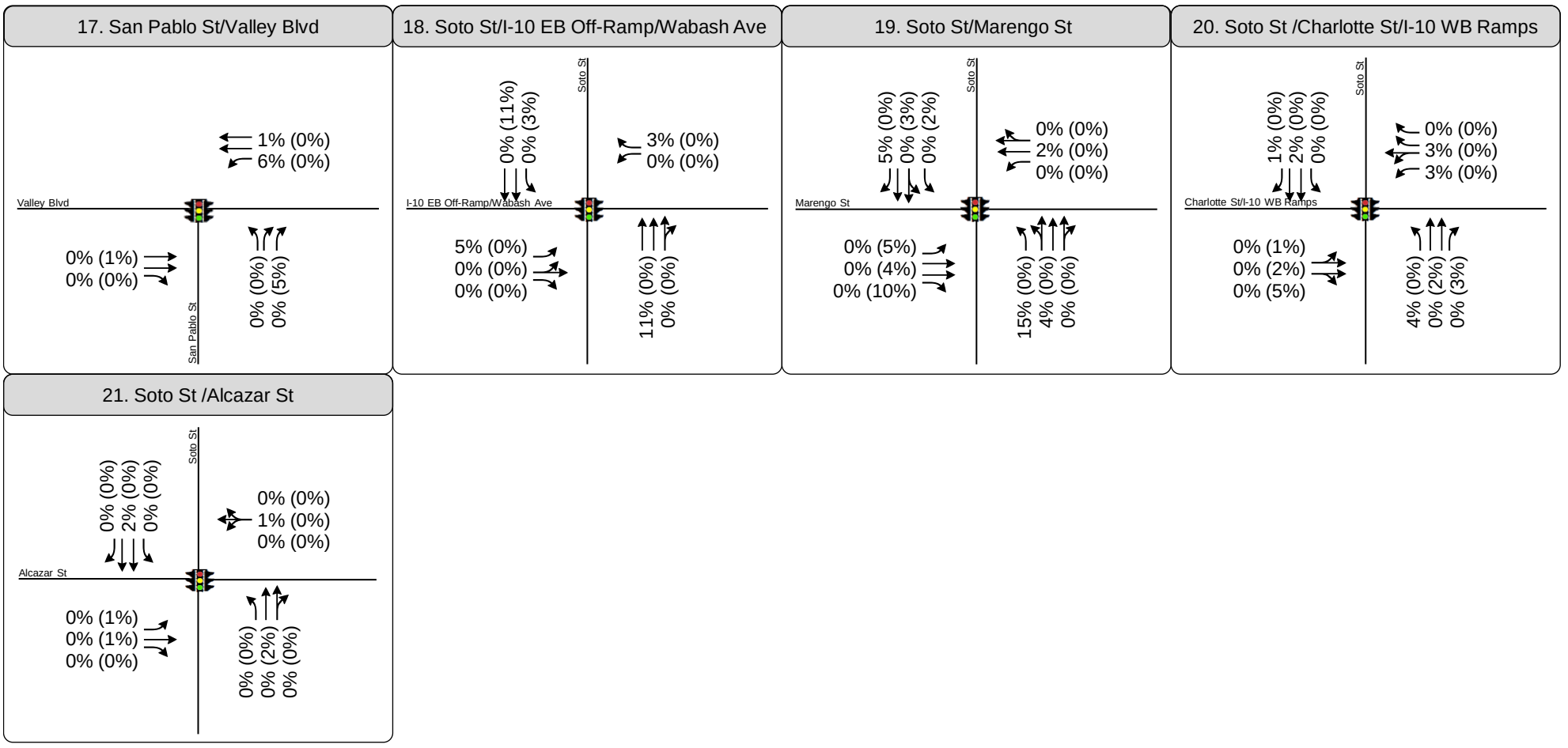
Figure 10A

Existing Year (2014) Project Trip Distribution and Lane Configurations





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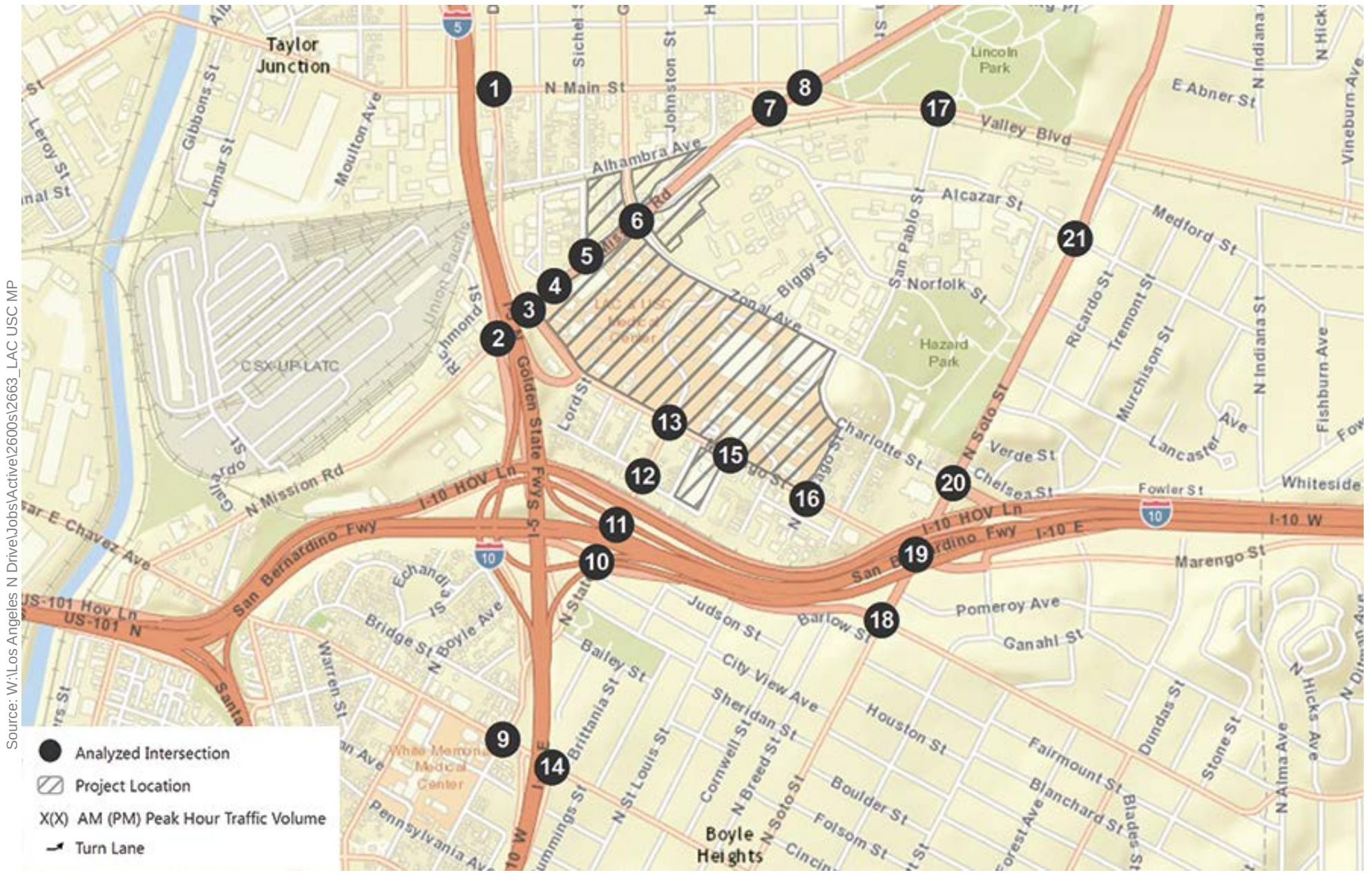
Note: Trip distribution percentages are rounded to the nearest whole percentage.

Figure 10A

Existing Year (2014) Project Trip Distribution and Lane Configurations



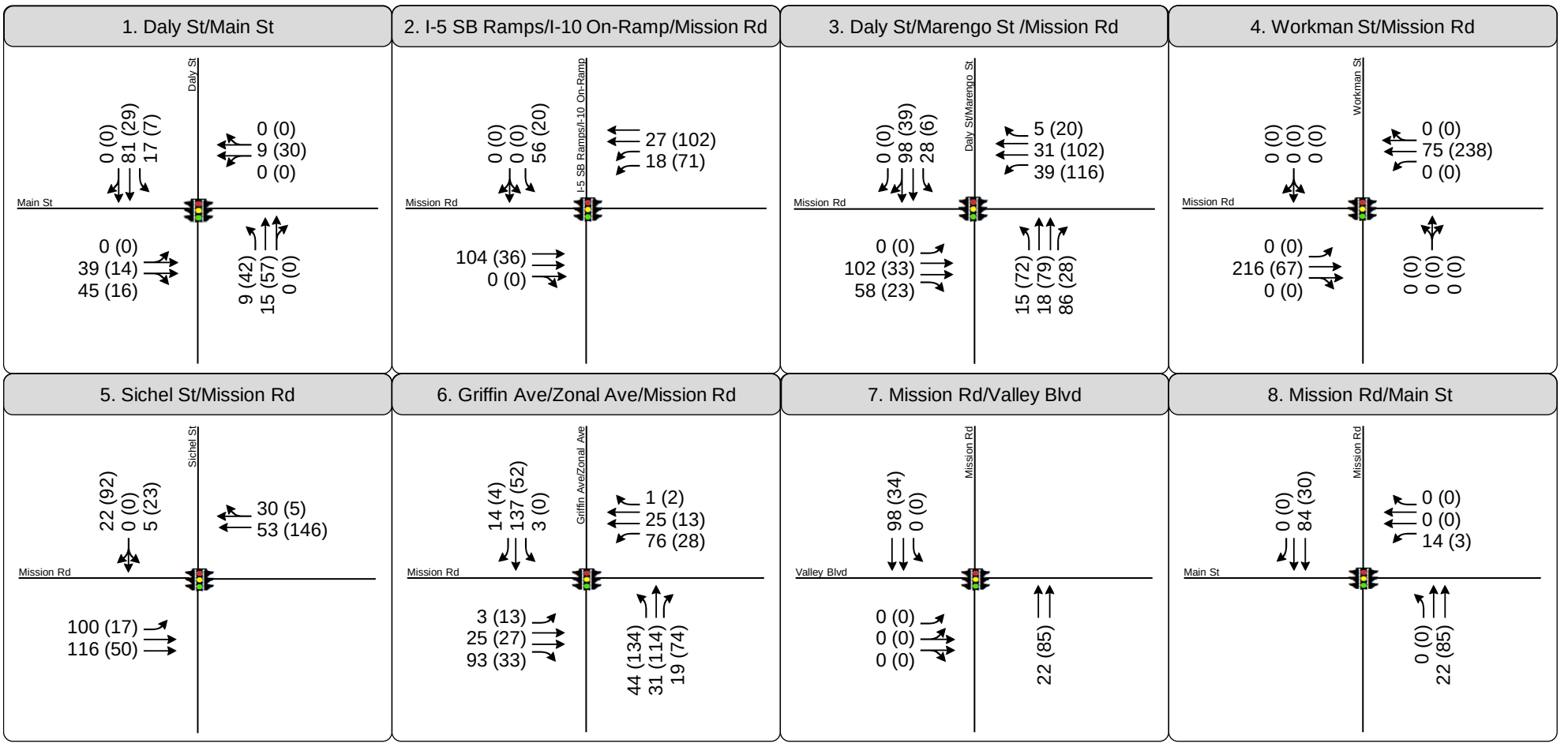


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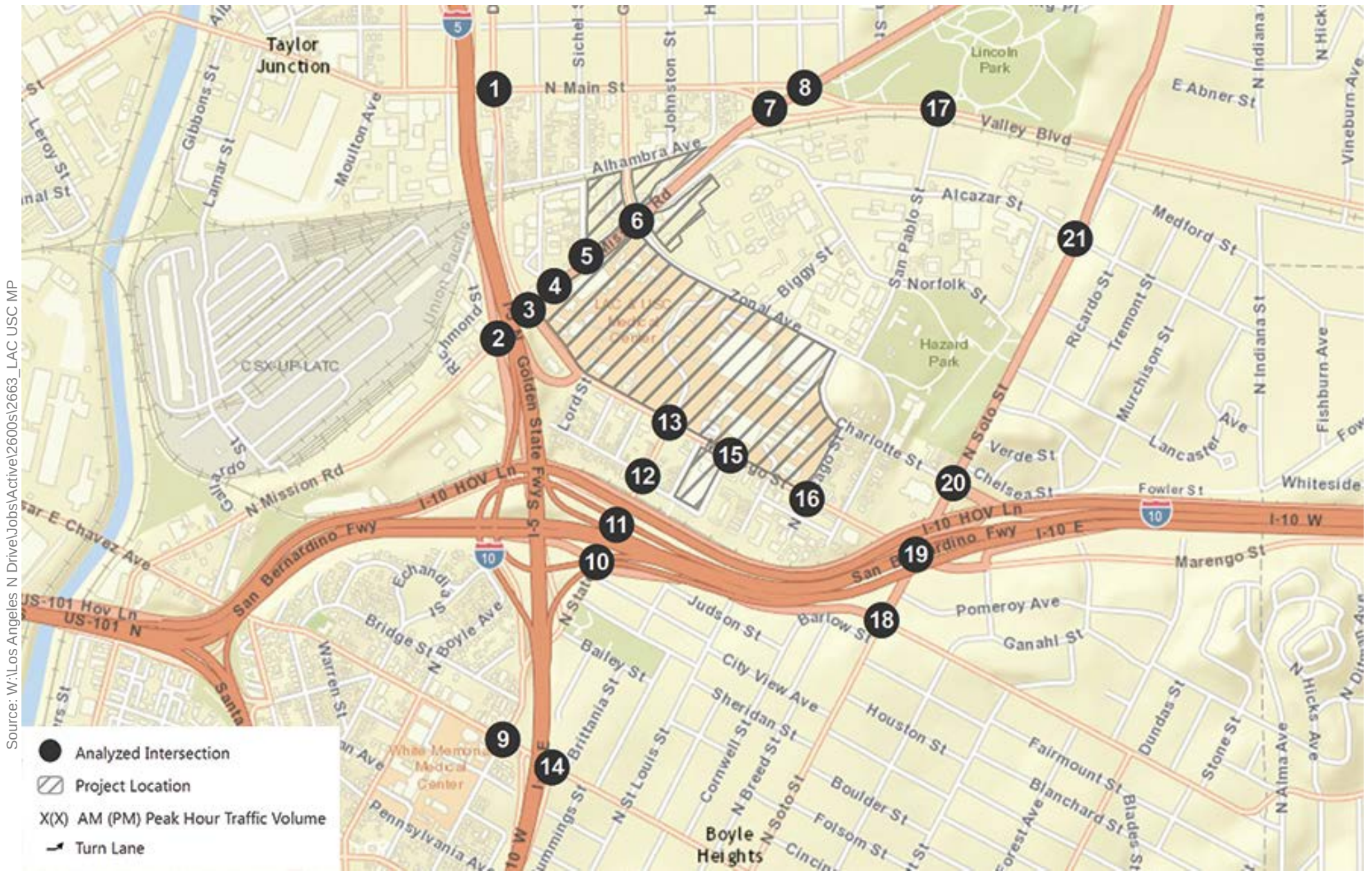
Figure 10B

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Project Only



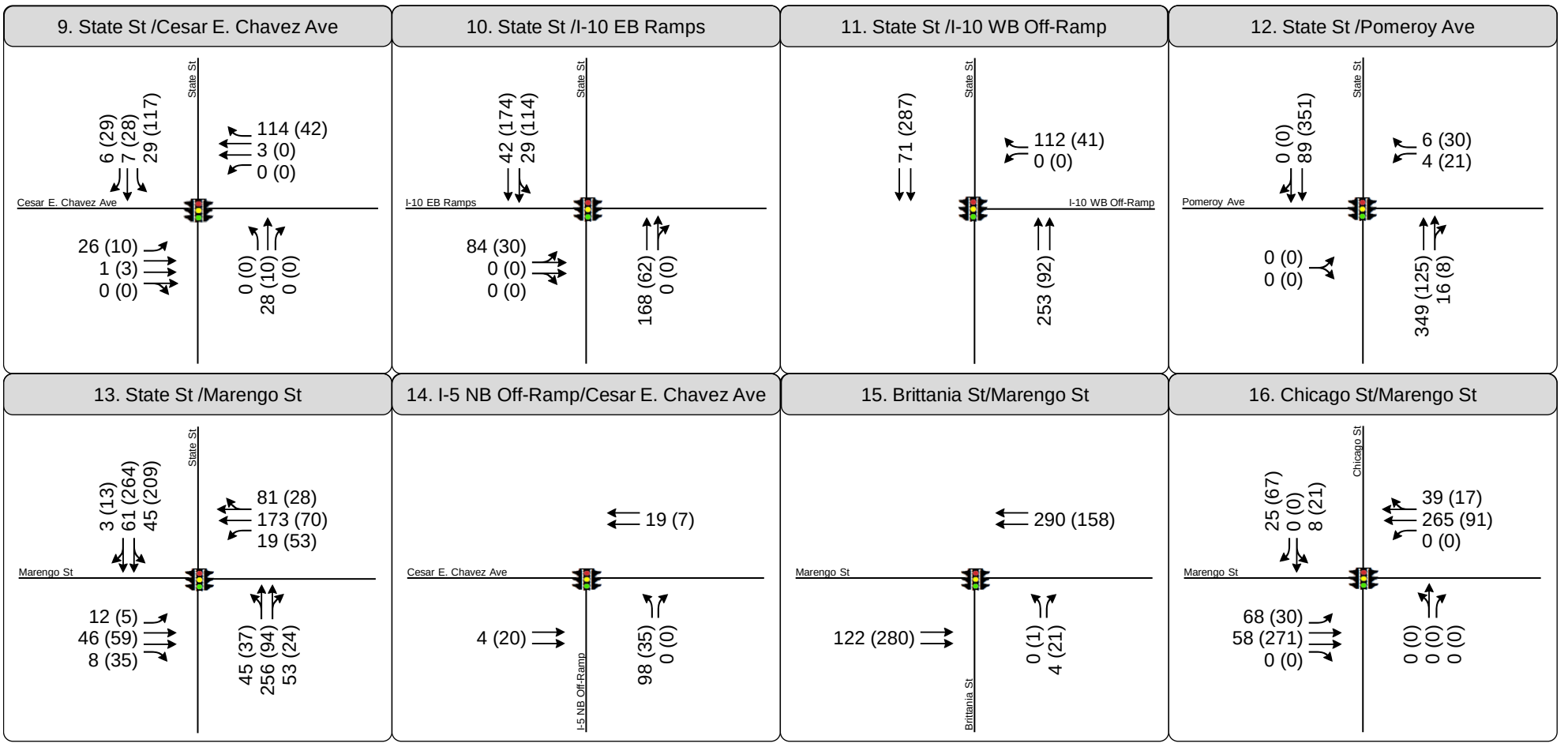


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Figure 10B

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Project Only

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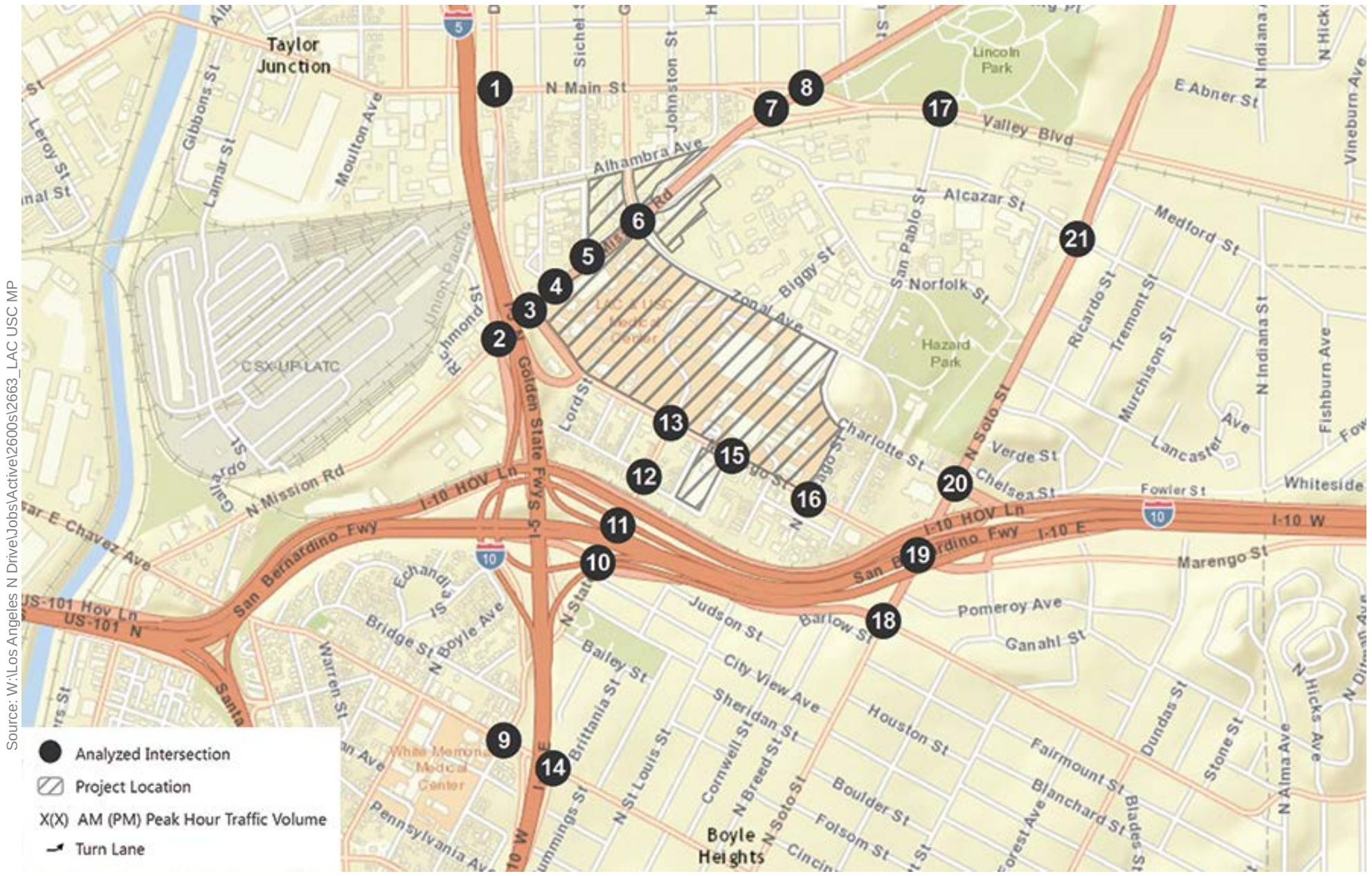

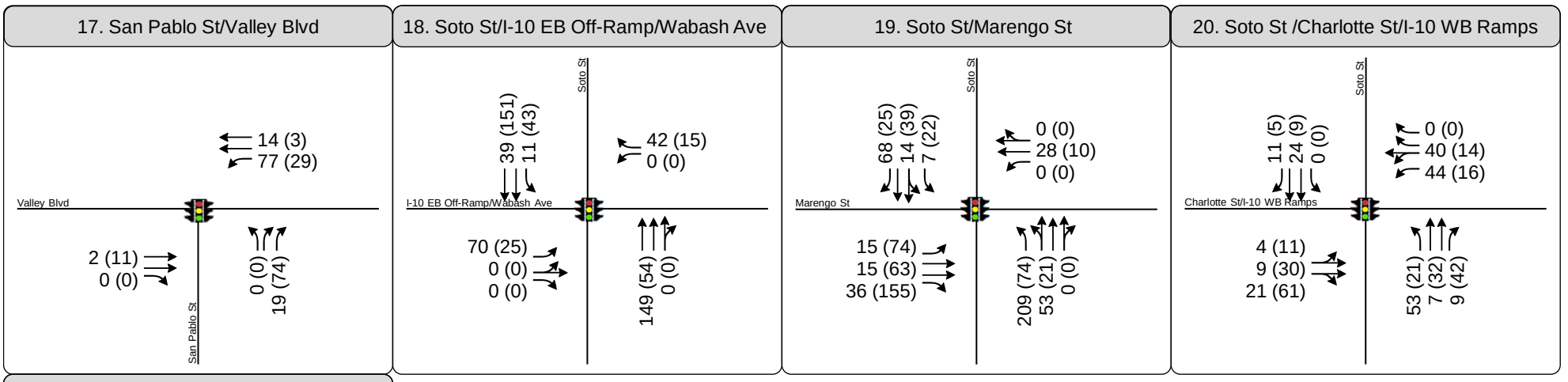

Figure 10B

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Project Only

EXISTING YEAR PLUS PROJECT TRAFFIC PROJECTIONS

The project traffic estimated and assigned to the study intersections was added to the existing traffic volumes to estimate Existing Year plus Project traffic volumes. Turning movement traffic volumes for the existing plus project scenario are shown in Figure 11.

CUMULATIVE YEAR TRAFFIC PROJECTIONS

To evaluate the potential impacts of the proposed Project on future (Year 2040) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the project (related projects). These projected traffic volumes, identified here as the cumulative base conditions, represent the future cumulative conditions without the proposed project. Project traffic was added to the cumulative base to form Cumulative Year plus Project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the project itself. The assumptions and analysis methodology used to develop each of the future year scenarios discussed above are described in more detail in the following sections.

CUMULATIVE BASE YEAR TRAFFIC PROJECTIONS

The traffic volumes projected for the Cumulative Base Year (2040) scenario take into account the expected changes in traffic over existing conditions from two primary sources: ambient growth in the existing traffic volumes due to the effects of overall regional growth and development outside the study area, and traffic generated by specific development projects in, or in the vicinity of, the study area. The methods used to account for these factors are described below.

Background or Ambient Growth

An ambient growth rate for the study area was derived from data presented in *2010 Congestion Management Program* (Metro 2010). To corroborate the CMP growth projections, the City's travel demand model was used to calculate an average annual growth rate on the roadway system in the study area. The City's model estimates slightly lower overall ambient growth in the study area than the CMP growth forecasts, which confirms that the use of the CMP growth projects ensures a conservative analysis. Based on the CMP data, an annual ambient growth rate of 0.27% per year was calculated, which was applied to the Existing baseline intersection traffic volumes over the 26-year horizon for the project, for a total growth rate of 7.02% over existing traffic volumes.

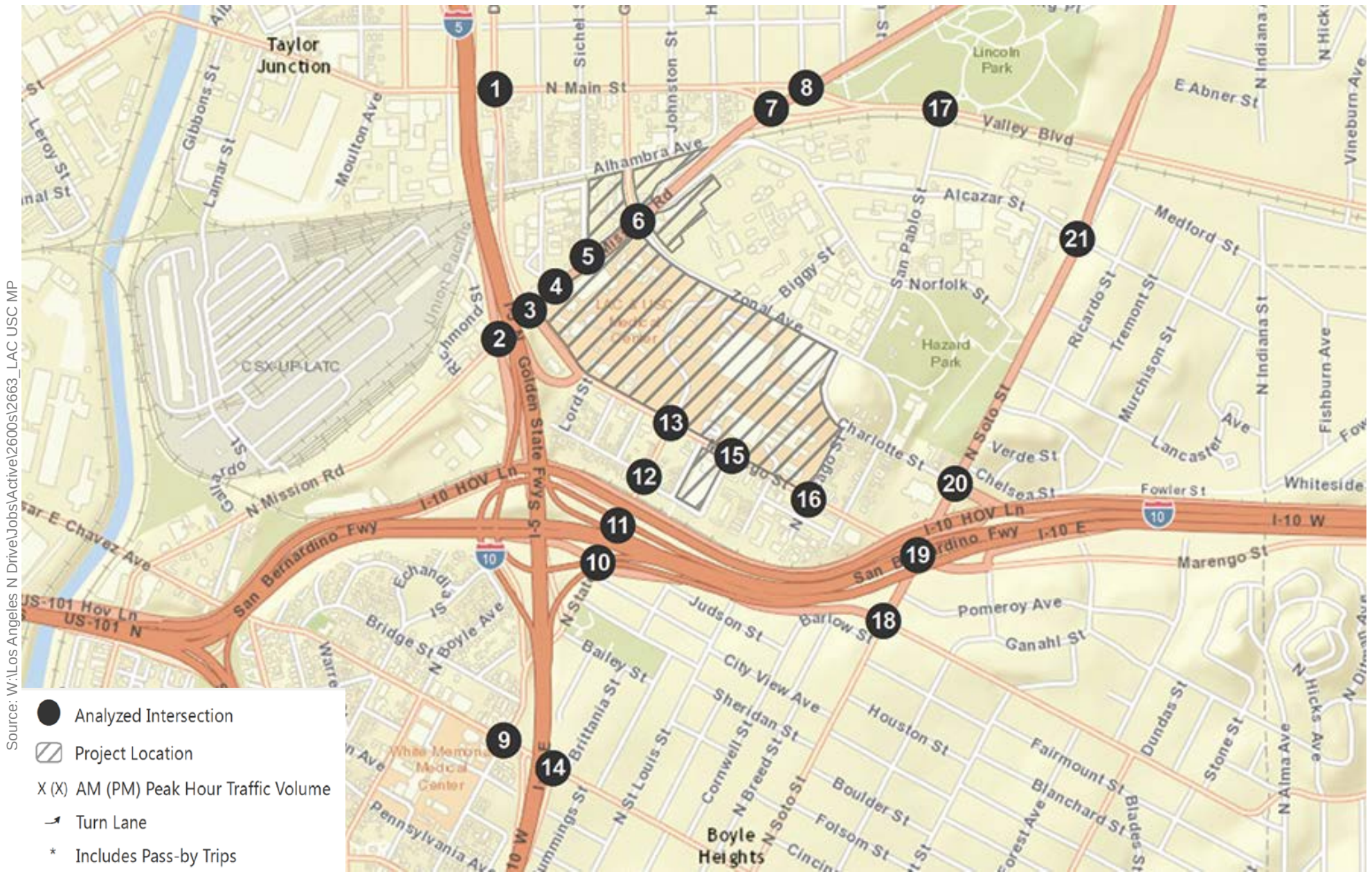

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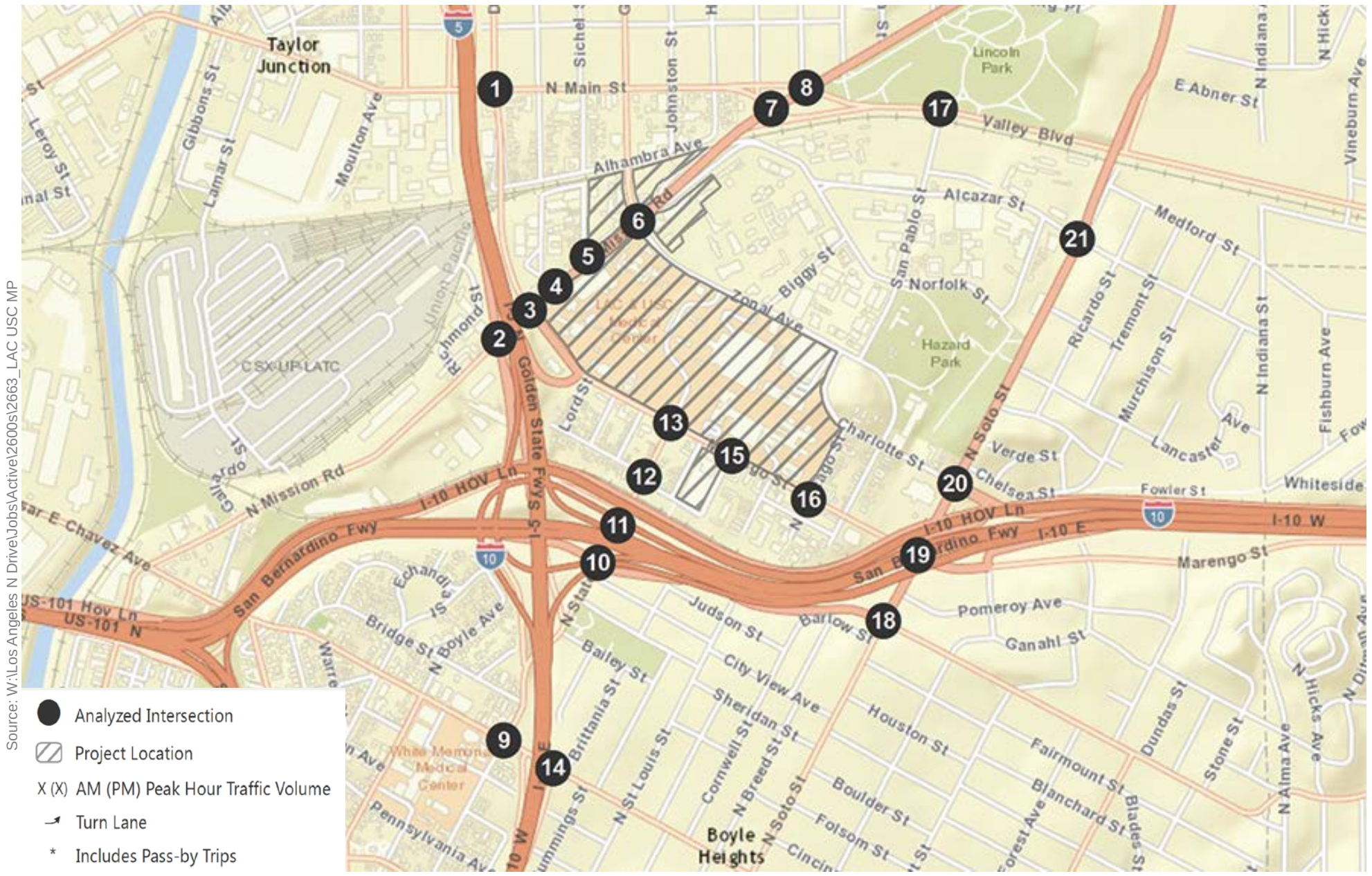
Figure 11

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Plus Project Conditions



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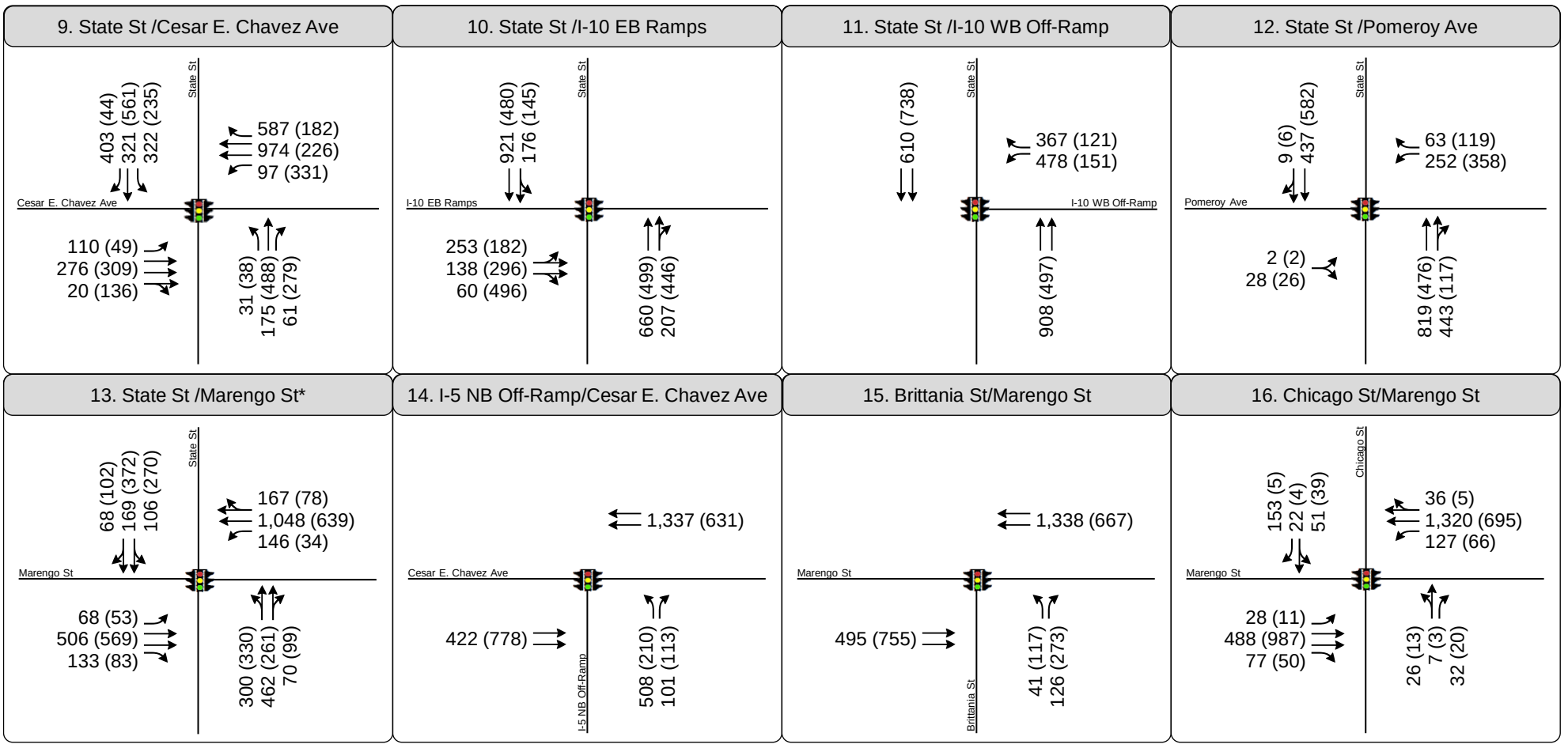
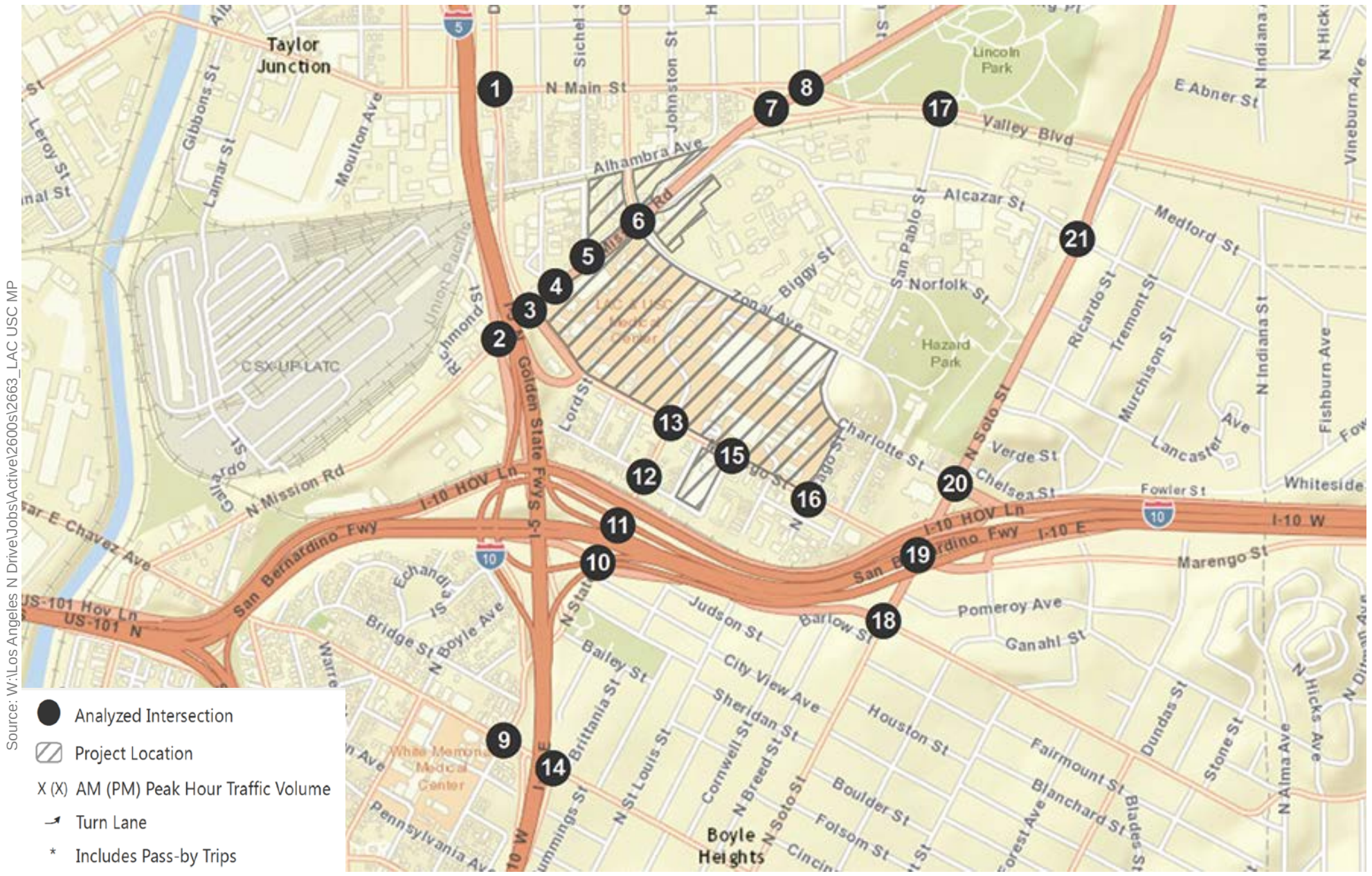


Figure 11

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Plus Project Conditions



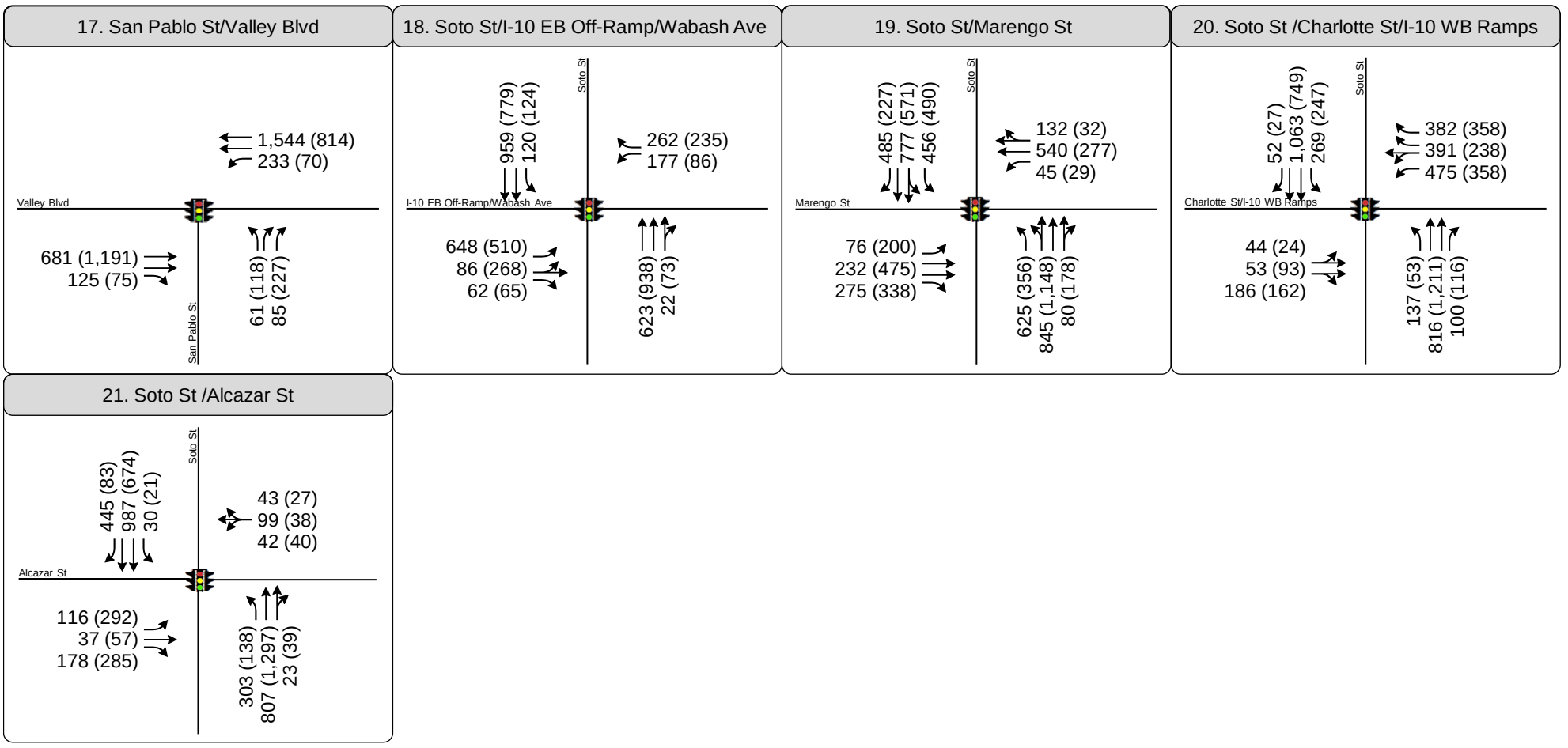


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Figure 11

Peak Hour Traffic Volumes and Lane Configurations - Existing Year (2014) Plus Project Conditions

Cumulative Project Traffic Generation and Assignment

Future base traffic forecasts include the effects of specific projects, called related projects, expected to be constructed in the vicinity of the proposed project. Information on related projects within approximately 1.5 miles of the project site was obtained from LADOT and from the Los Angeles County Department of Regional Planning. A total of nine cumulative projects were identified in the study area, and these projects are listed in Table 6.

Trip Generation

Trip generation estimates for the related projects were calculated using a combination of previous study findings, publicly available environmental documentation, and trip generation rates contained in *Trip Generation, 9th Edition*. Table 6 presents the resulting trip generation estimates for these related projects. These projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.).

Trip Distribution

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments may be drawn, the locations of employment and commercial centers to which residents of residential projects may be drawn, and the location of the projects in relation to the surrounding street system. Additionally, if the traffic study or environmental document for a related project was available, the trip distribution for that study was used.

FUTURE BASELINE TRANSPORTATION SYSTEM IMPROVEMENTS

The extension of Norfolk Street to Soto Street, creating a new signalized intersection, is planned in connection with other localized circulation improvements at the University of Southern California Health Sciences Campus (USC HSC). This new roadway connection will supplement the existing access to USC HSC from Soto Street at Alcazar Street. This improvement was assumed as a future baseline condition in this study.

TABLE 6
TRIP GENERATION ESTIMATES FOR RELATED PROJECTS

Project #	Project Name	Address	Jurisdiction	Zip Code	Description	Size	Units	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
									In	Out	Total	In	Out	Total
1	USC Health Sciences Campus[1]	1510-1520 N San Pablo St	City of LA	90033	Proposed development of academic and medical research facilities, as well as medical clinic facilities within the Health Sciences Campus of the University of Southern California in East Los Angeles.	585-765	KSF	3,619	373	79	452	73	350	423
2	1101 North Main Condos[2]	1101 N. Main St	City of LA	90012	Redevelopment of a light industrial site into residential condominiums.	300	DU	1,102	-9	80	71	75	12	87
3	MTA Bus Facility[3]	920 N. Vignes St	City of LA	90012	Redevelopment of a former transit terminal and parking lot into a bus service facility.	360	KSF	2,161	37	50	87	52	31	83
4	Marengo Center Commercial Building[4]	1902 E. Marengo St	City of LA	90033	Development of a mixed-use project containing commercial and retail uses.	27.235	KSF	1,637	70	41	111	52	67	119
5	Medical Office Expansion[5]	1828 Cesar Chavez St	City of LA	90033	Expansion of existing medical office.	49.542	KSF	1,168	58	16	74	30	82	112
6	SPR - Medical Office & Retail[5]	3303 N. Broadway	City of LA	90031	Development of medical office and retail space.	66 KSF Med. Office & 15 KSF Retail	KSF	1,384	74	20	94	38	103	141
7	Retail Pharmacy[6]	3617 E Cesar E Chavez Ave	LA County	90063	Development of a retail pharmacy.	15.112	KSF	1,361	29	15	44	62	65	127
8	Wyvernwood Boyle Heights[7]	2901 E Olympic Blvd	City of LA	90023	Redevelopment of an approximately 69-acre site into a mixed-use project containing retail, residential, office, and civic space amenities.	68.8	acres	19,640	416	1,041	1,457	1,144	789	1,933
9	Sears Building Adaptive Reuse Project[8]	2650 E Olympic Blvd	City of LA	90023	Redevelop the existing Sears building as an adaptive reuse mixed-use project consisting of apartments, retail, restaurant, and office space.	562 KSF & 1,000 DU	sq. ft. & DU	11,307	482	463	945	550	526	1,076
							TOTAL RELATED PROJECT VEHICLE TRIPS	**43,379**	**1,530**	**1,805**	**3,335**	**2,076**	**2,025**	**4,101**

Notes:

[1]Since the preparation of the Environmental Impact Report for the USC Health Sciences Campus Project some of the facilities have been completed and the is currently in operation. Thus, net trip generation estimates were taken from *Addendum to the Environmental Impact Report USC Health Sciences Campus Project - Traffic Assessment (Gibson Transportation Consulting, 2006)* . Additionally, per consultation with the LADOT staff and Gibson Transportation, Parking Scenario No. 2 was assumed where the related project's parking will be provided along San Pablo Street north of Alcazar Street.

[2]Net trip generation estimates taken from *1101 N. Main Street Traffic Impact Study* (Overland Traffic Consultants, 2006).

[3]Net trip generation estimates taken from *Metro Union Division Bus Maintenance and Operations Facility Traffic Impact Analysis* (Iteris, Inc., 2008).

[4]Net trip generation estimates taken from *Traffic Impact Analysis for a Proposed Commercial Building* (Overland Traffic Consultants, 2011).

[5]Net trip generation estimates were provided by LADOT staff including daily trips and total net new peak hour trips.

[6]The ITE rates and directional distribution for the Pharmacy without Drive Through Window Land Use 880 presented in the *Trip Generation, 9th Edtion* (Institute of Transportation Engineers, 2012) were used to estimate trip generation for the retail pharmacy. No credits were taken for existing uses.

[7]Net trip generation estimates taken from *Traffic Impact Study for the Boyle Heights Mixed-Use Project* (Fehr & Peers, 2011). Trip Generation figures assume a maximum retail scenario.

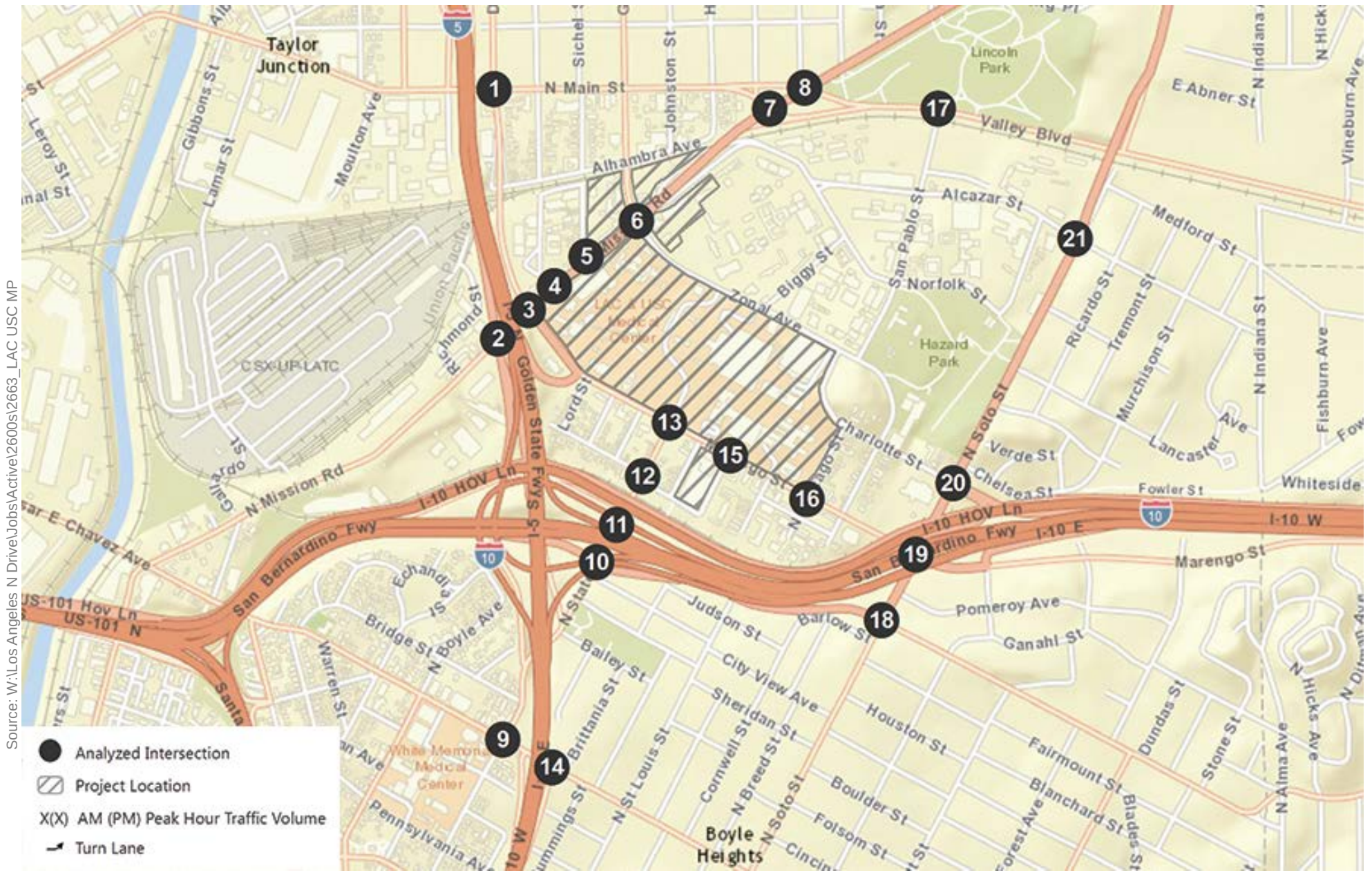
[8]Net trip generation estimates taken from *Sears Building Adaptive Reuse Project Traffic Study - Memorandum of Understanding* (Crain & Associates, 2014).

Cumulative Base Year Traffic Volumes

Using the estimated trip generation and trip distribution patterns, traffic generated by the related projects was assigned to the street network, which is illustrated in Figure 12. The related project traffic assignment was then added to the ambient background increase. The resulting traffic volumes, representing Cumulative Base Year (2040) conditions or future conditions without the project, are presented in Figure 13.

CUMULATIVE YEAR PLUS PROJECT TRAFFIC PROJECTIONS

The detailed estimated project traffic distribution percentages at each of the study intersections under future conditions are shown in Figure 14A. Figure 14B illustrates the project-generated traffic volumes under Cumulative Year plus Project conditions. The project-generated traffic volumes vary slightly from those under Existing Year plus Project conditions due to the Norfolk Street extension but follow the same overall regional distribution pattern. They were added to the Cumulative Base volumes to yield Cumulative Year plus Project traffic forecasts, which are in Figure 15.



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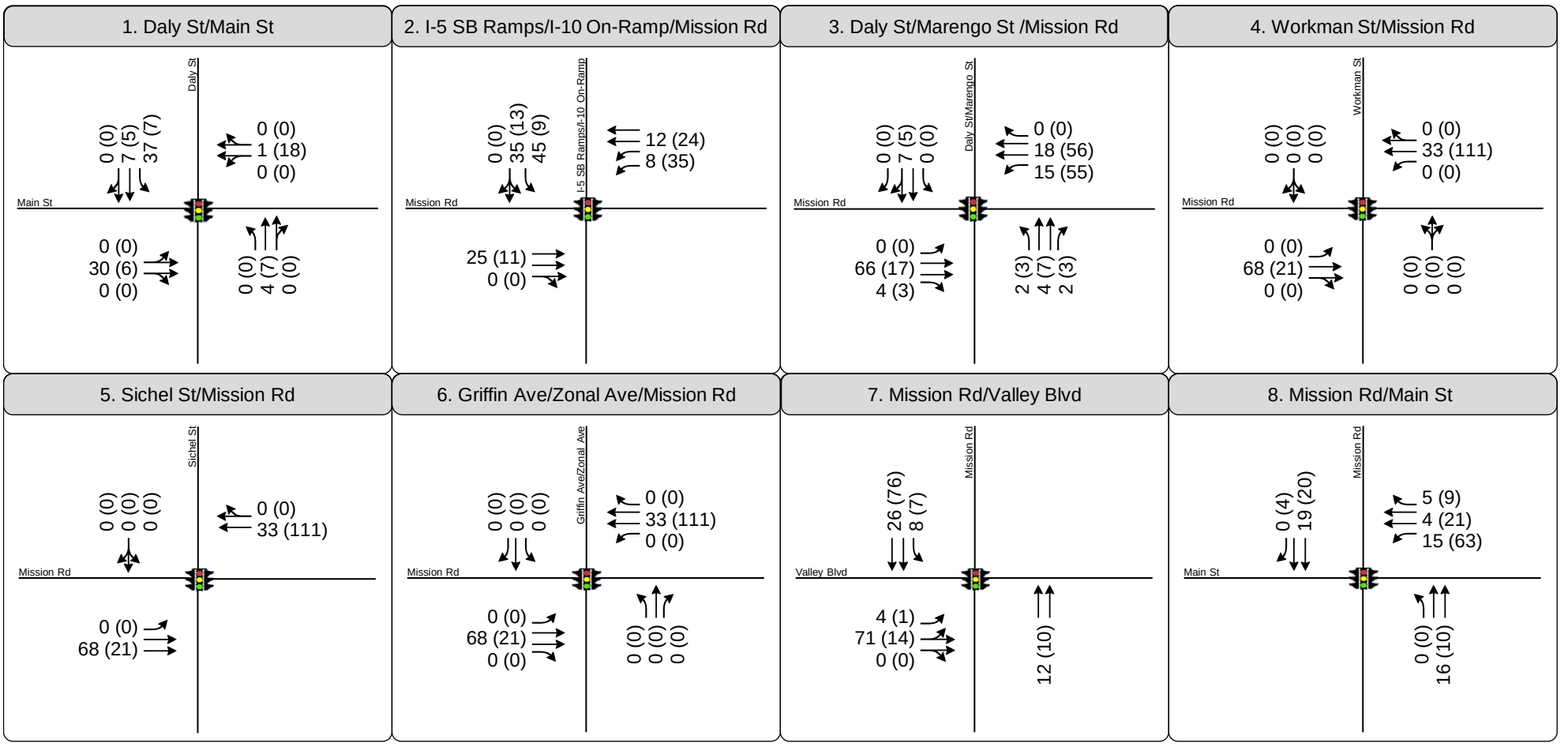
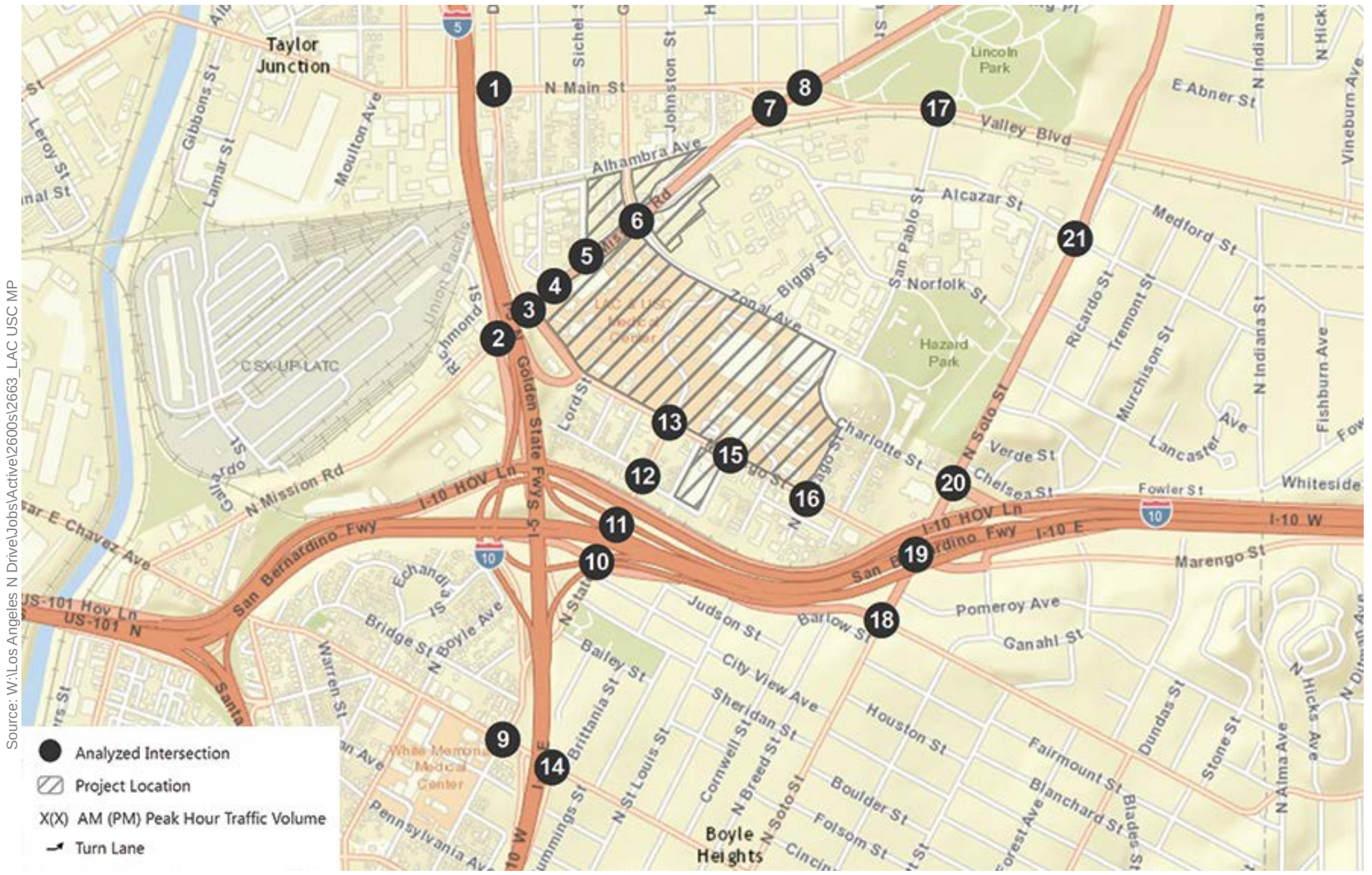


Figure 12

Peak Hour Traffic Volumes and Lane Configurations - Related Projects Only



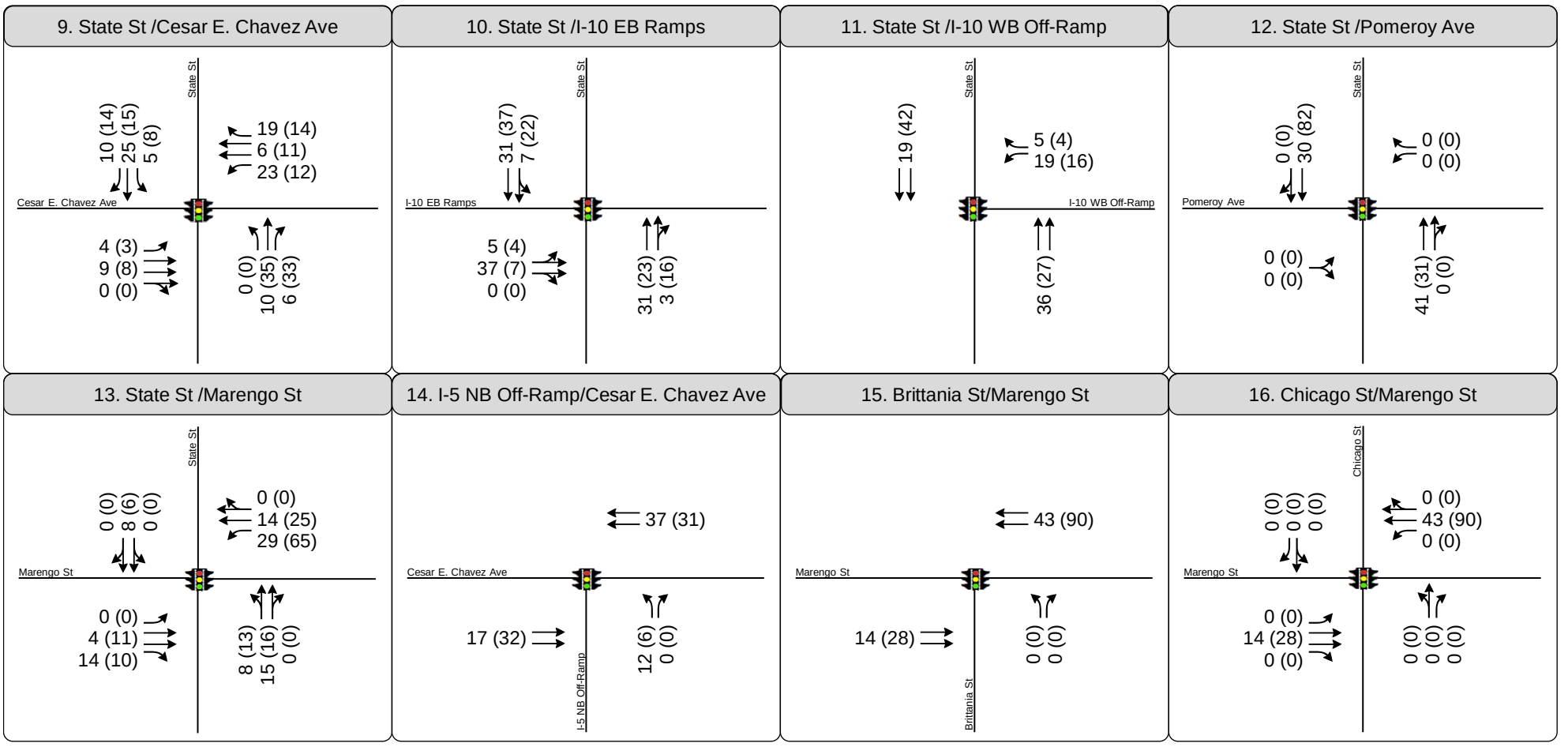


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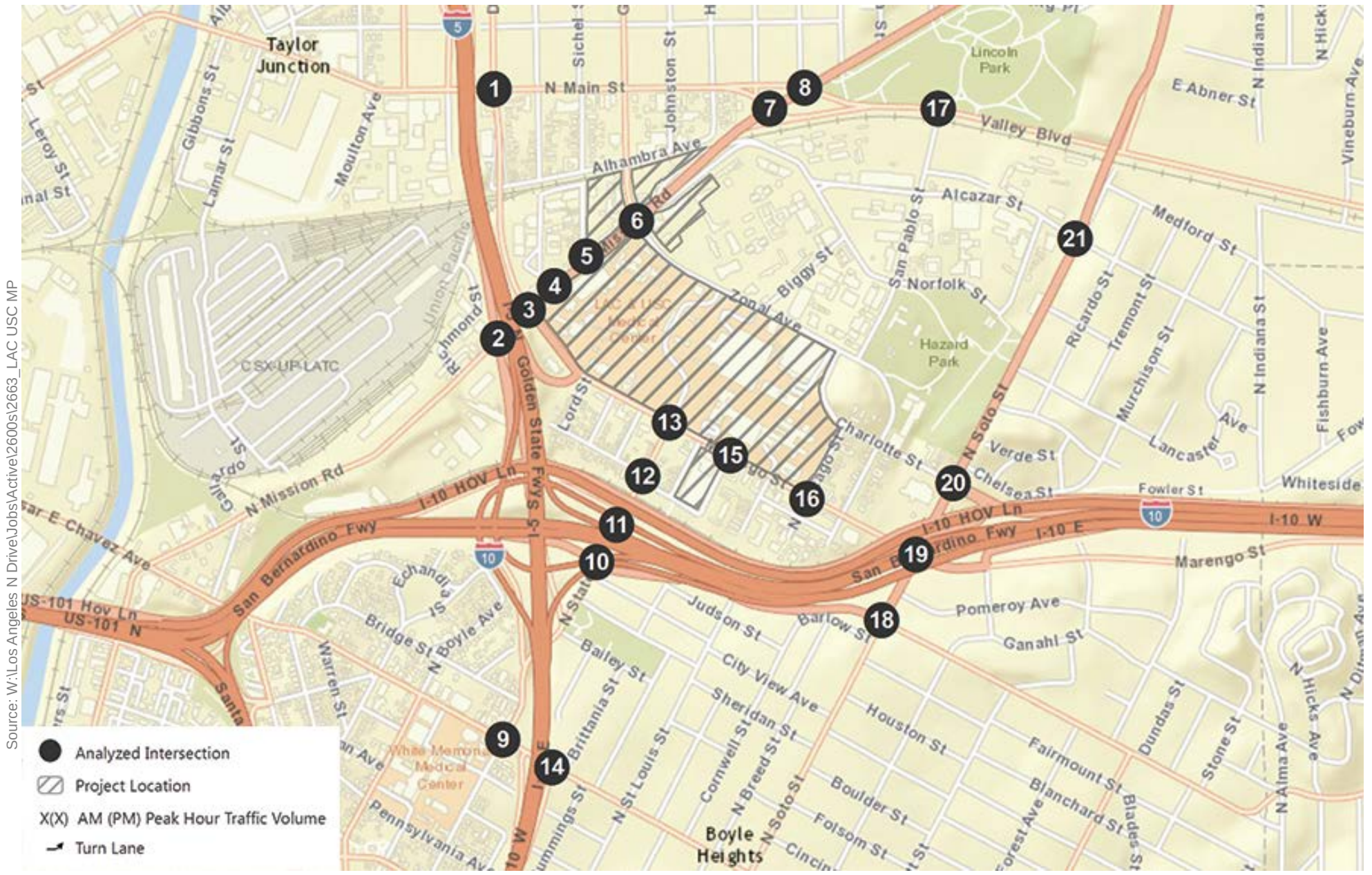
Figure 12

Peak Hour Traffic Volumes and Lane Configurations - Related Projects Only



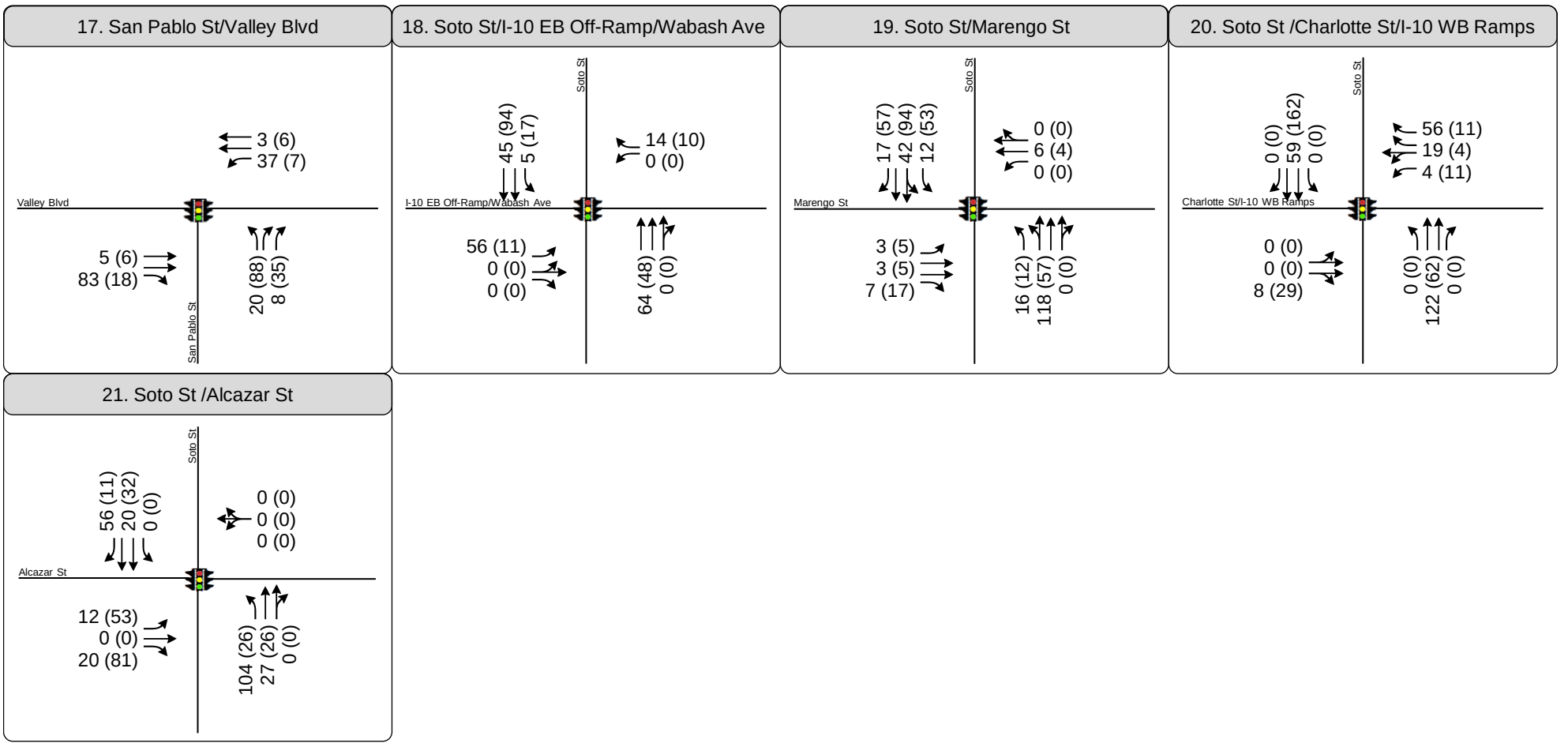


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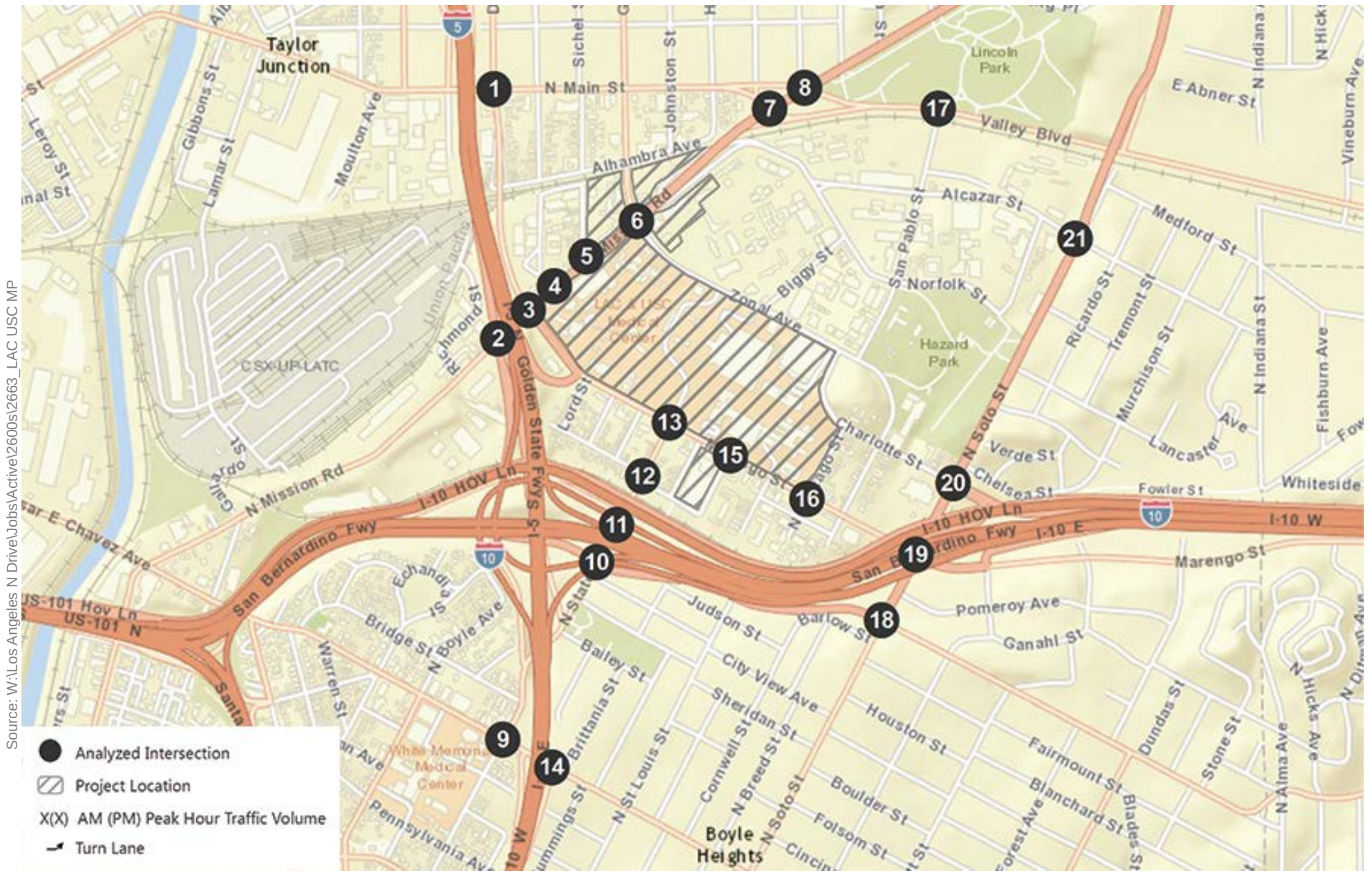
Figure 12

Peak Hour Traffic Volumes and Lane Configurations - Related Projects Only



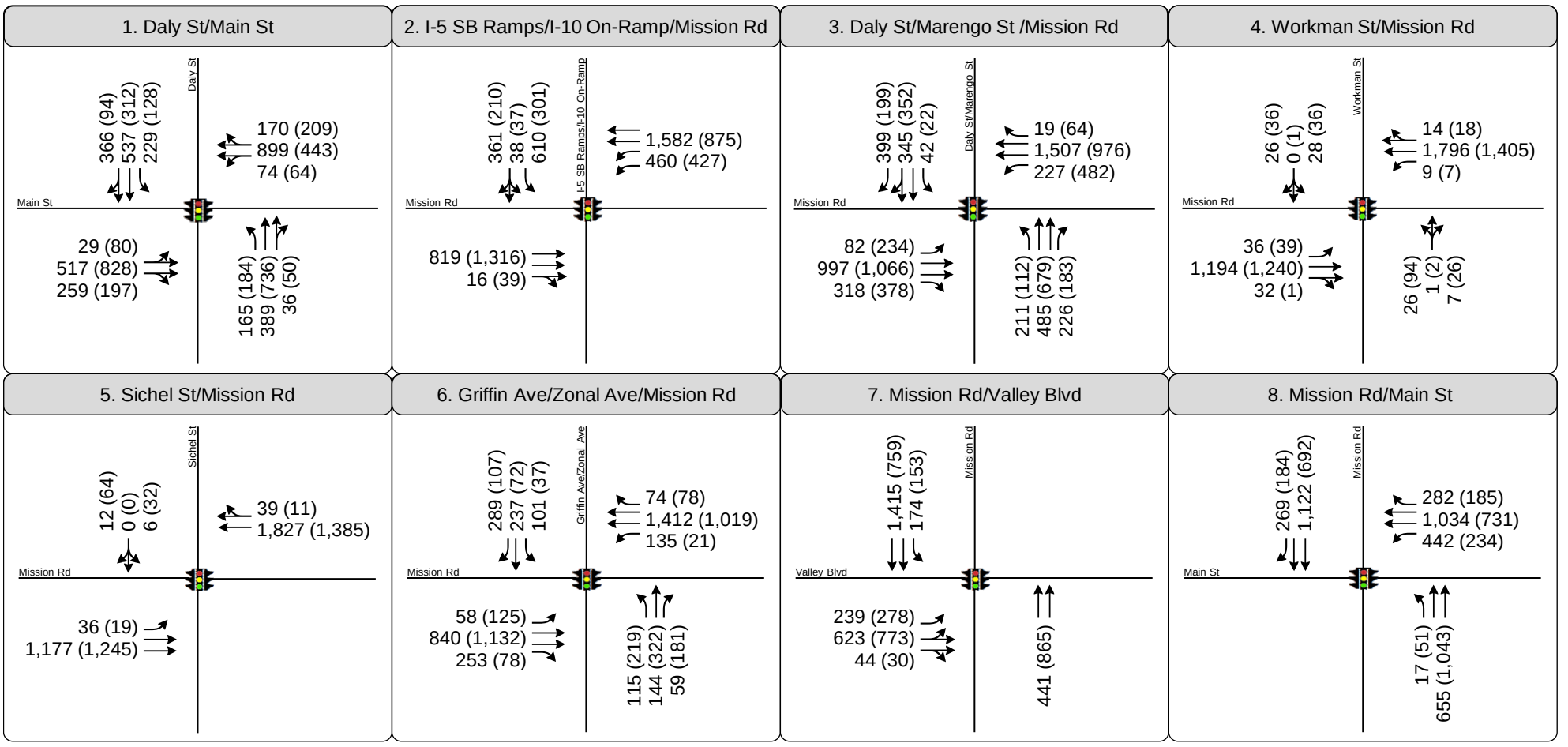


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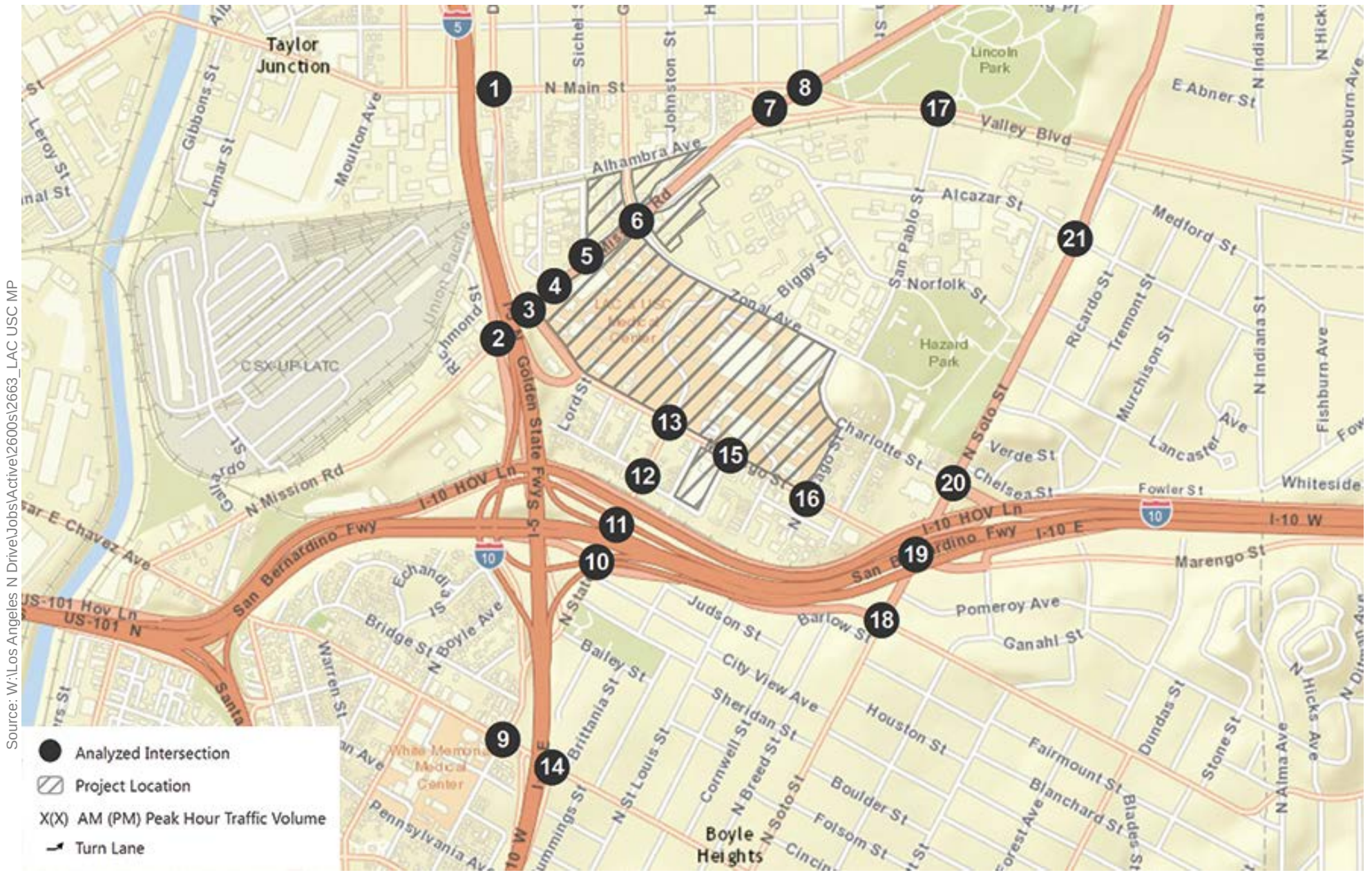
Figure 13

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Base Year (2040) Conditions



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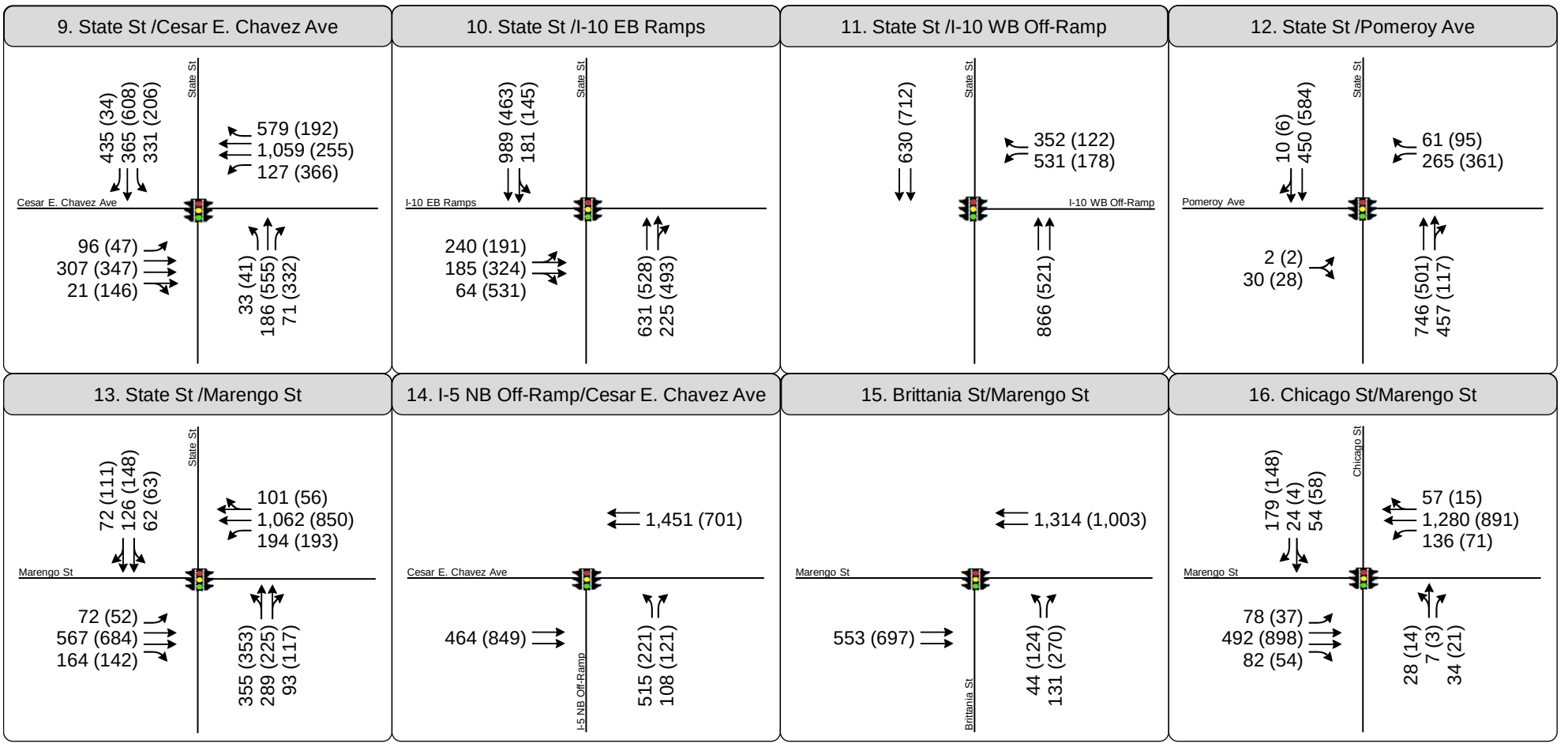
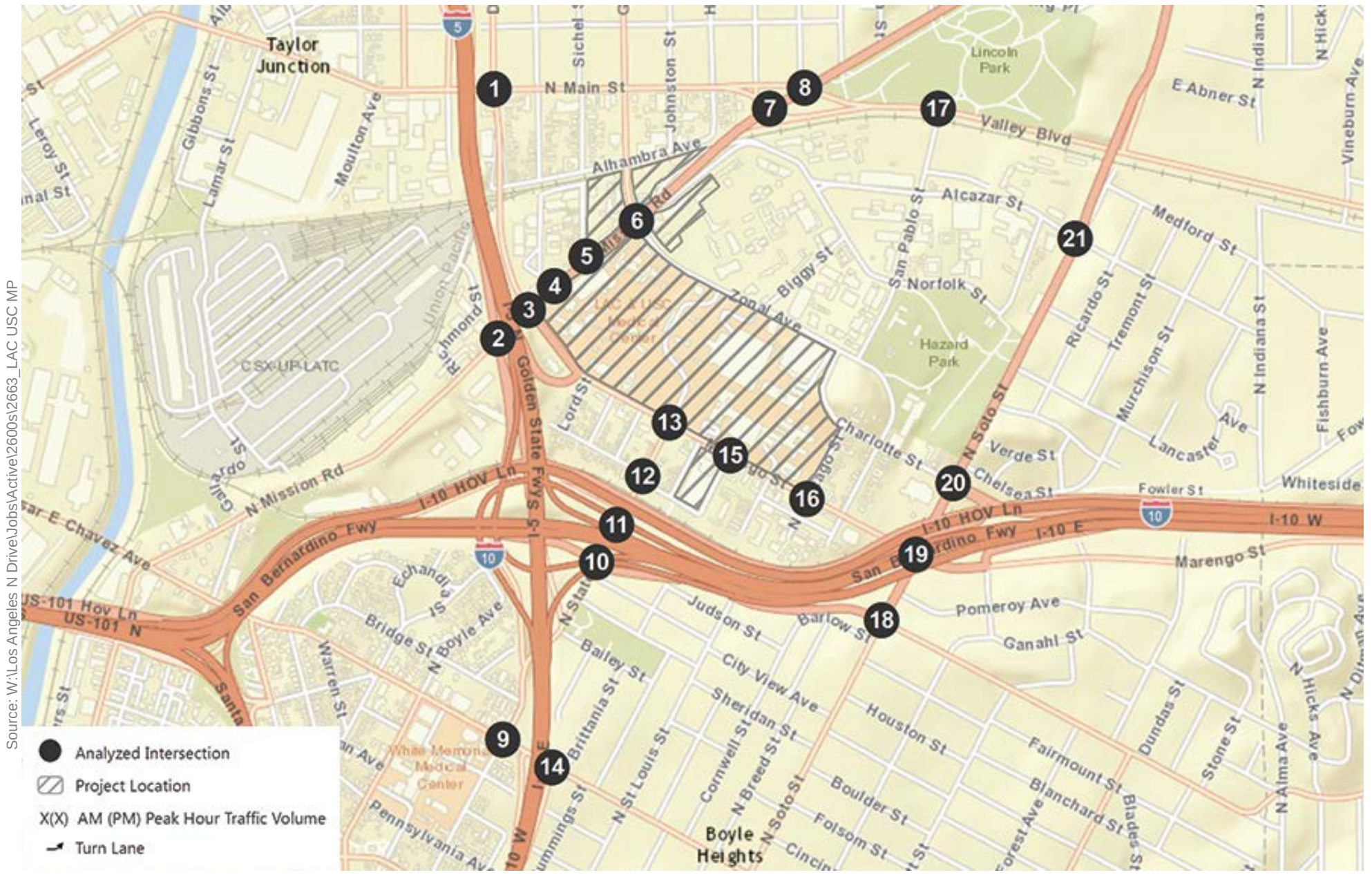


Figure 13

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Base Year (2040) Conditions



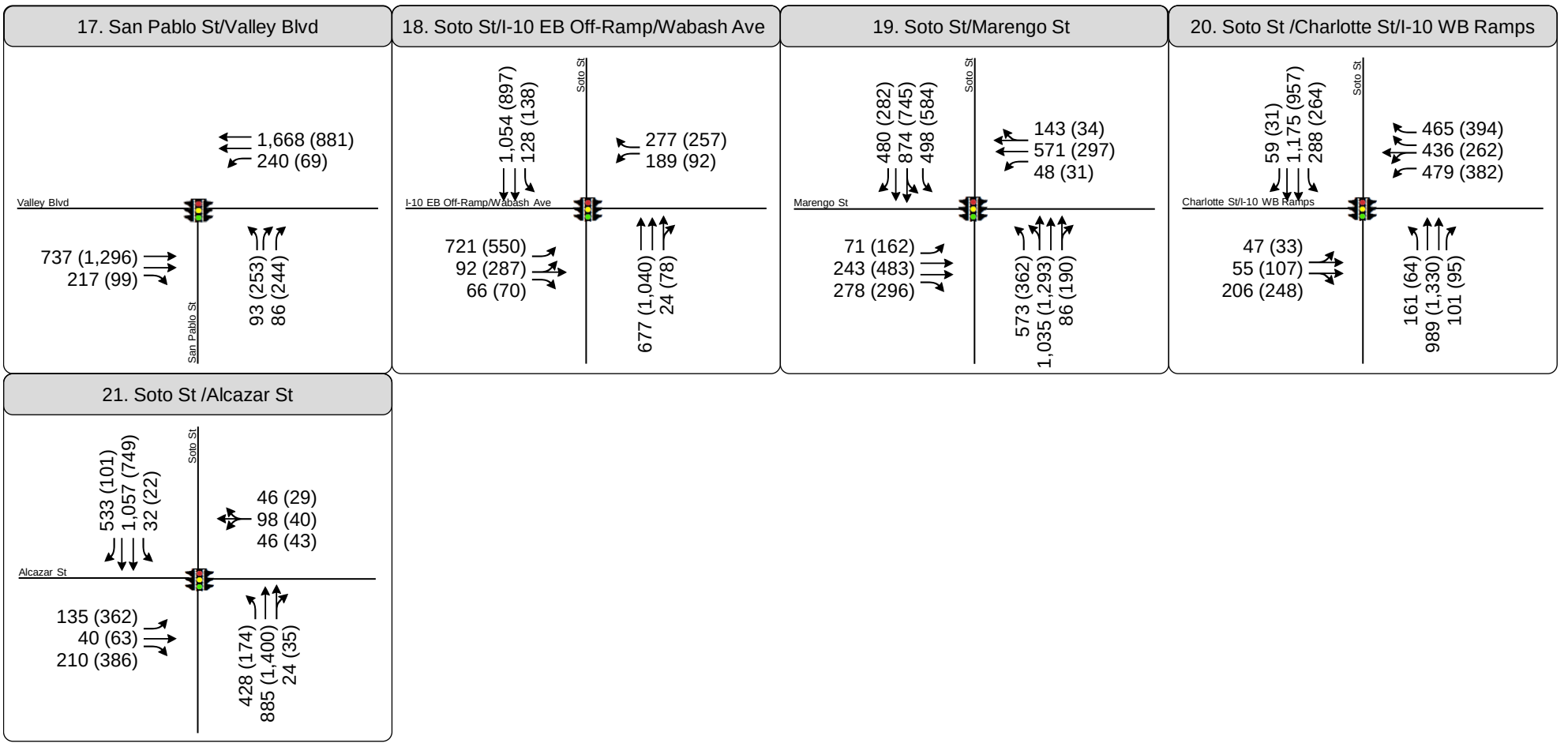


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Figure 13

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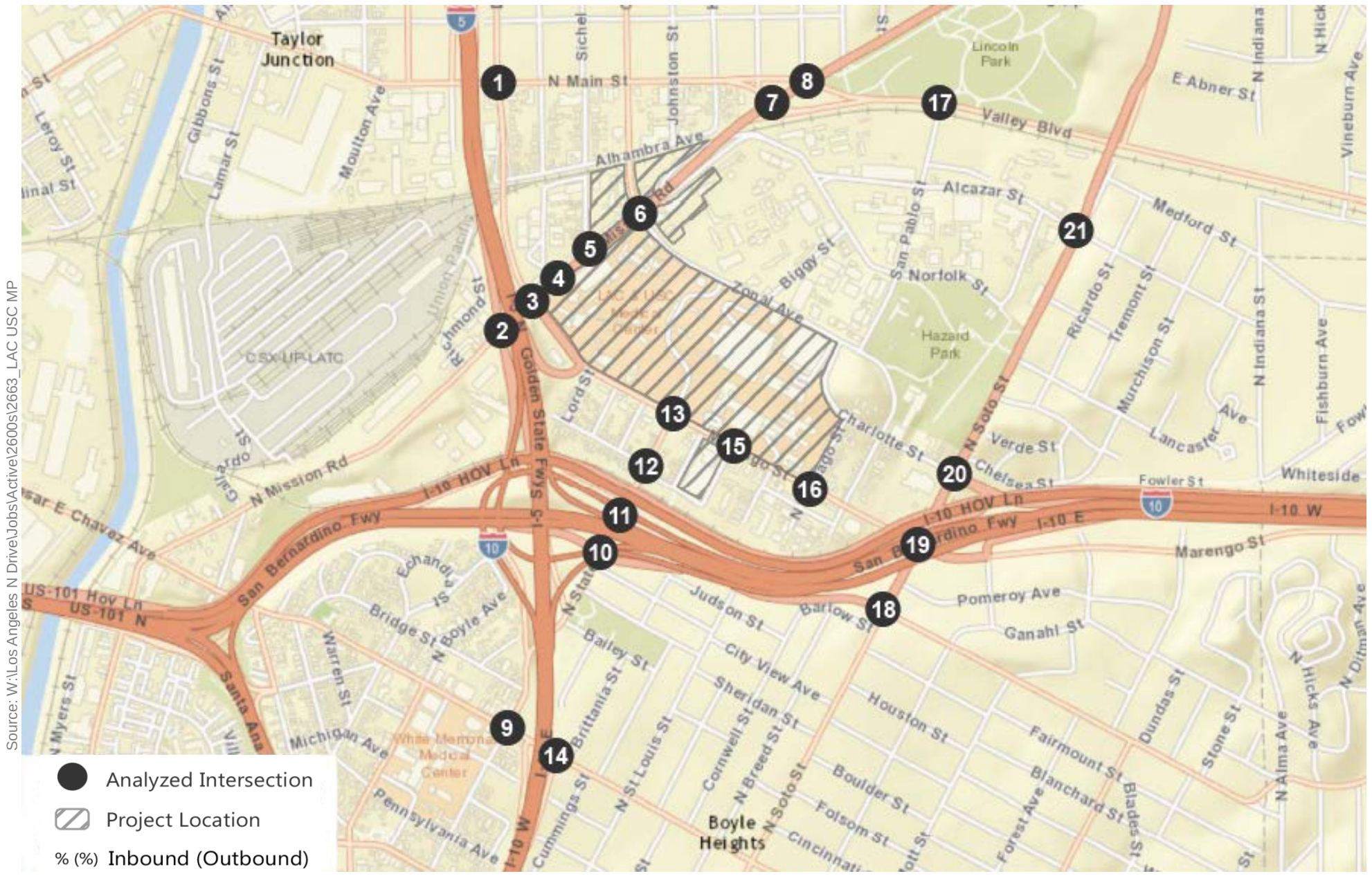

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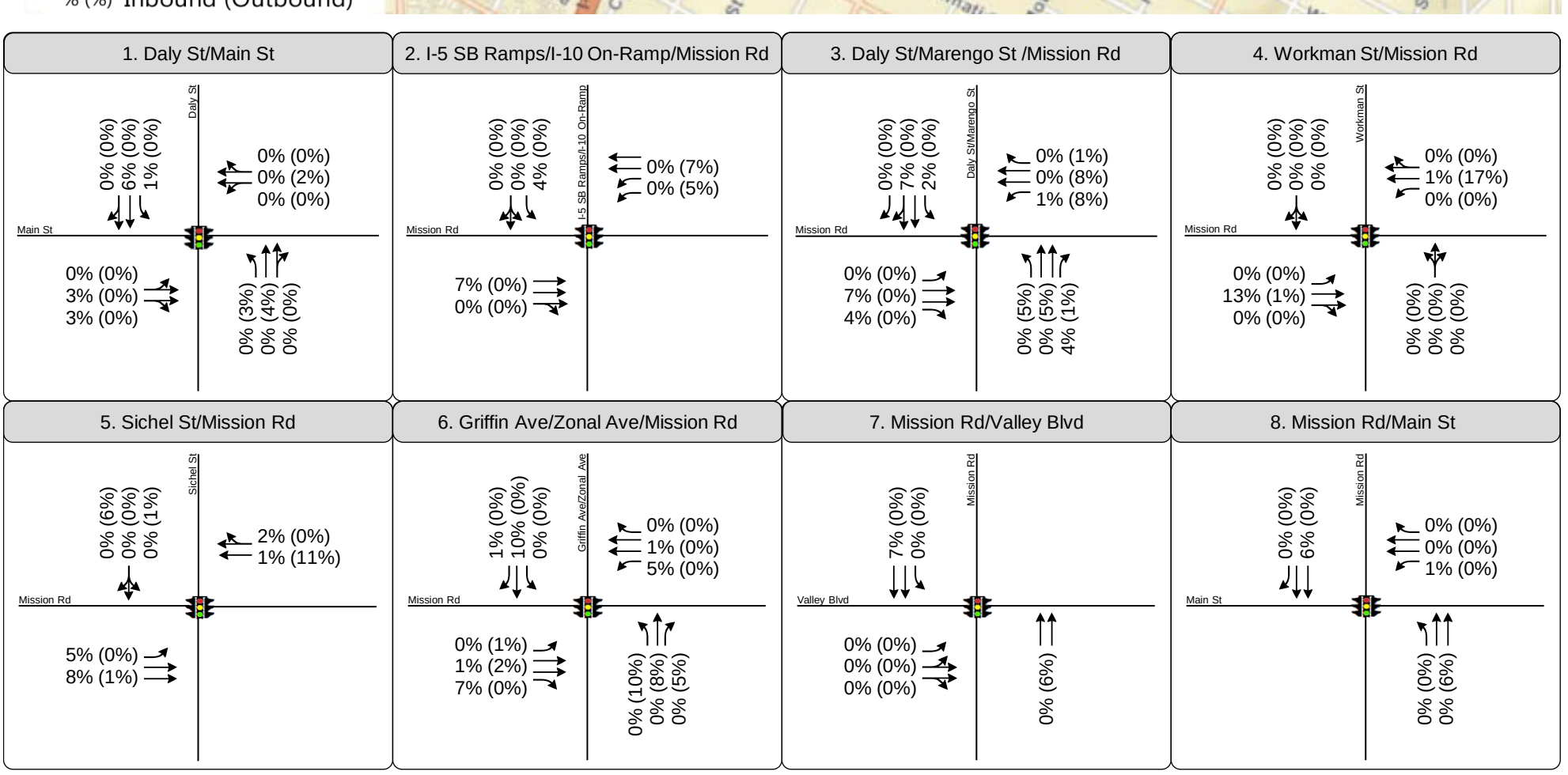
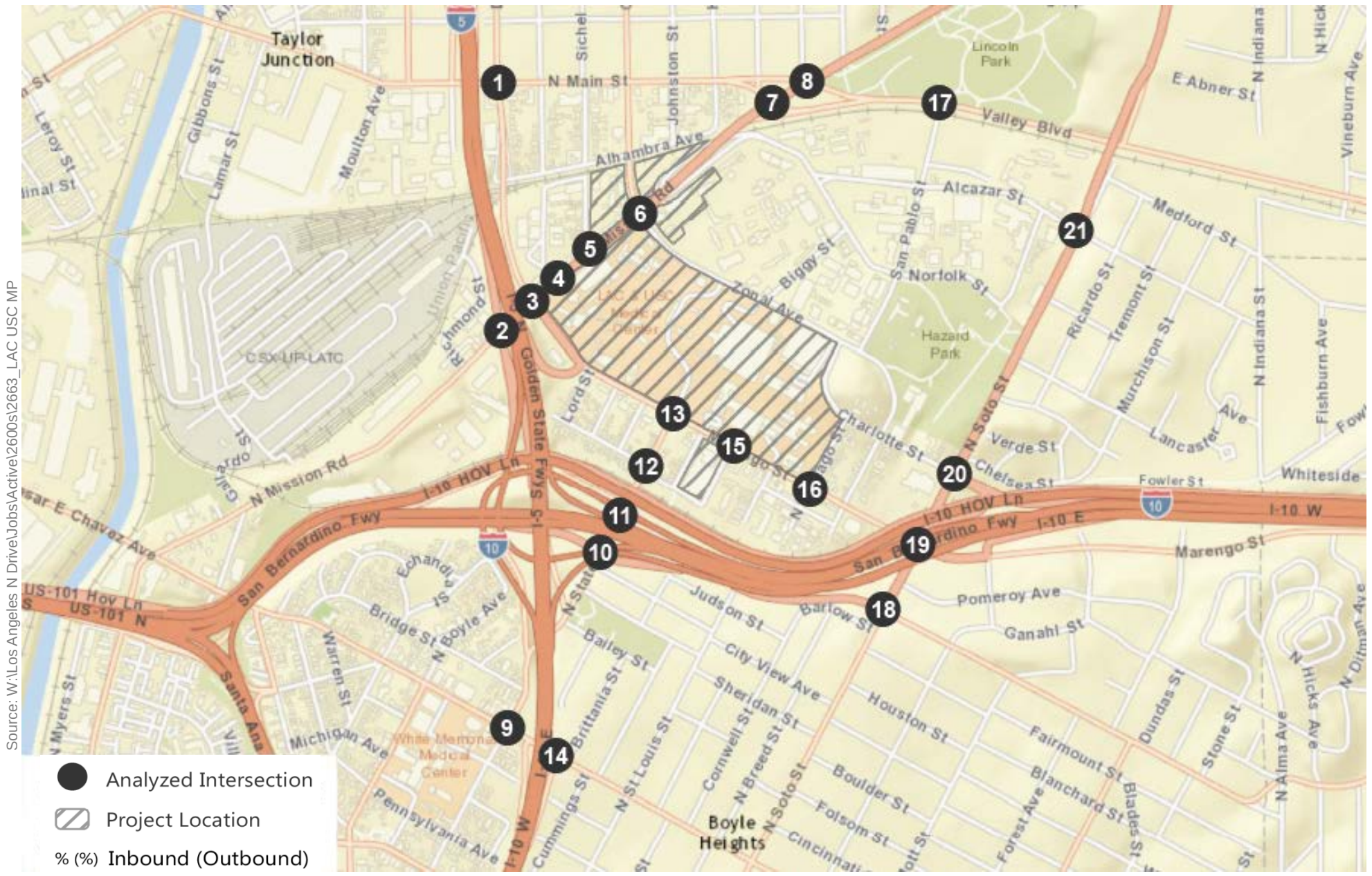


Note: Trip distribution percentages are rounded to the nearest whole percentage.

Figure 14A

Cumulative Year (2040) Project Trip Distribution and Lane Configurations



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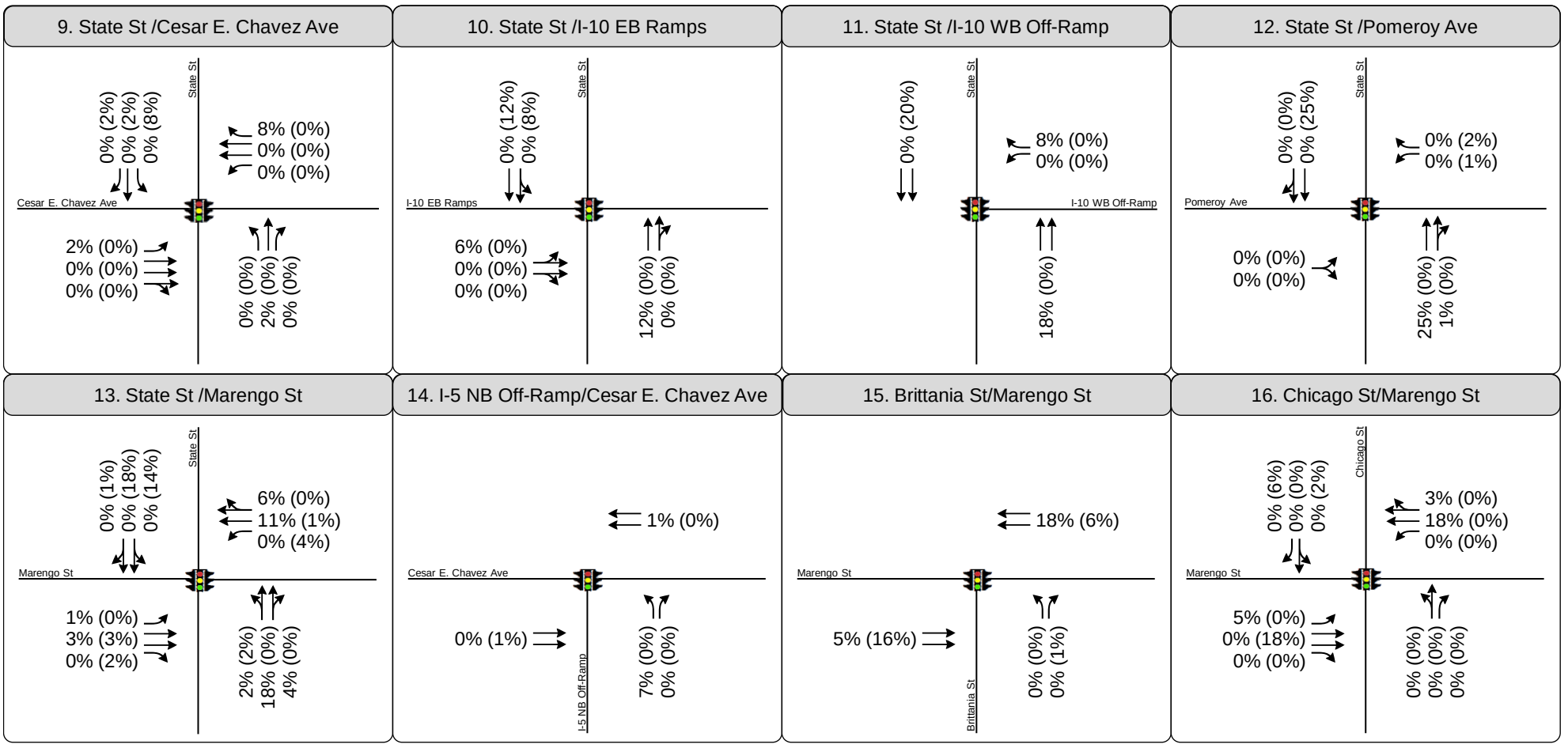
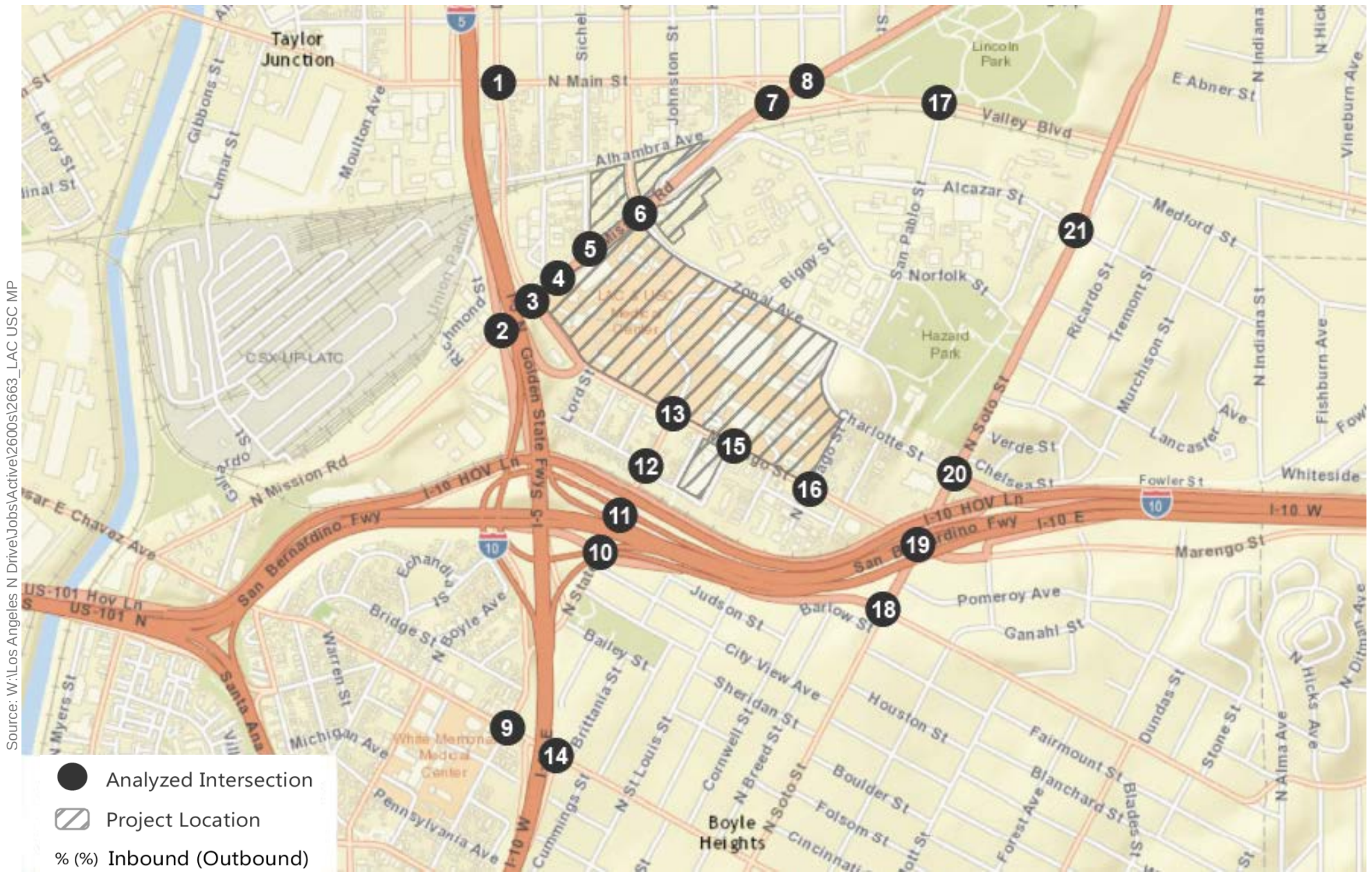
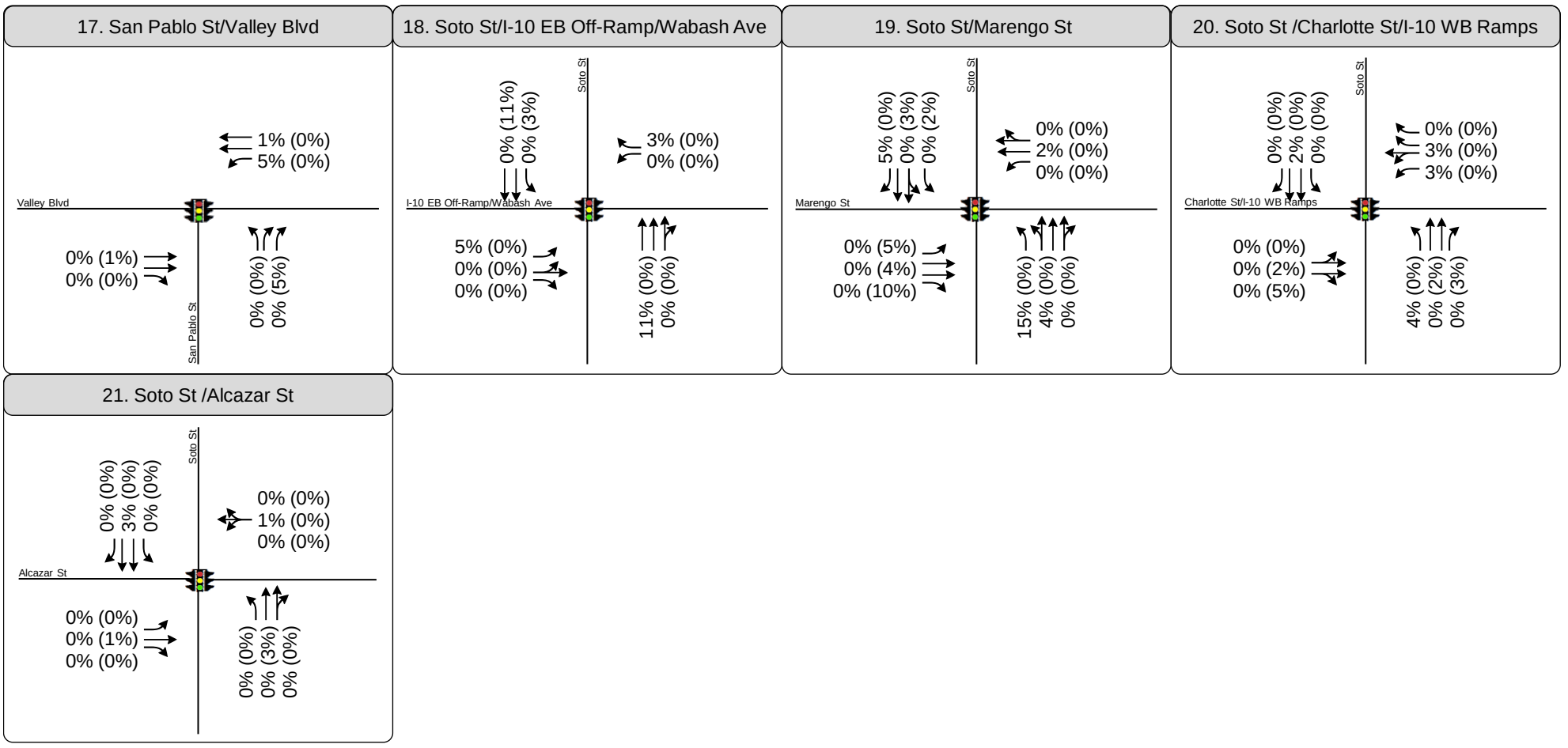


Note: Trip distribution percentages are rounded to the nearest whole percentage.

Figure 14A

Cumulative Year (2040) Project Trip Distribution and Lane Configurations



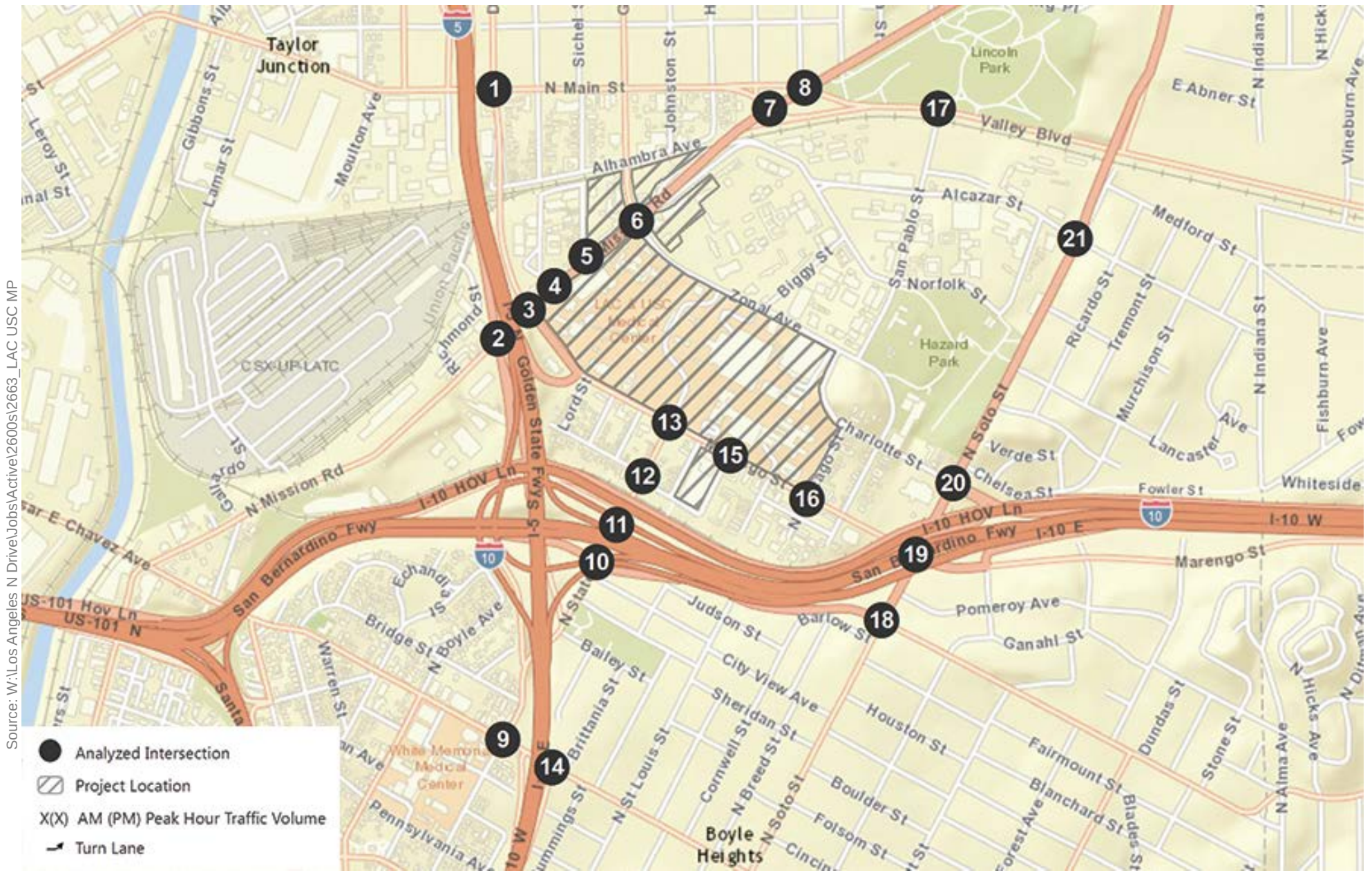


Source: W:\Los Angeles N Drive\Jobs\Active\2600s\2663_LAC USC MP

Note: Trip distribution percentages are rounded to the nearest whole percentage.

Figure 14A

Cumulative Year (2040) Project Trip Distribution and Lane Configurations



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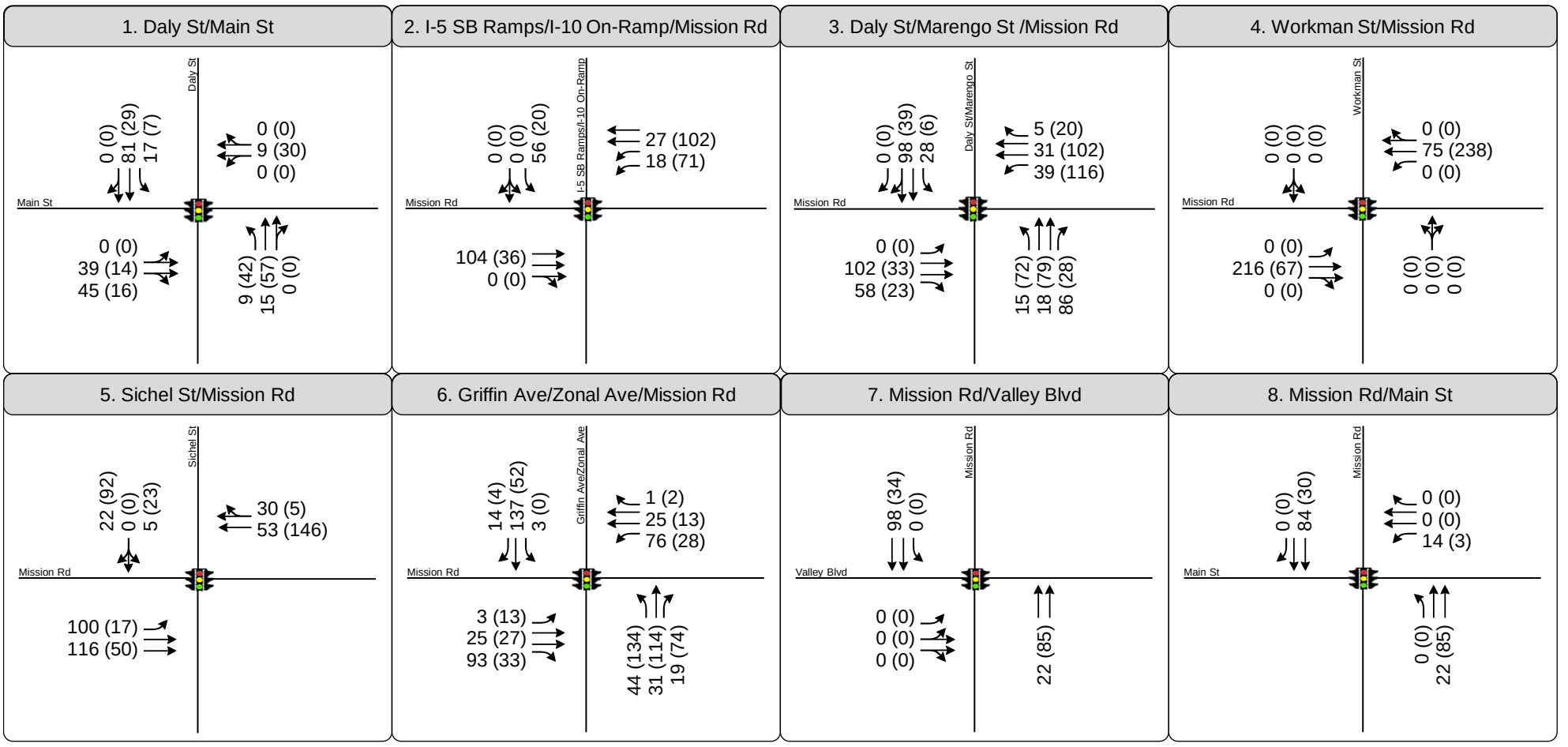
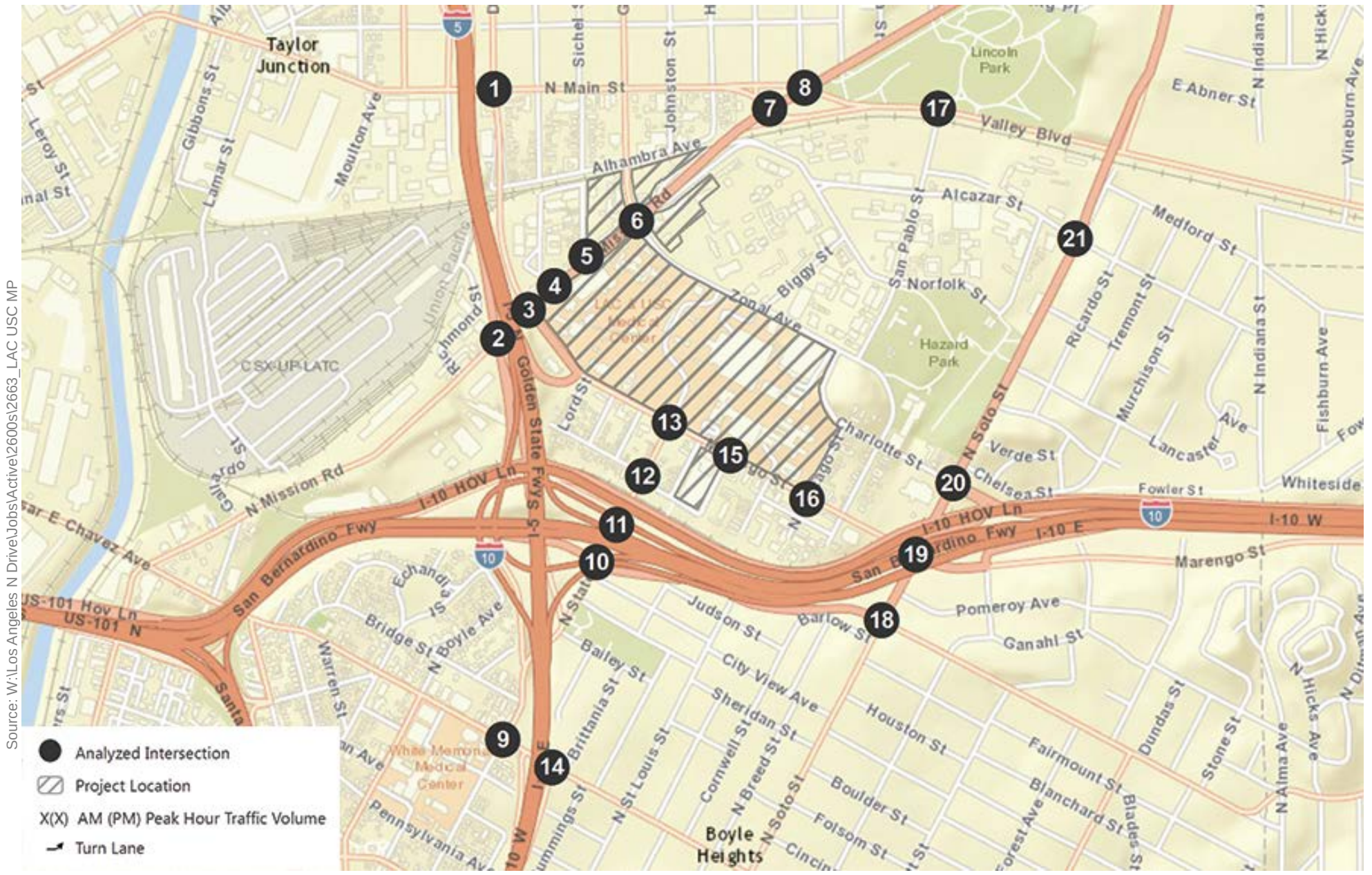


Figure 14B

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Year (2040) Project Only



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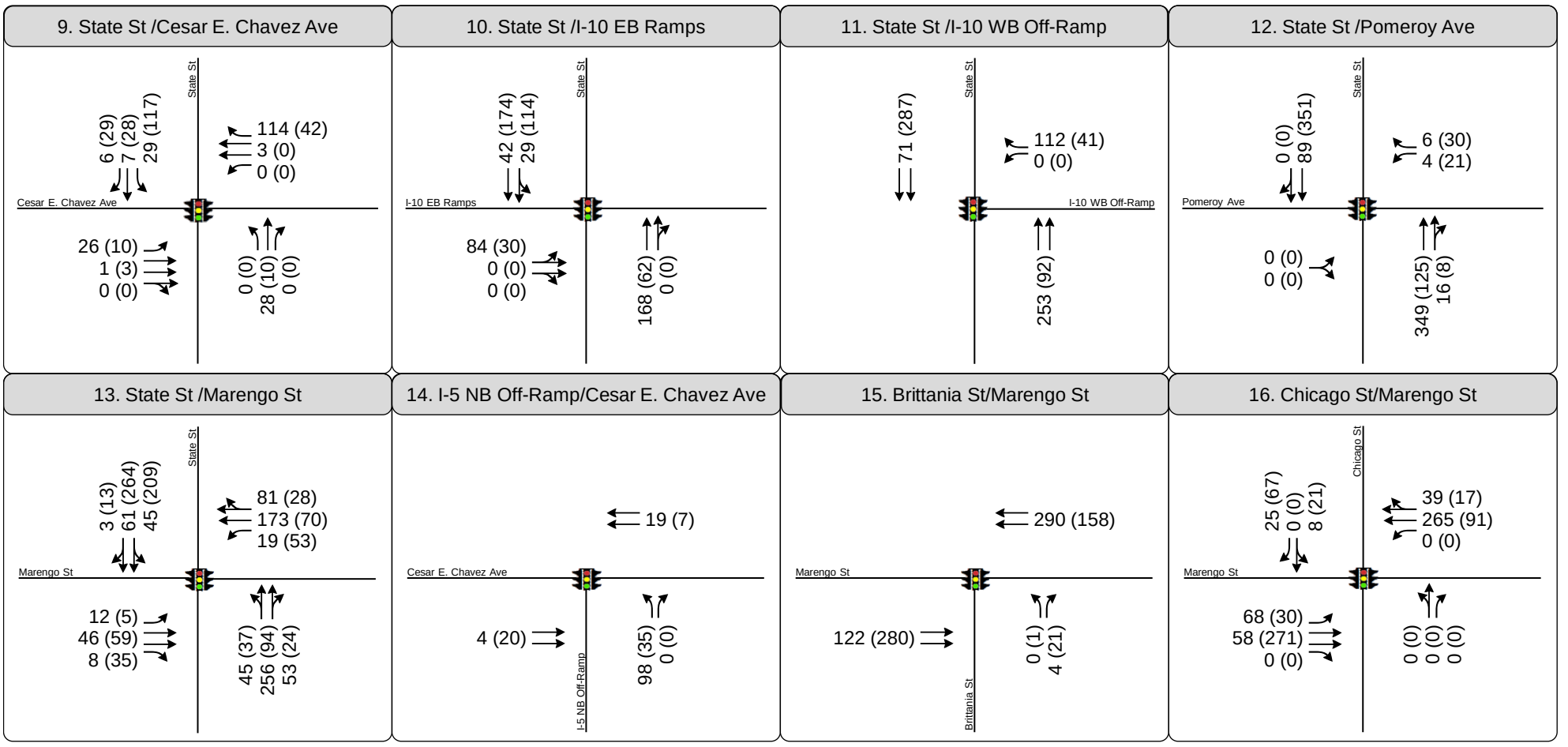
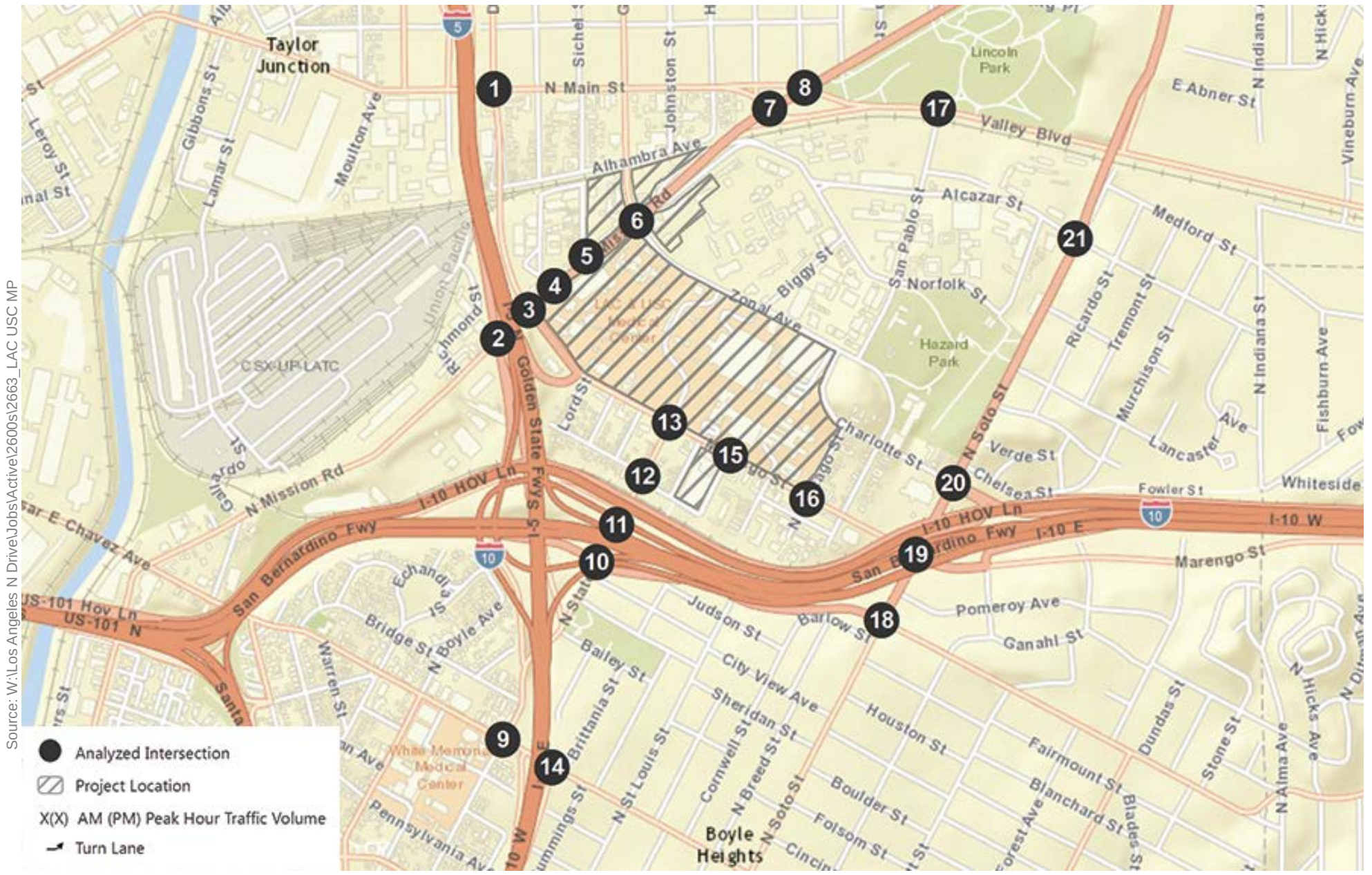


Figure 14B

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Year (2040) Project Only

Source: W:\Los Angeles N Drive\Jobs\Active\2600s\2663_LAC USC MP



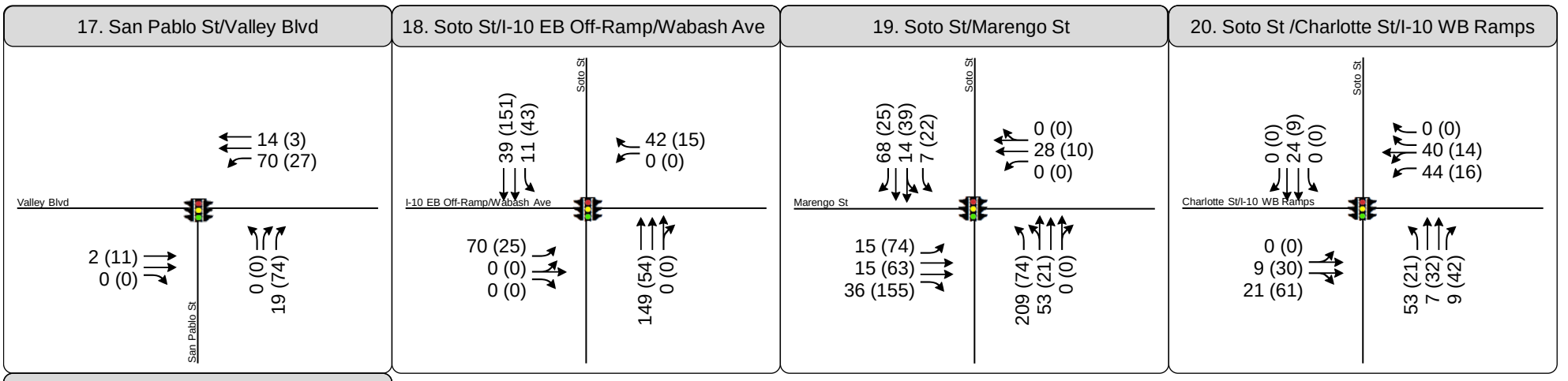
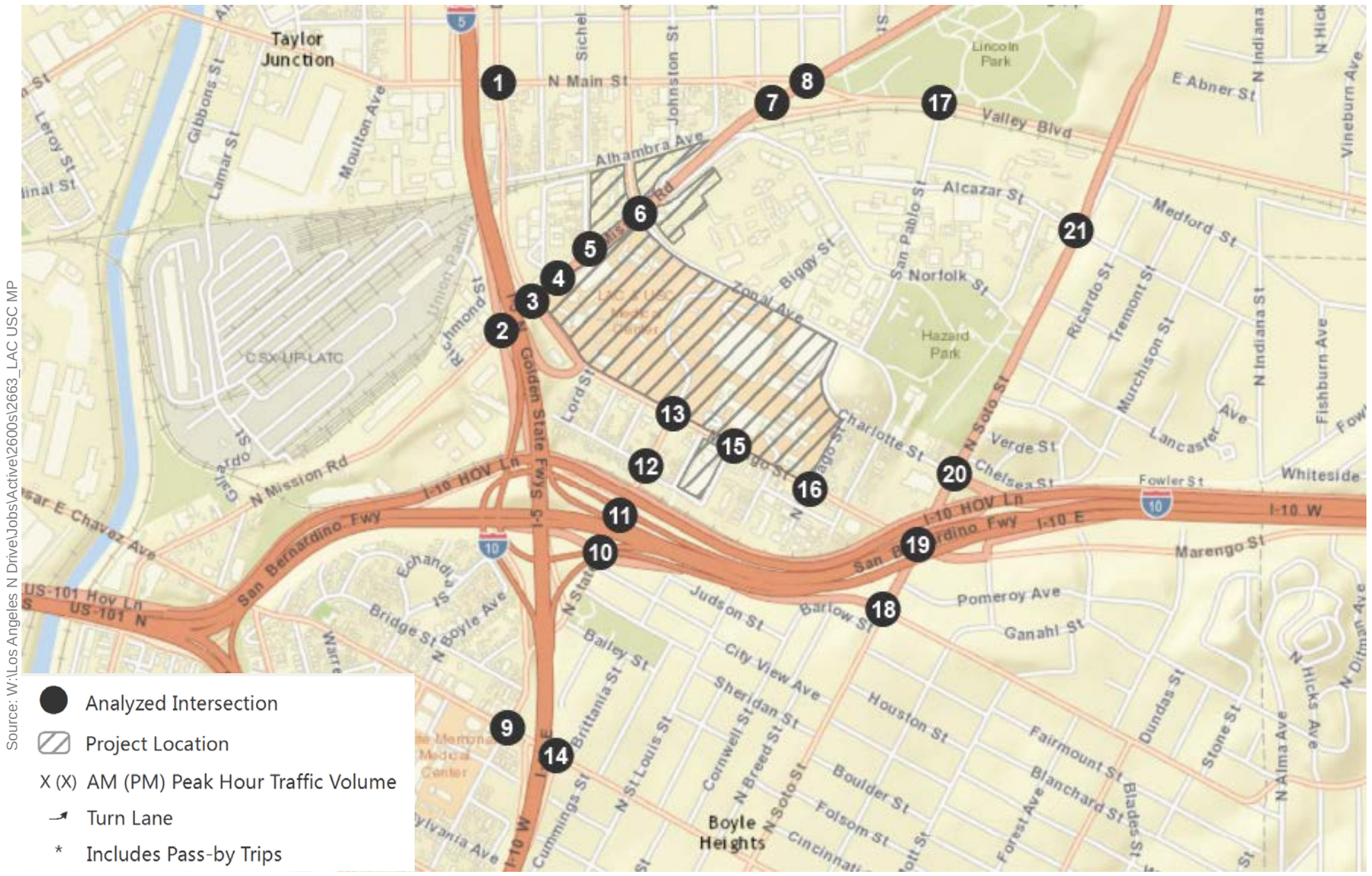


Figure 14B

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Year (2040) Project Only



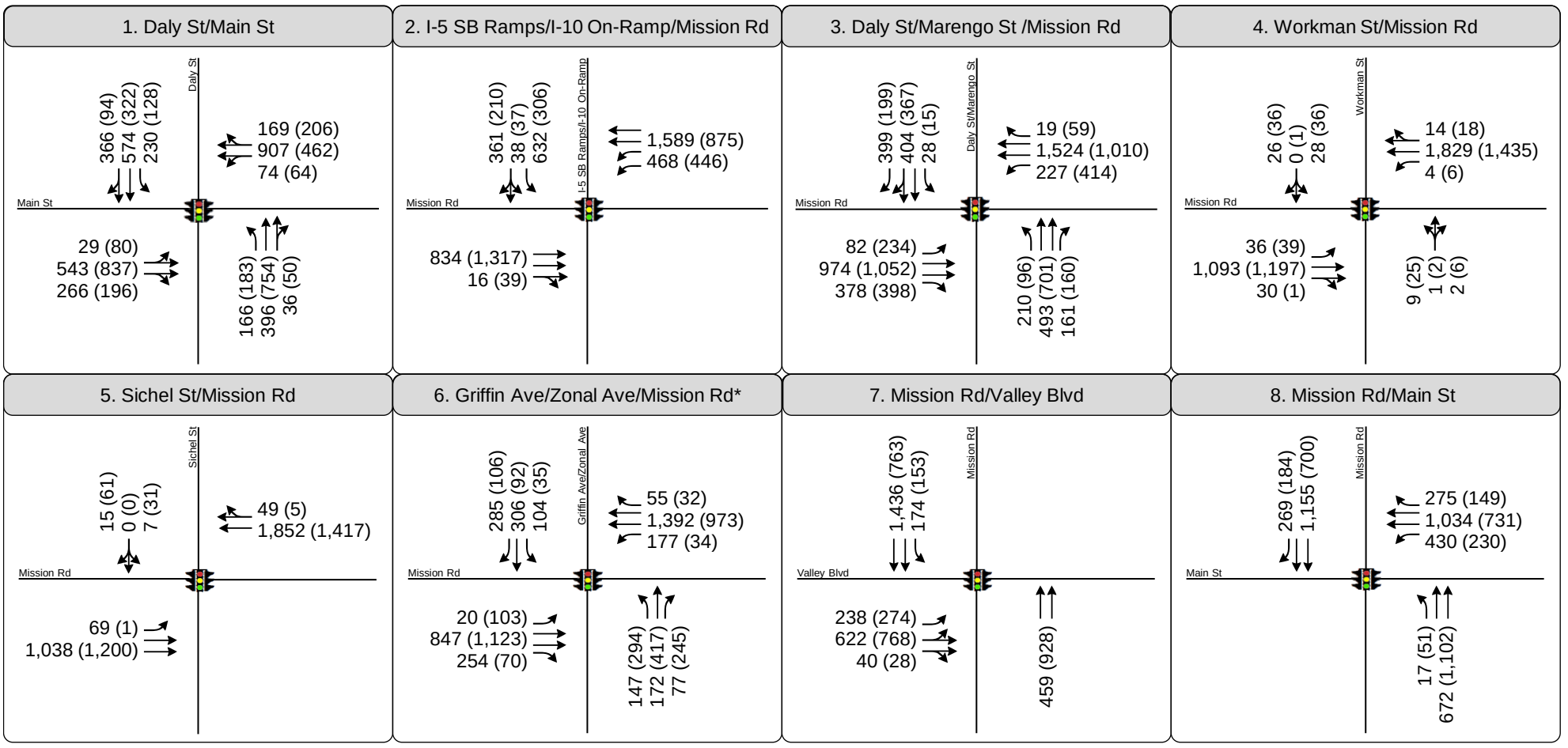
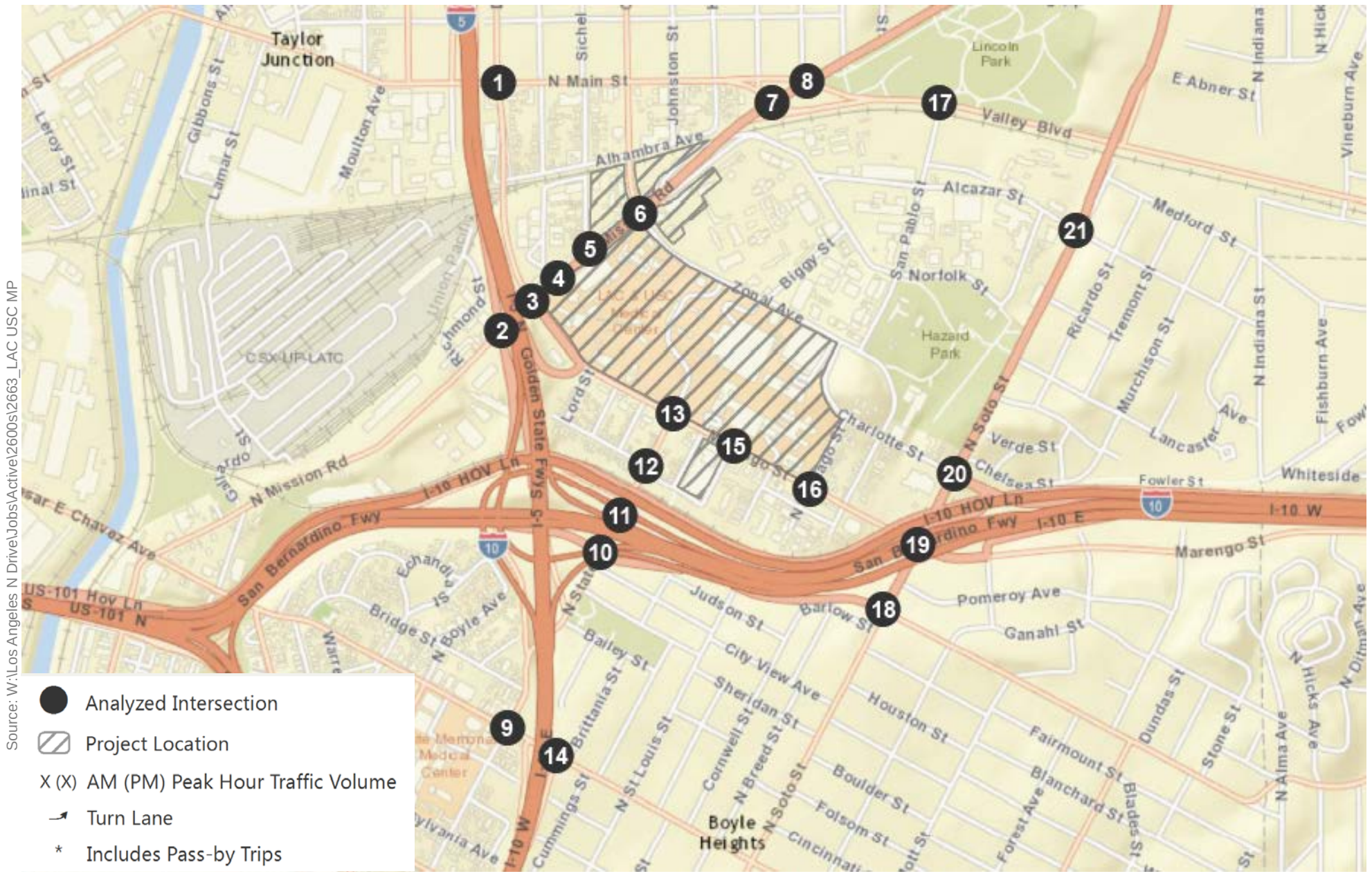


Figure 15

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Year (2040) Plus Project Conditions



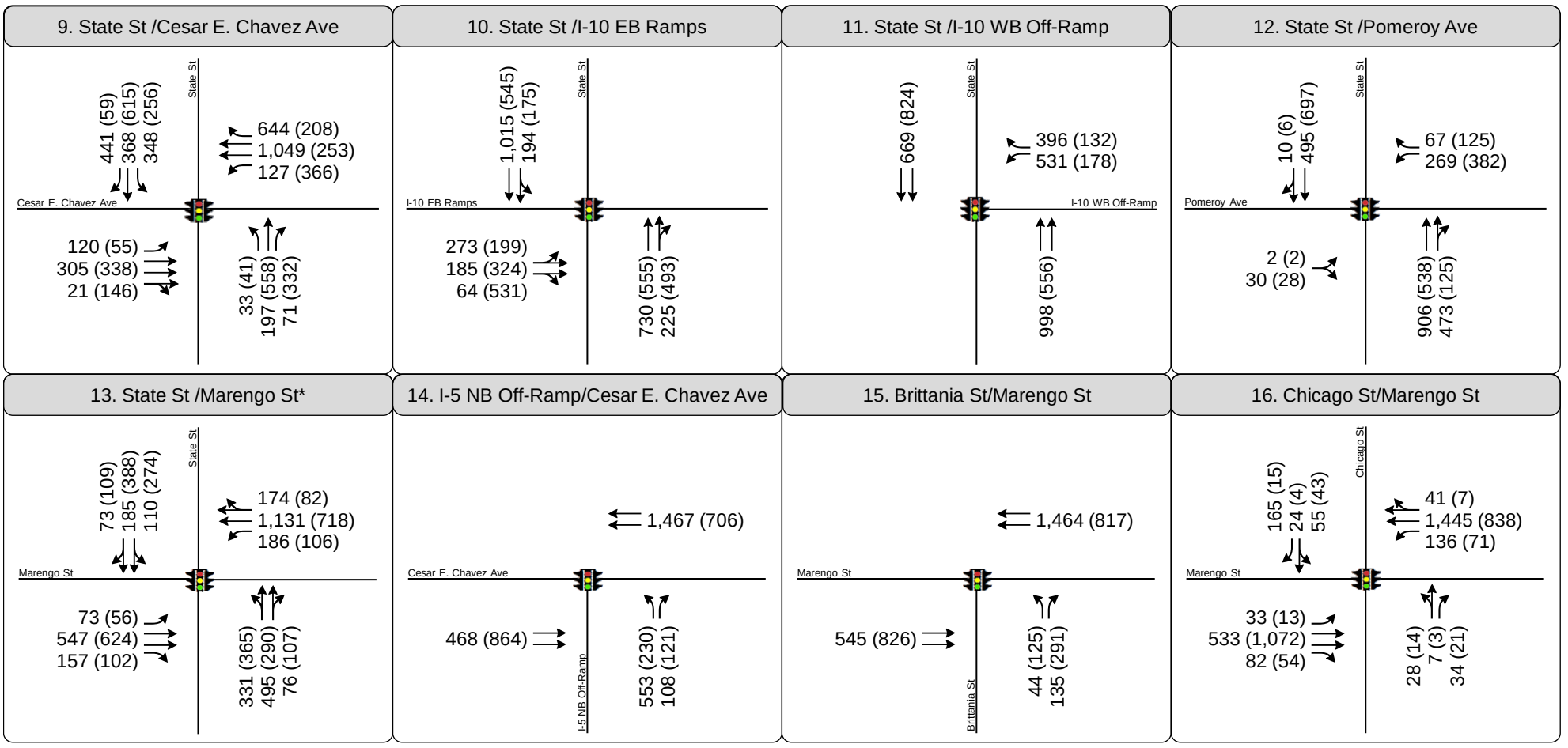


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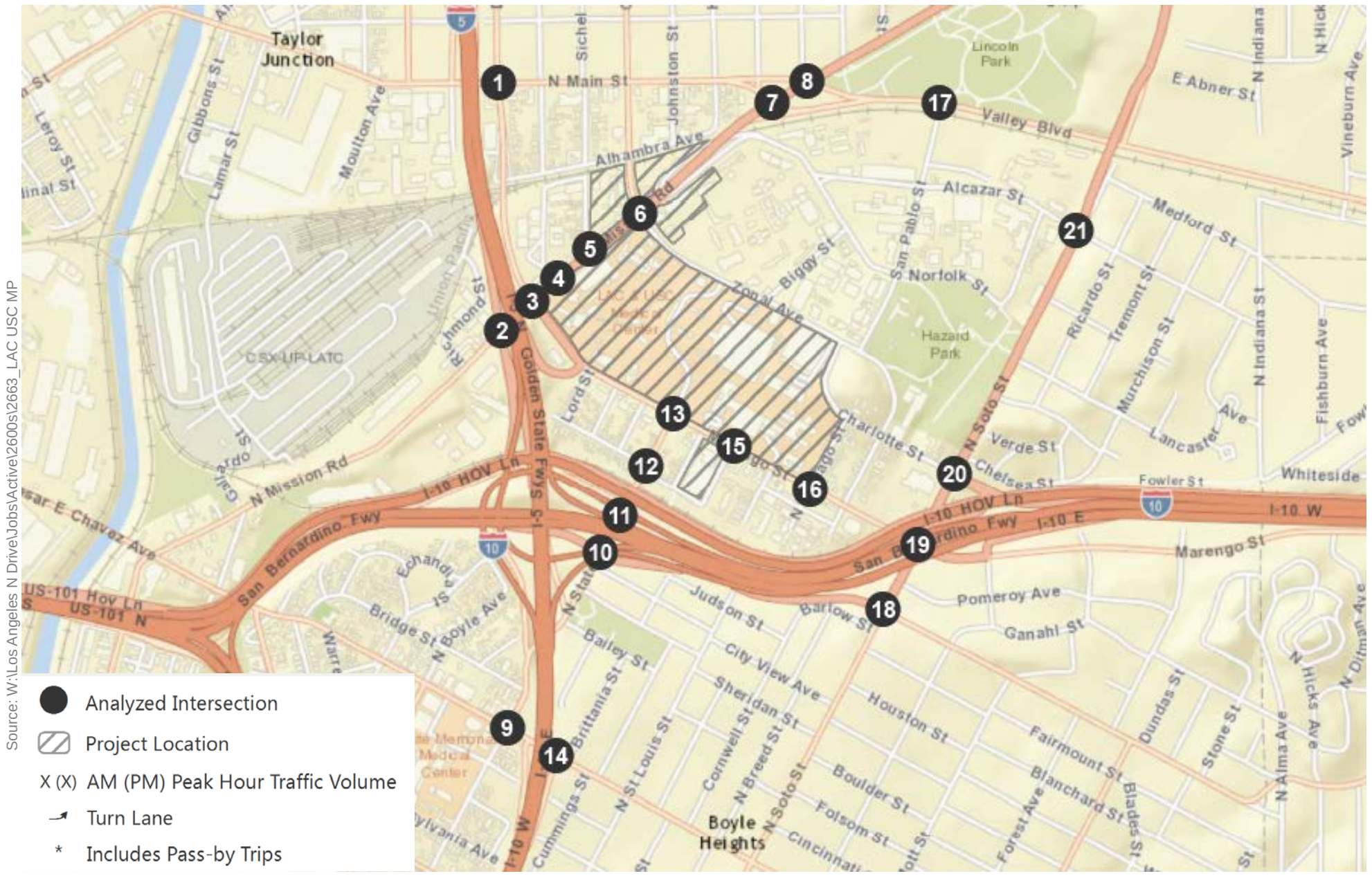
Figure 15

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Year (2040) Plus Project Conditions



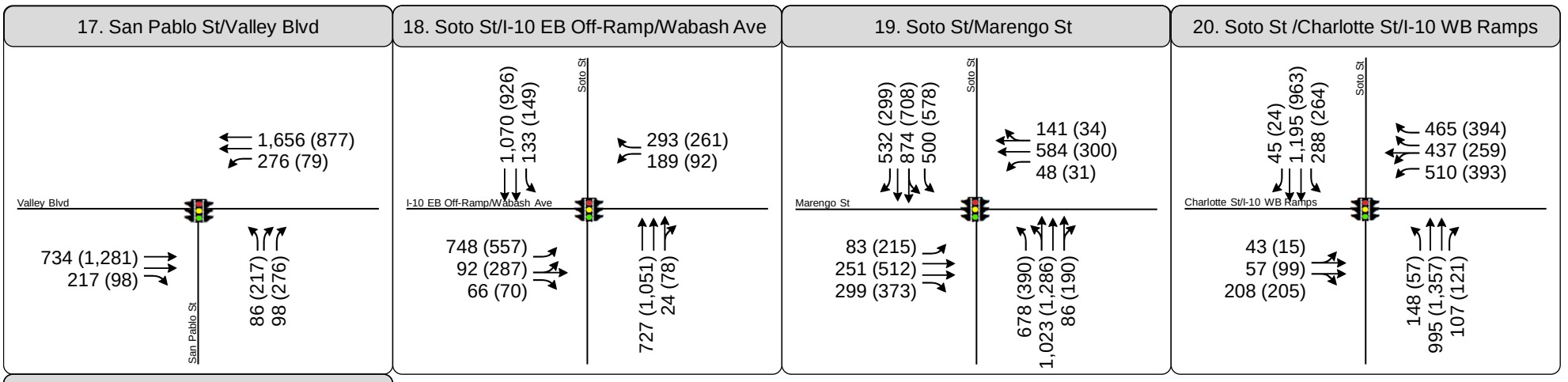


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Figure 15

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Year (2040) Plus Project Conditions

IV. INTERSECTION IMPACT ANALYSIS

This chapter presents an analysis of the potential impacts of the traffic generated by buildout of the LAC+USC Medical Center Master Plan project on the local street system. The analysis compares the projected levels of service at each study intersection under Existing Year plus Project and under cumulative conditions both with and without the project to determine potential impacts, using significance criteria established by the City of Los Angeles.

CRITERIA FOR DETERMINATION OF SIGNIFICANT TRAFFIC IMPACT

Under the LADOT guidelines, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. The following summarizes the impact criteria:

Intersection Condition With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	> 0.70 - 0.80	Equal to or greater than 0.040
D	> 0.80 - 0.90	Equal to or greater than 0.020
E, F	> 0.90	Equal to or greater than 0.010

EXISTING YEAR PLUS PROJECT TRAFFIC IMPACT ANALYSIS

The Existing Year plus Project volumes as estimated in the previous chapter were analyzed to determine potential operating conditions and traffic impacts with the addition of incremental project-generated traffic associated with buildout of the LAC+USC Medical Center Master Plan on the existing baseline conditions. Table 7 shows the results, and analysis sheets are provided in Appendix B. After applying the aforementioned City of Los Angeles significant impact criteria, it is determined that the proposed Project would result in significant impacts to the following four study intersections under Existing Year plus Project conditions:

1. Daly Street & Main Street (PM)
9. State Street & Cesar E. Chavez Boulevard (PM)
13. State Street & Marengo Street (AM and PM)
19. Soto Street & Marengo Street (AM)

TABLE 7
EXISTING BASE AND EXISTING YEAR (2014) PLUS PROJECT
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing (2014)[1] V/C[2]	Existing (2014)[1] LOS	E+P (2014) V/C[2]	E+P (2014) LOS	Project Increase In V/C	Significant Impact	E+P (2014) plus Mitigation[3] V/C[2]	E+P (2014) plus Mitigation[3] LOS	Project Increase In V/C	Significant Impact
1	Daly Street	Main Street	AM	0.755	C	0.769	C	0.014	NO	**Physical Mitigation**			
			PM	0.655	B	0.714	C	0.059	**YES**	**No Feasible Physical Mitigation**			
										TDM Mitigation (-5% in Project Trips)			
										0.768	C	0.013	NO
										0.713	C	0.058	**YES**
2	I-5 SB Ramps/1-10 On-Ramp	Mission Road	AM	0.750	C	0.759	C	0.009	NO	No Significant Impact			
			PM	0.537	A	0.546	A	0.009	NO				
3	Daly Street/Marengo Street	Mission Road	AM	0.801	D	0.820	D	0.019	NO	No Significant Impact			
			PM	0.820	D	0.769	C	-0.051	NO				
4	Workman Street	Mission Road	AM	0.555	A	0.555	A	0.000	NO	No Significant Impact			
			PM	0.467	A	0.431	A	-0.036	NO				
5	Sichel Street	Mission Road	AM	0.535	A	0.571	A	0.036	NO	No Significant Impact			
			PM	0.402	A	0.396	A	-0.006	NO				
6	Griffin Avenue/Zonal Avenue	Mission Road	AM	0.629	B	0.651	B	0.022	NO	No Significant Impact			
			PM	0.515	A	0.581	A	0.066	NO				
7	Mission Road	Valley Boulevard	AM	0.734	C	0.738	C	0.004	NO	No Significant Impact			
			PM	0.779	C	0.795	C	0.016	NO				
8	Mission Road	Main Street	AM	0.605	B	0.616	B	0.011	NO	No Significant Impact			
			PM	0.473	A	0.493	A	0.020	NO				
9	State Street	Cesar E. Chavez Avenue	AM	0.691	B	0.726	C	0.035	NO	**Physical Mitigation**			
			PM	0.769	C	0.804	D	0.035	**YES**	**No Feasible Physical Mitigation**			
										TDM Mitigation (-5% in Project Trips)			
										0.723	C	0.032	NO
										0.800	C	0.031	NO
10	State Street	I-10 EB Ramps	AM	0.593	A	0.641	B	0.048	NO	No Significant Impact			
			PM	0.643	B	0.673	B	0.030	NO				
11	State Street	I-10 WB Off-Ramp	AM	0.507	A	0.551	A	0.044	NO	No Significant Impact			
			PM	0.239	A	0.277	A	0.038	NO				
12	State Street	Pomeroy Avenue	AM	0.506	A	0.571	A	0.065	NO	No Significant Impact			
			PM	0.378	A	0.409	A	0.031	NO				
13	State Street	Marengo Street	AM	0.712	C	0.803	D	0.091	**YES**	**Physical Mitigation**			
			PM	0.626	B	0.814	D	0.188	**YES**	0.740	C	0.028	NO
										0.659	B	0.033	NO
										TDM Mitigation (-5% in Project Trips)			
										0.794	C	0.082	**YES**
										0.802	D	0.176	**YES**
14	I-5 NB Off-Ramp	Cesar E. Chavez Avenue	AM	0.684	B	0.715	C	0.031	NO	No Significant Impact			
			PM	0.319	A	0.329	A	0.010	NO				
15	Brittania Street	Marengo Street	AM	0.407	A	0.460	A	0.053	NO	No Significant Impact			
			PM	0.383	A	0.364	A	-0.019	NO				
16	Chicago Street	Marengo Street	AM	0.487	A	0.511	A	0.024	NO	No Significant Impact			
			PM	0.335	A	0.341	A	0.006	NO				
17	San Pablo Street	Valley Boulevard	AM	0.494	A	0.485	A	-0.009	NO	No Significant Impact			
			PM	0.473	A	0.453	A	-0.020	NO				
18	Soto Street	I-10 EB Off-Ramp/Wabash Avenue	AM	0.642	B	0.666	B	0.024	NO	No Significant Impact			
			PM	0.637	B	0.648	B	0.011	NO				
19	Soto Street	Marengo Street	AM	0.817	D	0.877	D	0.060	**YES**	**Physical Mitigation**			
			PM	0.710	C	0.738	C	0.028	NO	**No Feasible Physical Mitigation**			
										TDM Mitigation (-5% in Project Trips)			
										0.871	D	0.054	**YES**
										0.734	C	0.024	NO
20	Soto Street	Charlotte Street/I-10 WB Ramps	AM	0.873	D	0.889	D	0.016	NO	No Significant Impact			
			PM	0.882	D	0.866	D	-0.016	NO				
21	Soto Street	Alcazar Street	AM	0.689	B	0.700	B	0.011	NO	No Significant Impact			
			PM	0.683	B	0.692	B	0.009	NO				

Notes:

** Indicated oversaturated conditions. Delay cannot be calculated.

[1]Existing traffic counts were collected in mid-May 2014 towards the end of the Spring semester at the USC Health Science Campus. In order to reflect regular school year conditions, student-related trip estimates were assigned to the existing roadway network.

[2]The signalized intersections listed above are currently operating under the ATSAC system. A total credit of 0.07 V/C ratio was included in this analysis for all signalized intersections.

[3]Mitigation measures proposed at significantly impacted intersections are either physical mitigation measures, such as changes in lane geometry or signal control, or a TDM measure that reduces the project volumes traversing an intersection by 5%.

CUMULATIVE BASE INTERSECTION OPERATING CONDITIONS

The year 2040 future base peak hour traffic volumes were analyzed to determine the projected V/C ratio and LOS for each of the analyzed intersections. Table 8 summarizes the future LOS. As indicated, all but two of the 21 intersections analyzed for impacts are projected to operate at LOS D or better during the morning and afternoon peak hours. The intersections of Daly Street/Marengo Street & Mission Road (study intersection 3) and Soto Street & Charlotte Street/I-10 Westbound On-/Off-Ramps (study intersection 20) are projected to operate at LOS E during one or both of the peak hours.

The projected Cumulative Year plus Project peak hour traffic volumes shown in Figure 14 were analyzed to determine the projected year 2040 operating conditions with the addition of the proposed project traffic. The results of the Cumulative Year plus Project analysis are presented in Table 8, and analysis sheets are provided in Appendix B. Using the criteria for determination of significant impacts, the proposed Project would create significant traffic impacts at the following four analyzed intersections under Cumulative Year plus Project conditions:

9. State Street & Cesar E. Chavez Boulevard (PM)
13. State Street & Marengo Street (AM and PM)
19. Soto Street & Marengo Street (AM and PM)
20. Soto Street & Charlotte Street/I-10 Westbound On-/Off-Ramps (AM)

Unsignalized Intersection Signal Warrant Analysis

The intersection of State Street & Zonal Avenue is currently unsignalized. The City of Los Angeles traffic analysis methodology and significance criteria are for signalized intersections only. As such, the City does not provide impact thresholds for unsignalized intersections. Rather, the LADOT Traffic Study Policies & Procedures states that "unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device."

Traffic volumes and lane configurations, as presented in Appendix C, were used to prepare signal warrant analyses at the unsignalized intersections under Existing, Existing Year plus Project, Cumulative Base Year, and Cumulative Year plus Project conditions. Based on the peak hour volume warrant thresholds, a signal would be warranted during one or both peak hours under each plus project scenario. Table 9 shows a summary of the signal warrant analysis results. Analysis sheets are also provided in Appendix C.

TABLE 8
CUMULATIVE BASE AND CUMULATIVE YEAR (2040) PLUS PROJECT
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name	E/W Street Name	Peak Hour	Cumulative Base (2040) V/C[1]	Cumulative Base (2040) LOS	C+P (2040) V/C[1]	C+P (2040) LOS	Project Increase In V/C	Significant Impact	C+P (2040) plus Mitigation[2] V/C[1]	C+P (2040) plus Mitigation[2] LOS	Project Increase In V/C	Significant Impact
1	Daly Street	Main Street	AM	0.786	C	0.801	D	0.015	NO	No Significant Impact			
			PM	0.739	C	0.747	C	0.008	NO				
2	I-5 SB Ramps/1-10 On-Ramp	Mission Road	AM	0.809	D	0.820	D	0.011	NO	No Significant Impact			
			PM	0.574	A	0.584	A	0.010	NO				
3	Daly Street/Marengo Street	Mission Road	AM	0.842	D	0.861	D	0.019	NO	No Significant Impact			
			PM	0.901	E	0.850	D	-0.051	NO				
4	Workman Street	Mission Road	AM	0.581	A	0.581	A	0.000	NO	No Significant Impact			
			PM	0.512	A	0.476	A	-0.036	NO				
5	Sichel Street	Mission Road	AM	0.558	A	0.595	A	0.037	NO	No Significant Impact			
			PM	0.442	A	0.436	A	-0.006	NO				
6	Griffin Avenue/Zonal Avenue	Mission Road	AM	0.659	B	0.679	B	0.020	NO	No Significant Impact			
			PM	0.563	A	0.599	A	0.036	NO				
7	Mission Road	Valley Boulevard	AM	0.817	D	0.820	D	0.003	NO	No Significant Impact			
			PM	0.826	D	0.842	D	0.016	NO				
8	Mission Road	Main Street	AM	0.630	B	0.641	B	0.011	NO	No Significant Impact			
			PM	0.492	A	0.511	A	0.019	NO				
9	State Street	Cesar E. Chavez Avenue	AM	0.731	C	0.765	C	0.034	NO	**Physical Mitigation**			
			PM	0.839	D	0.875	D	0.036	**YES**	**No Feasible Physical Mitigation**			
										TDM Mitigation (-5% in Project Trips)			
										0.763	C	0.032	NO
										0.870	D	0.031	**YES**
10	State Street	I-10 EB Ramps	AM	0.635	B	0.679	B	0.044	NO	No Significant Impact			
			PM	0.691	B	0.720	C	0.029	NO				
11	State Street	I-10 WB Off-Ramp	AM	0.543	A	0.587	A	0.044	NO	No Significant Impact			
			PM	0.256	A	0.293	A	0.037	NO				
12	State Street	Pomeroy Avenue	AM	0.531	A	0.595	A	0.064	NO	No Significant Impact			
			PM	0.391	A	0.436	A	0.045	NO				
13	State Street	Marengo Street	AM	0.751	C	0.843	D	0.092	**YES**	**Physical Mitigation**			
			PM	0.686	B	0.859	D	0.173	**YES**	0.773	C	0.022	NO
										0.692	B	0.006	NO
										TDM Mitigation (-5% in Project Trips)			
										0.833	D	0.082	**YES**
										0.846	D	0.160	**YES**
14	I-5 NB Off-Ramp	Cesar E. Chavez Avenue	AM	0.727	C	0.758	C	0.031	NO	No Significant Impact			
			PM	0.331	A	0.341	A	0.010	NO				
15	Brittania Street	Marengo Street	AM	0.425	A	0.478	A	0.053	NO	No Significant Impact			
			PM	0.415	A	0.369	A	-0.046	NO				
16	Chicago Street	Marengo Street	AM	0.510	A	0.535	A	0.025	NO	No Significant Impact			
			PM	0.343	A	0.345	A	0.002	NO				
17	San Pablo Street	Valley Boulevard	AM	0.518	A	0.509	A	-0.009	NO	No Significant Impact			
			PM	0.547	A	0.525	A	-0.022	NO				
18	Soto Street	I-10 EB Off-Ramp/Wabash Avenue	AM	0.705	C	0.729	C	0.024	NO	No Significant Impact			
			PM	0.685	B	0.696	B	0.011	NO				
19	Soto Street	Marengo Street	AM	0.897	D	0.955	E	0.058	**YES**	**Physical Mitigation**			
			PM	0.788	C	0.814	D	0.026	**YES**	**No Feasible Mitigation**			
										TDM Mitigation (-5% in Project Trips)			
										0.949	E	0.052	**YES**
										0.811	D	0.023	**YES**
20	Soto Street	Charlotte Street/I-10 WB Ramps	AM	0.966	E	0.976	E	0.010	**YES**	**Physical Mitigation**			
			PM	0.967	E	0.952	E	-0.015	NO	**No Feasible Mitigation**			
										TDM Mitigation (-5% in Project Trips)			
										0.973	E	0.007	NO
										0.948	E	-0.019	NO
21	Soto Street	Alcazar Street	AM	0.800	C	0.812	D	0.012	NO	No Significant Impact			
			PM	0.752	C	0.759	C	0.007	NO				

Notes:

** Indicated oversaturated conditions. Delay cannot be calculated.

[1] The signalized intersections listed above are assumed to operate under both the ATSAC and ATCS system by 2040. A total credit of 0.10 V/C ratio was included in this analysis for all signalized intersections.

[2] Mitigation measures proposed at significantly impacted intersections are either physical mitigation measures, such as changes in lane geometry or signal control, or a TDM measure that reduces the project volumes traversing an intersection by 5%.

TABLE 9
INTERSECTION
SIGNAL WARRANT ANALYSIS[1]

ID	N/S Street Name	E/W Street Name	Peak Hour	Existing (2014) Signal Met?	Existing (Year 2014) Plus Project Signal Met?	Cumulative Base (Year 2040) Signal Met?	Cumulative (Year 2040) Plus Project Signal Met?
22	State Street	Zonal Avenue	AM	NO	NO	NO	YES
			PM	NO	YES	NO	YES

Notes:

[1] In accordance with LADOT guidelines, the unsignalized intersection above was analyzed for signal warrants but not for level of service impacts.

TRANSPORTATION DEMAND MANAGEMENT MEASURES

The LAC+USC Medical Center is long-established at this site and has an ongoing program of transportation demand management (TDM) measures to minimize single-occupant auto trips and to support non-automotive trips. Ongoing measures include regularly scheduled newsletters and rideshare events, rideshare matching services, a transit information center with commuter information kiosks, flexible time schedules for many employees, guaranteed rides home, preferential parking for rideshare commuters and bicycle parking. The proposed Master Plan project supports those measures and includes design features that would be expected to enhance the usage of walking, biking, and transit modes as alternatives to the automobile. Potential additional TDM program elements that could be explored to reduce vehicle trips include:

- provide bicycle parking for new development that exceeds the County's code requirement;
- provide other bicycle-supportive amenities such as bicycle lockers;
- locate a station of a bicycle-sharing system on-site;
- expand the County-operated Wellness Center Shuttle to include more stops on or near the site; and,
- work cooperatively with other transit providers (Metro, LADOT, Metrolink, Foothill Transit, USC) to establish new transit stops or stations or to upgrade existing transit stops adjacent to the Medical Center or in the local area.

If these actions were to result in a 5% reduction in net new peak hour trips to and from the campus, relative to the what is analyzed in this study, the impact at State Street & Cesar E. Chavez Boulevard (Study Intersection 9) under Existing plus Project conditions would be mitigated, though that intersection would remain impacted under Cumulative Year plus Project conditions. In addition, the cumulative impact at Soto Street & Charlotte Street/I-10 Westbound On-/Off-Ramps (Study Intersection 20) under Cumulative Year plus Project conditions would be mitigated. The other locations identified where significant impacts were identified would be partially mitigated through expanded TDM measures, as shown in Tables 7 and 8.

INTERSECTION MITIGATION MEASURES

The traffic impact analysis determined that the Project would result in significant impacts at up to five locations under plus project conditions during one or both peak hours. Proposed mitigation measures for each impact are described below.

Intersection with Proposed Physical Mitigation Measures

The following impacts would be able to be mitigated to less than significant levels with improvements to the roadway network, as described below.

State Street & Marengo Street (Study Intersection 13)
The intersection of State Street & Marengo Street has a significant impact during the AM and PM peak hours under Existing Year plus Project conditions and under Cumulative Year plus Project conditions. Full mitigation of the impact consists of separate elements. One element is to widen and reconfigure the

southbound approach on State Street (within the LAC+USC Medical Center) to provide one left-turn lane, one through lane and one shared through/right-turn lane. Traffic signal enhancements, such as additional closed-circuit television cameras, may also be included. Another element of the proposed mitigation measure would be to relocate the westbound bus stop eastward to allow for the introduction of a separate westbound right-turn lane. Consultation with affected transit providers would be necessary, as well as with LADOT in order to relocate this bus stop. Partial mitigation would be achieved if only one of these elements were implemented.

The aforementioned physical improvements are subject to LADOT's acceptance and approval, and if LADOT determines that one or more of proposed improvements are not feasible, the impacts at the affected intersections would remain significant and unavoidable.

Intersections with No Feasible Physical Mitigation Measures

The significantly impacted locations listed below do not have feasible mitigation measures, and impacts at these intersections would be considered to be "significant and unavoidable." This is generally due to the intersection being fully built out or otherwise physically constrained, or the potential improvement conflicting with current transportation policy.

Daly Street & Main Street (Study Intersection 1)
The intersection of Daly Street & Main Street has a significant impact during the PM peak hour under Existing Year plus Project conditions. A potential mitigation measure was explored that would reconfigure the eastbound approach to provide a separate right-turn lane, resulting in one shared through/left-turn lane, one through lane and one right-turn lane. This improvement was determined to be infeasible due to the constrained roadway width (56 feet curb to curb) and need to maintain sufficient lane widths. Furthermore, the City's Bicycle Master Plan indicates the long-term intent to provide a bicycle lane on this segment of Main Street, which also limits the ability to reconfigure the roadway to provide additional vehicular capacity. This impact would be considered significant and unavoidable.

State Street & Cesar E. Chavez Boulevard (Study Intersection 9)
The intersection of State Street & Cesar E. Chavez Boulevard has a significant impact during the PM peak hour under Existing Year plus Project conditions and under Cumulative Year plus Project conditions. A mitigation measure was explored that would reconfigure the functional right-turn lane on the northbound approach to provide additional through capacity, resulting in one left-turn lane, one through lane and one shared through/right-turn lane. This was not acceptable to LADOT, however, due to concerns related to intersection geometry and consistency with the plan to maintain and enhance the bicycle-friendly characteristics of State Street in this area. As discussed above, the project impact would be fully mitigated through an expanded TDM program but the cumulative impact would remain significant and unavoidable.

Soto Street & Marengo Street (Study Intersection 19)
The intersection of Soto Street & Marengo Street has a significant impact during the AM peak hour under Existing Year plus Project conditions and during the AM and PM peak hours under Cumulative Year plus Project conditions. A potential mitigation measure was explored that would provide dual left-turn lanes on the northbound and southbound approaches. These changes would require a signal phasing modification as well, changing the north/south approaches from split phasing to providing protected left-

turn phasing instead. The existing raised center medians would need to be modified within the overall 80-foot roadway width. The intersection is entirely on a bridge structure over the I-10 Freeway and the City's Bicycle Master Plan indicates a long-term intent to create a bicycle lane or other bikeway on Soto Street. Because a similar mitigation measure was proposed for a different project and was ultimately determined to be infeasible, this impact would be considered significant and unavoidable.

Soto Street & Charlotte Street/I-10 Westbound On-/Off-Ramps (Study Intersection 20)
The intersection of Soto Street & Charlotte Street/I-10 Westbound On-/Off-Ramps has a significant impact during the AM peak hour under Cumulative Year plus Project conditions. A potential mitigation measure was explored that would reconfigure the southbound right-turn lane to a shared through/right-turn lane, providing additional though capacity. This was found to be inadequate, however, because the southbound left-turn movement is critical. The possibility of reconfiguring the southbound approach to provide dual left-turn lanes was explored and found to fully mitigate the identified impact. The resulting configuration would be two left-turn lanes, one through lane and one shared through/right-turn lane. However this is not recommended because it would create an entrapment lane (the number one southbound lane on Soto Street) that would not be readily visible to approaching southbound drivers due to topography at this location. Slightly farther south, the southbound curb lane on Soto Street becomes a dedicated right-turn lane at the intersection with Marengo Street, which would create an undesirable weaving pattern of southbound traffic on this segment of Soto Street. Furthermore, the City's Bicycle Master Plan indicates a long-term intent to create a bicycle lane or other bikeway on Soto Street. For these reasons these potential physical improvements appear infeasible. The cumulative impact at this location would be fully mitigated, however, through an expansion of the existing TDM program.

V. REGIONAL TRANSPORTATION SYSTEM IMPACT ANALYSIS

This section presents an analysis of potential impacts on the regional transportation system. This analysis was conducted in accordance with the procedures outlined in the 2010 Congestion Management Program for Los Angeles County (Los Angeles County Metropolitan Transportation Authority, October 2010). The CMP requires that, when an environmental impact report is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to utilize these facilities.

In addition, the *Agreement between City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures* (City of Los Angeles, October 2013), sets forth criteria for when a freeway impact analysis should be conducted. Thus, a freeway screening analysis was conducted for the project to determine whether a freeway impact analysis would be required.

CMP GUIDELINES

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic.

- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the following threshold is exceeded:

- The proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02), causing LOS F (V/C > 1.00).

- If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02).

Arterial Monitoring Station Analysis

The CMP arterial monitoring stations nearest to the project study area are listed below. Each one is over three miles from the project site:

- Valley Boulevard & I-710 Northbound Ramps (Arterial Monitoring Station 1)
- Fremont Avenue & Valley Boulevard (Arterial Monitoring Station 68)
- Alameda Street & Washington Boulevard (Arterial Monitoring Station 43)

Based on the project trip generation estimates and the trip assignments discussed and shown above, the project would add fewer than 50 net new peak hour vehicle trips through any of these arterial monitoring stations; as such, no further analysis of CMP arterial intersections is required, and CMP arterial intersection impacts are considered to be less than significant.

Freeway Mainline Monitoring Station Analysis

This section presents an analysis of potential project impacts on the regional transportation system. This analysis was conducted in accordance with the transportation impact analysis procedures outlined in the CMP. The CMP mainline freeway monitoring locations nearest to the project site are:

- I-10 at East LA City Limit (Freeway Monitoring Station 1014)
- I-5 at Ferris Avenue (Freeway Monitoring Station 1003)
- I-5 at Stadium Way (Freeway Monitoring Station 1004)
- US 101 south of Vignes Street (Freeway Monitoring Station 1036)

According to the project trip generation estimates developed in Chapter III and the project-only traffic assignments, the proposed project is expected to add less than 150 one-way trips at any freeway monitoring location and would therefore not trigger the freeway analysis criteria at these locations. Since incremental project-related traffic in any direction during either peak hour is projected to be less than the minimum criteria of 150 vph, no further CMP freeway analysis is required, and CMP freeway impacts are considered to be less than significant.

CMP TRANSIT IMPACT ANALYSIS

As discussed in Chapter II, the LAC+USC Medical Center campus is served by extensive bus service provided by the Los Angeles County Metropolitan Authority (Metro) and other providers. Over 20 bus routes in all provide service to stops within and adjacent to the site, and at the in-line station on the El Monte busway immediately south of the site. Current schedules indicate that, in combination, these bus routes provide hundreds of buses per direction per weekday. In the AM and PM peak hours (defined as 7:30 to 8:30 AM and 4:30 to 5:30 PM by the CMP), there are over 60 buses.

Significance Criteria

Project impacts on public transit services would be considered significant if the project results in a substantial increase in ridership on the existing public transit system, creating capacity shortages on the system and thereby necessitating system improvements to accommodate additional transit service.

Transit Impact Analysis

The proposed project would have an estimated increase in vehicle trip generation of approximately 842 net vehicle trips during the AM peak hour and 598 during the PM peak hour before the transit credit. Applying the AVR factor of 1.4 to the estimated vehicle trips would result in an estimated increase of approximately 1,179 and 837 person trips during the AM and PM peak hours, respectively. The CMP provides that, of the total net person trips of a project, 15% of total person trips generated would be assigned as transit riders for projects, which are primarily commercial and located within ¼ mile of a

transit center, in this case the in-line station on the El Monte Busway. Following this approach, the project would generate an estimated increase of 177 transit trips during the AM peak hour and 126 transit trips during the PM peak hour, and no significant impacts to the transit system would be anticipated. Given the frequency and density of existing bus transit service in close proximity to the project site, the incremental transit riders (an average of three or fewer passengers per bus) resulting from the project are not anticipated to result in a significant impact on the transit lines serving the area.

FREEWAY SCREENING ANALYSIS

In addition to the CMP Freeway Impact Analysis, the *Agreement between City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures*, sets forth criteria for when a freeway impact analysis should be conducted. Therefore, a freeway screening analysis was conducted to determine whether a freeway impact analysis would be required for the LAC+USC Medical Center Master Plan project. The methodologies used to conduct the screening analysis for the project, and the results of the screening, are described in Appendix D.

Based on the results of the freeway screening analysis, the project-added trips to each freeway mainline segment and ramp most likely used by project traffic, do not trigger the screening thresholds. Since the project would not meet the criteria requiring a freeway impact analysis, there is no need to look at segments further away and overall no further freeway analysis under the City's agreement with the Department of Transportation was required.

VI. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze potential traffic impacts of the proposed LAC+USC Medical Center Master Plan. The following summarizes the key findings of the study:

- AM and PM peak hour capacity analyses were conducted for a total of 21 intersections on the street system in the vicinity of the medical center campus. All of these intersections currently operate at LOS D or better during the AM or PM peak hours.

- Buildout of the proposed Master Plan is anticipated by the Year 2040. Buildout anticipates the development of replacement and expansion of many existing medical care facilities, introduction of wellness-oriented commercial and meeting space, research & development space and new community-oriented open space amenities. The project is estimated to generate a net incremental increase of approximately 711 during the weekday AM peak hour, and about 502 trips during the PM peak hour.

- The LOS analysis for the Existing Year plus Project scenario (using the City of Los Angeles significance criteria) determined that the project would result in significant impacts at four study intersections under the Existing Year plus Project scenario. Physical and operational mitigation measures were developed that could fully mitigate two of the impacts. Due to physical constraints, however, no feasible mitigation measures were identified for the other two impacted intersections.

- Under Cumulative Base Year (2040) (i.e., no project) conditions, two of the analyzed intersections are projected to operate at undesirable LOS E conditions. The cumulative base forecasts include traffic generated by related projects in the area and a background traffic growth factor.

- The LOS analysis for the Cumulative Year plus Project scenario (using the City of Los Angeles significance criteria) determined that the project would result in significant impacts at four study intersections under the Cumulative Year plus Project scenario. Physical and operational mitigation measures were developed that could fully mitigate two of the impacts. Due to physical constraints, however, no feasible mitigation measures were identified for the other two impacted intersections.

- Analyses of potential impacts on the regional transportation system conducted in accordance with CMP requirements determined that the project would not have a significant impact on the regional transit system. No mitigations would therefore be required.

- Freeway screening analysis at freeway mainline segments and ramps most likely used by project traffic, do not trigger the screening thresholds set forth in the *Agreement between City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures*. Therefore, no freeway analysis under the City's agreement with the Department of Transportation was required.

REFERENCES

2010 Bicycle Plan: A Component of the City of Los Angeles Transportation Element, City of Los Angeles, March 2011.

Agreement between City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures, City of Los Angeles, October 2013.

Final Draft 2010 Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, October 2010.

Traffic Study Policies and Procedures, City of Los Angeles, June 2013

Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.

APPENDIX A
TURNING MOVEMENT COUNT SHEETS

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-001 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Daly St			Daly St			Main St			Main St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 2	ER 0	WL 0	WT 1	WR 1	TOTAL
7:00 AM	28	46	0	31	76	42	7	73	39	11	149	35	537
7:15 AM	31	68	4	40	106	56	3	75	52	17	200	34	686
7:30 AM	47	96	11	54	115	78	8	122	68	12	236	43	890
7:45 AM	39	112	5	47	110	86	4	120	70	17	227	37	874
8:00 AM	40	59	4	39	123	83	10	118	50	20	203	37	786
8:15 AM	28	92	14	39	142	95	5	88	54	20	171	42	790
8:30 AM	30	65	9	45	124	84	6	105	83	21	175	39	786
8:45 AM	15	83	19	30	93	37	13	60	91	10	170	25	646
9:00 AM	24	55	14	36	104	47	14	108	72	12	100	23	609
9:15 AM	16	59	8	49	112	49	15	76	64	15	102	34	599
9:30 AM	14	39	4	51	109	44	8	64	55	13	77	30	508
9:45 AM	23	65	9	37	68	38	12	77	46	12	79	31	497
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	335	839	101	498	1282	739	105	1086	744	180	1889	410	8208
APPROACH %'s :	26.27%	65.80%	7.92%	19.77%	50.89%	29.34%	5.43%	56.12%	38.45%	7.26%	76.20%	16.54%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	154	359	34	179	490	342	27	448	242	69	837	159	3340
PEAK HR FACTOR :		0.877			0.916			0.905			0.915		0.938

UTURNS	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Daly St and Main St , Los Angeles

Date: 5/14/2014
Day: Wednesday

Project #: 14-5305-001
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Daly St)

Lanes	0	2	1		
AM	342	490	179	545	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach (Main St)

	AM	NOON	PM
	1333	0	0

Lanes	AM	NOON	PM
0	27	0	0
2	448	0	0
0	242	0	0

Westbound Approach

	AM	NOON	PM	Lanes
	159	0	0	1
	837	0	0	1
	69	0	0	0
	661	0	0	

CONTROL: Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Northbound Approach

AM	801	154	359	34	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
Lanes		1	2	0	Lanes

Total Ins & Outs

	North Leg		
AM	1011	545	AM
NOON	0	0	NOON
PM	0	0	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
1333	0	0		1065	0	0
717	0	0		661	0	0

	South Leg	
AM	801	547
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg	
AM	1556	AM
NOON	0	NOON
PM	0	PM

West Leg			East Leg		
AM	NOON	PM	AM	NOON	PM
2050	0	0	1726	0	0

	South Leg
AM	1348
NOON	0
PM	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-001
N/S Street: Daly St
E/W Street: Main St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	4	2	8	4	8	3	2
7:15 AM	2	22	5	8	21	8	1	10
7:30 AM	7	14	4	10	7	5	3	1
7:45 AM	6	13	4	8	3	3	5	1
8:00 AM	4	17	2	3	7	3	1	4
8:15 AM	8	3	6	4	1	4	2	5
8:30 AM	8	0	1	2	3	7	2	2
8:45 AM	3	7	2	2	4	6	0	1
9:00 AM	5	2	2	3	3	6	1	1
9:15 AM	4	3	3	5	2	7	1	4
9:30 AM	2	3	1	3	2	4	0	1
9:45 AM	0	2	2	2	0	2	1	2
TOTALS	**49**	**90**	**34**	**58**	**57**	**63**	**20**	**34**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	1	0	0	0	0	1	0
7:15 AM	0	2	0	0	1	1	0	1
7:30 AM	0	1	0	3	6	0	2	0
7:45 AM	1	1	0	2	0	1	0	0
8:00 AM	0	2	0	1	2	0	0	0
8:15 AM	0	0	1	0	1	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	1	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**1**	**8**	**2**	**6**	**10**	**2**	**3**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-001
N/S Street: Daly St
E/W Street: Main St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	2	0	0	1	0	0	4	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	2	0
7:30 AM	0	3	0	0	1	0	0	0	0	0	2	1
7:45 AM	0	1	0	0	1	0	0	3	0	0	3	0
8:00 AM	0	0	0	0	1	0	0	2	0	1	5	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	1	0
8:30 AM	0	1	0	0	0	1	1	2	0	0	1	1
8:45 AM	0	0	0	0	1	1	0	0	0	0	2	0
9:00 AM	0	0	0	0	0	0	0	2	1	0	1	0
9:15 AM	0	0	0	0	0	0	0	1	1	0	5	0
9:30 AM	0	0	0	0	1	0	0	4	0	0	2	1
9:45 AM	1	1	0	0	0	0	0	0	0	0	1	0
TOTALS	**1**	**7**	**0**	**0**	**7**	**2**	**1**	**17**	**2**	**1**	**29**	**3**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-002 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			I-5 SB Ramps/I-10 On-Ramp			I-5 SB Ramps/I-10 On-Ramp			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 3	NR 0	SL 2	ST 2	SR 0	EL 1.3	ET 0.3	ER 0.3	WL 0	WT 0	WR 0	TOTAL
7:00 AM	0	145	6	92	334	0	117	2	67	0	0	0	60
7:15 AM	0	152	5	111	325	0	129	1	92	0	0	0	66
7:30 AM	0	245	4	98	349	0	139	0	94	0	0	0	49
7:45 AM	0	169	2	109	366	0	152	2	83	0	0	0	68
8:00 AM	0	165	4	104	424	0	85	0	68	0	0	0	64
8:15 AM	0	149	4	109	386	0	95	6	61	0	0	0	68
8:30 AM	0	168	11	115	376	0	104	0	71	0	0	0	68
8:45 AM	0	143	7	104	369	0	101	1	110	0	0	0	68
9:00 AM	0	158	3	119	354	0	83	2	44	0	0	0	79
9:15 AM	0	110	5	109	270	0	83	7	81	0	0	0	78
9:30 AM	0	112	14	93	273	0	67	1	60	0	0	0	59
9:45 AM	0	132	10	104	192	0	81	5	58	0	0	0	60
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1848	75	1267	4018	0	1236	27	889	0	0	0	9360
APPROACH %'s :	0.00%	96.10%	3.90%	23.97%	76.03%	0.00%	57.43%	1.25%	41.31%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	731	15	422	1464	0	505	3	337	0	0	0	3477
PEAK HR FACTOR :		0.749			0.893			0.891			0.000		0.936

UTURNS				
NB	SB	EB	WB	
NB	SB	EB	WB	
0	0	0	0	

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and I-5 SB Ramps/I-10 On-Ramp , Los Angeles

Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-002

City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Lanes	0	2	2		
AM	0	1464	422	1236	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Mission Rd

Eastbound Approach

I-5 SB Ramps/I-10 On-Ramp

Lanes	AM	NOON	PM
	0	0	0
1.3	505	0	0
0.3	3	0	0
0.3	337	0	0

Westbound Approach

Lanes	AM	NOON	PM
0	0	0	0
0	0	0	0
0	0	0	0
	440	0	0

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Northbound Approach

AM	1801	0	731	15	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
Lanes		0	3	0	Lanes

Total Ins & Outs

	AM	NOON	PM
North Leg	1886	0	0
	1236	0	0
West Leg	0	0	0
	845	0	0
East Leg	0	0	0
	440	0	0
South Leg	1801	0	0
	746	0	0

Total Volume Per Leg

	AM	NOON	PM
North Leg	3122	0	0
West Leg	845	0	0
East Leg	440	0	0
South Leg	2547	0	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-002
N/S Street: Mission Rd
E/W Street: I-5 SB Ramps/I-10 On-Ramp
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	1	1	3
7:30 AM	0	0	0	0	1	0	1	1
7:45 AM	0	0	0	0	1	0	2	2
8:00 AM	0	0	1	1	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	0	1	1
8:45 AM	0	0	0	0	0	0	3	0
9:00 AM	0	0	0	0	0	0	0	3
9:15 AM	0	0	0	0	1	1	2	1
9:30 AM	0	0	0	0	0	1	0	1
9:45 AM	0	0	0	0	0	0	5	2
TOTALS	**0**	**0**	**1**	**1**	**4**	**3**	**15**	**17**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-002
N/S Street: Mission Rd
E/W Street: I-5 SB Ramps/I-10 On-Ramp
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	3	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	4	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	4	0	0	3	0	0	0	0	0	0	0
8:00 AM	0	2	0	0	3	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	1	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**17**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-003 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			Daly St/Marengo St			Daly St/Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1.5	ER 1.5	WL 1	WT 2	WR 1	TOTAL
7:00 AM	12	163	84	48	347	2	12	73	53	37	88	60	979
7:15 AM	28	162	80	36	323	3	13	88	55	44	100	56	988
7:30 AM	23	216	106	53	328	5	14	73	83	46	120	55	1122
7:45 AM	21	218	90	60	328	5	5	77	90	54	111	49	1108
8:00 AM	17	223	48	40	393	3	8	82	106	45	113	50	1128
8:15 AM	16	179	49	39	339	4	7	84	94	50	105	55	1021
8:30 AM	7	188	64	50	346	2	12	85	102	30	94	36	1016
8:45 AM	28	155	54	50	312	3	8	86	89	53	87	41	966
9:00 AM	17	174	57	58	335	9	15	90	125	38	47	32	997
9:15 AM	19	140	38	55	254	6	14	75	96	38	47	44	826
9:30 AM	11	129	36	61	241	3	7	90	78	38	40	21	755
9:45 AM	23	137	58	50	193	9	6	64	52	37	63	27	719
TOTAL VOLUMES :	NL 222	NT 2084	NR 764	SL 600	ST 3739	SR 54	EL 121	ET 967	ER 1023	WL 510	WT 1015	WR 526	TOTAL 11625
APPROACH %'s :	7.23%	67.88%	24.89%	13.66%	85.11%	1.23%	5.73%	45.81%	48.46%	24.87%	49.49%	25.65%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	77	836	293	192	1388	17	34	316	373	195	449	209	4379
PEAK HR FACTOR :		0.874			0.916			0.922			0.965		0.971

UTURNS

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

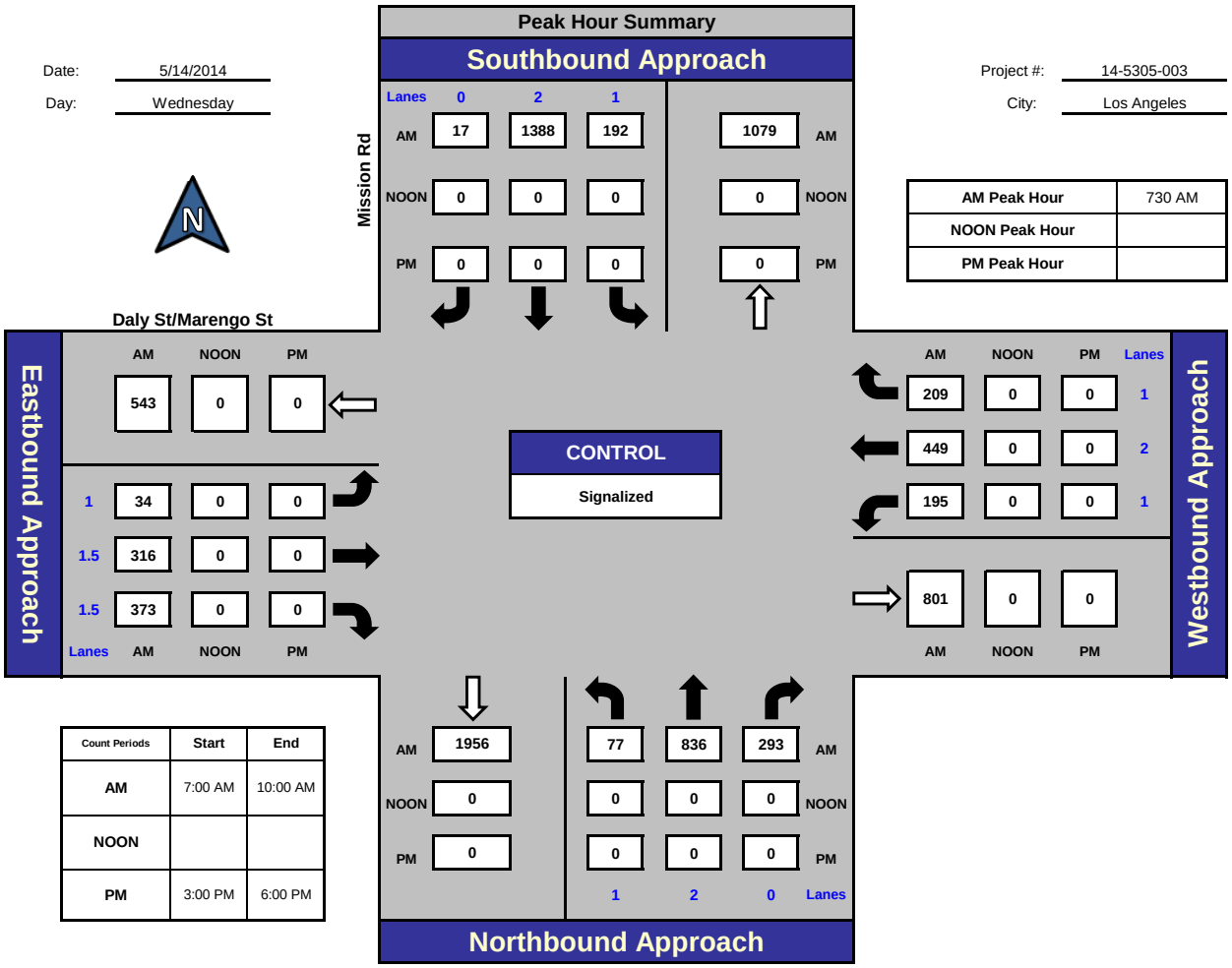
National Data & Surveying Services

Mission Rd and Daly St/Marengo St , Los Angeles

Date: 5/14/2014
Day: Wednesday

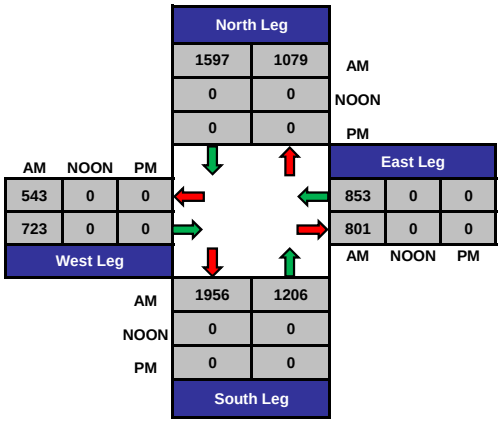
Project #: 14-5305-003
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

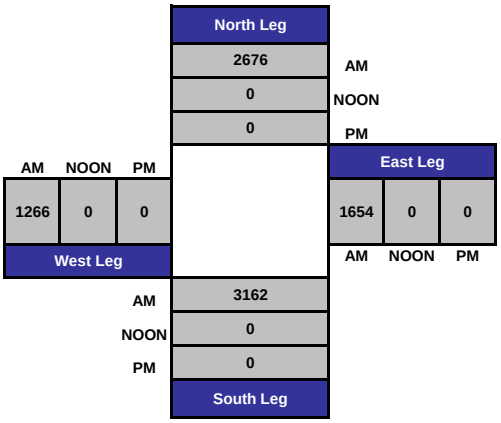


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-003
N/S Street: Mission Rd
E/W Street: Daly St/Marengo St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	4	2	5	2	7	2	1	9
7:15 AM	6	1	11	2	0	2	3	3
7:30 AM	2	7	3	1	7	1	3	1
7:45 AM	5	4	5	3	2	4	3	2
8:00 AM	0	1	3	2	6	5	3	2
8:15 AM	3	4	10	3	3	4	3	4
8:30 AM	11	3	1	0	6	2	2	3
8:45 AM	6	2	3	7	6	6	5	3
9:00 AM	1	2	0	5	5	1	1	4
9:15 AM	5	1	1	0	2	5	2	3
9:30 AM	3	2	9	1	8	1	3	4
9:45 AM	2	1	5	0	3	1	5	1
TOTALS	**48**	**30**	**56**	**26**	**55**	**34**	**34**	**39**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	3	0	0	0	0	0	0
8:00 AM	0	0	0	1	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**0**	**1**	**0**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-003
N/S Street: Mission Rd
E/W Street: Daly St/Marengo St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	1	4	0	0	1	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	2	0	0	1	1
7:30 AM	0	3	0	1	1	0	0	1	0	0	3	0
7:45 AM	0	0	0	1	2	0	0	0	0	0	1	0
8:00 AM	1	1	0	0	2	0	1	1	1	0	1	0
8:15 AM	0	1	1	0	1	0	0	0	0	0	0	1
8:30 AM	0	1	0	0	2	0	0	0	0	0	0	1
8:45 AM	1	2	0	0	1	0	0	2	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	1	0	0	1	1	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	2	2
TOTALS	**2**	**10**	**1**	**4**	**15**	**0**	**2**	**8**	**1**	**0**	**9**	**6**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5338-001 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			Workman			Workman			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	6	213	12	2	376	0	1	0	4	2	1	1	618
7:15 AM	3	219	8	2	413	1	5	0	4	10	0	2	667
7:30 AM	10	292	5	1	400	5	4	0	5	5	1	1	729
7:45 AM	11	246	13	1	410	3	9	0	5	6	0	2	706
8:00 AM	10	257	4	4	414	4	8	0	10	3	0	2	716
8:15 AM	6	228	7	0	386	1	6	1	6	4	1	1	647
8:30 AM	6	238	3	1	390	3	3	0	6	4	0	0	654
8:45 AM	8	206	5	4	348	3	5	0	3	3	0	0	585
9:00 AM	8	203	1	0	376	3	5	0	5	2	0	2	605
9:15 AM	5	168	2	0	329	2	4	0	2	2	0	0	514
9:30 AM	5	153	2	0	278	3	5	0	6	2	0	3	457
9:45 AM	9	155	2	0	229	3	5	0	6	5	0	0	414
TOTAL VOLUMES :	NL 87	NT 2578	NR 64	SL 15	ST 4349	SR 31	EL 60	ET 1	ER 62	WL 48	WT 3	WR 14	TOTAL 7312
APPROACH %'s :	3.19%	94.47%	2.35%	0.34%	98.95%	0.71%	48.78%	0.81%	50.41%	73.85%	4.62%	21.54%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	34	1014	30	8	1637	13	26	0	24	24	1	7	2818
PEAK HR FACTOR :		0.878			0.982			0.694			0.667		0.966

UTURNS	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

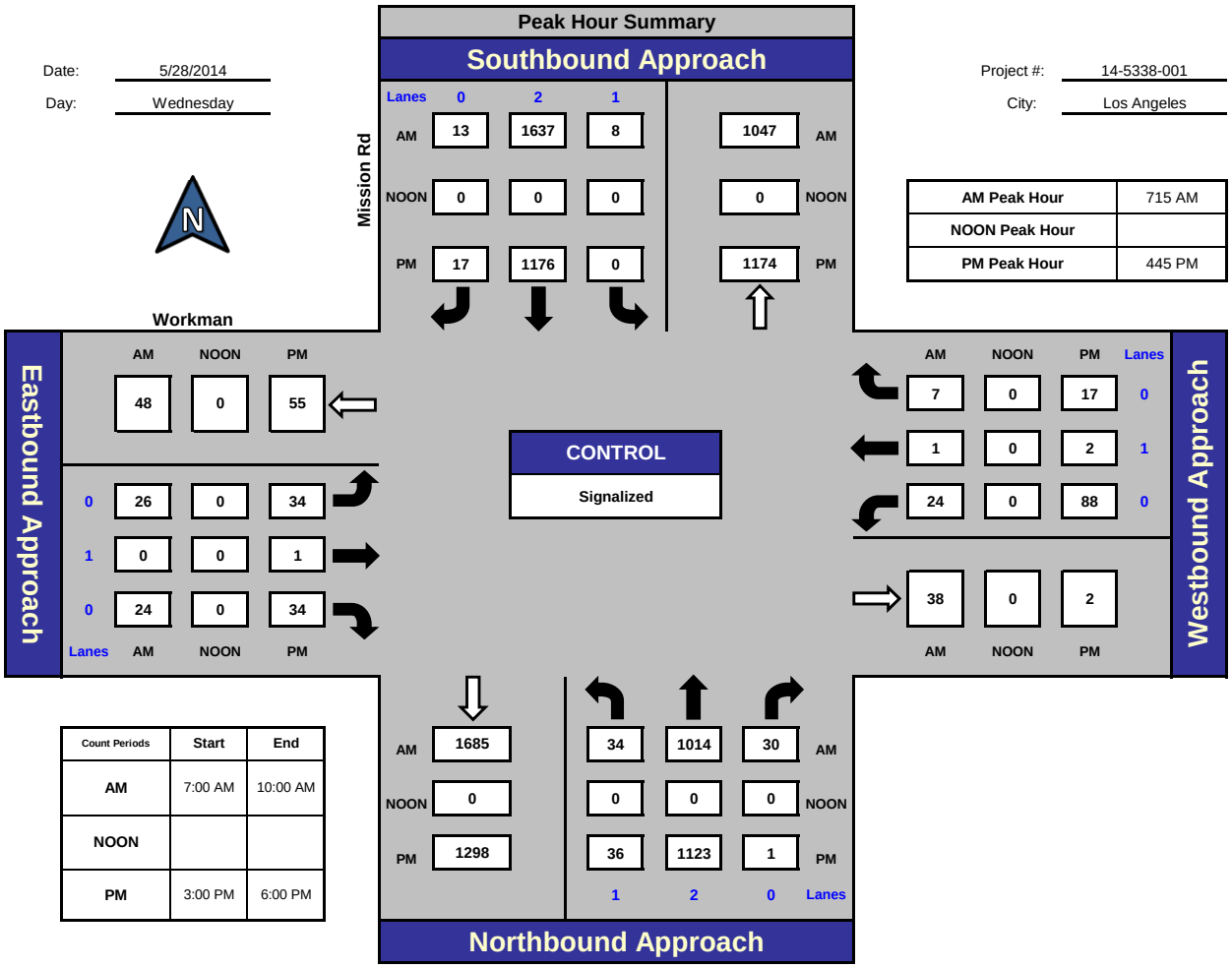
Mission Rd and Workman , Los Angeles

Date: 5/28/2014

Day: Wednesday

Project #: 14-5338-001

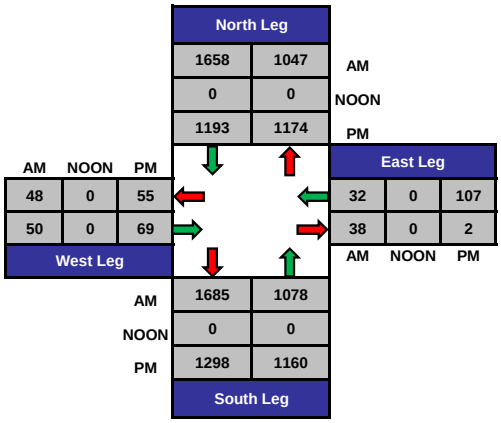
City: Los Angeles



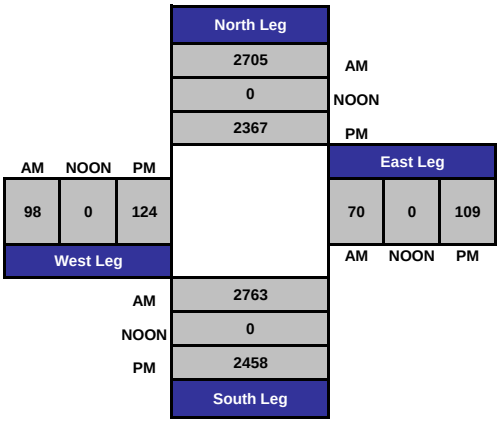
AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	445 PM

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5338-001
N/S Street: Mission Rd
E/W Street: Workman
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	0	0	0	4	1	1	4
7:15 AM	0	0	10	0	0	3	3	6
7:30 AM	0	0	2	1	2	4	2	4
7:45 AM	1	4	1	2	3	1	3	1
8:00 AM	4	0	2	1	2	1	2	2
8:15 AM	4	2	3	3	0	2	5	6
8:30 AM	0	2	5	1	2	0	4	4
8:45 AM	2	0	2	3	1	2	2	7
9:00 AM	2	1	1	1	1	0	5	4
9:15 AM	2	3	0	0	0	0	3	1
9:30 AM	3	1	1	0	0	3	6	6
9:45 AM	1	3	0	0	3	0	4	3
TOTALS	**20**	**16**	**27**	**12**	**18**	**17**	**40**	**48**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	1	0	1	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0
8:30 AM	0	0	0	1	0	1	0	0
8:45 AM	0	0	0	0	1	0	0	0
9:00 AM	0	0	0	0	1	0	0	1
9:15 AM	0	0	1	0	0	0	2	1
9:30 AM	0	0	1	0	1	0	1	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**3**	**1**	**5**	**1**	**4**	**3**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	2	3	0	4	0	2	5
3:15 PM	0	2	0	2	4	5	8	8
3:30 PM	0	0	2	0	2	1	2	5
3:45 PM	0	1	3	0	4	1	5	3
4:00 PM	2	0	0	1	1	0	5	5
4:15 PM	0	0	1	0	0	0	2	1
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	2	1
5:00 PM	0	0	0	1	0	1	3	5
5:15 PM	0	0	1	1	0	0	5	8
5:30 PM	0	1	0	0	0	0	6	8
5:45 PM	0	0	2	1	3	3	3	5
TOTALS	**2**	**6**	**13**	**6**	**18**	**11**	**43**	**54**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	1	1	0	2	2	0	0
3:15 PM	0	0	1	0	0	3	1	3
3:30 PM	0	0	0	0	0	0	1	1
3:45 PM	0	0	0	0	1	0	0	0
4:00 PM	1	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	3
5:45 PM	0	0	0	0	0	0	1	1
TOTALS	**1**	**1**	**2**	**0**	**4**	**5**	**3**	**9**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5338-001
N/S Street: Mission Rd
E/W Street: Workman
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	2	0	0	2	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	3	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	0
8:45 AM	0	4	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	1	0	0	1	0	0	0	0
9:15 AM	0	0	0	0	2	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	2	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**17**	**0**	**0**	**15**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	3	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	5	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	3	0	0	0	0	0	0	0
5:30 PM	0	3	0	0	6	0	0	0	0	0	0	0
5:45 PM	0	2	0	0	4	0	0	0	0	0	0	0
TOTALS	**0**	**16**	**0**	**0**	**25**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5315-001 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			Sichel St			Sichel St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 0	WR 0	TOTAL
7:00 AM	12	189			329	4	0		3				537
7:15 AM	5	204			446	11	0		2				668
7:30 AM	7	253			440	8	1		3				712
7:45 AM	4	230			431	9	2		2				678
8:00 AM	11	253			400	8	1		1				674
8:15 AM	12	262			395	11	2		5				687
8:30 AM	5	234			392	7	1		5				644
8:45 AM	14	203			401	10	2		7				637
9:00 AM	8	213			331	5	1		2				560
9:15 AM	8	183			309	5	0		0				505
9:30 AM	8	176			254	6	4		6				454
9:45 AM	9	177			264	6	4		7				467
TOTAL VOLUMES :	NL 103	NT 2577	NR 0	SL 0	ST 4392	SR 90	EL 18	ET 0	ER 43	WL 0	WT 0	WR 0	TOTAL 7223
APPROACH %'s :	3.84%	96.16%	0.00%	0.00%	97.99%	2.01%	29.51%	0.00%	70.49%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	34	998	0	0	1666	36	6	0	11	0	0	0	2751
PEAK HR FACTOR :		0.942			0.950			0.607			0.000		0.966

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Sichel St , Los Angeles

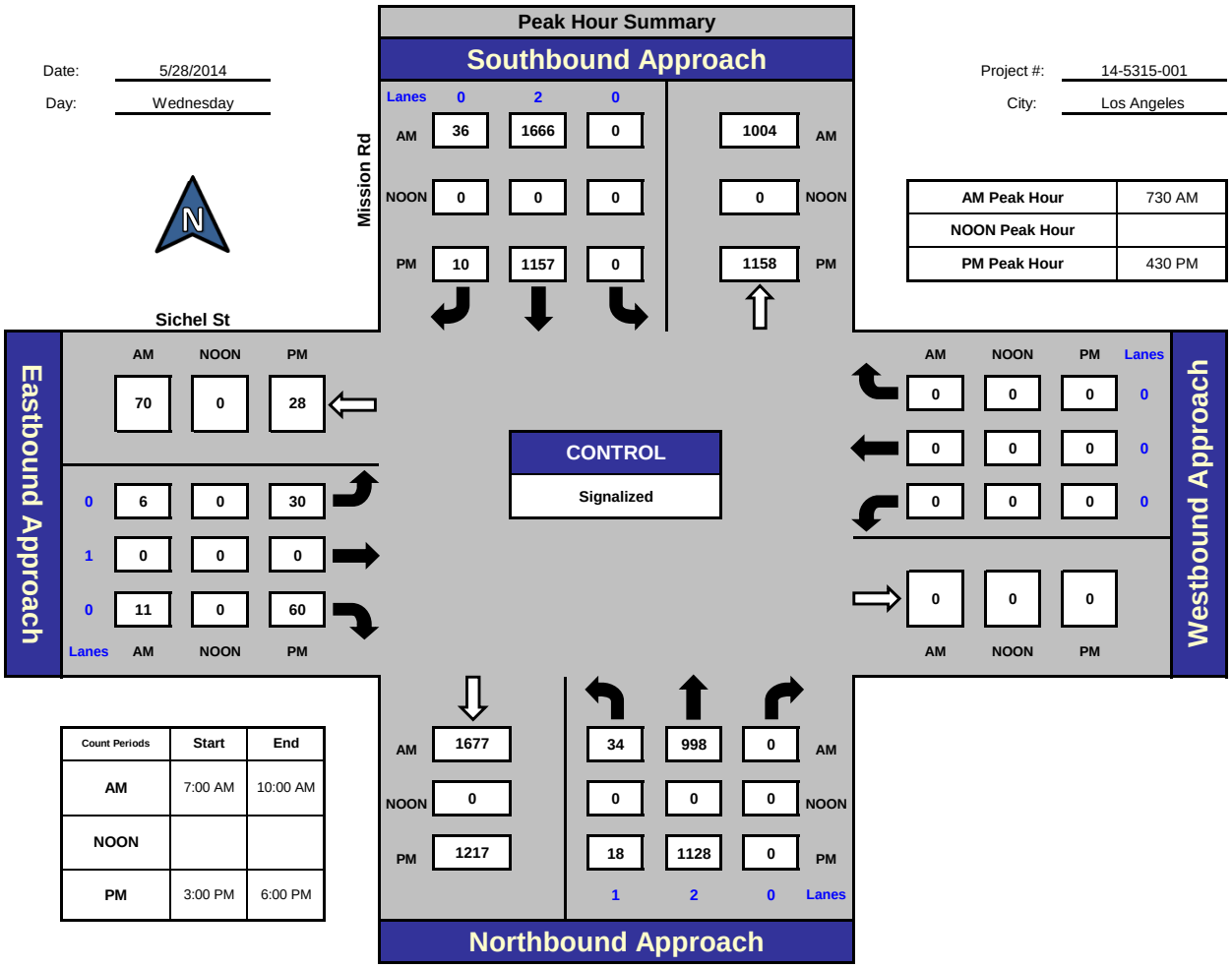
Date: 5/28/2014

Day: Wednesday

Project #: 14-5315-001

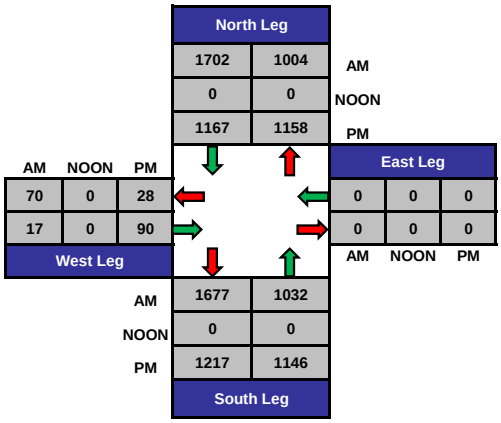
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

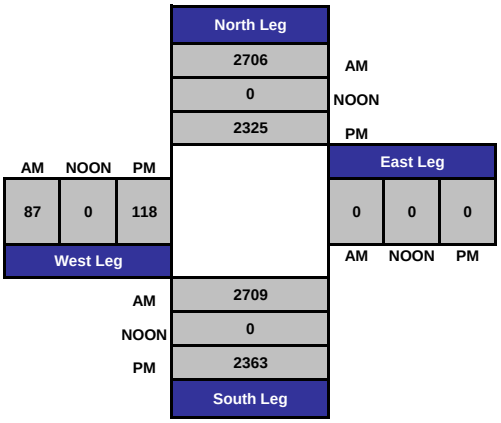


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5315-001
N/S Street: Mission Rd
E/W Street: Sichel St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	3	0	0	0	0	6	1
7:15 AM	0	1	0	0	0	0	2	0
7:30 AM	2	1	1	0	0	0	7	0
7:45 AM	0	0	0	0	0	0	3	1
8:00 AM	2	2	0	0	0	0	2	5
8:15 AM	2	3	1	0	0	0	4	2
8:30 AM	0	1	2	0	0	0	2	5
8:45 AM	0	0	0	0	0	0	0	3
9:00 AM	1	1	0	0	0	0	2	4
9:15 AM	1	0	0	1	0	0	2	7
9:30 AM	0	1	0	0	0	0	2	3
9:45 AM	0	1	0	0	0	0	1	3
TOTALS	**8**	**14**	**4**	**1**	**0**	**0**	**33**	**34**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	3	0
7:15 AM	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	5	0
7:45 AM	0	0	0	0	0	0	3	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	2	0
9:15 AM	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**2**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	2	1	0	0	0	0	7	8
3:15 PM	1	0	0	0	0	0	0	4
3:30 PM	1	0	0	0	0	0	3	6
3:45 PM	0	0	0	1	0	0	8	3
4:00 PM	0	0	0	1	0	0	2	5
4:15 PM	0	0	0	1	0	0	0	2
4:30 PM	1	0	1	0	0	0	2	1
4:45 PM	2	1	0	0	0	0	3	3
5:00 PM	2	0	0	0	0	0	0	7
5:15 PM	1	1	0	0	0	0	4	6
5:30 PM	1	0	0	0	0	0	0	6
5:45 PM	0	1	0	0	0	0	4	2
TOTALS	**11**	**4**	**1**	**3**	**0**	**0**	**33**	**53**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	1	2
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5315-001
N/S Street: Mission Rd
E/W Street: Sichel St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	2	0	0	0	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	2	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	1	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	2	0	0	2	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**13**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	2	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	2	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	5	0	0	0	0	0	0	0
5:30 PM	0	3	0	0	5	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	4	0	0	0	0	0	0	0
TOTALS	**0**	**14**	**0**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-004 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			Griffin Ave/Zonal Ave			Griffin Ave/Zonal Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	10	128	42	21	386	1	3	37	36	16	17	6	703
7:15 AM	14	146	39	20	331	8	14	60	52	13	25	20	742
7:30 AM	21	180	60	25	288	14	25	70	67	29	44	17	840
7:45 AM	12	200	54	33	332	14	21	58	66	29	42	14	875
8:00 AM	11	152	61	27	323	19	22	50	72	19	21	10	787
8:15 AM	10	168	43	34	340	22	26	36	65	25	26	12	807
8:30 AM	15	152	55	38	284	19	19	41	83	15	19	13	753
8:45 AM	8	124	65	31	296	19	23	47	71	16	23	9	732
9:00 AM	8	134	66	11	305	7	11	39	77	16	14	12	700
9:15 AM	11	122	45	15	218	6	9	28	62	18	13	12	559
9:30 AM	8	105	45	16	227	9	14	22	51	15	15	15	542
9:45 AM	8	94	49	13	179	2	12	15	41	23	24	13	473
TOTAL VOLUMES :	NL 136	NT 1705	NR 624	SL 284	ST 3509	SR 140	EL 199	ET 503	ER 743	WL 234	WT 283	WR 153	TOTAL 8513
APPROACH %'s :	5.52%	69.17%	25.31%	7.22%	89.22%	3.56%	13.77%	34.81%	51.42%	34.93%	42.24%	22.84%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	54	700	218	119	1283	69	94	214	270	102	133	53	3309
PEAK HR FACTOR :		0.914			0.929			0.892			0.800		0.945

UTURNS			
NB	SB	EB	WB
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Griffin Ave/Zonal Ave , Los Angeles

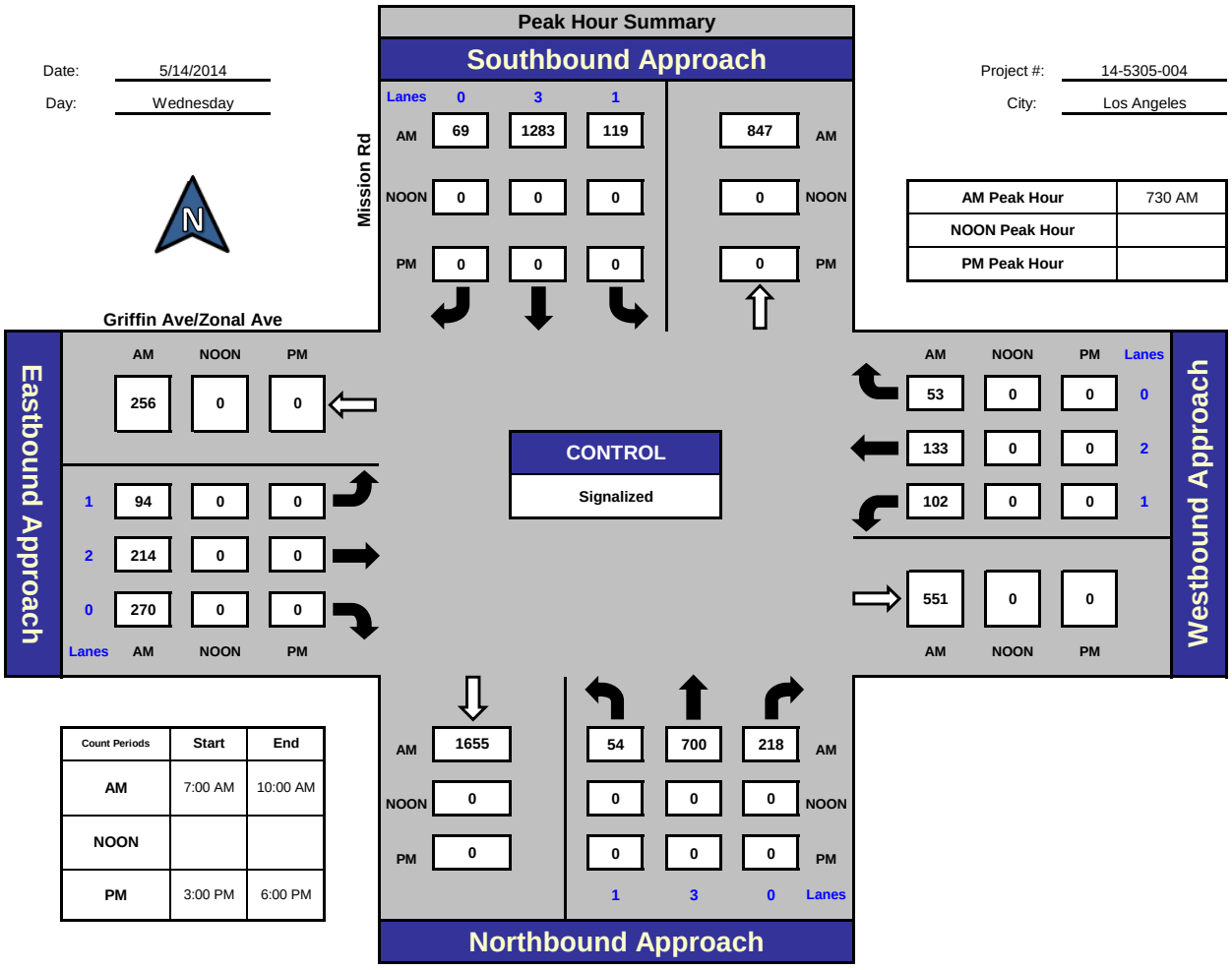
Date: 5/14/2014

Day: Wednesday

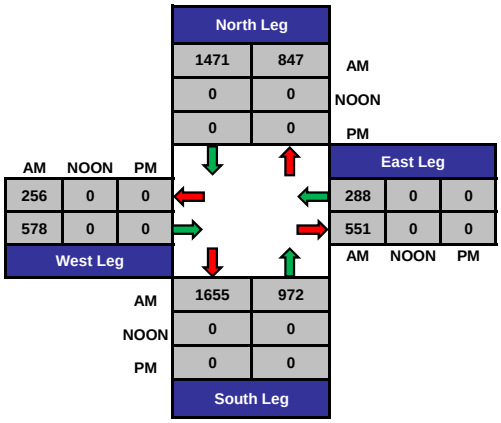
Project #: 14-5305-004

City: Los Angeles

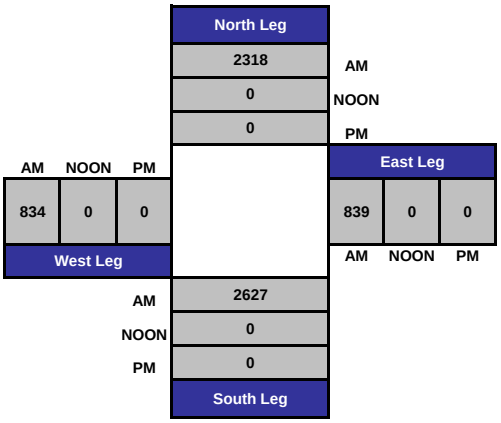
AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT# 14-5305-004
N/S Street: Mission Rd
E/W Street: Griffin Ave/Zonal Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	1	1	4	5	1	4	1
7:15 AM	5	0	5	4	11	2	4	2
7:30 AM	9	2	7	4	6	2	4	0
7:45 AM	6	0	4	4	7	7	2	3
8:00 AM	2	2	8	4	9	8	0	3
8:15 AM	5	1	4	0	10	2	5	1
8:30 AM	2	1	2	2	7	1	3	0
9:00 AM	5	1	10	0	9	7	4	1
9:15 AM	1	1	2	2	3	3	0	2
9:30 AM	2	1	2	3	5	3	2	2
9:45 AM	0	5	1	7	6	3	0	4
TOTALS	**41**	**10**	**47**	**29**	**79**	**38**	**30**	**16**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
9:00 AM	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	1	0	0	1	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-004
N/S Street: Mission Rd
E/W Street: Griffin Ave/Zonal Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	3	0	0	2	2	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	2	0	0	2	0	0	1	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	1	1	0	0	0
8:00 AM	0	2	0	0	0	0	0	0	1	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	1	0	1	0	0	1	0	0	0	0
8:45 AM	0	2	1	0	1	0	0	1	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	2	1	0	0	0	0	1	1	0	0	0
9:30 AM	0	0	0	0	0	0	0	2	0	0	0	0
9:45 AM	0	0	2	1	0	0	0	0	0	1	0	0
TOTALS	**1**	**10**	**5**	**1**	**10**	**0**	**0**	**9**	**5**	**1**	**1**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-005 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			Valley Blvd			Valley Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	1.5	1.5	0	0	0	0	
7:00 AM	0	57	16	17	363	0	30	102	8	0	0	0	593
7:15 AM	0	85	25	28	400	0	38	98	14	0	0	0	688
7:30 AM	0	102	29	39	289	0	74	137	10	0	0	0	680
7:45 AM	0	124	31	52	306	0	56	142	6	0	0	0	717
8:00 AM	0	88	33	36	293	0	52	139	11	0	0	0	652
8:15 AM	0	104	34	28	317	0	45	111	13	0	0	0	652
8:30 AM	0	122	30	33	313	0	52	127	15	0	0	0	692
8:45 AM	0	82	29	23	248	0	40	72	18	0	0	0	512
9:00 AM	0	88	38	16	210	0	41	130	24	0	0	0	547
9:15 AM	0	73	27	15	208	0	50	104	16	0	0	0	493
9:30 AM	0	65	23	15	206	0	43	112	4	0	0	0	468
9:45 AM	0	64	19	24	188	0	30	89	12	0	0	0	426
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1054	334	326	3341	0	551	1363	151	0	0	0	7120
APPROACH %'s :	0.00%	75.94%	24.06%	8.89%	91.11%	0.00%	26.68%	66.00%	7.31%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	399	118	155	1288	0	220	516	41	0	0	0	2737
PEAK HR FACTOR :		0.834			0.843			0.879			0.000		0.954

UTURNS				
NB	SB	EB	WB	
NB	SB	EB	WB	
0	0	0	0	

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Valley Blvd , Los Angeles

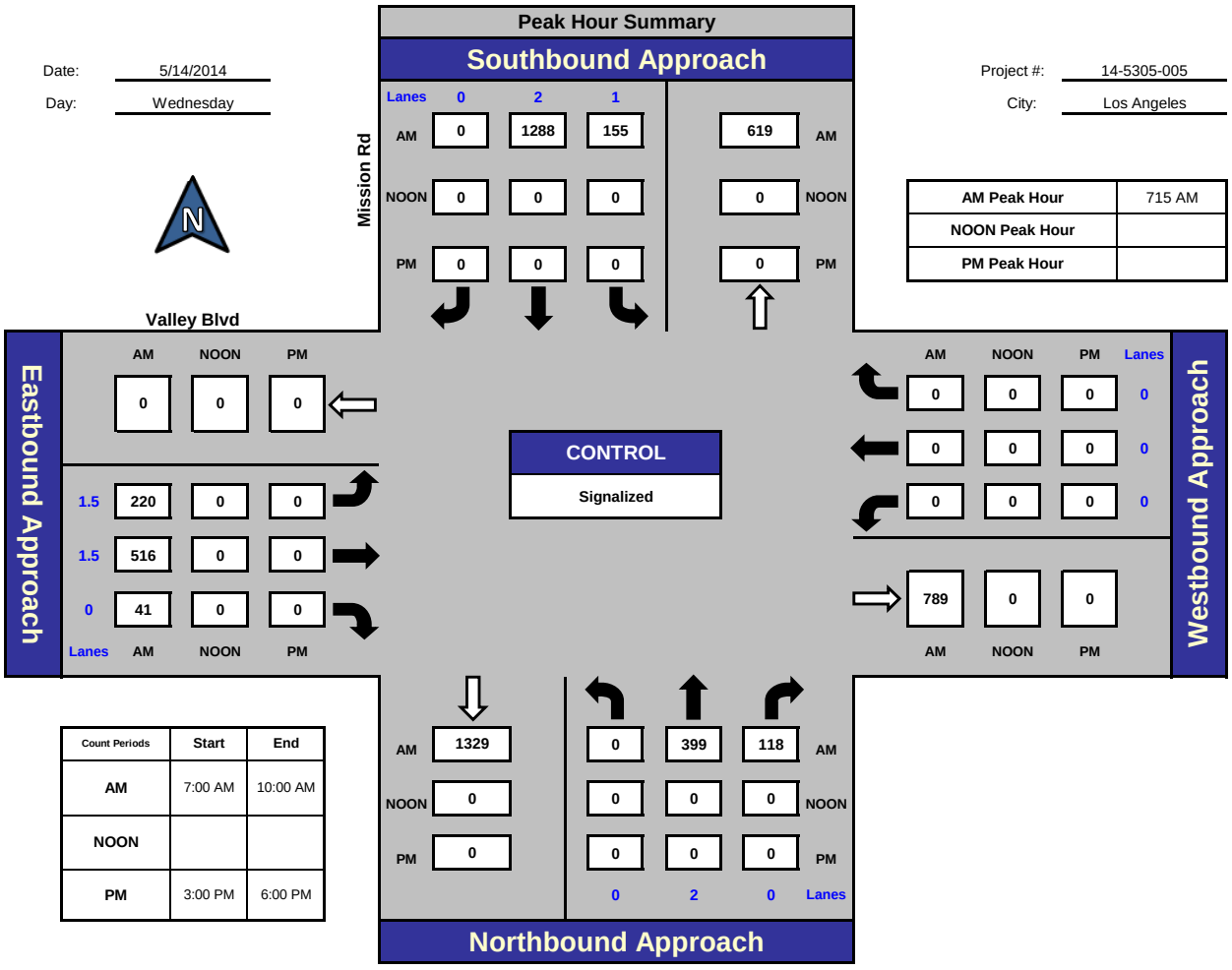
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-005

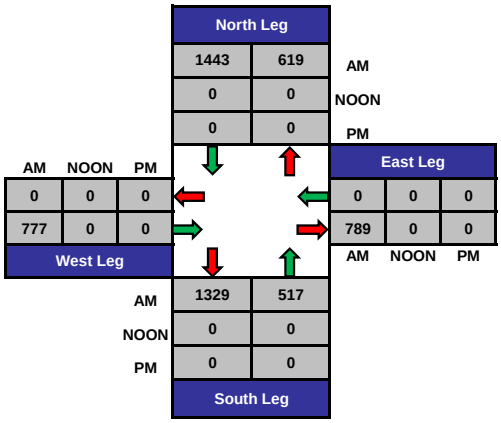
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

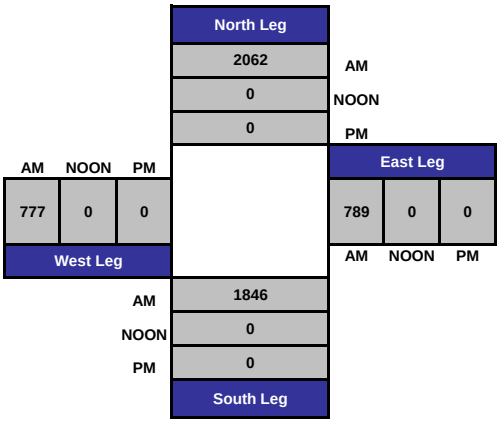


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-005
N/S Street: Mission Rd
E/W Street: Valley Blvd
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	1	0	4	0	2	3
7:15 AM	0	0	1	1	2	0	3	3
7:30 AM	0	0	1	0	1	1	0	2
7:45 AM	0	0	2	0	1	2	0	3
8:00 AM	0	0	0	0	2	1	2	4
8:15 AM	0	0	2	0	0	2	1	3
8:30 AM	0	0	2	1	0	1	1	1
8:45 AM	0	0	0	1	1	2	0	1
9:00 AM	0	0	0	0	0	2	0	4
9:15 AM	0	0	1	0	0	2	3	1
9:30 AM	0	0	0	0	1	0	1	1
9:45 AM	0	0	2	0	3	0	0	1
TOTALS	**0**	**0**	**12**	**3**	**15**	**13**	**13**	**27**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	1	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-005
N/S Street: Mission Rd
E/W Street: Valley Blvd
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	2	0	0	3	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	1	0	0	0	0
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	0
8:00 AM	0	1	0	0	1	0	0	2	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	1	0	0	0	0
8:30 AM	0	0	0	1	1	0	0	2	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	1	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	3	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	1	0	0	1	0	0	0	0
TOTALS	**0**	**8**	**0**	**1**	**11**	**0**	**1**	**12**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-006 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			Main St			Main St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 1	EL 0	ET 0	ER 0	WL 1	WT 2	WR 1	TOTAL
7:00 AM	0	90	0	0	288	42	0	0	0	101	143	38	702
7:15 AM	3	107	0	0	292	51	0	0	0	124	217	56	850
7:30 AM	1	181	0	0	240	66	0	0	0	95	250	65	898
7:45 AM	3	163	0	0	252	67	0	0	0	100	250	83	918
8:00 AM	1	144	0	0	240	64	0	0	0	76	205	55	785
8:15 AM	1	134	0	0	247	54	0	0	0	103	186	52	777
8:30 AM	1	183	0	0	250	61	0	0	0	103	188	47	833
8:45 AM	3	100	0	0	175	48	0	0	0	79	192	49	646
9:00 AM	1	136	0	0	176	39	0	0	0	67	114	36	569
9:15 AM	5	107	0	0	167	44	0	0	0	55	131	26	535
9:30 AM	4	106	0	0	179	44	0	0	0	55	98	36	522
9:45 AM	4	92	0	0	149	31	0	0	0	54	103	35	468
TOTAL VOLUMES :	NL 27	NT 1543	NR 0	SL 0	ST 2655	SR 611	EL 0	ET 0	ER 0	WL 1012	WT 2077	WR 578	TOTAL 8503
APPROACH %'s :	1.72%	98.28%	0.00%	0.00%	81.29%	18.71%	#DIV/0!	#DIV/0!	#DIV/0!	27.60%	56.64%	15.76%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	8	595	0	0	1024	248	0	0	0	395	922	259	3451
PEAK HR FACTOR :		0.828			0.927			0.000			0.910		0.940

UTURNS				
NB	SB	EB	WB	
NB 0	SB 0	EB 0	WB 0	

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Main St , Los Angeles

Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-006

City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

Mission Rd

Main St

Peak Hour Summary

Southbound Approach

Lanes	1	2	0		
AM	248	1024	0	854	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach

	AM	NOON	PM
	1178	0	0
0	0	0	0
0	0	0	0
0	0	0	0
Lanes	AM	NOON	PM

CONTROL

Signalized

Westbound Approach

	AM	NOON	PM	Lanes
	259	0	0	1
	922	0	0	2
	395	0	0	1
	0	0	0	
	AM	NOON	PM	

Northbound Approach

AM	1419	8	595	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs

North Leg		
1272	854	AM
0	0	NOON
0	0	PM

West Leg			AM	NOON	PM
1178	0	0			
0	0	0			

East Leg			AM	NOON	PM
1576	0	0			
0	0	0			

South Leg		
1419	603	AM
0	0	NOON
0	0	PM

Total Volume Per Leg

North Leg	
2126	AM
0	NOON
0	PM

West Leg			AM	NOON	PM
1178	0	0			

East Leg			AM	NOON	PM
1576	0	0			

South Leg	
2022	AM
0	NOON
0	PM

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT# 14-5305-006
N/S Street: Mission Rd
E/W Street: 2Main St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	8	11	2	1	4	3	0	6
7:15 AM	6	3	0	0	0	0	5	0
7:30 AM	5	8	0	0	2	1	0	4
7:45 AM	7	10	1	0	1	0	0	6
8:00 AM	3	5	1	0	2	4	3	5
8:15 AM	7	2	1	1	0	2	1	1
8:30 AM	9	11	0	0	4	2	1	4
9:00 AM	4	1	0	0	1	3	0	1
9:15 AM	7	5	2	1	4	2	2	1
9:30 AM	2	3	1	0	2	1	1	1
9:45 AM	0	2	0	0	2	0	0	0
TOTALS	**58**	**65**	**8**	**4**	**20**	**19**	**13**	**32**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-006
N/S Street: Mission Rd
E/W Street: Main St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	1	2	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	1	0	0	0	0	1	0
7:30 AM	0	1	0	0	2	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	1	0
8:00 AM	0	1	0	0	1	0	0	0	0	0	2	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	2	0
8:30 AM	0	0	0	0	2	1	0	0	0	0	2	0
8:45 AM	0	1	0	0	0	0	2	1	0	0	1	0
9:00 AM	0	0	0	0	1	1	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	1	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
9:45 AM	0	0	0	0	1	0	0	0	0	0	1	0
TOTALS	**0**	**4**	**0**	**0**	**9**	**10**	**3**	**1**	**0**	**0**	**13**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-106 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Mission Rd			Mission Rd			Gates St/N Main St			Gates St/N Main St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	1	0	1	0	1	2	1	
7:00 AM	5	0	0	0	0	0	0	0	2	0	6	0	13
7:15 AM	2	0	0	0	0	0	0	0	6	0	7	0	15
7:30 AM	3	0	0	0	0	1	0	0	9	0	14	0	27
7:45 AM	2	0	0	0	0	0	0	1	9	0	13	0	25
8:00 AM	1	0	0	0	0	2	0	0	12	0	6	0	21
8:15 AM	3	0	0	0	0	2	0	0	4	0	5	0	14
8:30 AM	2	0	0	0	0	1	0	1	8	0	2	0	14
8:45 AM	5	0	0	0	0	2	0	0	5	0	3	0	15
9:00 AM	4	0	0	0	0	2	0	1	5	0	3	0	15
9:15 AM	2	0	0	0	0	1	0	0	7	0	1	0	11
9:30 AM	2	0	0	0	0	4	0	1	4	0	4	0	15
9:45 AM	3	0	0	0	0	1	0	1	7	0	3	0	15
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	34	0	0	0	0	16	0	5	78	0	67	0	200
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	6.02%	93.98%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	8	0	0	0	0	3	0	1	36	0	40	0	88
PEAK HR FACTOR :	0.667			0.375			0.771			0.714			0.815

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Gates St/N Main St , Los Angeles

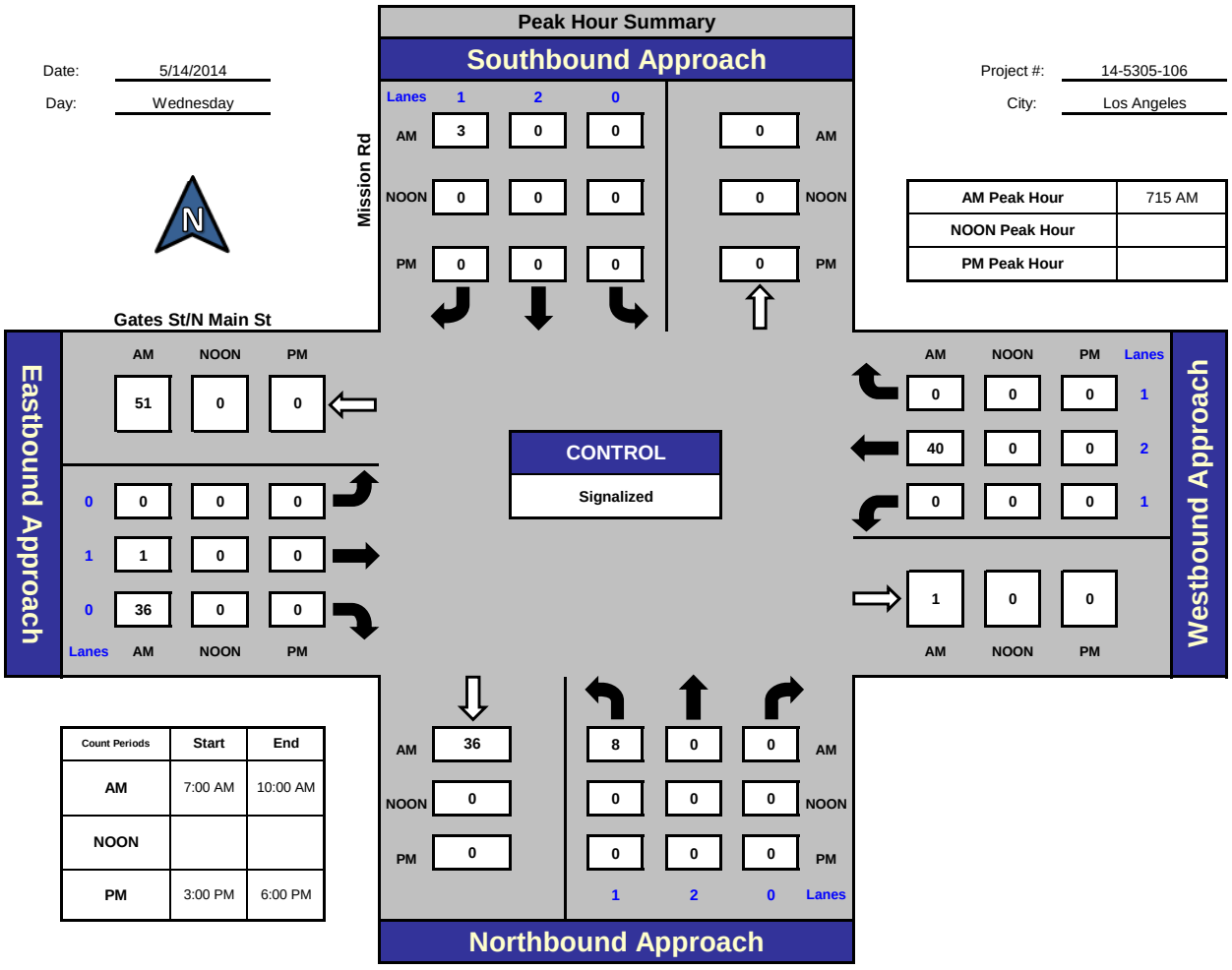
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-106

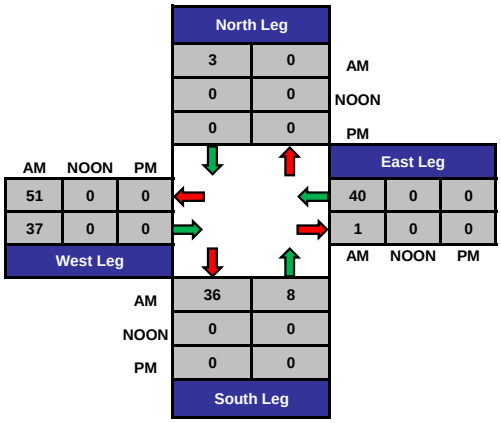
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

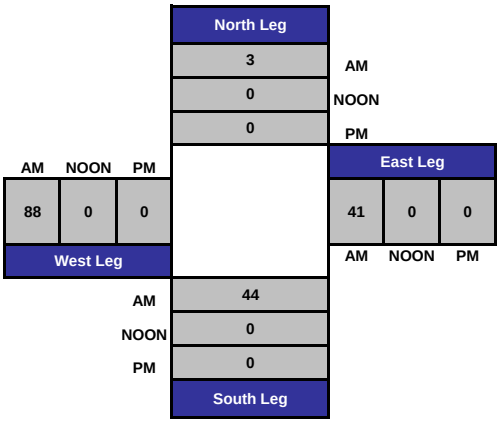


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT# 14-5305-106
N/S Street: Mission Rd
E/W Street: Gates St/Main St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	8	6
7:15 AM	0	0	0	0	0	0	5	3
7:30 AM	0	0	0	0	0	0	8	8
7:45 AM	0	0	0	0	0	0	3	2
8:00 AM	0	0	0	0	0	0	1	3
8:15 AM	0	0	0	0	0	0	6	1
8:30 AM	0	0	0	0	0	0	5	8
9:00 AM	0	0	0	0	0	0	4	0
9:15 AM	0	0	0	0	0	0	5	2
9:30 AM	0	0	0	0	0	0	1	3
9:45 AM	0	0	0	0	0	0	2	2
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**40**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-106
N/S Street: Mission Rd
E/W Street: Gates St/Main St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	1	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	1	0	0	0	0	0
TOTALS	**2**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-007 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	State St			State St			Cesar E Chavez Ave			Cesar E Chavez Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 2	WR 1	TOTAL
7:00 AM	8	57	16	60	59	117	17	39	4	22	197	119	715
7:15 AM	4	51	17	82	86	116	17	49	5	20	229	131	807
7:30 AM	7	52	14	79	88	97	28	61	2	18	256	150	852
7:45 AM	8	37	15	84	71	86	24	102	7	36	267	124	861
8:00 AM	12	24	15	60	73	98	17	66	6	23	232	118	744
8:15 AM	13	27	6	64	76	120	26	51	4	30	242	106	765
8:30 AM	19	27	11	62	74	109	18	67	2	19	198	81	687
8:45 AM	10	25	17	67	67	136	13	60	4	15	188	84	686
9:00 AM	16	19	14	76	68	127	19	53	5	10	171	73	651
9:15 AM	13	20	16	69	63	113	18	67	9	12	166	72	638
9:30 AM	9	24	19	78	63	104	20	67	4	14	129	53	584
9:45 AM	14	19	15	72	39	84	15	73	5	9	163	60	568
TOTAL VOLUMES :	NL 133	NT 382	NR 175	SL 853	ST 827	SR 1307	EL 232	ET 755	ER 57	WL 228	WT 2438	WR 1171	TOTAL 8558
APPROACH %'s :	19.28%	55.36%	25.36%	28.56%	27.69%	43.76%	22.22%	72.32%	5.46%	5.94%	63.54%	30.52%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	31	164	61	305	318	397	86	278	20	97	984	523	3264
PEAK HR FACTOR :		0.877			0.898			0.722			0.939		0.948

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Cesar E Chavez Ave , Los Angeles

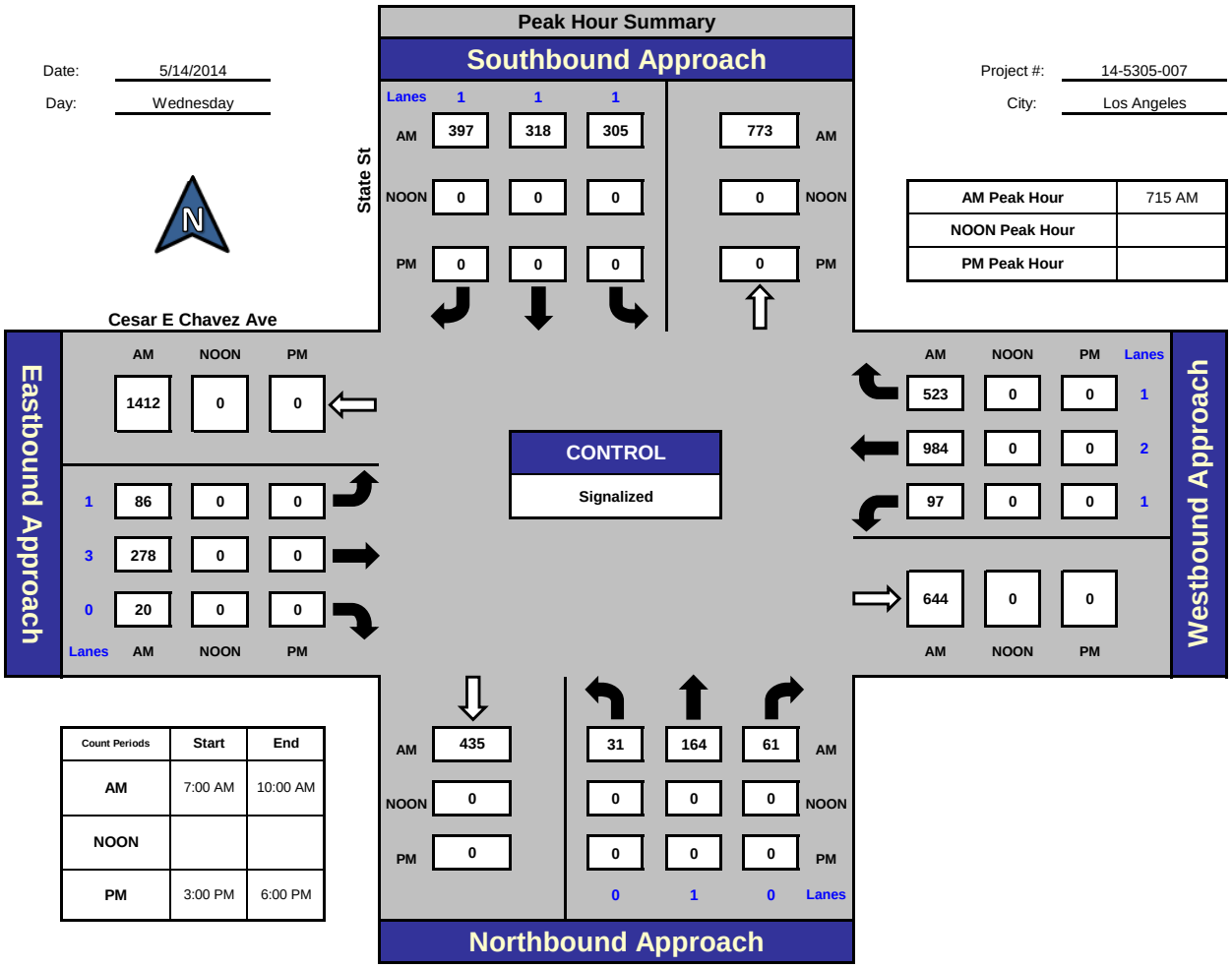
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-007

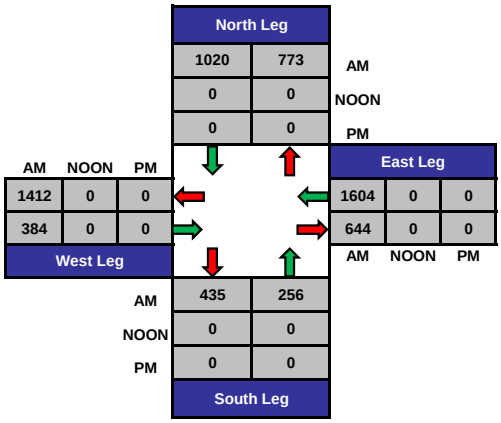
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

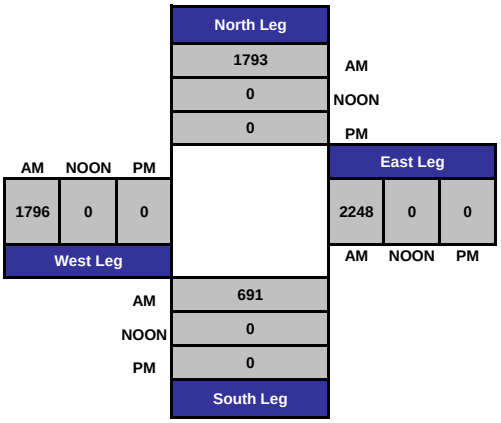


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-007
N/S Street: State St
E/W Street: Cesar E Chavez Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	6	1	1	2	3	2	11
7:15 AM	0	6	0	2	1	5	3	7
7:30 AM	2	16	1	3	2	7	3	8
7:45 AM	10	3	2	1	3	0	4	3
8:00 AM	2	4	2	0	7	0	2	2
8:15 AM	0	3	1	0	2	0	1	2
8:30 AM	0	4	2	1	2	1	2	1
8:45 AM	0	1	1	1	5	0	0	3
9:00 AM	1	2	2	2	1	2	2	3
9:15 AM	2	2	1	1	5	0	2	4
9:30 AM	0	2	1	1	1	1	2	5
9:45 AM	0	0	0	2	1	2	0	3
TOTALS	**18**	**49**	**14**	**15**	**32**	**21**	**23**	**52**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	2
7:30 AM	0	3	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**5**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-007
N/S Street: State St
E/W Street: Cesar E Chavez Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	1	2	0
7:15 AM	0	0	1	1	0	0	0	0	0	1	2	0
7:30 AM	0	1	0	0	0	0	1	1	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	1	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	1	0
8:45 AM	0	0	1	0	0	0	0	1	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	1	1	0
9:45 AM	0	1	0	0	0	0	0	0	0	1	0	0
TOTALS	**0**	**2**	**3**	**2**	**0**	**1**	**1**	**2**	**0**	**6**	**6**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-009 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	State St			State St			I-10 EB Ramps			I-10 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	0	2	0	0.5	1	0.5	0	0	0	
7:00 AM	0	108	42	24	156	0	39	21	10	0	0	0	400
7:15 AM	0	110	68	39	247	0	45	26	13	0	0	0	548
7:30 AM	0	153	53	44	249	0	67	35	14	0	0	0	615
7:45 AM	0	167	54	47	174	0	62	37	25	0	0	0	566
8:00 AM	0	131	32	33	225	0	46	21	8	0	0	0	496
8:15 AM	0	113	29	20	214	0	44	19	19	0	0	0	458
8:30 AM	0	74	37	36	171	0	40	20	8	0	0	0	386
8:45 AM	0	80	34	29	208	0	39	30	11	0	0	0	431
9:00 AM	0	82	27	32	215	0	31	25	8	0	0	0	420
9:15 AM	0	78	29	31	167	0	36	15	7	0	0	0	363
9:30 AM	0	67	26	26	159	0	25	18	12	0	0	0	333
9:45 AM	0	69	30	23	121	0	22	28	13	0	0	0	306
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1232	461	384	2306	0	496	295	148	0	0	0	5322
APPROACH %'s :	0.00%	72.77%	27.23%	14.28%	85.72%	0.00%	52.82%	31.42%	15.76%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	561	207	163	895	0	220	119	60	0	0	0	2225
PEAK HR FACTOR :		0.869			0.903			0.804			0.000		0.904

UTURNS			
NB	SB	EB	WB
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and I-10 EB Ramps , Los Angeles

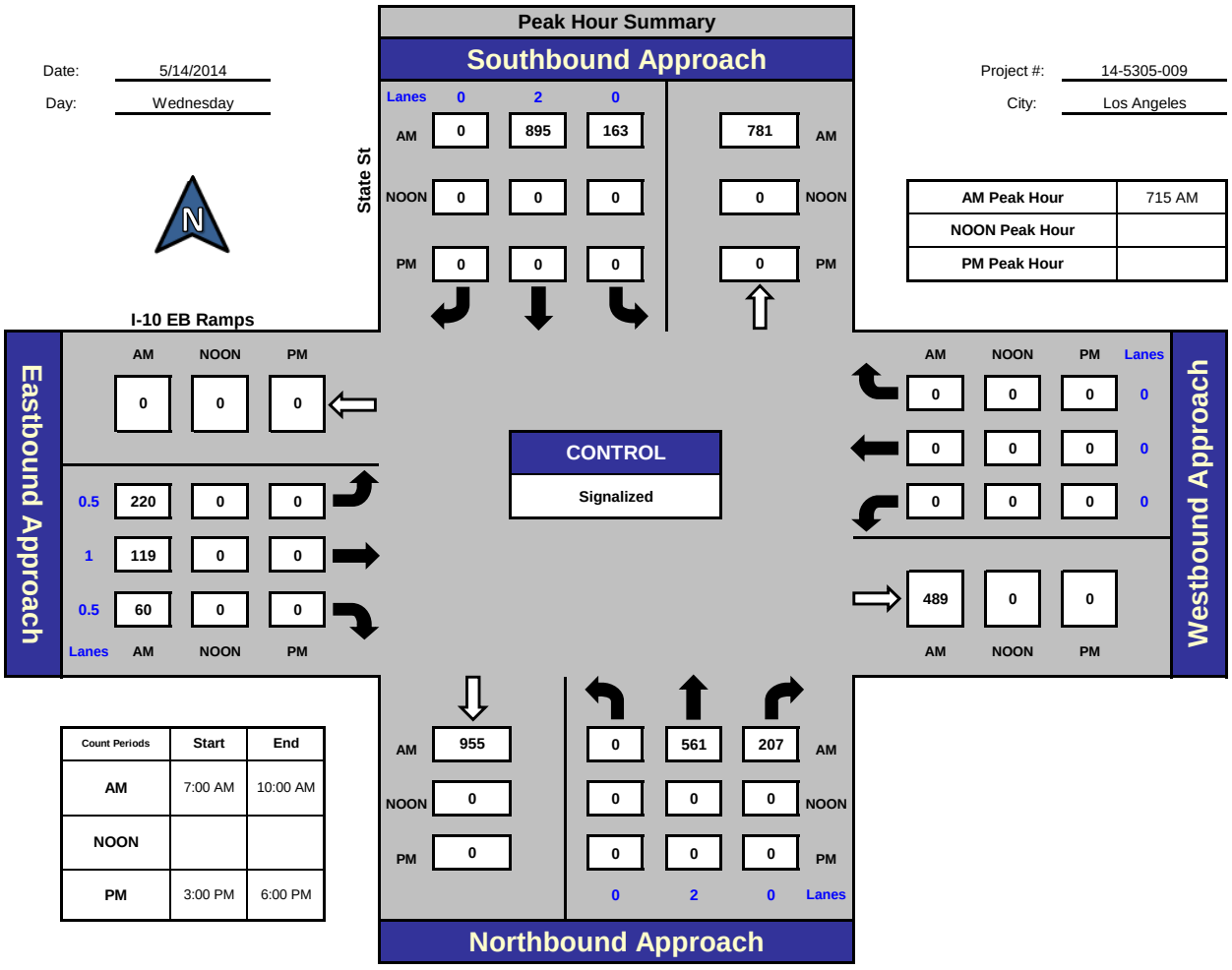
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-009

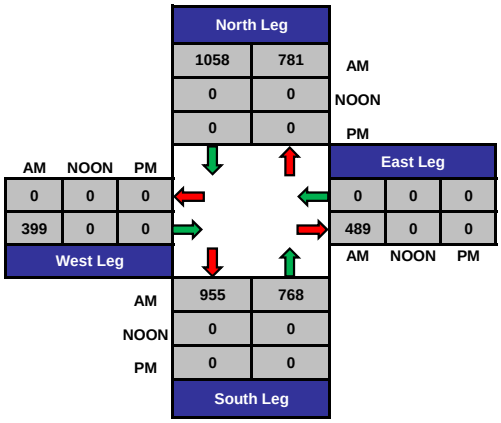
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

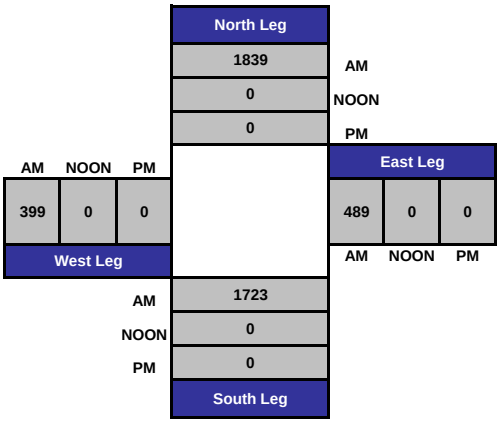


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-009
N/S Street: State St
E/W Street: I-10 EB Ramps
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	9	0	0	3
7:15 AM	0	0	0	0	5	4	1	2
7:30 AM	0	0	0	1	7	5	0	0
7:45 AM	0	0	0	0	5	4	1	1
8:00 AM	0	0	1	1	5	3	0	2
8:15 AM	0	0	0	0	4	1	0	0
8:30 AM	0	0	0	0	0	1	1	0
8:45 AM	0	0	0	1	3	1	2	0
9:00 AM	0	0	0	1	6	2	0	2
9:15 AM	0	0	0	0	4	2	0	1
9:30 AM	0	0	0	0	3	1	1	2
9:45 AM	0	0	0	1	1	2	0	0
TOTALS	**0**	**0**	**1**	**5**	**52**	**26**	**6**	**13**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	1	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-009
N/S Street: State St
E/W Street: I-10 EB Ramps
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	3	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	1	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**4**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-010 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	State St			State St			I-10 WB Off-Ramp			I-10 WB Off-Ramp			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 1	WT 0	WR 1	TOTAL
7:00 AM	5	143	0	0	79	13	0	0	0	98	0	86	424
7:15 AM	2	152	0	0	123	19	0	0	0	153	0	92	541
7:30 AM	2	206	0	0	185	21	0	0	0	118	0	79	611
7:45 AM	2	234	0	0	147	30	0	0	0	77	0	68	558
8:00 AM	2	176	0	0	116	20	0	0	0	130	0	85	529
8:15 AM	3	157	0	0	104	12	0	0	0	138	0	64	478
8:30 AM	0	117	0	0	113	11	0	0	0	104	0	48	393
8:45 AM	1	113	0	0	108	9	0	0	0	116	0	60	407
9:00 AM	0	112	0	0	106	14	0	0	0	144	0	49	425
9:15 AM	2	113	0	0	101	15	0	0	0	109	0	30	370
9:30 AM	1	91	0	0	91	10	0	0	0	85	0	37	315
9:45 AM	2	89	0	0	72	10	0	0	0	65	0	28	266
TOTAL VOLUMES :	NL 22	NT 1703	NR 0	SL 0	ST 1345	SR 184	EL 0	ET 0	ER 0	WL 1337	WT 0	WR 726	TOTAL 5317
APPROACH %'s :	1.28%	98.72%	0.00%	0.00%	87.97%	12.03%	#DIV/0!	#DIV/0!	#DIV/0!	64.81%	0.00%	35.19%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	8	768	0	0	571	90	0	0	0	478	0	324	2239
PEAK HR FACTOR :		0.822			0.802			0.000			0.818		0.916

UTURNS	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and I-10 WB Off-Ramp , Los Angeles

Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-010

City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Lanes	0	2	0		
AM	90	571	0	1092	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

State St

I-10 WB Off-Ramp

Eastbound Approach

	AM	NOON	PM
	98	0	0
0	0	0	0
1	0	0	0
0	0	0	0
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	324	0	0	1
	0	0	0	0
	478	0	0	1
	0	0	0	
	AM	NOON	PM	

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Northbound Approach

AM	1049	8	768	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	2	0	Lanes

Total Ins & Outs

	AM	NOON	PM
North Leg	661	0	0
	1092	0	0
West Leg	98	0	0
	0	0	0
East Leg	802	0	0
	0	0	0
South Leg	1049	0	0
	776	0	0

Total Volume Per Leg

	AM	NOON	PM
North Leg	1753	0	0
West Leg	98	0	0
East Leg	802	0	0
South Leg	1825	0	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-010
N/S Street: State St
E/W Street: I-10 WB Off-Ramp
DATE: 5/14/2014 DAY: Thursday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	7	0	0	4
7:15 AM	0	0	0	0	7	3	1	2
7:30 AM	0	0	0	0	6	6	0	1
7:45 AM	0	0	0	0	5	3	0	0
8:00 AM	0	0	0	0	4	2	1	1
8:15 AM	0	0	0	0	5	4	0	0
8:30 AM	0	0	0	0	4	3	1	0
8:45 AM	0	0	0	0	2	7	2	0
9:00 AM	0	0	0	0	10	7	0	6
9:15 AM	0	0	0	0	4	2	0	0
9:30 AM	0	0	0	0	3	1	0	2
9:45 AM	0	0	1	0	3	0	0	0
TOTALS	**0**	**0**	**1**	**0**	**60**	**38**	**5**	**16**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	1	0	0
7:30 AM	0	0	0	0	1	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0
9:15 AM	0	0	0	0	1	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**4**	**2**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-010
N/S Street: State St
E/W Street: I-10 WB Off-Ramp
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	3	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	1	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	3	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**7**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-011 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	State St			State St			Pomeroy Ave			Pomeroy Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 1	WT 0	WR 1	TOTAL
7:00 AM	0	130	103	1	72	1	0	0	7	15	0	2	331
7:15 AM	9	134	94	0	70	1	0	0	6	73	1	18	406
7:30 AM	5	145	128	0	93	0	2	0	7	104	3	17	504
7:45 AM	7	182	124	0	109	5	0	0	9	56	3	12	507
8:00 AM	11	166	81	0	116	3	0	0	6	15	0	3	401
8:15 AM	3	148	72	0	97	3	0	0	5	19	0	4	351
8:30 AM	5	128	36	0	79	1	0	0	3	26	0	1	279
8:45 AM	5	122	42	0	102	2	0	0	9	17	3	7	309
9:00 AM	2	120	39	0	107	4	0	0	4	14	0	6	296
9:15 AM	2	114	24	0	93	0	1	1	9	13	1	12	270
9:30 AM	4	104	23	0	83	2	0	0	4	16	1	3	240
9:45 AM	3	93	19	0	64	1	0	0	3	17	1	4	205
TOTAL VOLUMES :	NL 56	NT 1586	NR 785	SL 1	ST 1085	SR 23	EL 3	ET 1	ER 72	WL 385	WT 13	WR 89	TOTAL 4099
APPROACH %'s :	2.31%	65.35%	32.34%	0.09%	97.84%	2.07%	3.95%	1.32%	94.74%	79.06%	2.67%	18.28%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	32	627	427	0	388	9	2	0	28	248	7	50	1818
PEAK HR FACTOR :		0.867			0.834			0.833			0.615		0.896

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Pomeroy Ave , Los Angeles

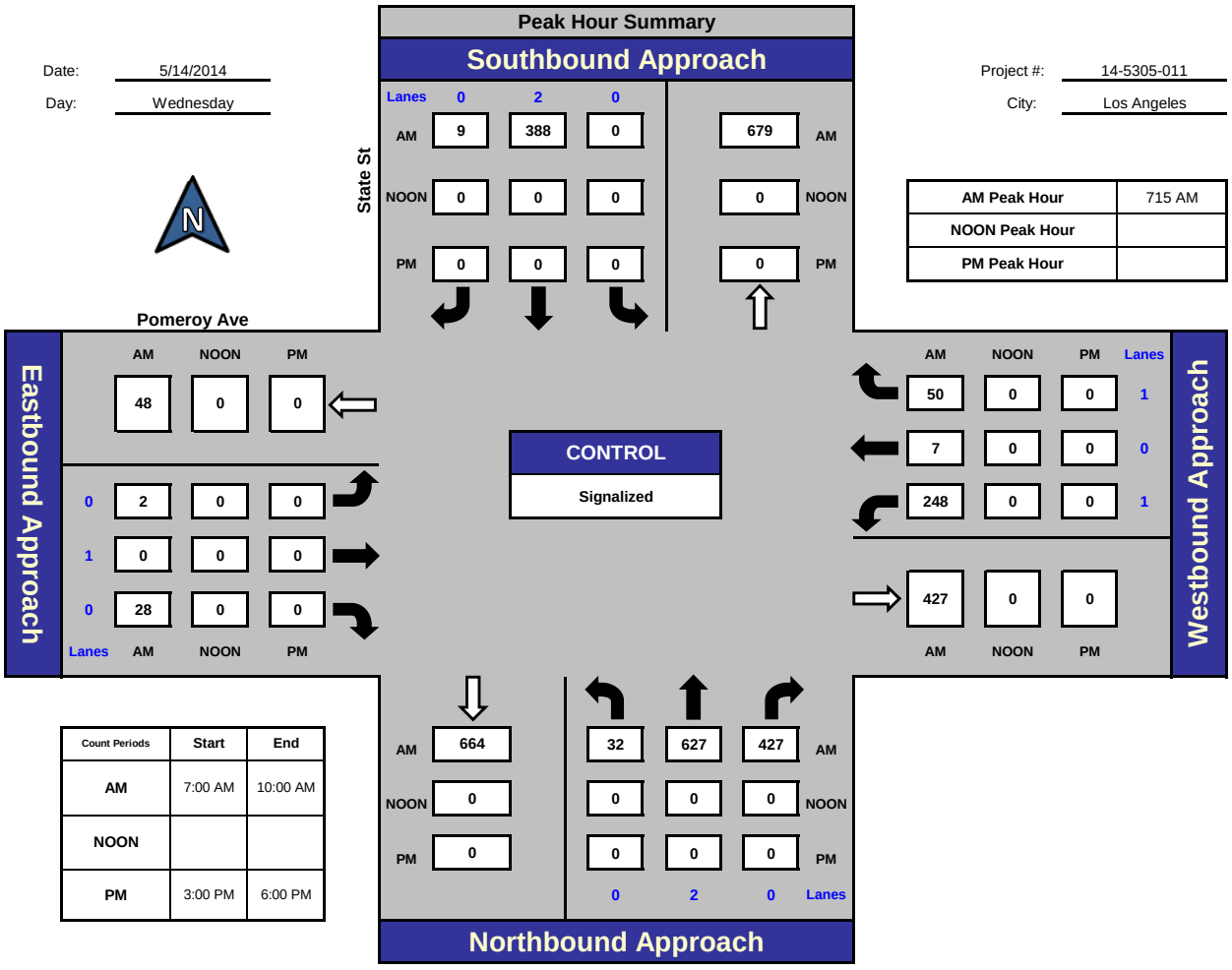
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-011

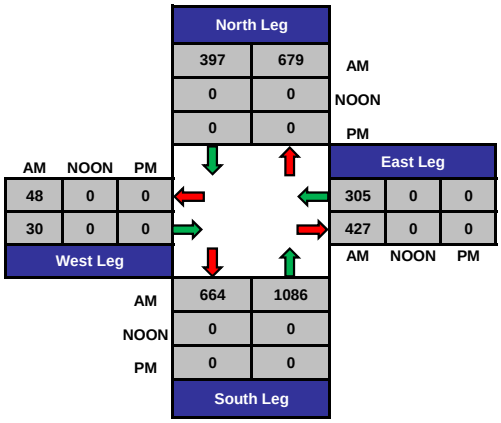
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

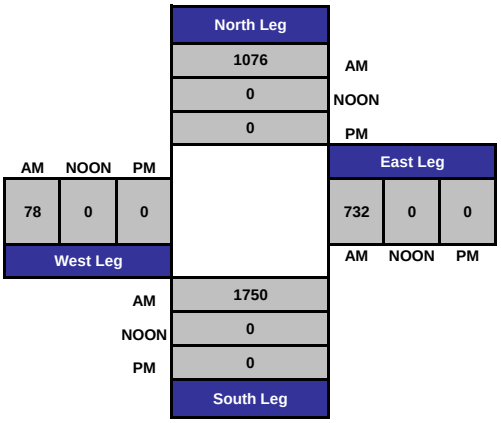


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-011
N/S Street: State St
E/W Street: Pomeroy Ave
DATE: 5/14/2014 DAY: Wednesday
CITY:

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	2	3	0	0	7	1	0	1
7:15 AM	1	1	0	0	3	3	1	1
7:30 AM	2	1	0	0	3	0	0	1
7:45 AM	1	1	0	0	3	2	1	1
8:00 AM	3	3	0	0	1	4	1	0
8:15 AM	2	0	0	0	2	1	0	2
8:30 AM	0	1	0	0	1	1	0	0
8:45 AM	0	1	0	0	0	1	0	0
9:00 AM	0	1	0	0	5	0	3	0
9:15 AM	1	3	0	0	3	3	0	0
9:30 AM	4	0	0	0	0	6	1	1
9:45 AM	0	1	0	0	2	2	0	1
TOTALS	**16**	**16**	**0**	**0**	**30**	**24**	**7**	**8**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0
7:45 AM	0	0	0	0	1	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-011
N/S Street: State St
E/W Street: Pomeroy Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	1	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	3	0	0	0	0	0	0	0	3	0	0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	0	1	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	1	0	0	0	1	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**5**	**2**	**1**	**2**	**0**	**0**	**0**	**1**	**4**	**0**	**2**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-012 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	State St			State St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	60	50	18	13	10	12	19	125	28	32	160	18	545
7:15 AM	84	45	17	13	16	12	14	135	33	16	192	19	596
7:30 AM	74	57	27	10	27	12	18	160	35	34	275	18	747
7:45 AM	85	78	24	14	27	24	15	141	36	41	239	24	748
8:00 AM	84	60	20	18	38	18	17	124	35	37	233	28	712
8:15 AM	81	61	16	16	14	13	17	101	34	42	232	24	651
8:30 AM	54	56	15	15	26	19	18	108	36	31	227	23	628
8:45 AM	57	50	16	28	30	27	21	115	43	25	171	23	606
9:00 AM	52	46	21	16	28	28	20	100	47	35	125	21	539
9:15 AM	58	46	15	17	24	16	16	80	41	18	134	15	480
9:30 AM	42	51	17	25	19	24	15	105	43	20	96	30	487
9:45 AM	43	29	20	13	16	12	12	118	29	16	124	17	449
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	774	629	226	198	275	217	202	1412	440	347	2208	260	7188
APPROACH %'s :	47.51%	38.61%	13.87%	28.70%	39.86%	31.45%	9.83%	68.74%	21.42%	12.33%	78.44%	9.24%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	324	256	87	58	106	67	67	526	140	154	979	94	2858
PEAK HR FACTOR :		0.892			0.780			0.860			0.938		0.955

UTURNS	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Marengo St , Los Angeles

Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-012

City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Lanes	0	2	0		
AM	67	106	58	417	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

State St

Marengo St

Eastbound Approach

Lanes	AM	NOON	PM
	1370	0	0
1	67	0	0
2	526	0	0
0	140	0	0
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
94	0	0	0
979	0	0	2
154	0	0	1
671	0	0	
AM	NOON	PM	

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Northbound Approach

AM	400	324	256	87	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	2	0	Lanes

Total Ins & Outs

	North Leg		
AM	231	417	AM
NOON	0	0	NOON
PM	0	0	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
1370	0	0		1227	0	0
733	0	0		671	0	0

	South Leg	
AM	400	667
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg
AM	648
NOON	0
PM	0

West Leg			East Leg		
AM	NOON	PM	AM	NOON	PM
2103	0	0	1898	0	0

	South Leg
AM	1067
NOON	0
PM	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-012
N/S Street: State St
E/W Street: Marengo St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	9	11	16	10	37	3	5	5
7:15 AM	17	5	13	14	35	5	11	4
7:30 AM	7	6	11	8	45	7	7	6
7:45 AM	11	7	16	15	33	5	6	3
8:00 AM	7	4	13	4	46	7	5	0
8:15 AM	12	8	13	12	9	16	5	3
8:30 AM	13	6	14	12	35	11	7	5
8:45 AM	7	3	19	10	49	15	9	9
9:00 AM	16	3	15	4	18	11	2	3
9:15 AM	13	13	11	8	27	24	2	4
9:30 AM	4	6	14	6	29	20	8	5
9:45 AM	5	3	17	12	52	14	4	7
TOTALS	**121**	**75**	**172**	**115**	**415**	**138**	**71**	**54**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	1	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**1**	**1**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-012
N/S Street: State St
E/W Street: Marengo St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	1	0	0	0	2	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	1	4	0	0	1	0
8:00 AM	0	0	1	0	1	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:45 AM	1	0	0	1	0	0	0	1	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	0	0	0	0	0	3	0
9:30 AM	1	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**3**	**0**	**1**	**2**	**3**	**0**	**1**	**9**	**0**	**0**	**6**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-008 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	I-5 NB Off-Ramp			I-5 NB Off-Ramp			Cesar E Chavez Ave			Cesar E Chavez Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 1	SL 0	ST 1	SR 0	EL 0	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
7:00 AM	109	0	24	0	0	3	0	70	0	0	272	0	478
7:15 AM	100	0	16	0	0	2	0	80	0	0	344	0	542
7:30 AM	126	0	24	0	0	0	0	87	0	0	341	0	578
7:45 AM	118	0	29	0	0	2	0	147	0	0	353	0	649
8:00 AM	126	0	32	0	0	0	0	104	0	0	283	0	545
8:15 AM	115	0	25	0	0	2	0	78	0	0	305	0	525
8:30 AM	84	0	21	0	0	2	0	102	0	0	248	0	457
8:45 AM	102	0	19	0	0	3	0	101	0	0	214	0	439
9:00 AM	91	0	25	0	0	1	0	89	0	0	188	0	394
9:15 AM	90	0	22	0	0	1	1	93	0	0	196	0	403
9:30 AM	80	0	28	0	0	0	0	100	0	0	170	0	378
9:45 AM	87	0	28	0	0	3	0	109	0	0	173	1	401
TOTAL VOLUMES :	NL 1228	NT 0	NR 293	SL 0	ST 0	SR 19	EL 1	ET 1160	ER 0	WL 0	WT 3087	WR 1	TOTAL 5789
APPROACH %'s :	80.74%	0.00%	19.26%	0.00%	0.00%	100.00%	0.09%	99.91%	0.00%	0.00%	99.97%	0.03%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	470	0	101	0	0	4	0	418	0	0	1321	0	2314
PEAK HR FACTOR :		0.903			0.500			0.711			0.936		0.891

UTURNS	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

I-5 NB Off-Ramp and Cesar E Chavez Ave , Los Angeles

Date: 5/14/2014
Day: Wednesday

Project #: 14-5305-008
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Lanes	0	1	0		
AM	4	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

I-5 NB Off-Ramp

Cesar E Chavez Ave

Eastbound Approach

	AM	NOON	PM
	1795	0	0
0	0	0	0
2	418	0	0
0	0	0	0
Lanes	AM	NOON	PM

CONTROL

Signalized

Westbound Approach

	AM	NOON	PM	Lanes
	0	0	0	0
	1321	0	0	2
	0	0	0	0
	519	0	0	
	AM	NOON	PM	

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Northbound Approach

AM	0	470	0	101	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		1	0	1	Lanes

Total Ins & Outs

	North Leg		
	4	0	AM
	0	0	NOON
	0	0	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
1795	0	0		1321	0	0
418	0	0		519	0	0

	South Leg	
AM	0	571
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg	
	4	AM
	0	NOON
	0	PM

West Leg			East Leg		
AM	NOON	PM			
2213	0	0	1840	0	0
			AM	NOON	PM

	South Leg
AM	571
NOON	0
PM	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-008
N/S Street: I-5 NB Off-Ramp
E/W Street: Cesar E Chavez Ave
DATE: 5/14/2014 DAY: Thursday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	4	1	1	0	0	0	0
7:15 AM	1	2	0	1	0	0	0	0
7:30 AM	1	12	1	6	0	0	0	0
7:45 AM	4	4	2	4	0	1	0	0
8:00 AM	3	3	3	5	1	0	0	0
8:15 AM	3	5	2	1	1	5	0	0
8:30 AM	2	1	2	3	3	1	0	0
8:45 AM	3	3	3	4	1	3	0	0
9:00 AM	4	4	2	4	2	1	0	0
9:15 AM	5	5	6	2	0	3	0	0
9:30 AM	3	3	4	4	1	0	0	0
9:45 AM	1	2	2	8	1	1	0	0
TOTALS	**31**	**48**	**28**	**43**	**10**	**15**	**0**	**0**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-008
N/S Street: I-5 NB Off-Ramp
E/W Street: Cesar E Chavez Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0
9:00 AM	0	0	0	0	0	0	0	1	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	2	0	0	1	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	1	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	**0**	**0**	**8**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5490_003 **Day:** THURSDAY

City: City of Los Angeles **Date:** 12/6/2012

AM

NS/EW Streets:	Brittania St			Brittania St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	1	0	0	0	0	2	0	0	2	0	
7:00 AM	6		11					98			227		342
7:15 AM	12		21					99			265		397
7:30 AM	11		44					133			281		469
7:45 AM	9		36					145			357		547
8:00 AM	9		21					127			285		442
8:15 AM	5		19					102			257		383
8:30 AM	11		11					101			205		328
8:45 AM	10		14					106			195		325
9:00 AM	16		18					116			182		332
9:15 AM	12		21					124			144		301
9:30 AM	14		16					124			150		304
9:45 AM	9		17					121			112		259
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	124	0	249	0	0	0	0	1396	0	0	2660	0	4429
APPROACH %'s :	33.24%	0.00%	66.76%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	41	0	122	0	0	0	0	504	0	0	1188	0	1855
PEAK HR FACTOR :		0.741			0.000			0.869			0.832		0.848

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Brittania St and Marengo St , City of Los Angeles

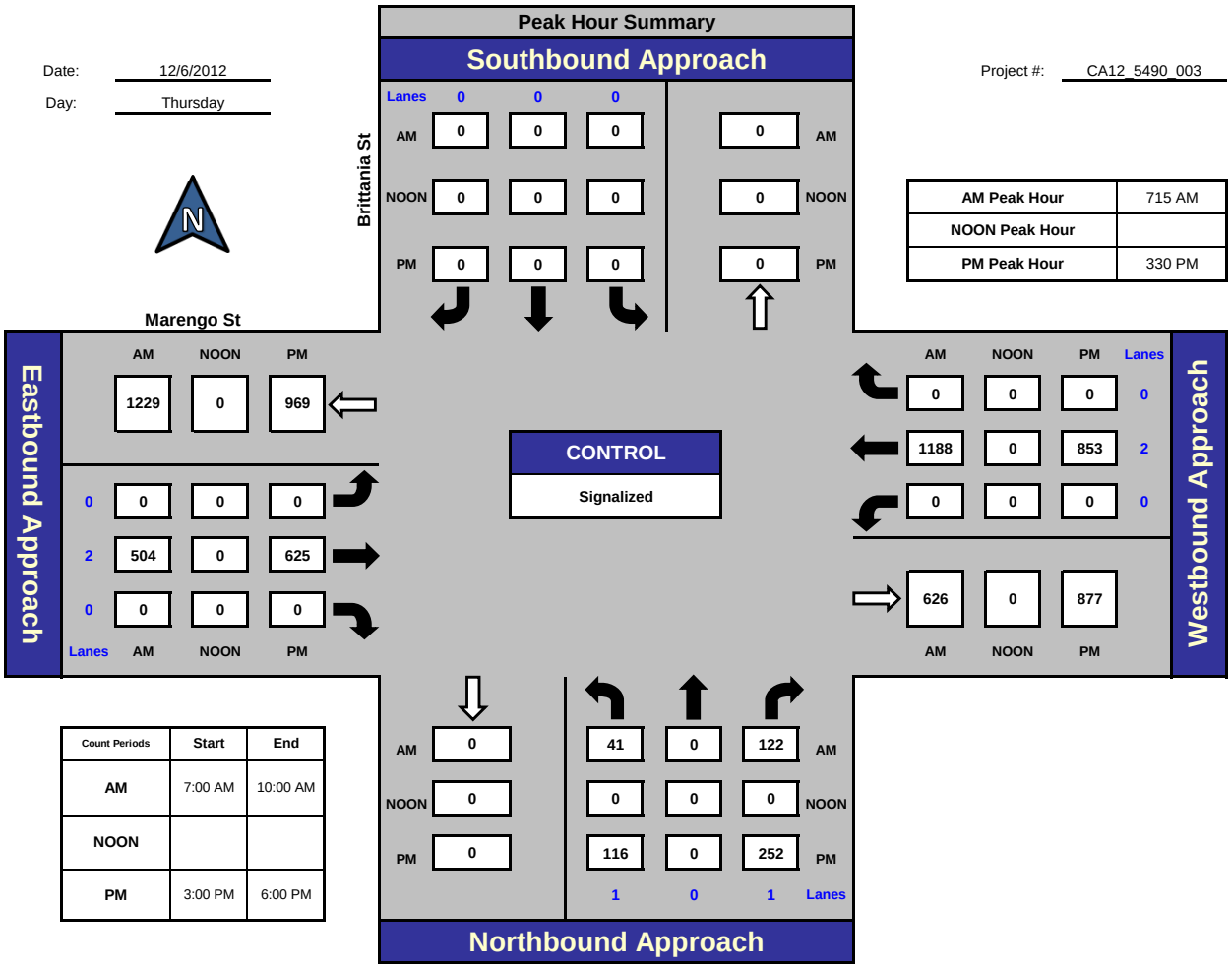
Date: 12/6/2012

Day: Thursday

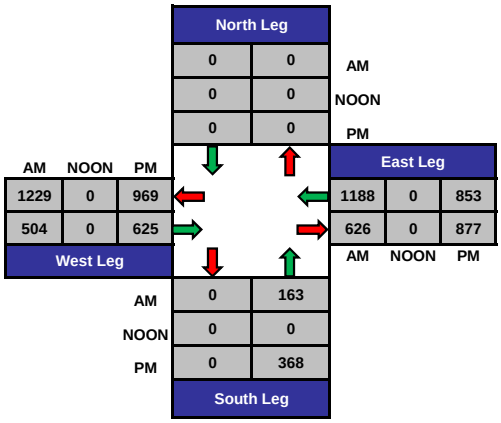
Project #: CA12_5490_003

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	330 PM

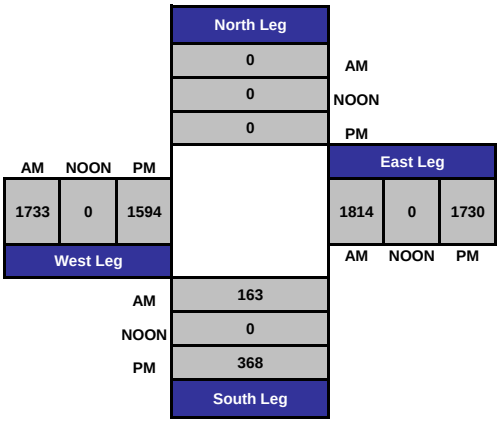
Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5490-003
N/S Street: Brittania St
E/W Street: Marengo St
DATE: 12/6/2012 DAY: Thursday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	57	22	7	4	0	0
7:15 AM	0	0	53	62	4	6	0	0
7:30 AM	0	0	47	121	12	5	0	0
7:45 AM	0	0	49	31	15	9	0	0
8:00 AM	0	0	36	20	8	11	0	0
8:15 AM	0	0	42	10	7	18	0	0
8:30 AM	0	0	45	18	4	3	0	0
8:45 AM	0	0	40	18	11	5	0	0
9:00 AM	0	0	37	23	7	15	0	0
9:15 AM	0	0	32	20	7	11	0	0
9:30 AM	0	0	31	22	18	4	0	0
9:45 AM	0	0	23	22	5	12	0	0
TOTALS	**0**	**0**	**492**	**389**	**105**	**103**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	5	0	1	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	2	0	1	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0
9:00 AM	0	1	1	0	1	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	4	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**13**	**1**	**1**	**12**	**0**	**1**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	32	49	20	12	0	0
3:15 PM	0	0	25	41	10	21	0	0
3:30 PM	3	0	40	119	19	18	0	0
3:45 PM	0	0	36	75	31	15	0	0
4:00 PM	0	0	27	84	13	14	0	0
4:15 PM	0	0	32	61	18	20	0	0
4:30 PM	0	0	16	82	19	13	0	0
4:45 PM	0	0	28	30	12	18	0	0
5:00 PM	1	0	26	61	8	14	0	0
5:15 PM	0	0	42	42	7	9	0	0
5:30 PM	0	0	29	58	15	4	0	0
5:45 PM	0	1	40	44	19	23	0	0
TOTALS	**4**	**1**	**373**	**746**	**191**	**181**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	3	0	0	1	0	0	0	0	0	0	0
4:00 PM	0	2	0	0	1	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	2	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	3	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	4	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**16**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-013 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Chicago St			Chicago St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0.5	0.5	1	1	2	0	1	2	0	
7:00 AM	0	0	1	4	0	19	9	88	3	4	243	6	377
7:15 AM	3	0	0	8	1	24	13	110	9	6	247	12	433
7:30 AM	2	3	5	20	3	58	29	122	11	9	297	13	572
7:45 AM	6	1	8	18	6	63	24	126	17	27	267	21	584
8:00 AM	11	1	10	8	8	30	17	99	34	51	287	13	569
8:15 AM	7	2	9	4	5	16	3	100	15	40	305	6	512
8:30 AM	3	0	7	4	1	13	8	94	10	30	292	5	467
8:45 AM	5	2	8	4	1	9	14	88	10	13	237	5	396
9:00 AM	3	0	4	5	1	19	10	92	7	9	176	6	332
9:15 AM	0	2	3	5	0	23	6	90	7	8	163	6	313
9:30 AM	5	1	13	7	0	23	13	97	3	7	145	2	316
9:45 AM	4	0	7	2	0	22	8	103	7	5	139	1	298
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	49	12	75	89	26	319	154	1209	133	209	2798	96	5169
APPROACH %'s :	36.03%	8.82%	55.15%	20.51%	5.99%	73.50%	10.29%	80.82%	8.89%	6.74%	90.17%	3.09%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	26	7	32	50	22	167	73	447	77	127	1156	53	2237
PEAK HR FACTOR :		0.739			0.687			0.894			0.952		0.958

UTURNS				
NB	SB	EB	WB	
0	0	0	0	

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Chicago St and Marengo St , Los Angeles

Date: 5/14/2014

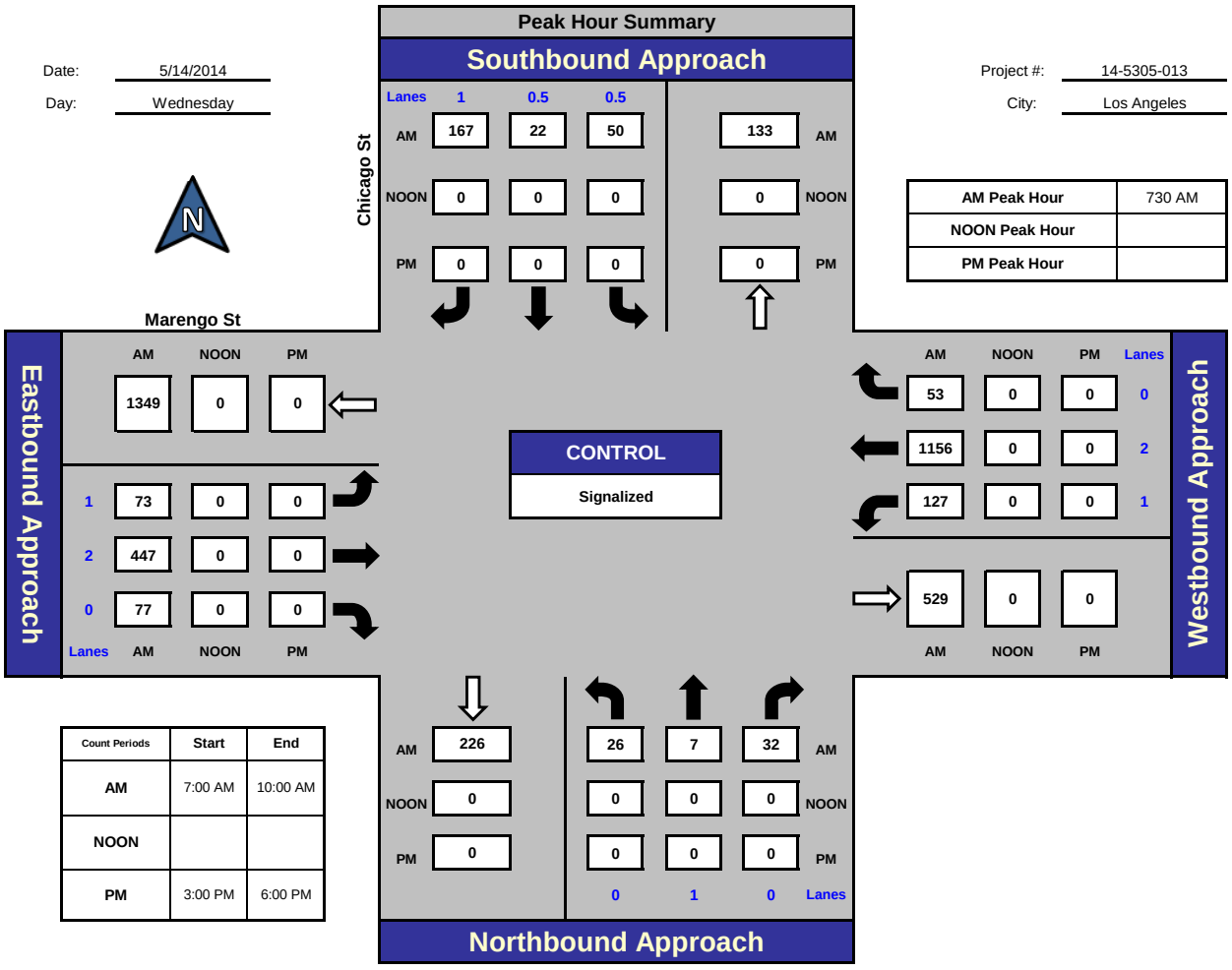
Day: Wednesday

Project #: 14-5305-013

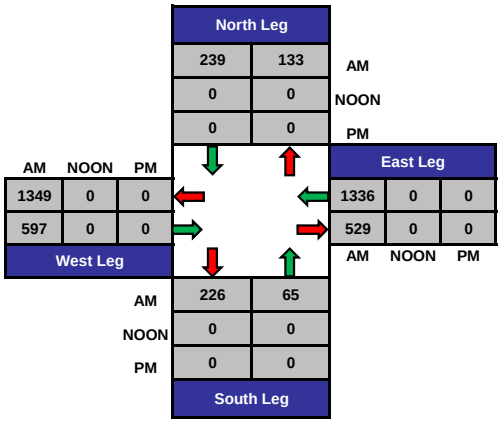
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

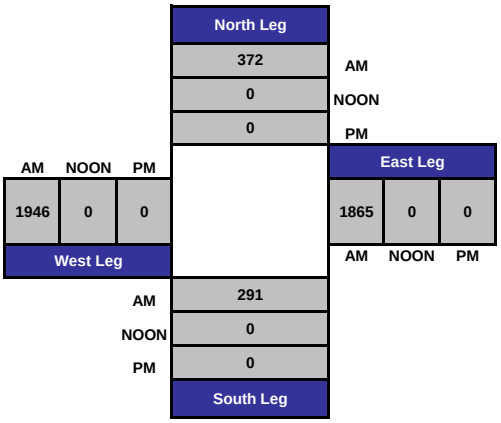
Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-013
N/S Street: Chicago St
E/W Street: Marengo St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	0	2	1	0	0	0	0
7:15 AM	5	4	11	1	1	2	3	4
7:30 AM	7	6	6	2	1	3	1	2
7:45 AM	3	5	1	1	0	5	1	3
8:00 AM	4	3	13	5	1	2	6	3
8:15 AM	1	2	5	3	0	2	0	1
8:30 AM	2	2	5	5	0	5	0	2
8:45 AM	1	3	1	0	0	2	1	0
9:00 AM	1	3	4	2	0	1	0	1
9:15 AM	0	2	1	2	0	0	1	0
9:30 AM	3	1	1	0	0	0	3	0
9:45 AM	0	3	4	3	4	0	4	1
TOTALS	**28**	**34**	**54**	**25**	**7**	**22**	**20**	**17**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	2	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-013
N/S Street: Chicago St
E/W Street: Marengo St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0
7:45 AM	0	0	0	0	0	0	0	2	0	1	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	1	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	3	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	1	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**7**	**2**	**1**	**7**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-014 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	San Pablo St			San Pablo St			Valley Blvd			Valley Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	2	0	0	0	0	2	1	1	2	0	
7:00 AM	7	0	11	0	0	0	0	94	21	23	289	0	445
7:15 AM	12	0	18	0	0	0	0	140	23	38	387	0	618
7:30 AM	18	0	16	0	0	0	0	184	29	59	413	0	719
7:45 AM	27	0	28	0	0	0	0	170	36	54	407	0	722
8:00 AM	7	0	6	0	0	0	0	190	24	9	349	0	585
8:15 AM	0	0	0	0	0	0	0	155	0	0	343	0	498
8:30 AM	0	0	0	0	0	0	0	187	2	0	348	0	537
8:45 AM	19	0	10	0	0	0	0	118	27	37	306	0	517
9:00 AM	13	0	10	0	0	0	0	143	31	33	216	0	446
9:15 AM	15	0	17	0	0	0	0	139	22	15	204	0	412
9:30 AM	20	0	13	0	0	0	0	140	18	20	186	0	397
9:45 AM	17	0	7	0	0	0	0	110	25	19	183	0	361
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	155	0	136	0	0	0	0	1770	258	307	3631	0	6257
APPROACH %'s :	53.26%	0.00%	46.74%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	87.28%	12.72%	7.80%	92.20%	0.00%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	64	0	68	0	0	0	0	684	112	160	1556	0	2644
PEAK HR FACTOR :		0.600			0.000			0.930			0.909		0.916

UTURNS				
NB	SB	EB	WB	
NB	SB	EB	WB	
0	0	0	0	

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

San Pablo St and Valley Blvd , Los Angeles

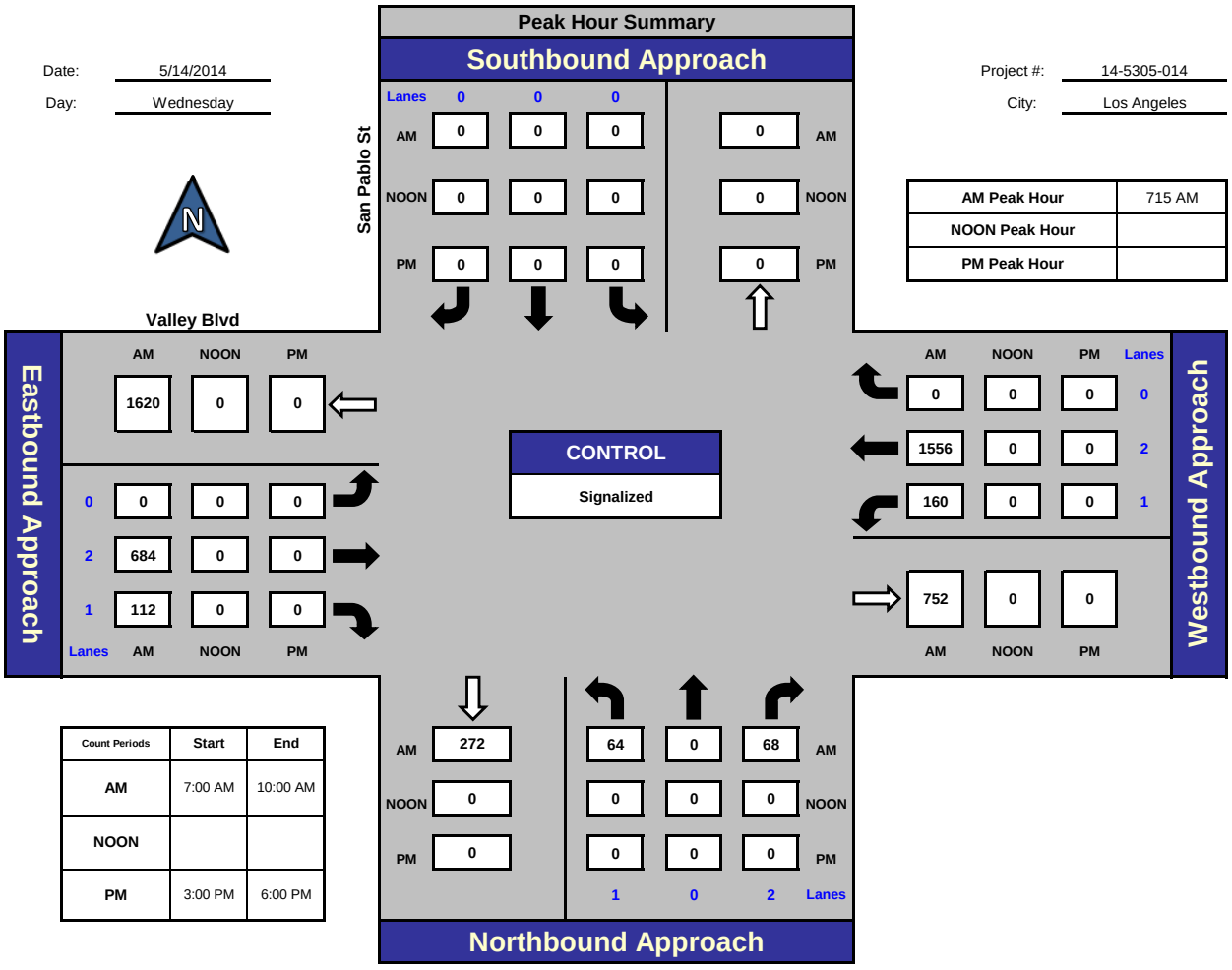
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-014

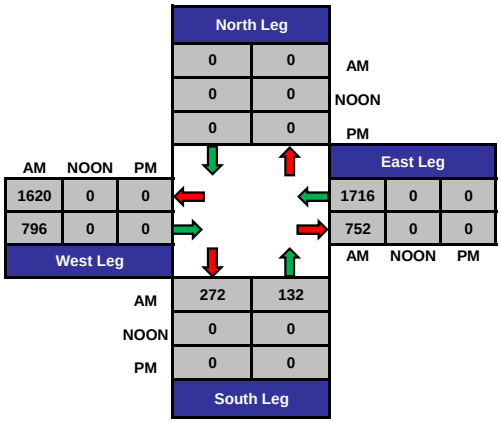
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

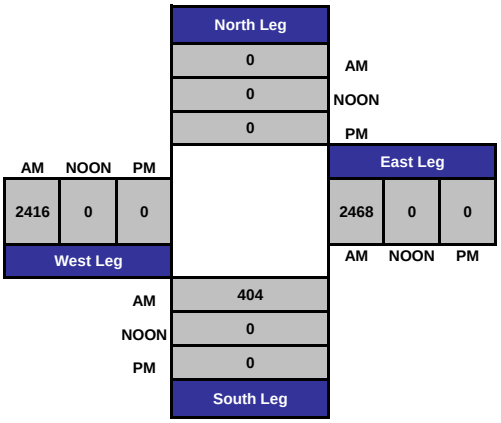


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-014
N/S Street: San Pablo St
E/W Street: Valley Blvd
DATE: 5/14/2014 DAY: Thursday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	2	3	4
7:15 AM	0	0	0	2	0	1	1	9
7:30 AM	0	0	0	0	0	0	3	4
7:45 AM	0	0	0	0	0	0	1	4
8:00 AM	0	0	0	2	0	0	2	8
8:15 AM	0	0	1	3	0	0	2	7
8:30 AM	0	0	1	3	0	0	2	7
8:45 AM	0	0	0	1	0	0	0	4
9:00 AM	0	0	0	0	0	0	2	21
9:15 AM	0	0	0	1	0	0	2	9
9:30 AM	0	0	0	0	0	0	1	6
9:45 AM	0	0	0	1	0	0	4	10
TOTALS	**0**	**0**	**2**	**13**	**0**	**3**	**23**	**93**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-014
N/S Street: San Pablo St
E/W Street: Valley Blvd
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	1	0	0	0	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	2	1	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	3	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	1	0	1	2	0
9:45 AM	0	0	0	0	0	0	0	0	1	0	1	0
TOTALS	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	**2**	**2**	**6**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-015 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Soto St			Soto St			I-10 EB Off-Ramp/Wabash Ave			I-10 EB Off-Ramp/Wabash Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 3	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 1	WT 0	WR 1	TOTAL
7:00 AM	0	152	4	21	161	0	112	14	7	32	0	40	543
7:15 AM	0	191	5	20	237	0	120	17	11	46	0	56	703
7:30 AM	0	142	8	26	229	0	136	20	12	50	0	62	685
7:45 AM	0	122	6	36	241	0	147	18	20	48	0	59	697
8:00 AM	0	118	3	33	225	0	164	31	19	33	0	69	695
8:15 AM	0	169	10	25	263	0	96	17	10	25	0	59	674
8:30 AM	0	179	6	30	209	0	88	20	11	21	0	50	614
8:45 AM	0	122	15	26	234	0	89	24	10	29	0	50	599
9:00 AM	0	123	11	32	181	0	75	16	18	17	0	38	511
9:15 AM	0	120	9	23	181	0	80	15	15	22	0	57	522
9:30 AM	0	109	12	27	156	0	90	9	6	20	0	26	455
9:45 AM	0	125	4	27	118	0	67	22	15	19	0	38	435
TOTAL VOLUMES :	NL 0	NT 1672	NR 93	SL 326	ST 2435	SR 0	EL 1264	ET 223	ER 154	WL 362	WT 0	WR 604	TOTAL 7133
APPROACH %'s :	0.00%	94.73%	5.27%	11.81%	88.19%	0.00%	77.03%	13.59%	9.38%	37.47%	0.00%	62.53%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	573	22	115	932	0	567	86	62	177	0	246	2780
PEAK HR FACTOR :		0.759			0.945			0.835			0.944		0.989

UTURNS	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

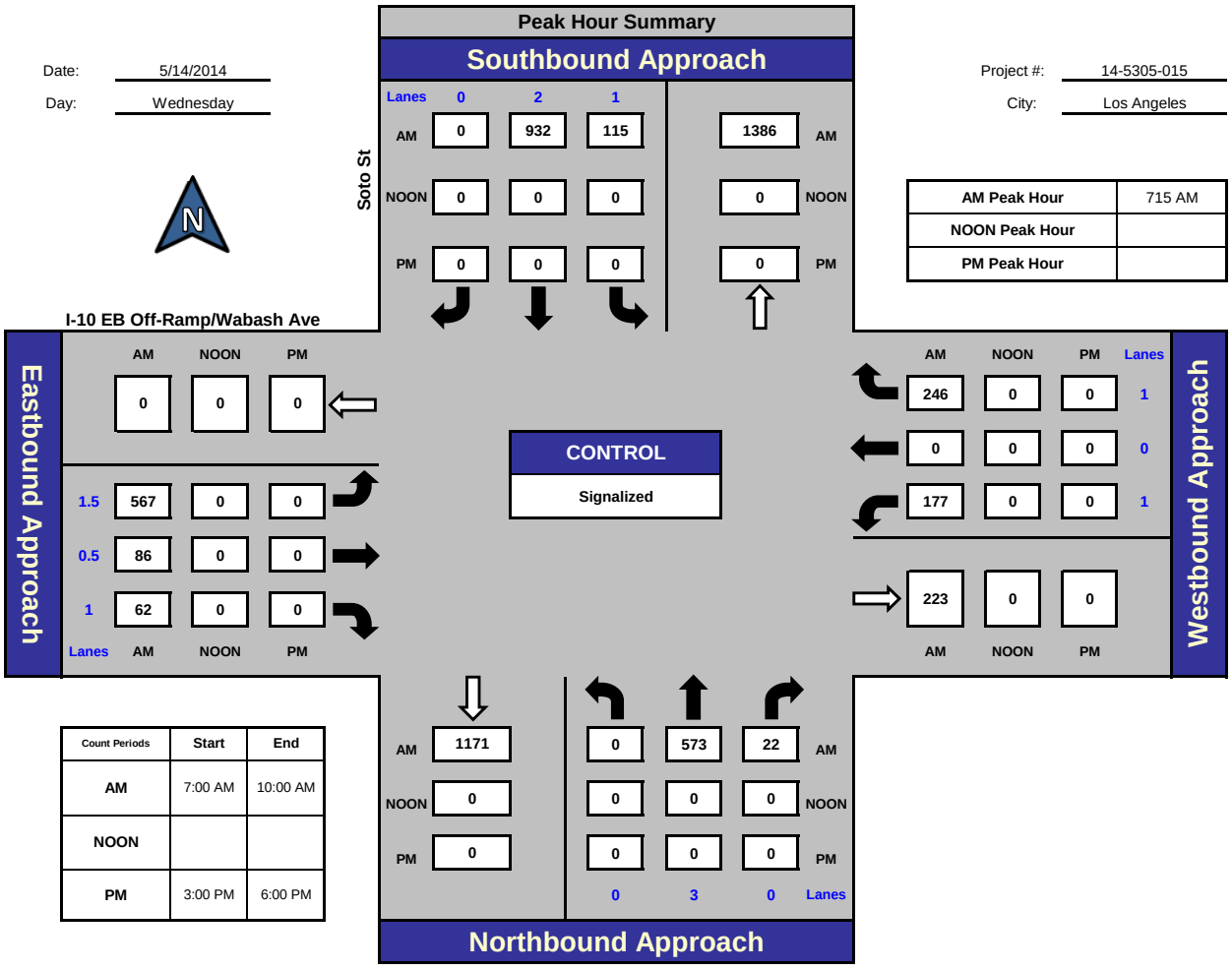
Soto St and I-10 EB Off-Ramp/Wabash Ave , Los Angeles

Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-015

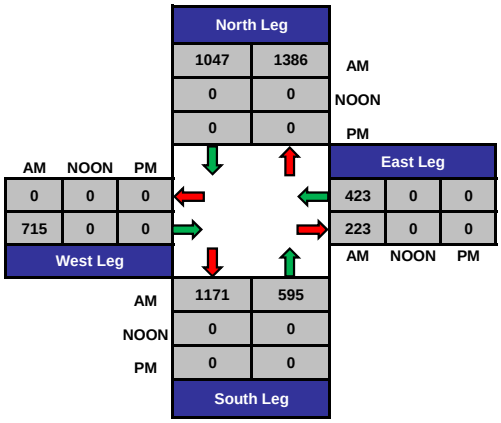
City: Los Angeles



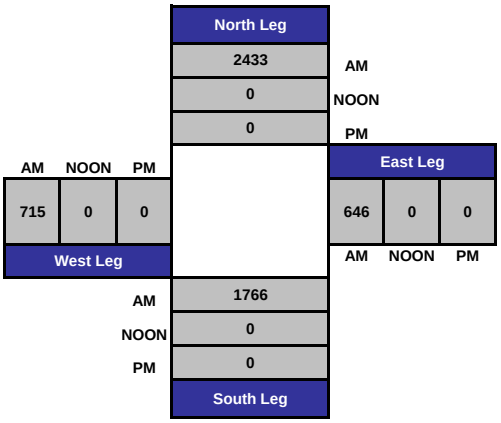
AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-015
N/S Street: Soto St
E/W Street: I-10 EB Off-Ramp/Wabash Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	3	17	1	0	3	6	0	2
7:15 AM	3	19	1	1	8	12	8	3
7:30 AM	0	7	0	2	14	7	6	1
7:45 AM	1	8	0	0	8	2	5	4
8:00 AM	1	5	0	0	5	3	1	1
8:15 AM	0	3	0	0	2	3	3	0
8:30 AM	1	9	0	0	2	2	5	2
8:45 AM	1	8	0	1	8	13	1	1
9:00 AM	1	4	0	0	3	5	0	2
9:15 AM	3	8	0	0	3	5	1	1
9:30 AM	0	1	0	1	5	5	0	2
9:45 AM	1	2	2	0	4	4	2	1
TOTALS	**15**	**91**	**4**	**5**	**65**	**67**	**32**	**20**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0
9:15 AM	0	0	0	0	1	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	1	0	0	0
TOTALS	**0**	**3**	**0**	**0**	**2**	**1**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-015
N/S Street: Soto St
E/W Street: I-10 EB Off-Ramp/Wabash Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	1	0	0	2	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**7**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**1**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-016 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Soto St			Soto St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 2.5	NR 0	SL 1.5	ST 1.5	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	145	162	29	77	156	75	10	46	35	10	59	19	823
7:15 AM	119	180	42	99	174	77	15	45	67	8	92	31	949
7:30 AM	159	187	19	138	207	94	19	54	57	12	128	35	1109
7:45 AM	119	203	19	121	168	105	16	77	83	10	135	38	1094
8:00 AM	108	238	16	112	176	118	15	55	59	14	127	37	1075
8:15 AM	134	175	26	77	215	116	14	38	54	9	138	24	1020
8:30 AM	132	178	30	108	188	104	12	45	49	17	100	14	977
8:45 AM	86	150	20	86	192	104	14	38	54	9	73	13	839
9:00 AM	79	125	25	76	165	72	11	46	46	8	35	12	700
9:15 AM	87	142	37	54	163	74	12	32	53	5	35	17	711
9:30 AM	81	123	29	52	127	46	14	46	57	7	33	5	620
9:45 AM	68	124	35	67	91	52	13	56	59	6	29	10	610
TOTAL VOLUMES :	NL 1317	NT 1987	NR 327	SL 1067	ST 2022	SR 1037	EL 165	ET 578	ER 673	WL 115	WT 984	WR 255	TOTAL 10527
APPROACH %'s :	36.27%	54.72%	9.01%	25.86%	49.01%	25.13%	11.65%	40.82%	47.53%	8.49%	72.67%	18.83%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	520	803	80	448	766	433	64	224	253	45	528	134	4298
PEAK HR FACTOR :		0.961			0.938			0.768			0.966		0.969

UTURNS	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Soto St and Marengo St , Los Angeles

Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-016

City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Lanes	1	1.5	1.5		
AM	433	766	448	1001	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Soto St

Marengo St

Eastbound Approach

	AM	NOON	PM
	1481	0	0
1	64	0	0
2	224	0	0
1	253	0	0
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	134	0	0	0
	528	0	0	2
	45	0	0	1
	752	0	0	
	AM	NOON	PM	

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Northbound Approach

AM	1064	520	803	80	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		1.5	2.5	0	Lanes

Total Ins & Outs

	North Leg		
AM	1647	1001	AM
NOON	0	0	NOON
PM	0	0	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
1481	0	0		707	0	0
541	0	0		752	0	0

	South Leg	
AM	1064	1403
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg	
AM	2648	AM
NOON	0	NOON
PM	0	PM

West Leg			East Leg		
AM	NOON	PM	AM	NOON	PM
2022	0	0	1459	0	0

	South Leg
AM	2467
NOON	0
PM	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-016
N/S Street: Soto St
E/W Street: Marengo St
DATE: 5/14/2014 DAY: Thursday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	3	0	1	3	0	4	3
7:15 AM	4	11	5	0	7	0	2	2
7:30 AM	10	3	2	1	2	0	11	0
7:45 AM	2	4	2	7	6	2	8	7
8:00 AM	0	3	1	10	5	4	3	11
8:15 AM	0	4	2	5	0	1	2	5
8:30 AM	0	1	1	5	0	0	3	3
8:45 AM	1	2	2	1	2	0	1	7
9:00 AM	2	2	1	5	0	0	4	10
9:15 AM	0	2	1	0	1	2	1	6
9:30 AM	0	0	0	0	2	0	1	2
9:45 AM	0	0	1	1	2	1	4	1
TOTALS	**20**	**35**	**18**	**36**	**30**	**10**	**44**	**57**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-016
N/S Street: Soto St
E/W Street: Marengo St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	1	1	0
7:15 AM	1	1	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	1	0	0	1	0	0	0	0	1	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	1	0	0	0
9:30 AM	0	0	0	0	0	0	0	2	0	0	1	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**1**	**2**	**0**	**0**	**2**	**1**	**0**	**3**	**2**	**2**	**5**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-017 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Soto St			Soto St			Charlotte St/I-10 WB Ramps			Charlotte St/I-10 WB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 0	ET 2	ER 0	WL 1.5	WT 0.5	WR 2	TOTAL
7:00 AM	14	137	30	48	209	4	4	6	22	82	97	75	728
7:15 AM	13	195	28	52	247	4	8	15	31	78	95	107	873
7:30 AM	32	185	14	63	277	18	12	17	67	88	101	109	983
7:45 AM	44	203	20	64	217	22	24	18	60	114	118	102	1006
8:00 AM	16	236	25	66	296	11	4	6	31	79	59	68	897
8:15 AM	28	161	35	74	245	4	4	10	18	163	97	99	938
8:30 AM	20	167	20	77	269	9	1	3	29	87	68	77	827
8:45 AM	20	129	20	61	246	2	0	9	23	117	112	81	820
9:00 AM	17	125	16	69	197	4	2	9	27	87	99	78	730
9:15 AM	17	109	34	48	183	4	2	9	15	92	65	76	654
9:30 AM	17	117	21	30	144	3	2	11	21	57	67	58	548
9:45 AM	16	109	23	35	132	2	1	16	18	70	70	63	555
TOTAL VOLUMES :	NL 254	NT 1873	NR 286	SL 687	ST 2662	SR 87	EL 64	ET 129	ER 362	WL 1114	WT 1048	WR 993	TOTAL 9559
APPROACH %'s :	10.53%	77.62%	11.85%	19.99%	77.47%	2.53%	11.53%	23.24%	65.23%	35.31%	33.22%	31.47%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	120	785	94	267	1035	55	44	51	176	444	375	378	3824
PEAK HR FACTOR :		0.902			0.910			0.664			0.834		0.950

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Soto St and Charlotte St/I-10 WB Ramps , Los Angeles

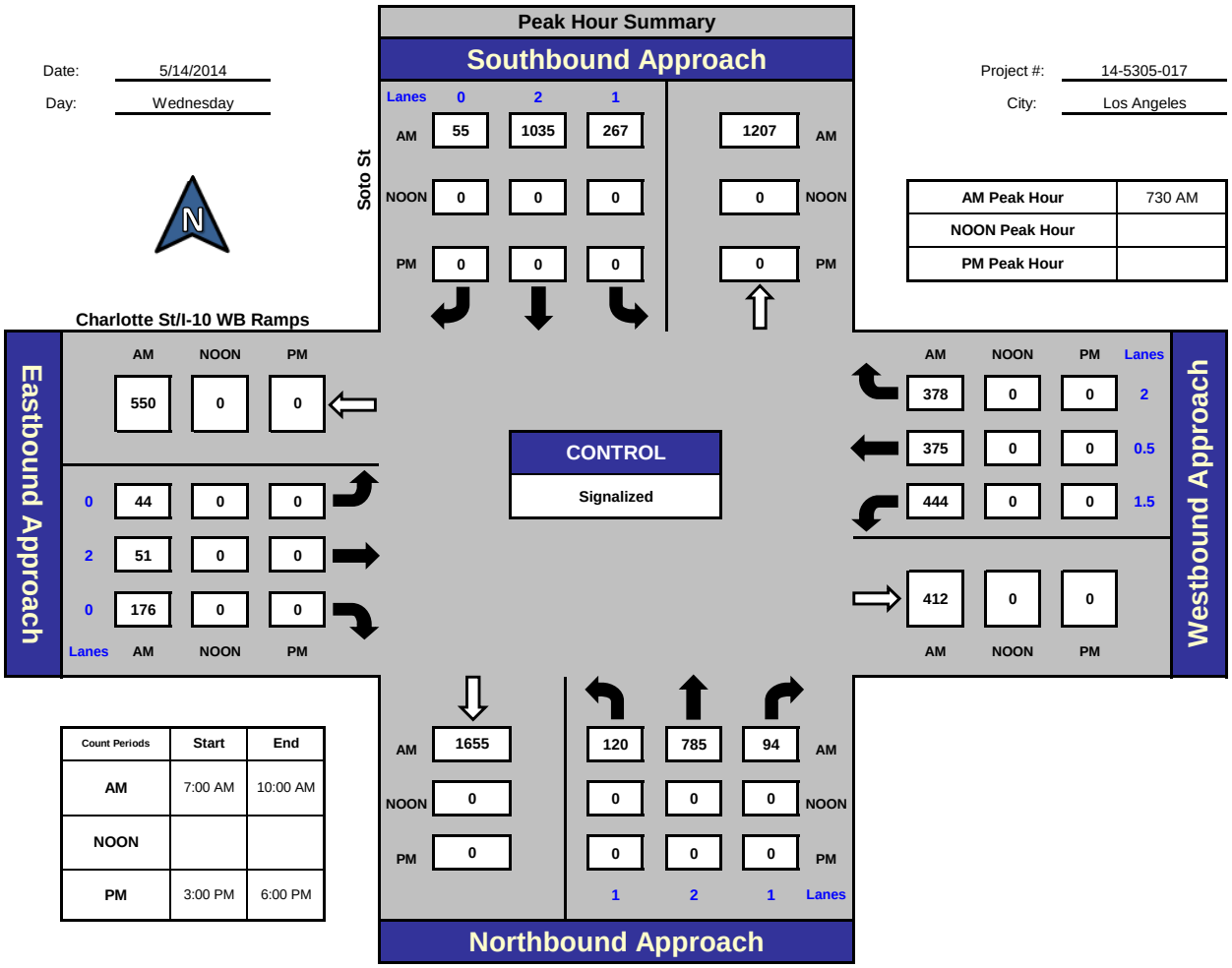
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-017

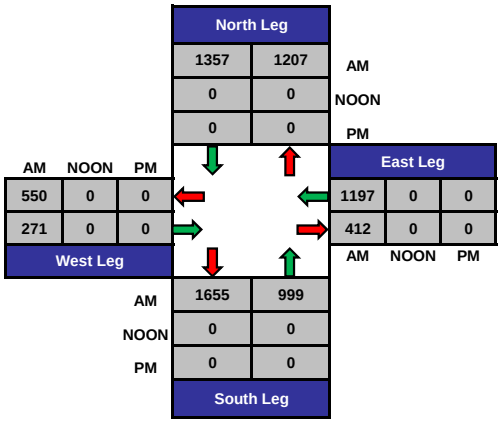
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

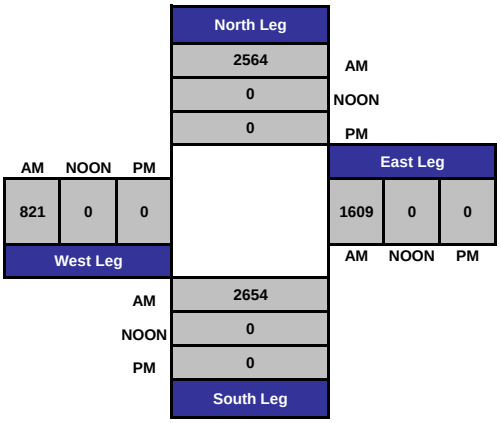


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-017
N/S Street: Soto St
E/W Street: Charlotte St/I-10 WB Ramps
DATE: 5/14/2014 DAY: Thursday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	0	0	0	0	1	1	1
7:15 AM	1	9	0	0	1	4	1	10
7:30 AM	0	8	0	0	3	2	3	7
7:45 AM	1	18	0	0	4	6	0	9
8:00 AM	0	9	0	0	3	3	0	12
8:15 AM	0	1	0	0	0	3	0	7
8:30 AM	0	1	0	0	1	1	2	2
8:45 AM	2	7	0	0	2	1	2	7
9:00 AM	1	2	0	0	1	4	0	3
9:15 AM	1	3	0	0	0	2	0	1
9:30 AM	0	1	0	0	1	0	0	0
9:45 AM	3	2	0	0	1	1	2	4
TOTALS	**10**	**61**	**0**	**0**	**17**	**28**	**11**	**63**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-017
N/S Street: Soto St
E/W Street: Charlotte St/I-10 WB Ramps
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	2	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-018 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	Soto St			Soto St			Alcazar St			Alcazar St				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
LANES:	1	2	0	1	2	1	1	1	1	0	1	0					
7:00 AM	61	118	3	4	166	48	10	4	16	15	10	7	462				
7:15 AM	51	207	8	4	223	78	16	9	29	14	27	7	673				
7:30 AM	62	238	4	7	209	98	29	11	52	15	27	15	767				
7:45 AM	80	213	7	8	230	105	28	8	50	11	33	13	786				
8:00 AM	71	188	7	4	243	112	30	11	38	7	12	8	731				
8:15 AM	61	163	4	11	287	116	20	7	28	10	20	7	734				
8:30 AM	62	161	4	4	258	102	34	7	27	8	28	8	703				
8:45 AM	59	128	6	2	250	98	17	5	16	14	10	5	610				
9:00 AM	69	107	7	2	188	66	22	8	25	6	13	6	519				
9:15 AM	53	119	3	7	149	60	17	5	29	9	7	5	463				
9:30 AM	56	91	3	6	123	48	12	3	34	6	8	3	393				
9:45 AM	39	95	4	2	105	44	21	4	38	12	7	10	381				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	724	1828	60	61	2431	975	256	82	382	127	202	94	7222	0	0	0	0
APPROACH %'s :	27.72%	69.98%	2.30%	1.76%	70.12%	28.12%	35.56%	11.39%	53.06%	30.02%	47.75%	22.22%					
PEAK HR START TIME :	730 AM												TOTAL				
PEAK HR VOL :	274	802	22	30	969	431	107	37	168	43	92	43	3018				
PEAK HR FACTOR :		0.903			0.864			0.848			0.781		0.960				

CONTROL : Signalized

ITM Peak Hour Summary

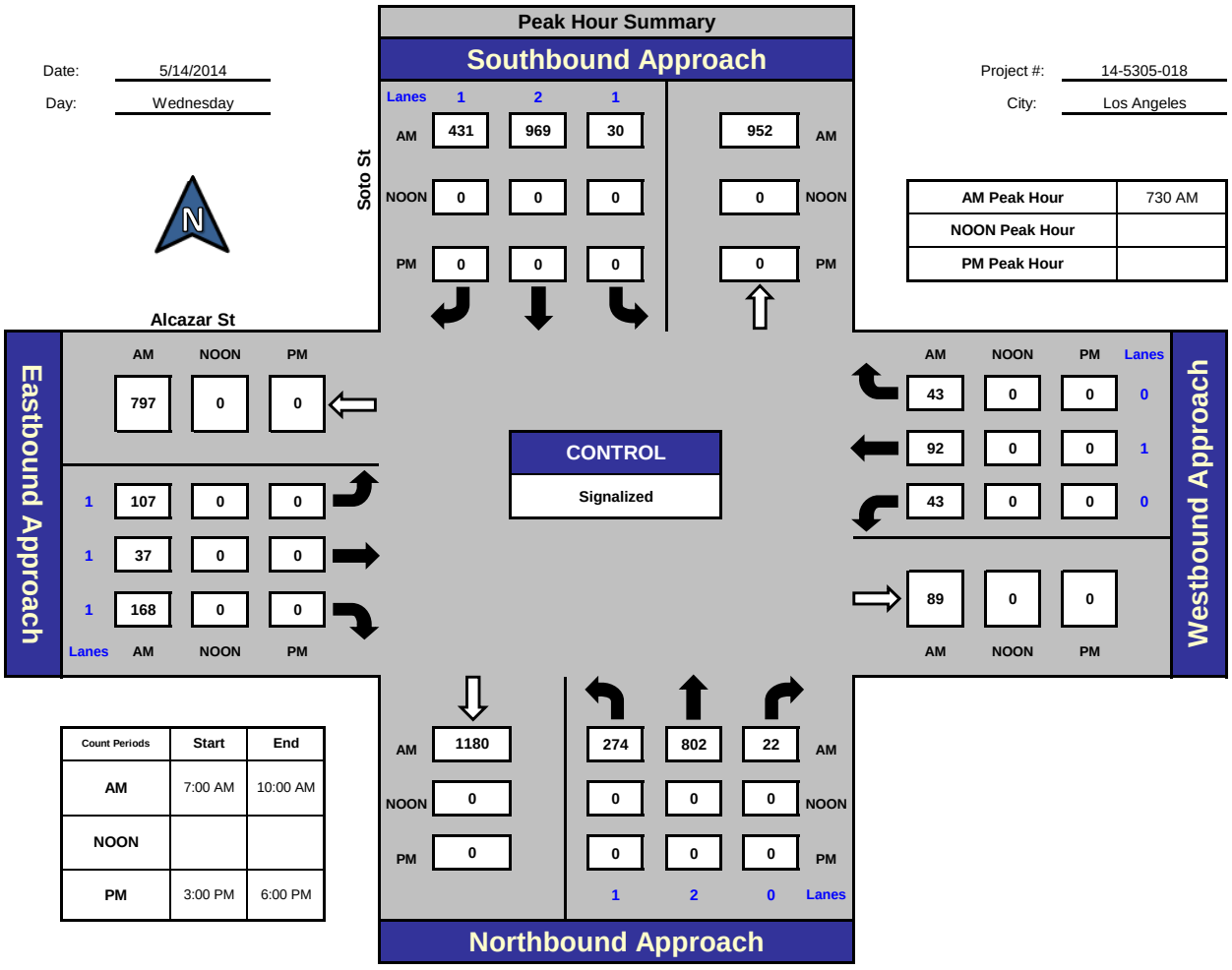
Prepared by:

National Data & Surveying Services

Soto St and Alcazar St , Los Angeles

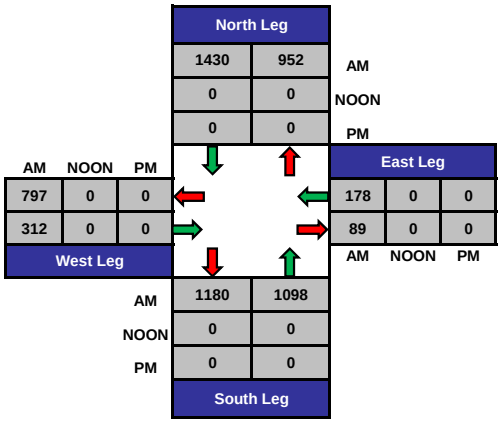
Date: 5/14/2014
Day: Wednesday
Project #: 14-5305-018
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

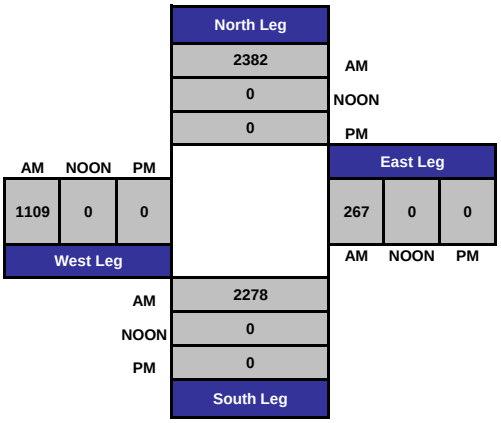


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-018
N/S Street: Soto St
E/W Street: Alcazar St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	2	0	3	2	2	0	1
7:15 AM	0	0	0	2	0	1	2	0
7:30 AM	1	4	1	2	0	0	5	0
7:45 AM	0	1	1	8	5	7	2	0
8:00 AM	1	2	2	1	2	0	1	1
8:15 AM	0	1	0	5	2	2	0	1
8:30 AM	2	1	0	4	5	0	4	0
8:45 AM	0	1	2	6	3	5	0	0
9:00 AM	1	0	0	4	0	0	0	0
9:15 AM	1	1	0	2	0	2	0	0
9:30 AM	0	0	1	2	0	0	1	2
9:45 AM	0	1	0	3	2	3	1	0
TOTALS	**6**	**14**	**7**	**42**	**21**	**22**	**16**	**5**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-018
N/S Street: Soto St
E/W Street: Alcazar St
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**2**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-019 **Day:** Wednesday

City: Los Angeles **Date:** 5/14/2014

AM

NS/EW Streets:	State St			State St			Zonal Ave			Zonal Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 2	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	7	0	43	0	0	0	0	87	17	10	41	0	205
7:15 AM	18	0	26	0	0	0	0	81	12	6	55	0	198
7:30 AM	14	0	33	0	0	0	1	116	32	5	85	1	287
7:45 AM	15	0	51	0	0	0	0	105	26	19	86	0	302
8:00 AM	13	0	45	0	0	0	0	104	26	14	47	0	249
8:15 AM	14	1	48	0	0	0	1	83	16	10	57	0	230
8:30 AM	10	0	40	0	0	0	1	103	22	10	52	0	238
8:45 AM	5	0	44	0	0	0	0	105	31	11	55	0	251
9:00 AM	16	0	29	1	1	0	1	91	21	13	41	0	214
9:15 AM	10	0	26	0	0	0	0	79	12	8	32	0	167
9:30 AM	14	0	36	1	1	1	0	66	12	8	44	0	183
9:45 AM	10	0	26	1	0	0	1	66	10	10	48	1	173
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	146	1	447	3	2	1	5	1086	237	124	643	2	2697
APPROACH %'s :	24.58%	0.17%	75.25%	50.00%	33.33%	16.67%	0.38%	81.78%	17.85%	16.12%	83.62%	0.26%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	56	1	177	0	0	0	2	408	100	48	275	1	1068
PEAK HR FACTOR :		0.886			0.000			0.856			0.771		0.884

UTURNS				
NB	SB	EB	WB
0	0	0	0

CONTROL : 1-Way Stop (NB)

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Zonal Ave , Los Angeles

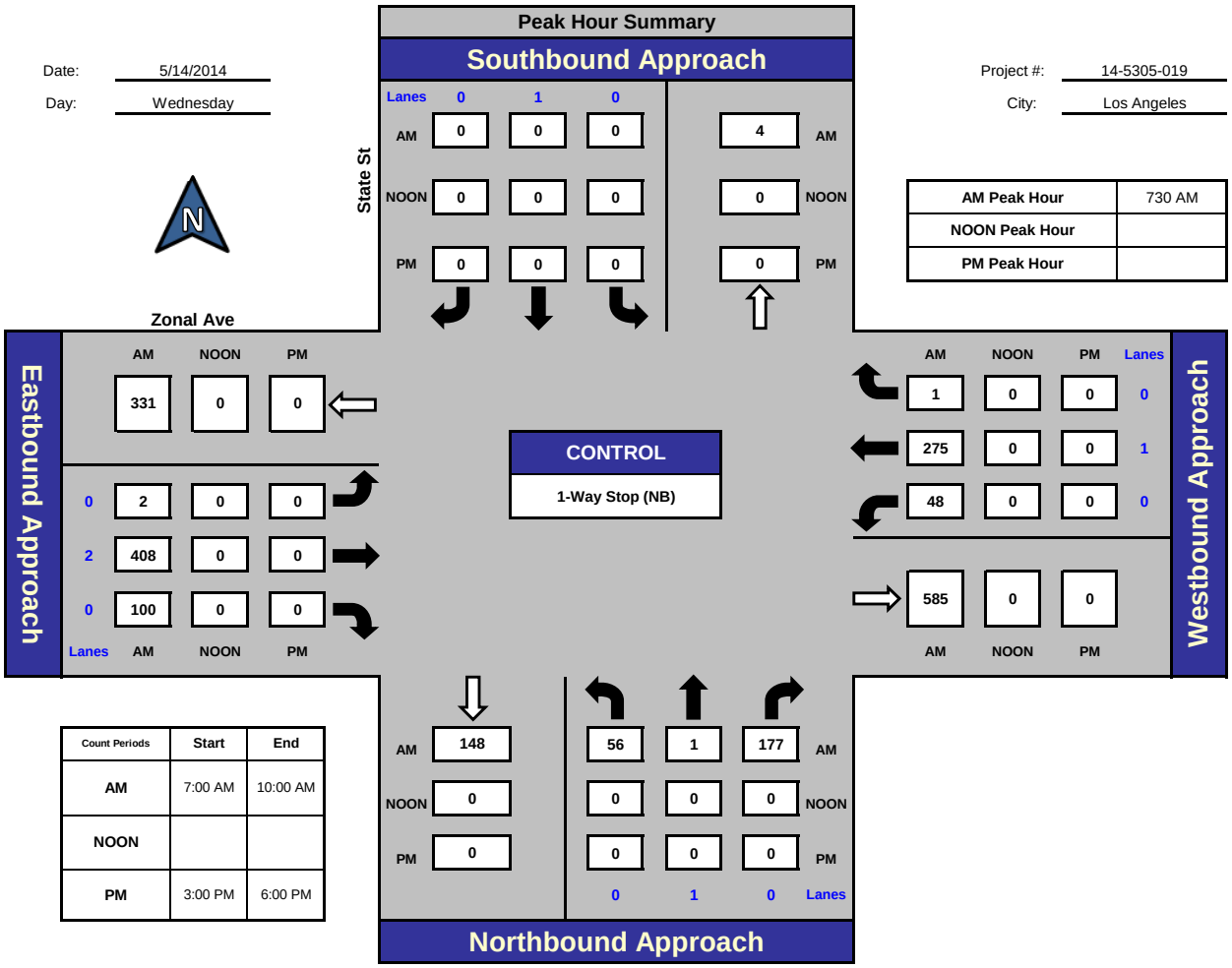
Date: 5/14/2014

Day: Wednesday

Project #: 14-5305-019

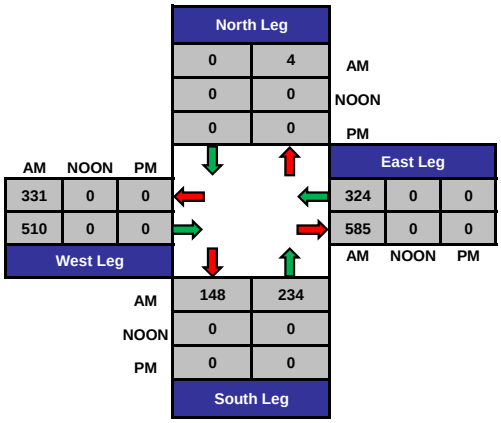
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	

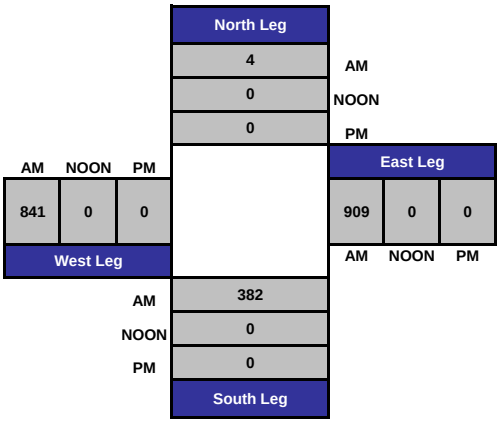


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-019
N/S Street: State St
E/W Street: Zonal Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	5	1	2	0	1	0	0	0
7:15 AM	4	2	2	0	0	0	0	0
7:30 AM	9	0	6	2	1	0	0	0
7:45 AM	12	0	2	1	0	0	0	0
8:00 AM	10	1	10	2	1	0	0	0
8:15 AM	9	5	4	2	0	1	1	0
8:30 AM	13	2	2	0	0	0	0	0
8:45 AM	17	0	6	1	1	3	0	0
9:00 AM	13	2	5	0	0	0	0	0
9:15 AM	9	2	4	0	1	2	0	0
9:30 AM	11	1	5	4	0	5	0	0
9:45 AM	10	6	1	0	0	0	0	0
TOTALS	**122**	**22**	**49**	**12**	**5**	**11**	**1**	**0**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-019
N/S Street: State St
E/W Street: Zonal Ave
DATE: 5/14/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	1	0	0	0	0	0	0	1	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	0	1	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	2	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	1	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	1	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	2	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	1	0	0	0
TOTALS	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	**3**	**0**	**2**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-001 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Daly St			Daly St			Main St			Main St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 2	ER 0	WL 0	WT 1	WR 1	TOTAL
3:00 PM	27	91	5	35	78	32	17	130	59	23	72	29	598
3:15 PM	23	78	6	35	67	29	18	140	44	11	93	45	589
3:30 PM	22	136	12	33	69	31	17	151	57	11	77	49	665
3:45 PM	32	127	7	32	65	27	8	159	34	11	68	40	610
4:00 PM	34	144	9	43	84	27	14	155	70	17	67	51	715
4:15 PM	31	127	14	42	83	23	9	170	49	9	83	44	684
4:30 PM	30	149	9	33	67	32	20	182	54	18	85	56	735
4:45 PM	38	174	11	34	64	21	11	196	47	18	106	49	769
5:00 PM	44	160	15	26	83	25	25	168	51	15	87	48	747
5:15 PM	41	180	7	32	65	14	16	217	37	16	97	47	769
5:30 PM	49	163	14	21	73	28	23	184	49	11	101	51	767
5:45 PM	40	163	16	31	69	16	23	169	28	12	89	40	696
TOTAL VOLUMES :	NL 411	NT 1692	NR 125	SL 397	ST 867	SR 305	EL 201	ET 2021	ER 579	WL 172	WT 1025	WR 549	TOTAL 8344
APPROACH %'s :	18.45%	75.94%	5.61%	25.30%	55.26%	19.44%	7.18%	72.15%	20.67%	9.85%	58.71%	31.44%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	172	677	47	113	285	88	75	765	184	60	391	195	3052
PEAK HR FACTOR :		0.982			0.907			0.948			0.934		0.992

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

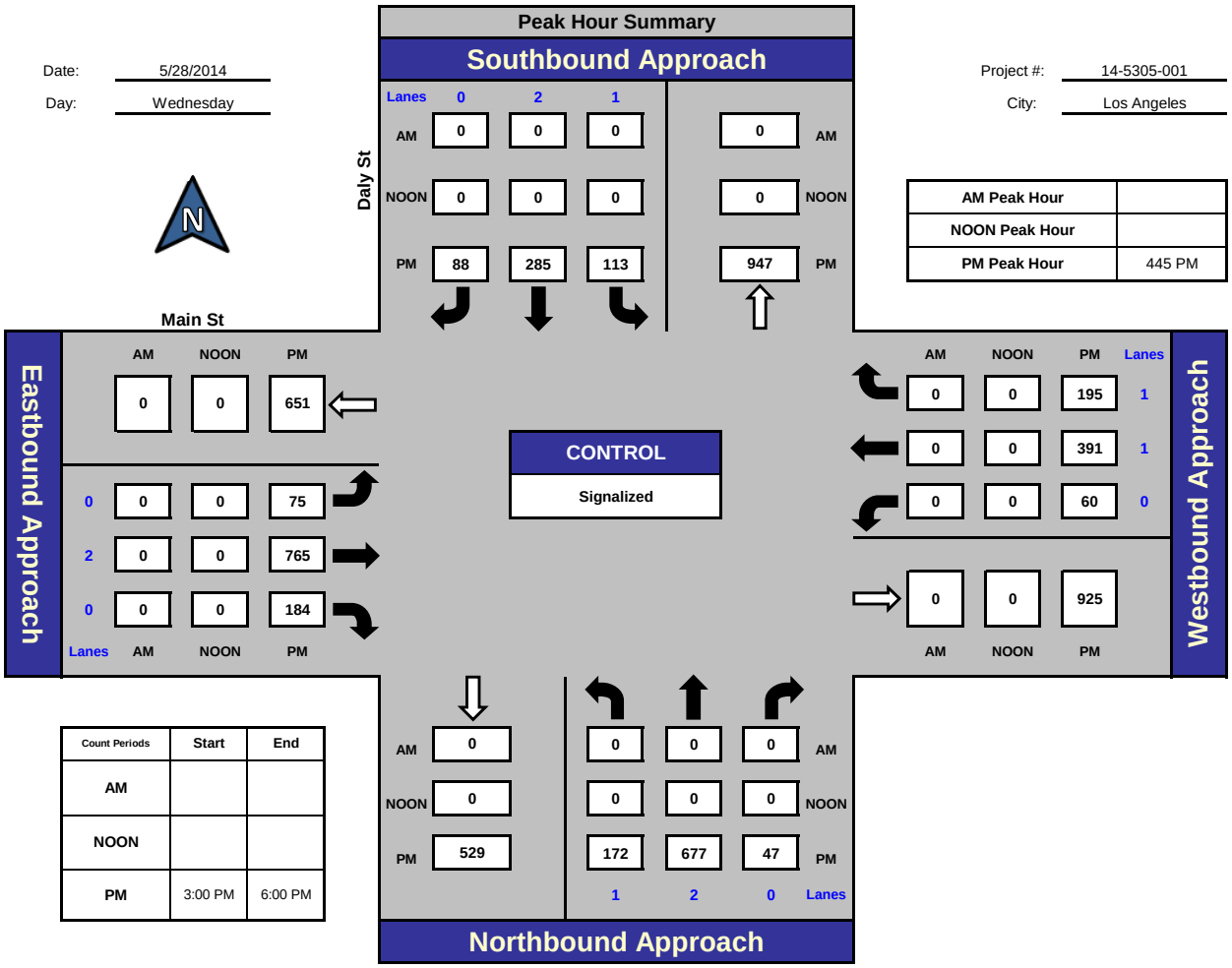
Prepared by:

National Data & Surveying Services

Daly St and Main St , Los Angeles

Date: 5/28/2014
Day: Wednesday

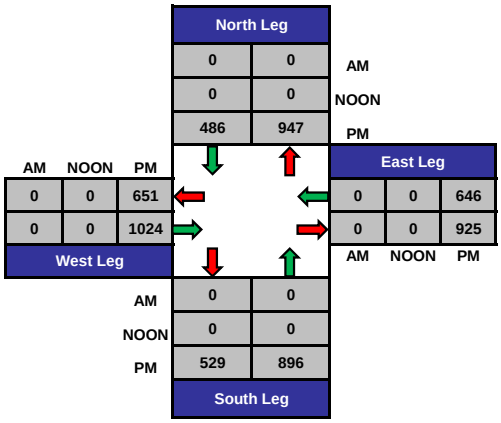
Project #: 14-5305-001
City: Los Angeles



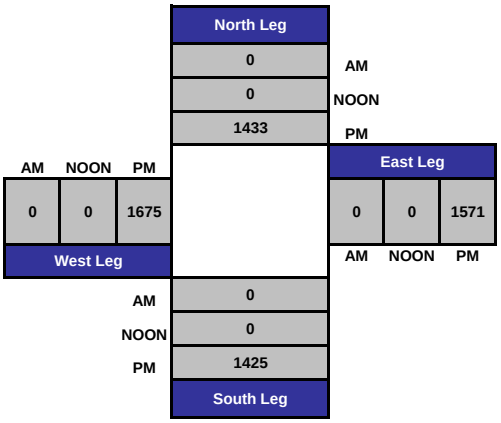
AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM

Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-001
N/S Street: Daly St
E/W Street: Main St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	8	2	3	2	6	3	1	3
3:15 PM	5	3	4	2	2	3	2	5
3:30 PM	6	3	9	4	5	11	1	3
3:45 PM	12	6	3	5	6	4	6	6
4:00 PM	4	4	6	4	11	11	5	6
4:15 PM	5	4	7	6	13	2	2	0
4:30 PM	7	2	3	6	2	5	3	4
4:45 PM	7	2	4	3	10	7	3	2
5:00 PM	3	2	4	8	0	4	4	0
5:15 PM	5	10	7	8	11	4	6	4
5:30 PM	4	2	3	5	3	3	3	2
5:45 PM	1	3	3	7	3	3	4	2
TOTALS	**67**	**43**	**56**	**60**	**72**	**60**	**40**	**37**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	3	0	0	0	0	2	0	0
3:15 PM	2	4	0	0	0	0	0	4
3:30 PM	0	0	3	2	1	0	0	9
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0
4:30 PM	9	0	1	0	0	2	0	1
4:45 PM	3	0	0	0	0	0	0	1
5:00 PM	2	0	0	0	0	0	1	5
5:15 PM	1	0	0	1	0	0	1	0
5:30 PM	0	3	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**20**	**8**	**4**	**3**	**2**	**4**	**2**	**20**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-001
N/S Street: Daly St
E/W Street: Main St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	2	0	0	0	1	0	1	0
3:15 PM	2	0	0	1	1	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	1	0	0	2	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	3	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	3	0	1	2	0
4:15 PM	0	0	0	0	0	0	2	1	0	0	1	0
4:30 PM	1	1	0	0	2	0	0	2	0	0	4	0
4:45 PM	0	2	0	0	0	0	0	1	0	0	3	0
5:00 PM	0	2	0	0	0	0	1	1	0	0	2	0
5:15 PM	0	1	0	1	3	0	0	0	0	0	1	0
5:30 PM	1	0	0	0	1	1	0	3	0	0	2	0
5:45 PM	0	0	0	1	1	0	0	3	1	0	2	1
TOTALS	**4**	**6**	**0**	**3**	**11**	**1**	**3**	**19**	**2**	**1**	**19**	**1**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-002 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			I-5 SB Ramps/I-10 On-Ramp			I-5 SB Ramps/I-10 On-Ramp				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
LANES:	NL 0	NT 3	NR 0	SL 2	ST 2	SR 0	EL 1.3	ET 0.3	ER 0.3	WL 0	WT 0	WR 0	TOTAL	NB	SB	EB	WB
3:00 PM		201	14	106	146		60	3	34				83				
3:15 PM		206	16	115	124		59	3	21				88				
3:30 PM		240	22	127	180		51	2	31				97				
3:45 PM		284	12	96	146		55	13	17				72				
4:00 PM		275	10	97	197		59	6	47				76				
4:15 PM		281	8	96	179		59	9	53				77				
4:30 PM		270	13	109	206		69	5	63				79				
4:45 PM		321	7	87	174		55	7	43				59				
5:00 PM		306	12	96	215		62	1	50				74				
5:15 PM		318	4	74	191		77	9	40				49				
5:30 PM		334	3	89	212		62	2	28				62				
5:45 PM		348	9	65	173		61	0	27				47				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	0	3384	130	1157	2143	0	729	60	454	0	0	0	8057	0	0	0	0
APPROACH %'s :	0.00%	96.30%	3.70%	35.06%	64.94%	0.00%	58.65%	4.83%	36.52%	#DIV/0!	#DIV/0!	#DIV/0!					
PEAK HR START TIME :	430 PM												TOTAL				
PEAK HR VOL :	0	1215	36	366	786	0	263	22	196	0	0	0	2884				
PEAK HR FACTOR :		0.954			0.914			0.878			0.000		0.972				

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and I-5 SB Ramps/I-10 On-Ramp , Los Angeles

Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-002

City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach (Mission Rd)

	Lanes 0	2	2		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	786	366	1478	PM

Eastbound Approach (I-5 SB Ramps/I-10 On-Ramp)

Lanes	AM	NOON	PM
	0	0	0
1.3	0	0	263
0.3	0	0	22
0.3	0	0	196

Westbound Approach

Lanes	AM	NOON	PM
0	0	0	0
0	0	0	0
0	0	0	0
	0	0	424

CONTROL: Signalized

Northbound Approach

AM	0	0	0	0 AM
NOON	0	0	0	0 NOON
PM	982	0	1215	36 PM
		0	3	0 Lanes

Count Periods	Start	End
AM		
NOON		
PM		

Total Ins & Outs

	North Leg		
AM	0	0	AM
NOON	0	0	NOON
PM	1152	1478	PM

West Leg AM	West Leg NOON	West Leg PM	East Leg AM	East Leg NOON	East Leg PM
0	0	0	0	0	0
0	0	481	0	0	424

	South Leg	
AM	0	0
NOON	0	0
PM	982	1251

Total Volume Per Leg

	North Leg	
AM	0	AM
NOON	0	NOON
PM	2630	PM

West Leg AM	West Leg NOON	West Leg PM	East Leg AM	East Leg NOON	East Leg PM
0	0	481	0	0	424

	South Leg	
AM	0	
NOON	0	
PM	2233	

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-002
N/S Street: I-5 SB Ramps
E/W Street: I-10 On-Ramp & Mission Ramp
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	2	1
3:45 PM	0	0	0	0	0	0	2	3
4:00 PM	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	3	1	0
4:30 PM	0	0	0	0	1	0	0	0
4:45 PM	0	0	0	0	1	1	1	5
5:00 PM	0	0	0	1	1	0	0	1
5:15 PM	0	0	0	1	0	0	3	2
5:30 PM	0	0	1	1	0	0	0	2
5:45 PM	0	0	0	0	1	0	3	0
TOTALS	**0**	**0**	**1**	**3**	**4**	**4**	**13**	**14**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-002
N/S Street: Mission Rd
E/W Street: I-5 SB Ramps/I-10 On-Ramp
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	2	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	1	0	0	0	0	0	0	0
3:45 PM	0	2	0	0	2	0	0	0	0	0	0	0
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	3	0	0	3	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	4	0	0	0	0	0	0	0
4:45 PM	0	4	0	0	2	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	0
5:30 PM	0	2	0	0	3	0	0	0	0	0	0	0
5:45 PM	0	3	0	0	2	0	0	0	0	0	0	0
TOTALS	**0**	**26**	**0**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-003 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			Daly St/Marengo St			Daly St/Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1.5	ER 1.5	WL 1	WT 2	WR 1	TOTAL
3:00 PM	32	163	71	80	163	2	6	89	63	36	80	46	831
3:15 PM	36	147	75	70	150	6	3	85	44	35	80	48	779
3:30 PM	43	178	77	102	234	19	6	81	44	36	99	37	956
3:45 PM	58	185	92	75	142	15	10	65	50	45	104	39	880
4:00 PM	56	202	80	95	214	12	7	86	59	31	119	32	993
4:15 PM	55	202	76	75	180	7	5	106	49	38	115	35	943
4:30 PM	50	224	72	104	251	17	6	78	51	25	113	49	1040
4:45 PM	54	233	88	94	172	12	10	84	55	22	164	38	1026
5:00 PM	44	235	90	102	239	15	3	77	53	28	152	40	1078
5:15 PM	61	241	88	96	195	15	3	95	34	28	170	41	1067
5:30 PM	60	257	84	87	245	14	3	68	44	24	142	49	1077
5:45 PM	49	273	79	74	167	8	5	79	36	24	154	47	995
TOTAL VOLUMES :	NL 598	NT 2540	NR 972	SL 1054	ST 2352	SR 142	EL 67	ET 993	ER 582	WL 372	WT 1492	WR 501	TOTAL 11665
APPROACH %'s :	14.55%	61.80%	23.65%	29.71%	66.29%	4.00%	4.08%	60.48%	35.44%	15.73%	63.09%	21.18%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	219	966	350	379	851	56	19	324	186	102	628	168	4248
PEAK HR FACTOR :		0.957			0.903			0.888			0.939		0.985

UTURNS	NB	SB	EB	WB
TOTAL	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

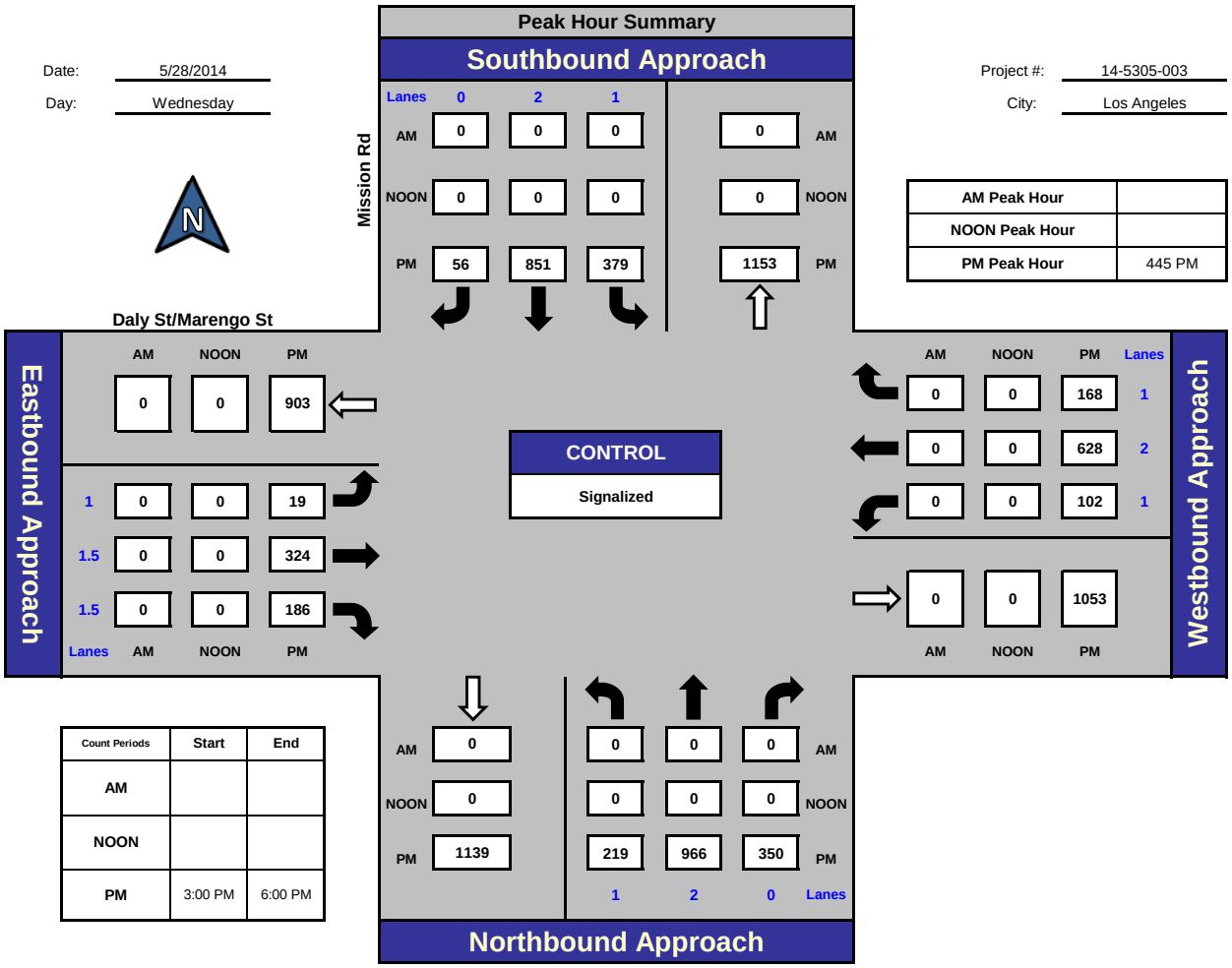
Prepared by:

National Data & Surveying Services

Mission Rd and Daly St/Marengo St , Los Angeles

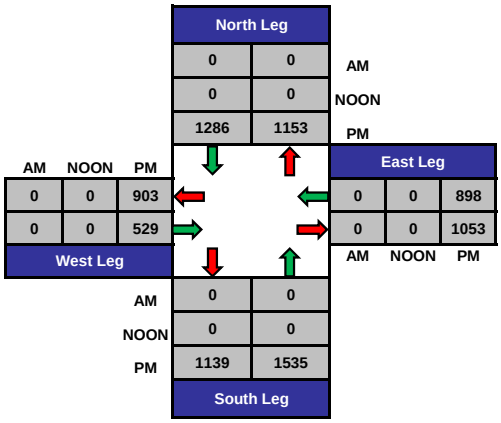
Date: 5/28/2014
Day: Wednesday
Project #: 14-5305-003
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM

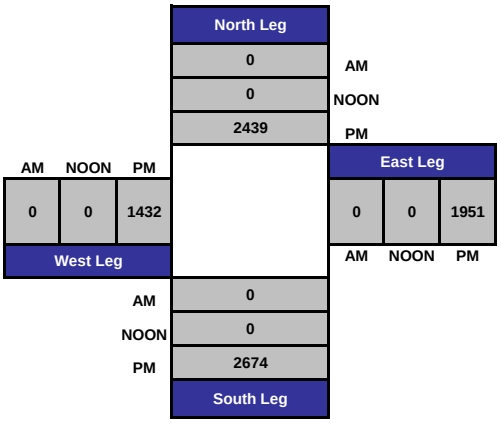


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-003
N/S Street: Mission Rd
E/W Street: Daly St/Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	1	2	12	3	6	0	8	2
3:15 PM	9	6	5	2	15	0	2	7
3:30 PM	4	2	16	1	7	5	2	10
3:45 PM	3	4	16	4	1	2	1	8
4:00 PM	5	3	2	1	5	4	6	5
4:15 PM	2	3	0	1	4	2	2	4
4:30 PM	1	4	6	4	9	3	6	8
4:45 PM	7	1	11	0	3	6	5	6
5:00 PM	5	2	11	1	5	0	3	10
5:15 PM	4	1	13	1	4	1	4	9
5:30 PM	0	0	5	0	7	0	2	4
5:45 PM	3	1	13	1	5	4	3	1
TOTALS	**44**	**29**	**110**	**19**	**71**	**27**	**44**	**74**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	2
5:15 PM	1	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-003
N/S Street: Mission Rd
E/W Street: Daly St/Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	1	0	0	0	1	1	0	0	0
3:15 PM	1	1	0	0	2	0	0	0	0	0	1	0
3:30 PM	0	1	0	0	2	0	0	1	0	0	1	0
3:45 PM	1	1	0	0	2	0	0	0	0	0	1	0
4:00 PM	0	1	1	0	0	0	0	0	0	0	1	0
4:15 PM	0	1	1	0	2	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	1	4	2	1
4:45 PM	0	1	0	0	2	1	0	2	0	0	2	0
5:00 PM	0	3	0	2	1	0	0	1	0	0	2	1
5:15 PM	0	2	0	0	2	0	0	2	0	0	1	0
5:30 PM	0	1	0	2	1	0	0	0	0	2	0	0
5:45 PM	2	1	0	1	1	0	0	0	0	1	0	0
TOTALS	**4**	**13**	**2**	**6**	**15**	**1**	**0**	**8**	**2**	**7**	**11**	**2**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5338-001 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			Workman			Workman			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	0	1	0	0	1	0	
3:00 PM	7	215	0	1	242	2	4	1	5	9	0	2	488
3:15 PM	1	196	2	0	221	1	11	0	4	20	1	3	460
3:30 PM	3	209	3	0	229	1	4	1	5	38	0	5	498
3:45 PM	6	221	2	0	231	4	8	0	6	19	3	6	506
4:00 PM	2	227	3	0	282	1	8	1	9	16	0	5	554
4:15 PM	3	248	2	1	295	4	0	0	1	18	0	5	577
4:30 PM	7	263	1	2	347	5	1	0	1	21	3	7	658
4:45 PM	10	271	0	0	265	2	11	1	8	24	0	4	596
5:00 PM	12	269	1	0	316	8	9	0	12	31	2	5	665
5:15 PM	8	276	0	0	284	2	2	0	6	15	0	4	597
5:30 PM	6	307	0	0	311	5	12	0	8	18	0	4	671
5:45 PM	5	316	1	0	223	2	8	0	11	7	0	4	577
TOTAL VOLUMES :	NL 70	NT 3018	NR 15	SL 4	ST 3246	SR 37	EL 78	ET 4	ER 76	WL 236	WT 9	WR 54	TOTAL 6847
APPROACH %'s :	2.26%	97.26%	0.48%	0.12%	98.75%	1.13%	49.37%	2.53%	48.10%	78.93%	3.01%	18.06%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	36	1123	1	0	1176	17	34	1	34	88	2	17	2529
PEAK HR FACTOR :		0.927			0.921			0.821			0.704		0.942

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

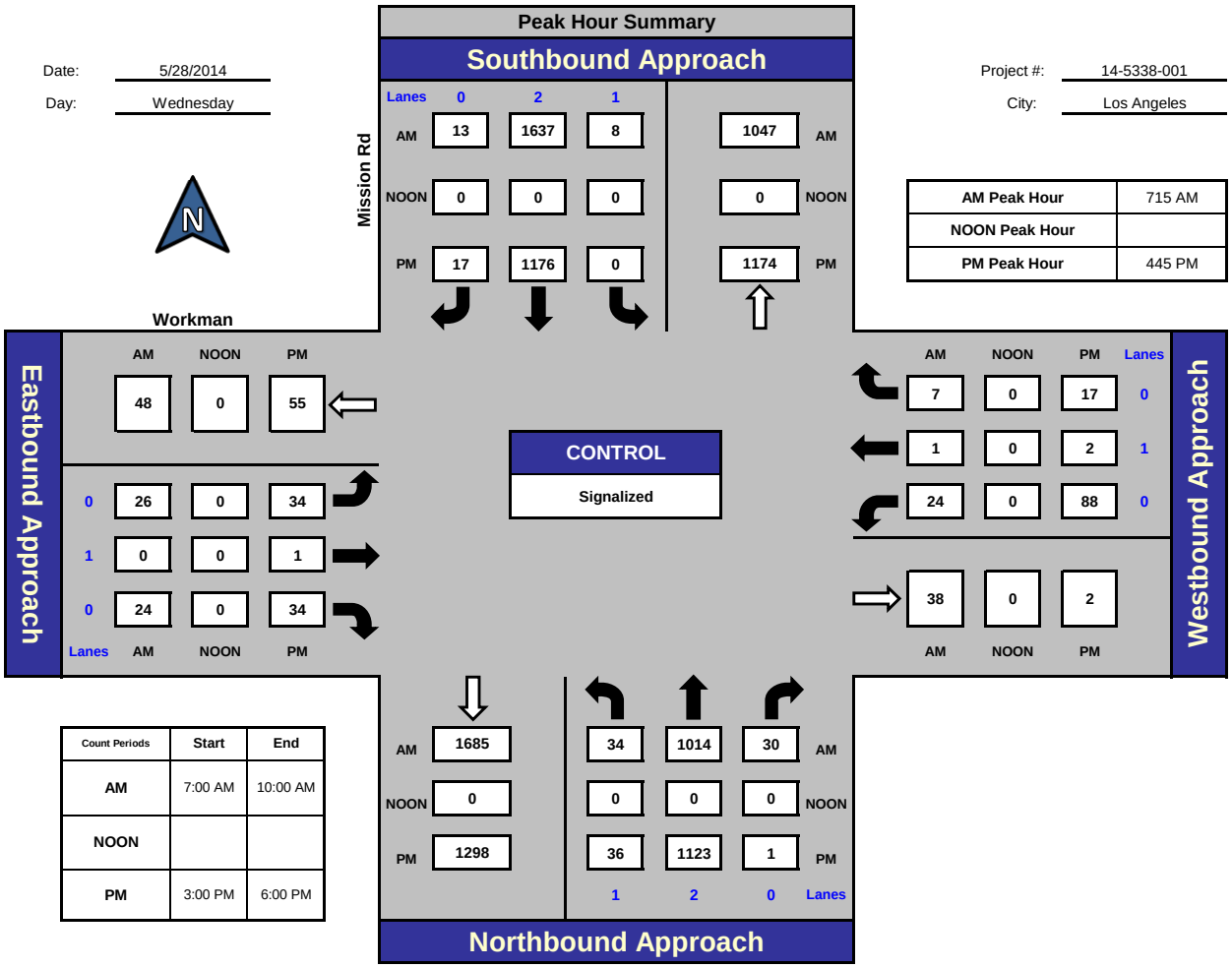
Mission Rd and Workman , Los Angeles

Date: 5/28/2014

Day: Wednesday

Project #: 14-5338-001

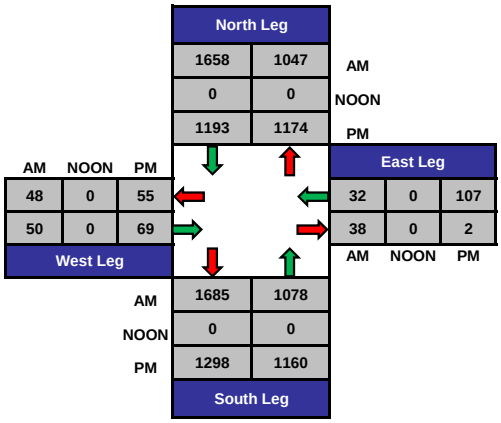
City: Los Angeles



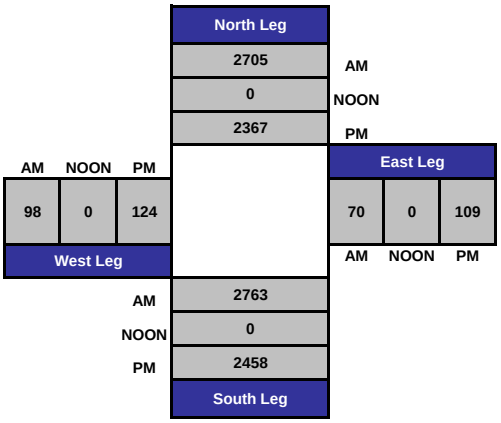
AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	445 PM

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5338-001
N/S Street: Mission Rd
E/W Street: Workman
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	0	0	0	4	1	1	4
7:15 AM	0	0	10	0	0	3	3	6
7:30 AM	0	0	2	1	2	4	2	4
7:45 AM	1	4	1	2	3	1	3	1
8:00 AM	4	0	2	1	2	1	2	2
8:15 AM	4	2	3	3	0	2	5	6
8:30 AM	0	2	5	1	2	0	4	4
8:45 AM	2	0	2	3	1	2	2	7
9:00 AM	2	1	1	1	1	0	5	4
9:15 AM	2	3	0	0	0	0	3	1
9:30 AM	3	1	1	0	0	3	6	6
9:45 AM	1	3	0	0	3	0	4	3
TOTALS	**20**	**16**	**27**	**12**	**18**	**17**	**40**	**48**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	1	0	1	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0
8:30 AM	0	0	0	1	0	1	0	0
8:45 AM	0	0	0	0	1	0	0	0
9:00 AM	0	0	0	0	1	0	0	1
9:15 AM	0	0	1	0	0	0	2	1
9:30 AM	0	0	1	0	1	0	1	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**3**	**1**	**5**	**1**	**4**	**3**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	2	3	0	4	0	2	5
3:15 PM	0	2	0	2	4	5	8	8
3:30 PM	0	0	2	0	2	1	2	5
3:45 PM	0	1	3	0	4	1	5	3
4:00 PM	2	0	0	1	1	0	5	5
4:15 PM	0	0	1	0	0	0	2	1
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	2	1
5:00 PM	0	0	0	1	0	1	3	5
5:15 PM	0	0	1	1	0	0	5	8
5:30 PM	0	1	0	0	0	0	6	8
5:45 PM	0	0	2	1	3	3	3	5
TOTALS	**2**	**6**	**13**	**6**	**18**	**11**	**43**	**54**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	1	1	0	2	2	0	0
3:15 PM	0	0	1	0	0	3	1	3
3:30 PM	0	0	0	0	0	0	1	1
3:45 PM	0	0	0	0	1	0	0	0
4:00 PM	1	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	3
5:45 PM	0	0	0	0	0	0	1	1
TOTALS	**1**	**1**	**2**	**0**	**4**	**5**	**3**	**9**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5338-001
N/S Street: Mission Rd
E/W Street: Workman
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	2	0	0	2	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	3	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	0
8:45 AM	0	4	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	1	0	0	1	0	0	0	0
9:15 AM	0	0	0	0	2	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	2	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**17**	**0**	**0**	**15**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	3	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	5	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	3	0	0	0	0	0	0	0
5:30 PM	0	3	0	0	6	0	0	0	0	0	0	0
5:45 PM	0	2	0	0	4	0	0	0	0	0	0	0
TOTALS	**0**	**16**	**0**	**0**	**25**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5315-001 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			Sichel St			Sichel St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 0	WR 0	TOTAL
3:00 PM	8	207			225	9	7		17				473
3:15 PM	6	215			202	7	3		11				444
3:30 PM	5	206			301	4	1		15				532
3:45 PM	5	245			229	7	3		11				500
4:00 PM	6	223			264	7	7		11				518
4:15 PM	5	254			238	4	8		17				526
4:30 PM	6	289			323	4	6		18				646
4:45 PM	5	277			256	2	11		12				563
5:00 PM	1	284			306	2	3		9				605
5:15 PM	6	278			272	2	10		21				589
5:30 PM	4	298			305	4	4		16				631
5:45 PM	4	324			232	3	5		8				576
TOTAL VOLUMES :	NL 61	NT 3100	NR 0	SL 0	ST 3153	SR 55	EL 68	ET 0	ER 166	WL 0	WT 0	WR 0	TOTAL 6603
APPROACH %'s :	1.93%	98.07%	0.00%	0.00%	98.29%	1.71%	29.06%	0.00%	70.94%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	18	1128	0	0	1157	10	30	0	60	0	0	0	2403
PEAK HR FACTOR :		0.971			0.892			0.726			0.000		0.930

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Sichel St , Los Angeles

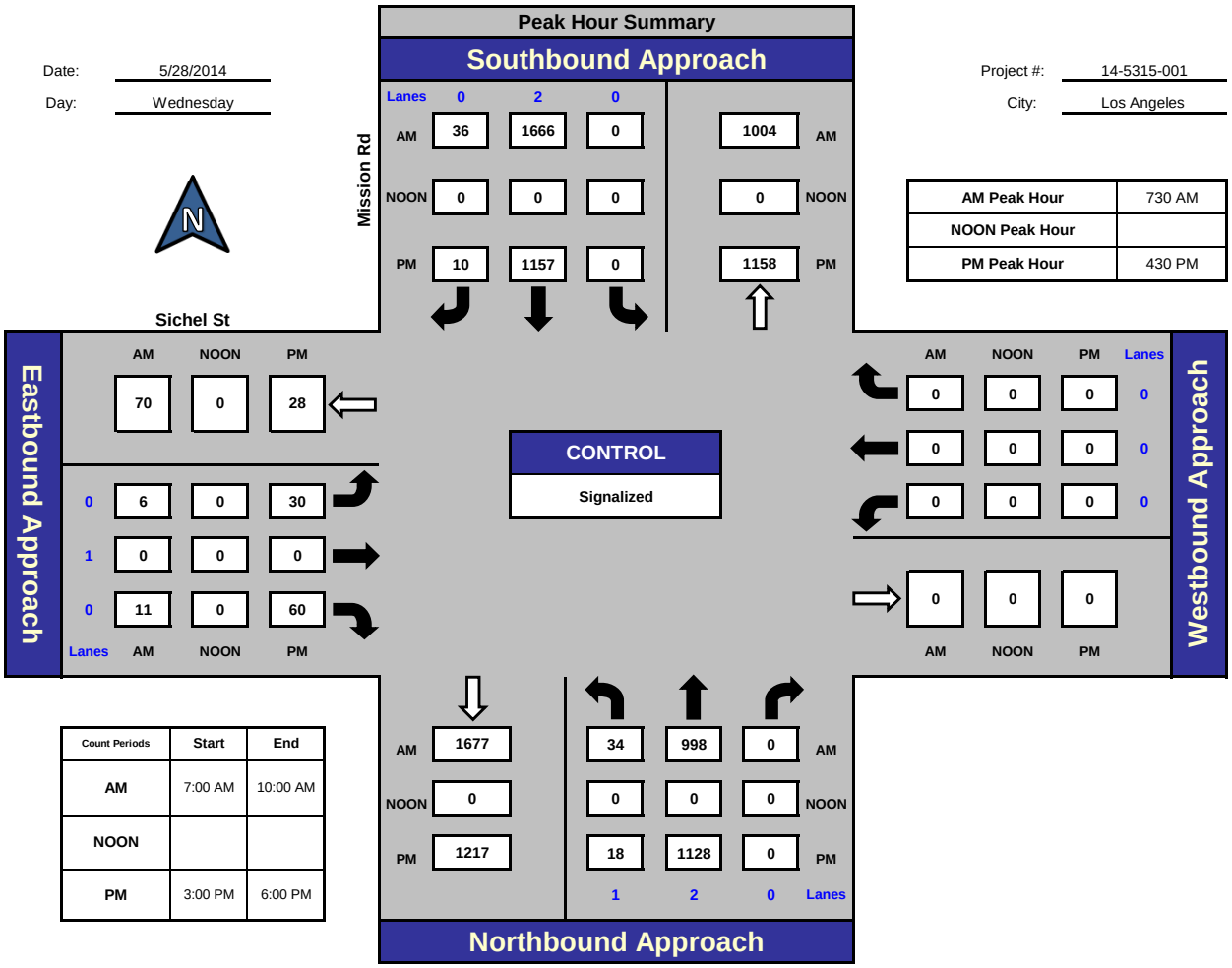
Date: 5/28/2014

Day: Wednesday

Project #: 14-5315-001

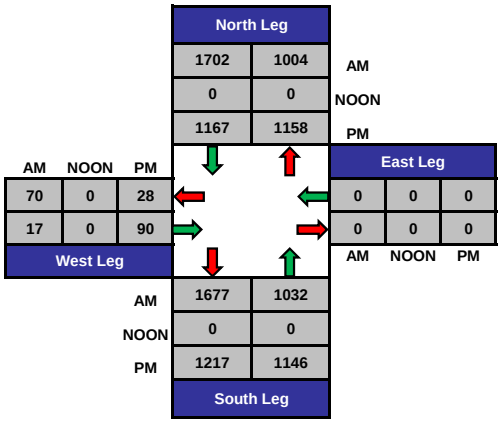
City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

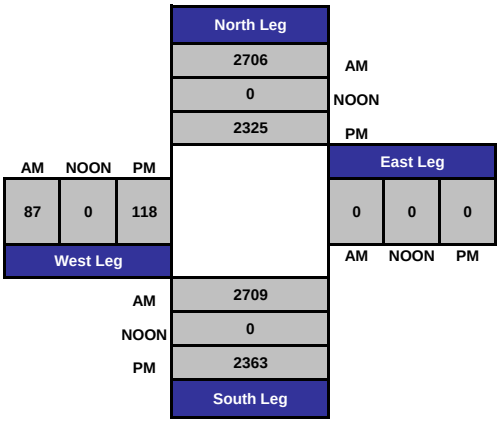


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5315-001
N/S Street: Mission Rd
E/W Street: Sichel St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	3	0	0	0	0	6	1
7:15 AM	0	1	0	0	0	0	2	0
7:30 AM	2	1	1	0	0	0	7	0
7:45 AM	0	0	0	0	0	0	3	1
8:00 AM	2	2	0	0	0	0	2	5
8:15 AM	2	3	1	0	0	0	4	2
8:30 AM	0	1	2	0	0	0	2	5
8:45 AM	0	0	0	0	0	0	0	3
9:00 AM	1	1	0	0	0	0	2	4
9:15 AM	1	0	0	1	0	0	2	7
9:30 AM	0	1	0	0	0	0	2	3
9:45 AM	0	1	0	0	0	0	1	3
TOTALS	**8**	**14**	**4**	**1**	**0**	**0**	**33**	**34**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	3	0
7:15 AM	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	5	0
7:45 AM	0	0	0	0	0	0	3	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	2	0
9:15 AM	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**2**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	2	1	0	0	0	0	7	8
3:15 PM	1	0	0	0	0	0	0	4
3:30 PM	1	0	0	0	0	0	3	6
3:45 PM	0	0	0	1	0	0	8	3
4:00 PM	0	0	0	1	0	0	2	5
4:15 PM	0	0	0	1	0	0	0	2
4:30 PM	1	0	1	0	0	0	2	1
4:45 PM	2	1	0	0	0	0	3	3
5:00 PM	2	0	0	0	0	0	0	7
5:15 PM	1	1	0	0	0	0	4	6
5:30 PM	1	0	0	0	0	0	0	6
5:45 PM	0	1	0	0	0	0	4	2
TOTALS	**11**	**4**	**1**	**3**	**0**	**0**	**33**	**53**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	1	2
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5315-001
N/S Street: Mission Rd
E/W Street: Sichel St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	2	0	0	0	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	2	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	1	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	2	0	0	2	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**13**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	2	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	2	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	5	0	0	0	0	0	0	0
5:30 PM	0	3	0	0	5	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	4	0	0	0	0	0	0	0
TOTALS	**0**	**14**	**0**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-004 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			Griffin Ave/Zonal Ave			Griffin Ave/Zonal Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM	23	157	37	8	167	5	4	35	33	27	29	22	547
3:15 PM	19	167	29	7	165	10	7	31	26	29	46	19	555
3:30 PM	33	148	38	13	232	13	8	25	34	34	46	34	658
3:45 PM	23	177	39	7	166	13	10	18	27	36	50	29	595
4:00 PM	23	192	23	7	206	18	8	18	43	35	49	36	658
4:15 PM	19	219	18	6	197	8	6	29	26	32	51	32	643
4:30 PM	33	243	26	10	268	11	6	13	28	41	53	35	767
4:45 PM	23	246	17	5	173	13	10	12	25	55	70	34	683
5:00 PM	35	244	13	8	231	25	10	19	24	52	57	53	771
5:15 PM	23	248	13	6	205	10	11	20	21	51	81	42	731
5:30 PM	27	266	19	2	233	21	6	9	29	47	83	35	777
5:45 PM	32	272	20	1	161	17	8	16	26	40	74	33	700
TOTAL VOLUMES :	NL 313	NT 2579	NR 292	SL 80	ST 2404	SR 164	EL 94	ET 245	ER 342	WL 479	WT 689	WR 404	TOTAL 8085
APPROACH %'s :	9.83%	81.00%	9.17%	3.02%	90.79%	6.19%	13.80%	35.98%	50.22%	30.47%	43.83%	25.70%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	117	1030	65	17	830	73	35	64	100	190	295	163	2979
PEAK HR FACTOR :		0.935			0.871			0.939			0.931		0.958

UTURNS	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

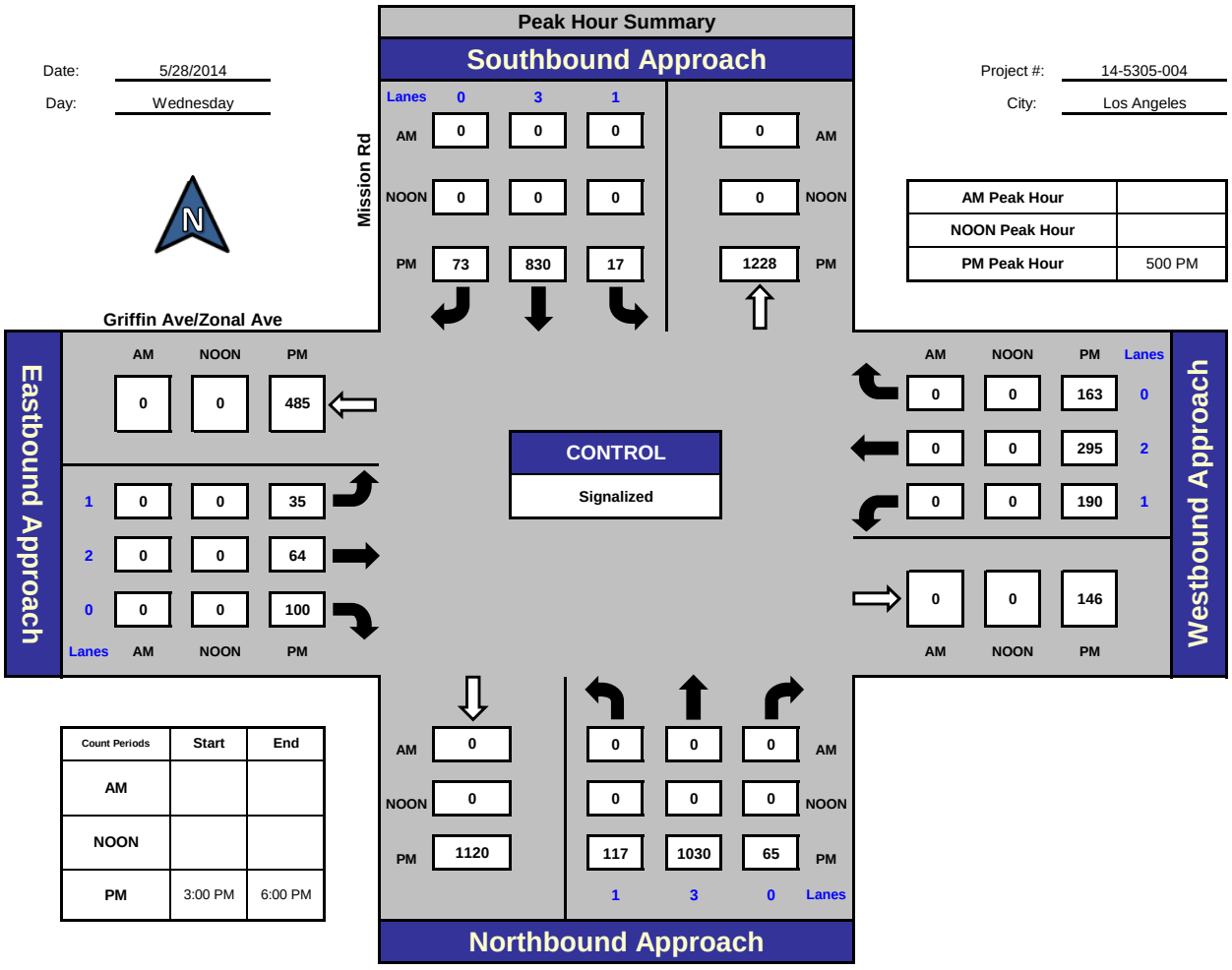
National Data & Surveying Services

Mission Rd and Griffin Ave/Zonal Ave , Los Angeles

Date: 5/28/2014
Day: Wednesday

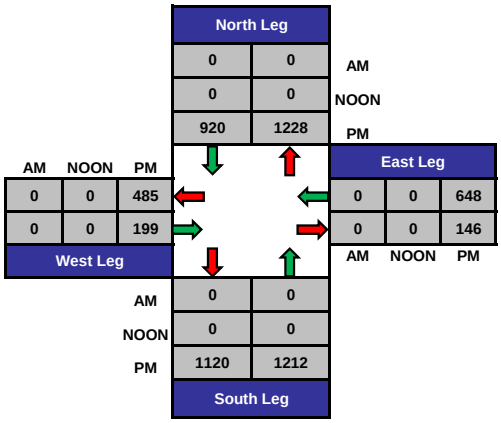
Project #: 14-5305-004
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM

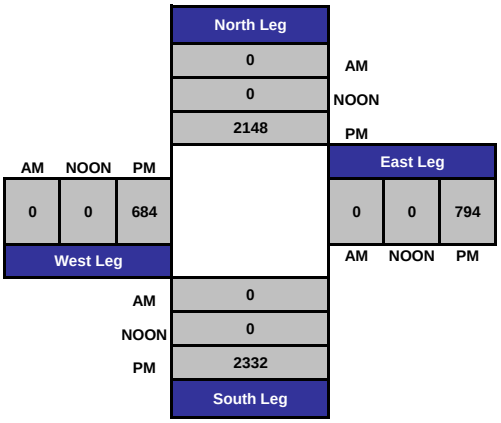


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-004
N/S Street: Mission Rd
E/W Street: Griffin Ave/Zonal Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	1	6	2	0	4	0	1	4
3:15 PM	0	1	1	9	0	12	2	0
3:30 PM	0	7	1	3	1	6	1	4
3:45 PM	0	2	3	1	1	4	1	3
4:00 PM	0	2	3	3	2	5	0	3
4:15 PM	0	2	0	1	1	8	0	2
4:30 PM	1	3	1	2	2	11	1	3
4:45 PM	1	2	2	3	0	7	1	1
5:00 PM	1	1	1	2	0	7	0	1
5:15 PM	1	5	0	2	0	5	1	1
5:30 PM	1	2	0	2	1	2	0	1
5:45 PM	0	1	1	0	0	1	2	1
TOTALS	**6**	**34**	**15**	**28**	**12**	**68**	**10**	**24**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	3	0	0	0	0	0
3:30 PM	0	3	1	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**4**	**0**	**0**	**0**	**3**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-004
N/S Street: Mission Rd
E/W Street: Griffin Ave/Zonal Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	1	0	0	2	0	0	1	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:45 PM	1	1	0	0	0	1	1	0	0	2	3	0
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0
4:45 PM	0	2	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	3	0	0	1	0	0	0	0	0	1	0
5:15 PM	2	0	0	0	1	0	0	0	1	0	0	0
5:30 PM	0	0	0	0	2	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	4	0	1	0	0	0	0	0
TOTALS	**3**	**13**	**0**	**0**	**12**	**2**	**2**	**4**	**1**	**2**	**7**	**1**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-005 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			Valley Blvd			Valley Blvd				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 0	WL 0	WT 0	WR 0	TOTAL	NB	SB	EB	WB
3:00 PM		119	60	38	130		38	128	9				522				
3:15 PM		125	43	35	115		63	136	8				525				
3:30 PM		137	53	52	180		48	133	11				614				
3:45 PM		119	87	15	111		41	188	11				572				
4:00 PM		157	77	38	152		54	171	4				653				
4:15 PM		161	73	29	155		56	188	6				668				
4:30 PM		194	97	34	206		65	178	9				783				
4:45 PM		184	81	25	114		58	200	7				669				
5:00 PM		174	114	45	180		56	148	6				723				
5:15 PM		191	81	37	154		67	214	4				748				
5:30 PM		219	108	39	181		59	177	9				792				
5:45 PM		209	85	15	109		77	170	9				674				
TOTAL VOLUMES :	NL 0	NT 1989	NR 959	SL 402	ST 1787	SR 0	EL 682	ET 2031	ER 93	WL 0	WT 0	WR 0	TOTAL 7943	NB 0	SB 0	EB 0	WB 0
APPROACH %'s :	0.00%	67.47%	32.53%	18.36%	81.64%	0.00%	24.31%	72.38%	3.31%	#DIV/0!	#DIV/0!	#DIV/0!					
PEAK HR START TIME :	500 PM												TOTAL				
PEAK HR VOL :	0	793	388	136	624	0	259	709	28	0	0	0	2937				
PEAK HR FACTOR :		0.903			0.844			0.874			0.000		0.927				

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Valley Blvd , Los Angeles

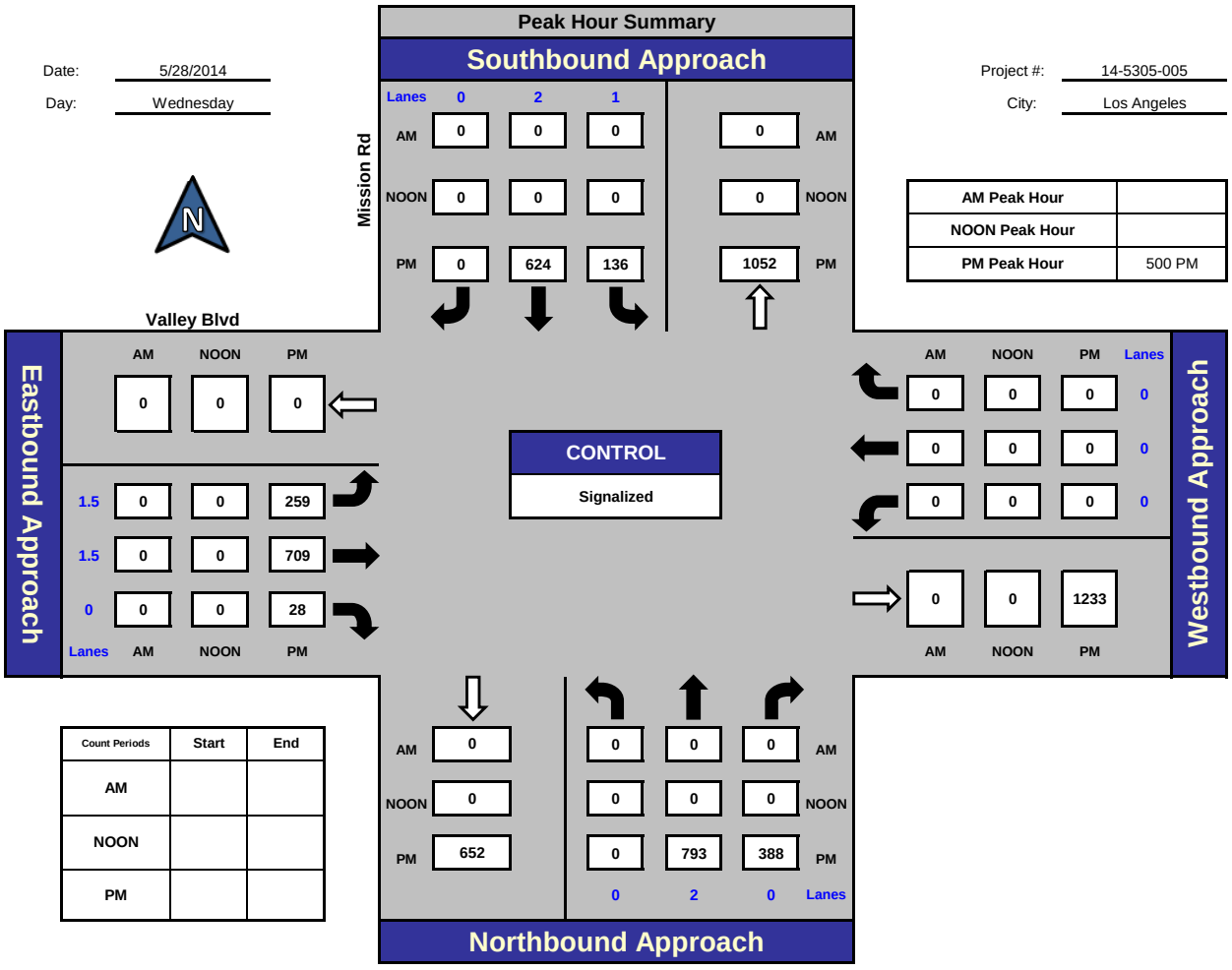
Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-005

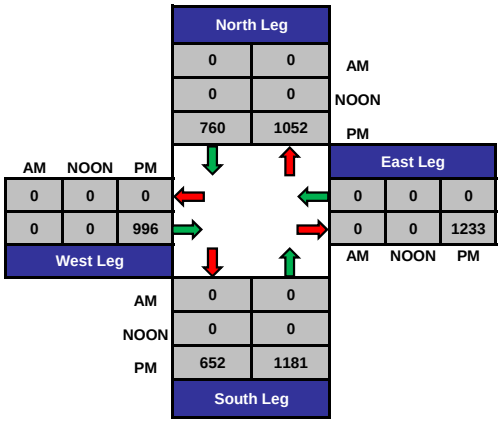
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM

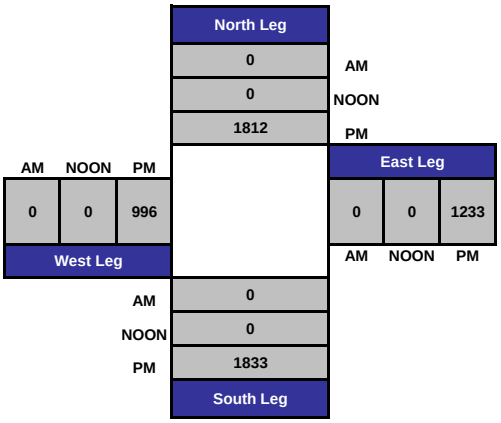


Count Periods	Start	End
AM		
NOON		
PM		

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-005
N/S Street: Mission Rd
E/W Street: Valley Blvd
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	3	4	0
3:15 PM	0	0	0	0	0	0	2	3
3:30 PM	0	0	0	1	0	3	1	1
3:45 PM	0	0	0	0	0	0	3	3
4:00 PM	0	0	0	0	1	0	0	2
4:15 PM	0	0	0	0	1	0	0	0
4:30 PM	0	0	8	0	10	2	2	3
4:45 PM	0	0	0	1	0	2	2	1
5:00 PM	0	0	1	0	1	1	0	0
5:15 PM	0	0	0	0	1	0	3	2
5:30 PM	0	0	0	0	2	0	0	2
5:45 PM	0	0	0	3	2	5	3	3
TOTALS	**0**	**0**	**9**	**5**	**18**	**16**	**20**	**20**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-005
N/S Street: Mission Rd
E/W Street: Valley Blvd
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	3	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	1	1	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	1	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	3	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	1	1	0	0	0	0
4:45 PM	0	2	0	0	1	0	1	0	0	0	0	0
5:00 PM	0	2	0	0	1	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	2	0	0	3	0	0	0	0
5:30 PM	0	2	0	0	3	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**12**	**0**	**0**	**11**	**0**	**5**	**9**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-006 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			Main St			Main St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 1	EL 0	ET 0	ER 0	WL 1	WT 2	WR 1	TOTAL
3:00 PM	1	152			124	31				39	113	43	503
3:15 PM	2	180			124	44				30	122	30	532
3:30 PM	2	171			191	43				37	118	40	602
3:45 PM	2	157			100	47				31	112	36	485
4:00 PM	3	201			148	47				39	122	33	593
4:15 PM	10	207			151	36				41	121	41	607
4:30 PM	5	241			197	37				34	154	30	698
4:45 PM	8	233			104	50				37	157	39	628
5:00 PM	9	209			179	38				44	147	40	666
5:15 PM	7	252			153	24				43	177	47	703
5:30 PM	4	265			189	50				25	156	38	727
5:45 PM	4	271			99	37				30	141	26	608
TOTAL VOLUMES :	NL 57	NT 2539	NR 0	SL 0	ST 1759	SR 484	EL 0	ET 0	ER 0	WL 430	WT 1640	WR 443	TOTAL 7352
APPROACH %'s :	2.20%	97.80%	0.00%	0.00%	78.42%	21.58%	#DIV/0!	#DIV/0!	#DIV/0!	17.11%	65.26%	17.63%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	28	959	0	0	625	162	0	0	0	149	637	164	2724
PEAK HR FACTOR :		0.917			0.823			0.000			0.890		0.937

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Main St , Los Angeles

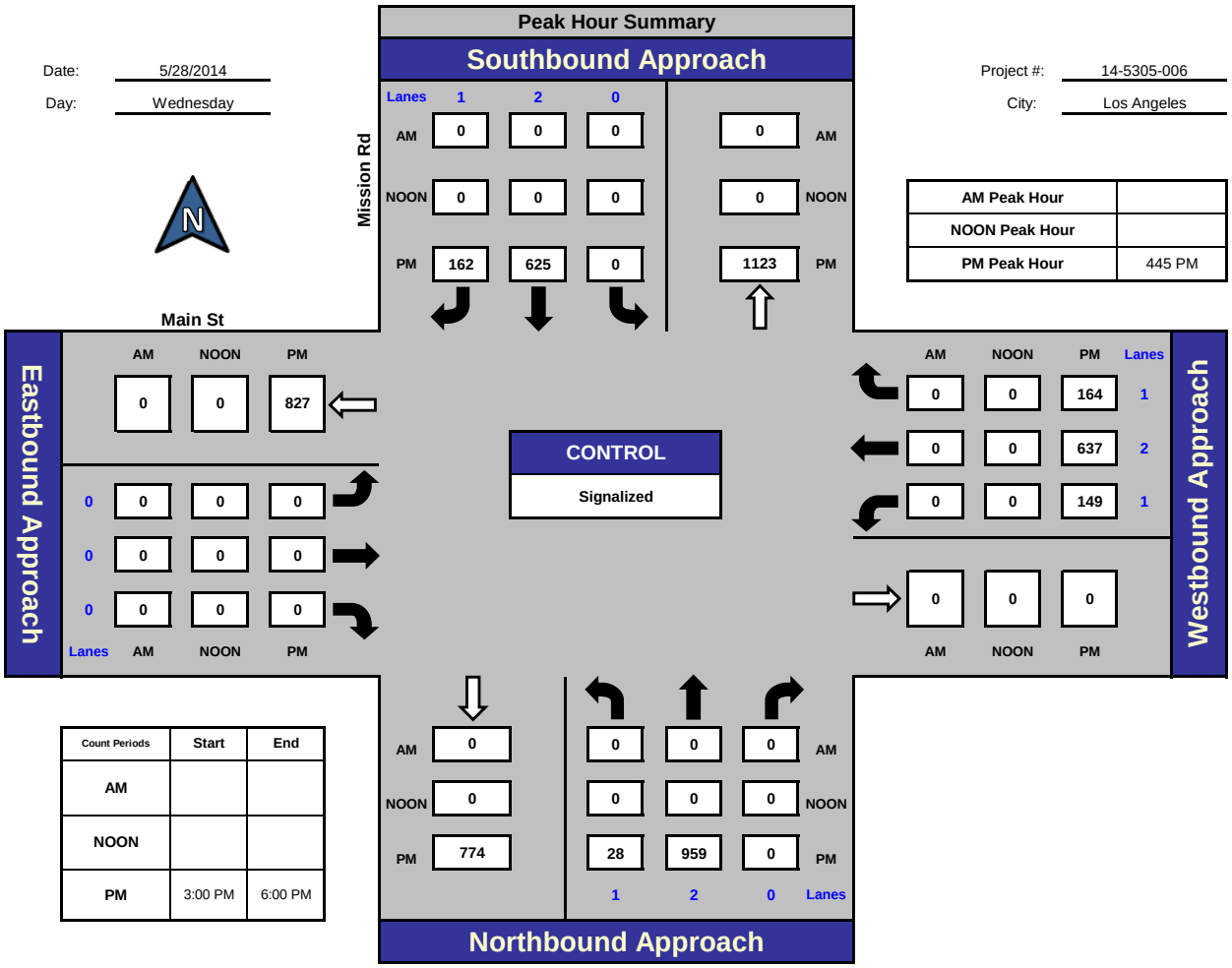
Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-006

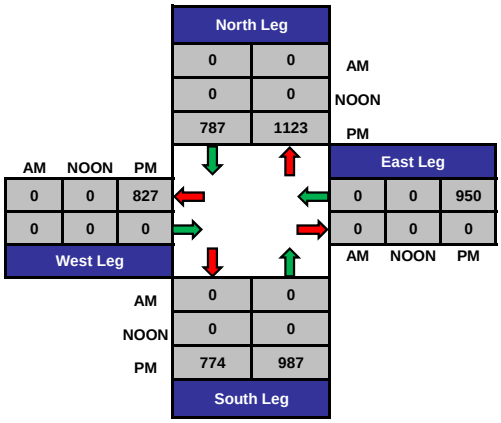
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM

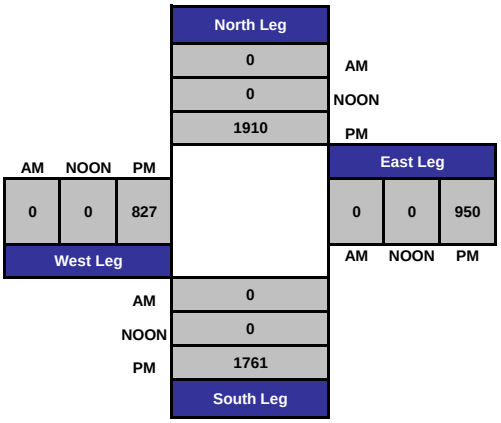


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-006
N/S Street: Mission Rd
E/W Street: Main St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	2	1	0	1	3	1	1
3:15 PM	3	8	0	1	2	0	4	2
3:30 PM	3	9	0	0	1	2	0	1
3:45 PM	5	5	1	0	2	0	1	0
4:00 PM	3	7	0	1	1	0	1	3
4:15 PM	5	1	1	0	1	1	1	1
4:30 PM	8	2	1	3	1	3	5	2
4:45 PM	1	1	0	0	2	4	2	1
5:00 PM	2	1	1	1	2	0	1	0
5:15 PM	2	1	0	0	1	0	2	4
5:30 PM	9	6	0	0	2	0	0	3
5:45 PM	7	4	0	1	2	3	3	3
TOTALS	**48**	**47**	**5**	**7**	**18**	**16**	**21**	**21**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	1	1	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-006
N/S Street: Mission Rd
E/W Street: Main St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	1	3	0	0	1	2	0	0	0	0	3	0
3:15 PM	0	1	1	0	0	3	0	2	0	0	1	0
3:30 PM	0	0	0	1	0	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	1	1	0	0	0	1	0
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	0
4:30 PM	0	2	0	0	0	2	1	0	0	0	1	0
4:45 PM	1	3	0	0	0	1	0	0	0	1	3	0
5:00 PM	0	1	0	0	1	0	2	0	0	1	1	0
5:15 PM	1	0	0	0	2	0	2	0	0	0	2	0
5:30 PM	0	3	0	0	2	1	1	1	0	1	2	0
5:45 PM	0	0	0	0	1	1	0	2	0	0	2	0
TOTALS	**3**	**14**	**1**	**1**	**8**	**11**	**8**	**5**	**0**	**4**	**16**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-106 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Mission Rd			Mission Rd			Gates St,N Main ST			Gates St,N Main ST			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 1	EL 0	ET 1	ER 0	WL 1	WT 2	WR 1	TOTAL
3:00 PM	3					0		0	3		3		9
3:15 PM	7					1		0	7		8		23
3:30 PM	5					3		1	7		3		19
3:45 PM	7					1		0	4		5		17
4:00 PM	0					3		0	6		6		15
4:15 PM	7					2		0	7		8		24
4:30 PM	7					2		2	10		8		29
4:45 PM	6					3		0	4		3		16
5:00 PM	5					0		0	7		8		20
5:15 PM	4					1		0	5		8		18
5:30 PM	5					2		0	9		7		23
5:45 PM	13					1		1	8		3		26
TOTAL VOLUMES :	NL 69	NT 0	NR 0	SL 0	ST 0	SR 19	EL 0	ET 4	ER 77	WL 0	WT 70	WR 0	TOTAL 239
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	4.94%	95.06%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	415 PM												TOTAL
PEAK HR VOL :	25	0	0	0	0	7	0	2	28	0	27	0	89
PEAK HR FACTOR :		0.893			0.583			0.625			0.844		0.767

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mission Rd and Gates St,N Main ST , Los Angeles

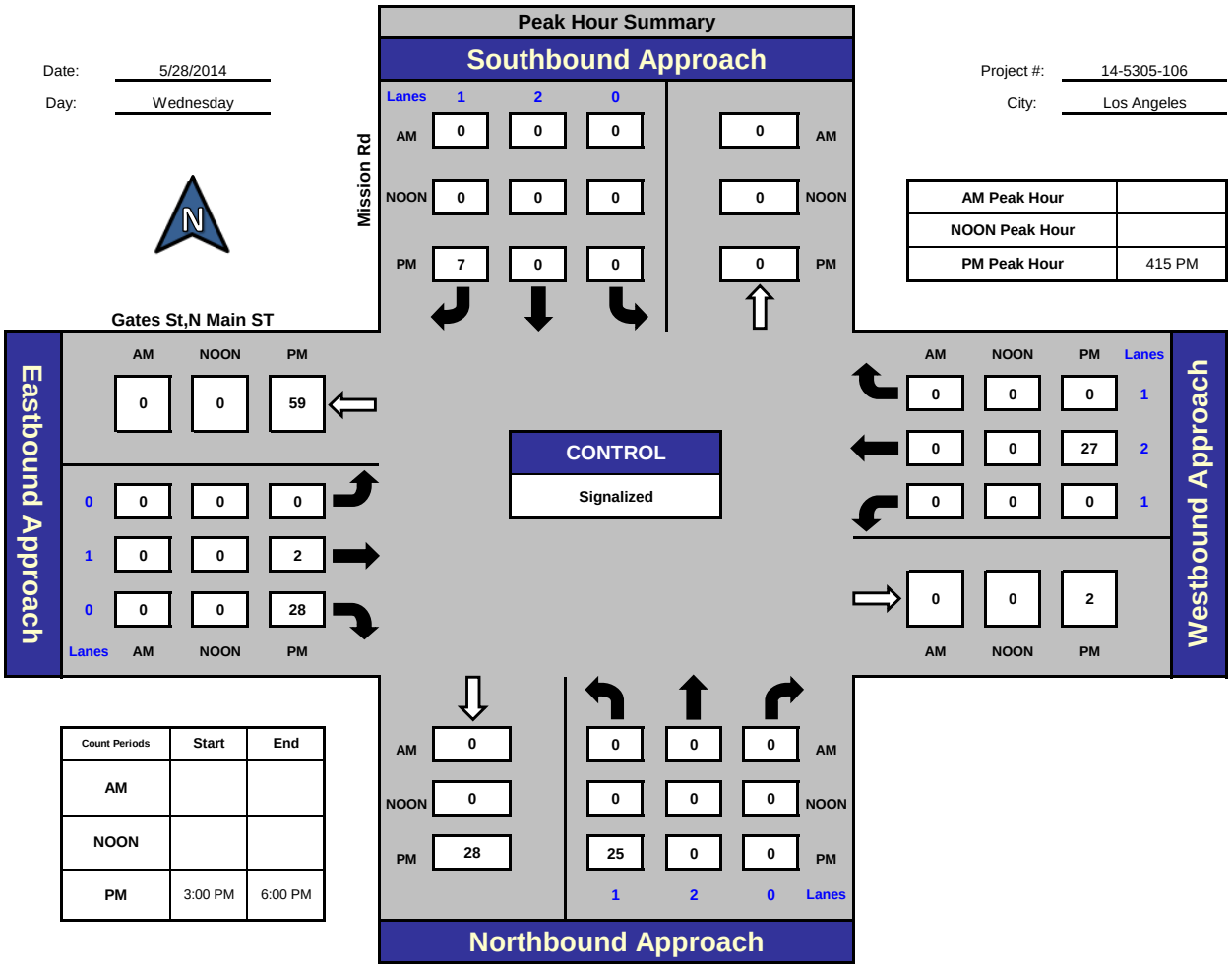
Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-106

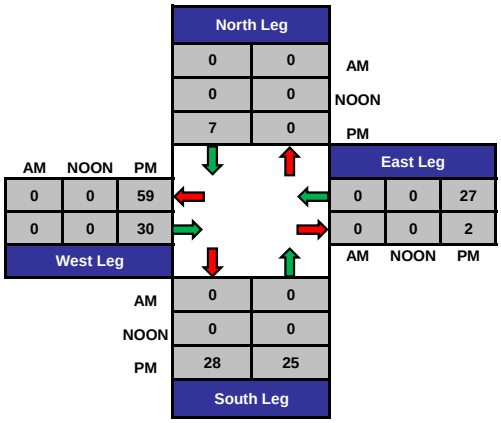
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	415 PM

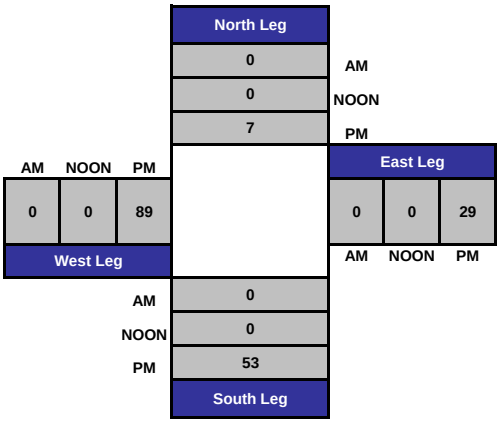


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-106
N/S Street: Mission Rd
E/W Street: Gates St/Main St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM		0	0	0	0	0	3	1
3:15 PM	0	0	0	0	0	0	2	9
3:30 PM	0	0	0	0	0	0	3	11
3:45 PM	0	0	0	0	0	0	5	3
4:00 PM	0	0	0	0	0	0	8	6
4:15 PM	0	0	0	0	0	0	3	4
4:30 PM	0	0	0	0	0	0	8	5
4:45 PM	0	0	0	0	0	0	5	4
5:00 PM	0	0	0	0	0	0	2	2
5:15 PM	0	0	0	0	0	0	2	4
5:30 PM	0	0	0	0	0	0	0	7
5:45 PM	0	0	0	0	0	0	11	11
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**52**	**67**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-106
N/S Street: Mission Rd
E/W Street: Gates St/Main St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	2	0	0	1	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	2	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**5**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-007 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	State St			State St			Cesar E Chavez Ave			Cesar E Chavez Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 2	WR 1	TOTAL
3:00 PM	12	138	72	24	103	5	15	56	42	75	53	45	640
3:15 PM	14	120	86	28	123	5	9	48	26	83	59	59	660
3:30 PM	4	113	68	36	154	10	10	52	42	107	61	60	717
3:45 PM	13	106	62	36	167	6	16	41	41	97	66	42	693
4:00 PM	9	112	48	28	133	3	13	62	42	87	57	56	650
4:15 PM	10	106	66	36	123	8	10	53	27	86	48	38	611
4:30 PM	13	111	81	52	124	5	13	64	39	86	51	49	688
4:45 PM	14	112	70	40	134	3	7	71	32	87	49	41	660
5:00 PM	11	113	66	39	118	8	13	85	42	82	64	35	676
5:15 PM	6	134	78	50	144	5	17	86	34	82	67	41	744
5:30 PM	7	127	65	56	158	3	4	75	28	80	48	49	700
5:45 PM	15	114	61	41	123	1	10	65	26	67	37	49	609
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	128	1406	823	466	1604	62	137	758	421	1019	660	564	8048
APPROACH %'s :	5.43%	59.65%	34.92%	21.86%	75.23%	2.91%	10.41%	57.60%	31.99%	45.43%	29.42%	25.14%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	38	486	279	185	554	19	41	317	136	331	228	166	2780
PEAK HR FACTOR :		0.921			0.873			0.882			0.954		0.934

UTURNS				
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Cesar E Chavez Ave , Los Angeles

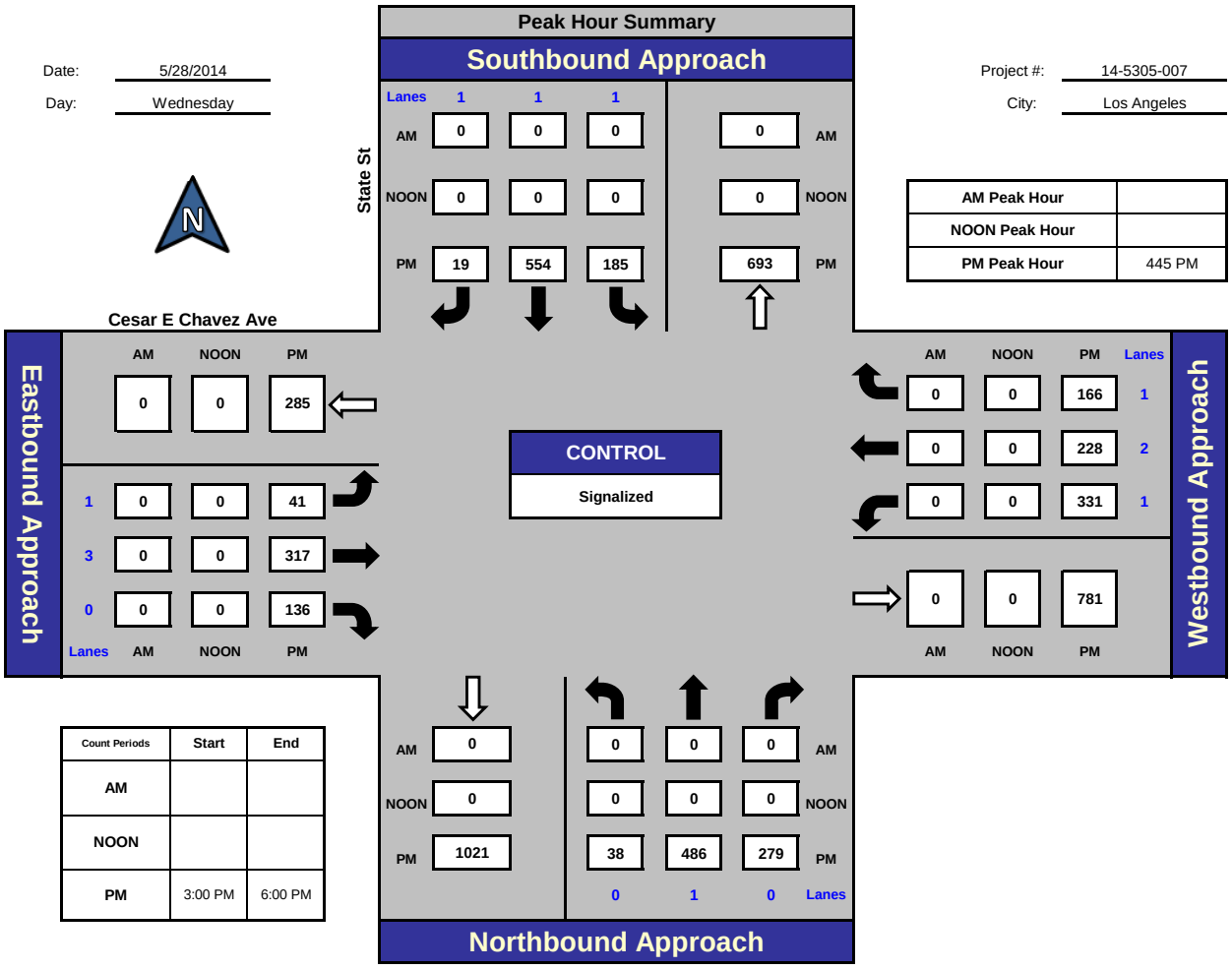
Date: 5/28/2014

Day: Wednesday

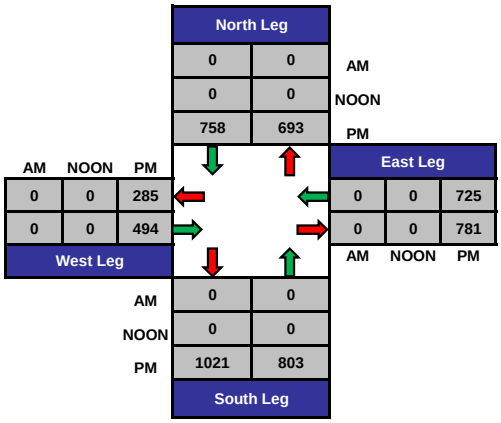
Project #: 14-5305-007

City: Los Angeles

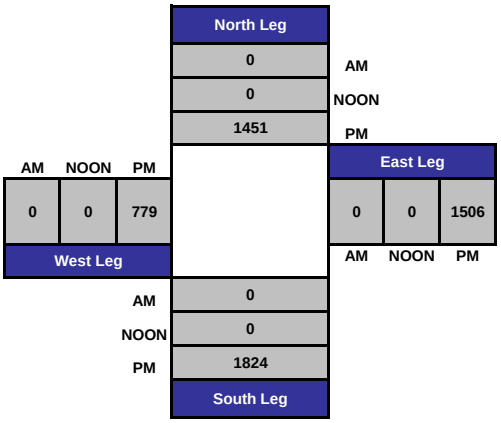
AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-007
N/S Street: State St
E/W Street: Cesar E Chavez Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	5	6	3	4	0	3	6	6
3:15 PM	5	3	6	7	2	1	4	10
3:30 PM	12	4	4	5	7	1	9	9
3:45 PM	3	4	1	5	4	1	5	4
4:00 PM	8	2	6	6	3	2	3	4
4:15 PM	5	2	9	1	2	1	3	7
4:30 PM	2	5	4	1	2	0	2	2
4:45 PM	6	3	4	5	3	3	5	2
5:00 PM	9	4	7	2	8	3	8	6
5:15 PM	7	3	4	1	0	2	4	4
5:30 PM	6	1	4	3	1	0	4	8
5:45 PM	4	1	5	2	7	2	6	1
TOTALS	**72**	**38**	**57**	**42**	**39**	**19**	**59**	**63**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	1	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	1	0	0	1	0
TOTALS	**0**	**0**	**2**	**3**	**0**	**0**	**2**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-007
N/S Street: State St
E/W Street: Cesar E Chavez Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	2	0	0	1	0	1	1	0
3:15 PM	0	0	0	1	0	0	0	1	0	0	0	1
3:30 PM	0	0	0	0	0	0	3	1	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	2	0	0	0	0
4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	1	0
4:30 PM	1	1	0	0	1	0	0	1	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	4	0	0	1	1
5:00 PM	0	1	1	0	0	0	0	1	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0
5:30 PM	0	0	0	0	2	0	0	2	0	0	2	0
5:45 PM	0	0	0	0	1	0	0	2	0	0	0	0
TOTALS	**1**	**2**	**1**	**1**	**8**	**0**	**3**	**18**	**0**	**1**	**7**	**3**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-009 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	State St			State St			I-10 EB Ramps			I-10 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0.5	ET 1	ER 0.5	WL 0	WT 0	WR 0	TOTAL
3:00 PM		97	72	42	98		33	36	60				438
3:15 PM		87	81	43	134		47	55	76				523
3:30 PM		87	106	55	172		26	45	89				580
3:45 PM		92	111	49	143		30	53	112				590
4:00 PM		68	99	46	132		25	49	97				516
4:15 PM		78	105	38	94		30	44	112				501
4:30 PM		111	101	36	122		21	50	92				533
4:45 PM		102	111	36	111		38	65	121				584
5:00 PM		98	113	34	88		44	64	108				549
5:15 PM		123	125	27	111		42	76	142				646
5:30 PM		135	106	26	115		40	67	119				608
5:45 PM		116	102	28	84		49	81	127				587
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1194	1232	460	1404	0	425	685	1255	0	0	0	6655
APPROACH %'s :	0.00%	49.22%	50.78%	24.68%	75.32%	0.00%	17.97%	28.96%	53.07%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	472	446	115	398	0	175	288	496	0	0	0	2390
PEAK HR FACTOR :		0.925			0.910			0.922			0.000		0.925

UTURNS				
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and I-10 EB Ramps , Los Angeles

Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-009

City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Lanes	0	2	0	
AM	0	0	0	0 AM
NOON	0	0	0	0 NOON
PM	0	398	115	647 PM

State St

I-10 EB Ramps

Eastbound Approach

Lanes	AM	NOON	PM
	0	0	0
0.5	0	0	175
1	0	0	288
0.5	0	0	496

CONTROL

Signalized

Westbound Approach

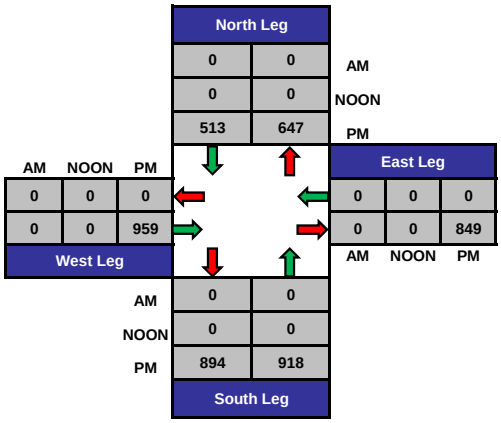
	AM	NOON	PM	Lanes
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	849	

Count Periods	Start	End
AM		
NOON		
PM		

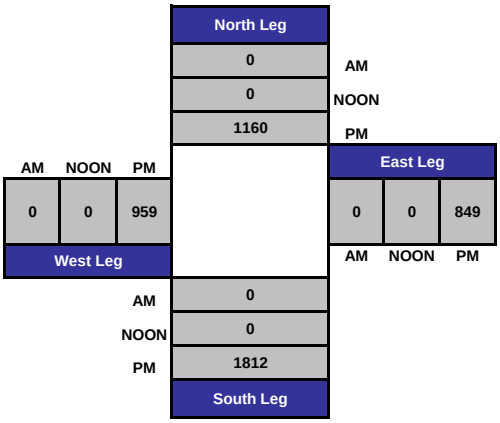
Northbound Approach

AM	0	0	0	0 AM
NOON	0	0	0	0 NOON
PM	894	0	472	446 PM
Lanes		0	2	0 Lanes

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-009
N/S Street: State St
E/W Street: I-10 EB Ramps
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	2	0	1
3:15 PM	0	0	0	0	4	2	1	0
3:30 PM	0	0	0	0	1	8	3	0
3:45 PM	0	0	0	0	3	6	3	3
4:00 PM	0	0	2	0	3	2	0	2
4:15 PM	0	0	0	0	0	2	1	0
4:30 PM	0	0	0	1	0	2	1	0
4:45 PM	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	1	1	3
5:15 PM	0	0	0	0	1	2	3	0
5:30 PM	0	0	0	0	1	4	6	0
5:45 PM	0	0	0	0	2	5	1	2
TOTALS	**0**	**0**	**2**	**1**	**15**	**37**	**20**	**12**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	2	0	0
4:00 PM	0	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	1	1	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	2	0
5:45 PM	0	0	0	0	0	0	0	1
TOTALS	**0**	**0**	**0**	**1**	**1**	**3**	**4**	**1**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-009
N/S Street: State St
E/W Street: I-10 EB Ramps
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	2	0	0	1	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0
4:30 PM	0	3	0	0	2	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	2	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	2	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**10**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-010 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	State St			State St			I-10 WB Off-Ramp			I-10 WB Off-Ramp			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 1	WT 0	WR 1	TOTAL
3:00 PM	5	123			116	28				28	0	31	331
3:15 PM	6	123			133	26				42	0	29	359
3:30 PM	8	108			193	57				42	0	38	446
3:45 PM	9	115			143	57				39	0	26	389
4:00 PM	3	90			157	54				28	1	16	349
4:15 PM	4	104			99	26				28	0	19	280
4:30 PM	4	127			129	61				34	0	20	375
4:45 PM	4	133			116	45				24	0	24	346
5:00 PM	2	144			100	43				27	1	28	345
5:15 PM	1	164			101	44				32	0	29	371
5:30 PM	5	170			114	38				35	0	15	377
5:45 PM	2	159			73	28				36	0	32	330
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	53	1560	0	0	1474	507	0	0	0	395	2	307	4298
APPROACH %'s :	3.29%	96.71%	0.00%	0.00%	74.41%	25.59%	#DIV/0!	#DIV/0!	#DIV/0!	56.11%	0.28%	43.61%	
PEAK HR START TIME :	315 PM												TOTAL
PEAK HR VOL :	26	436	0	0	626	194	0	0	0	151	1	109	1543
PEAK HR FACTOR :		0.895			0.820			0.000			0.816		0.865

UTURNS			
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and I-10 WB Off-Ramp , Los Angeles

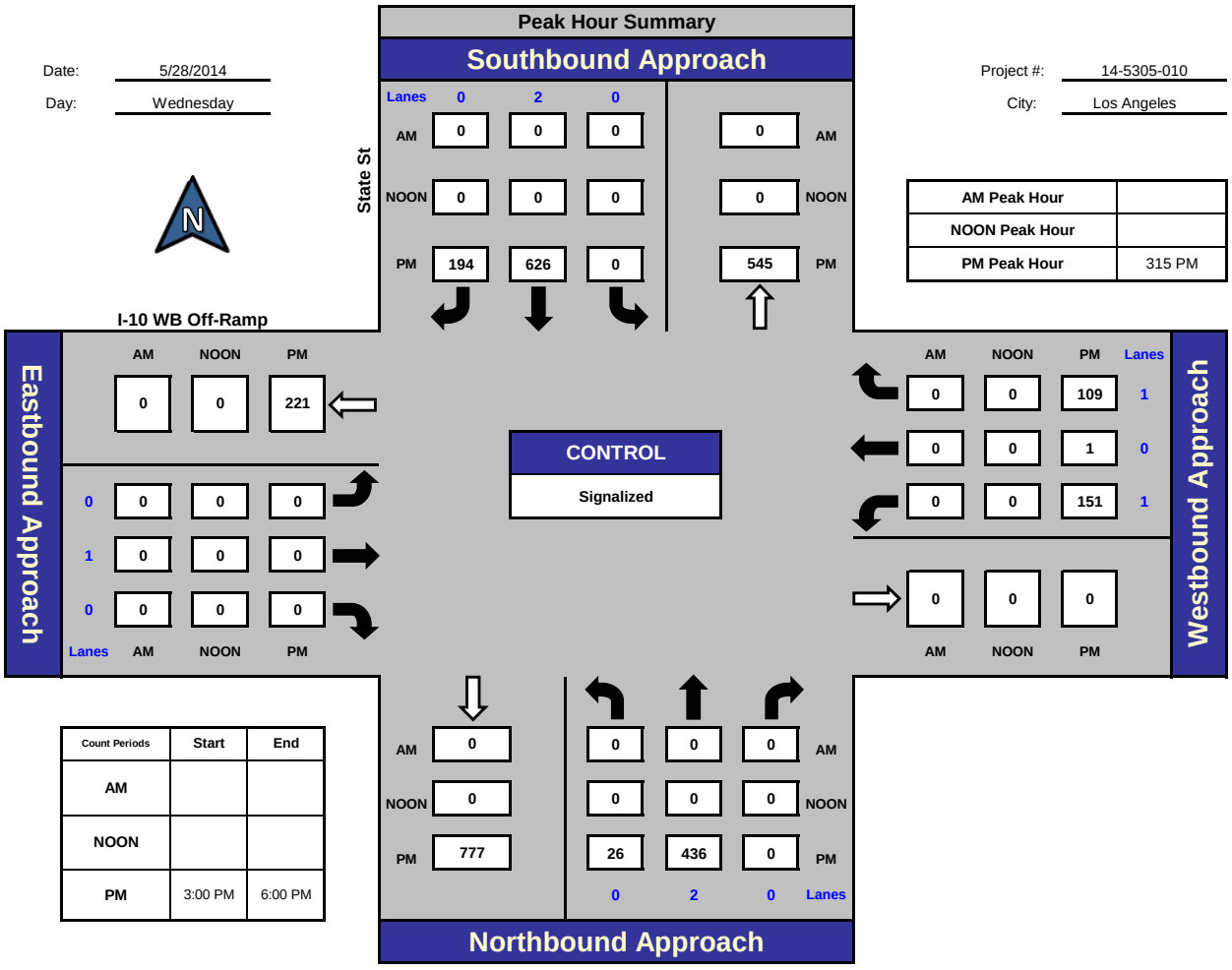
Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-010

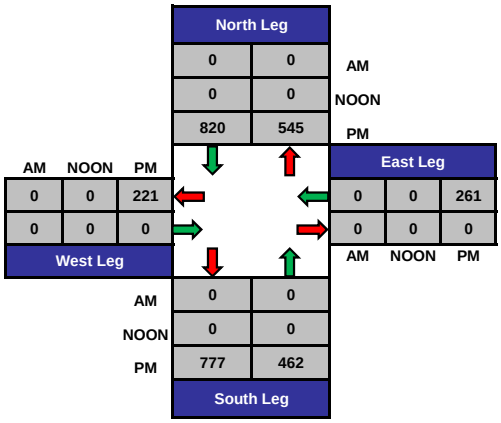
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	315 PM

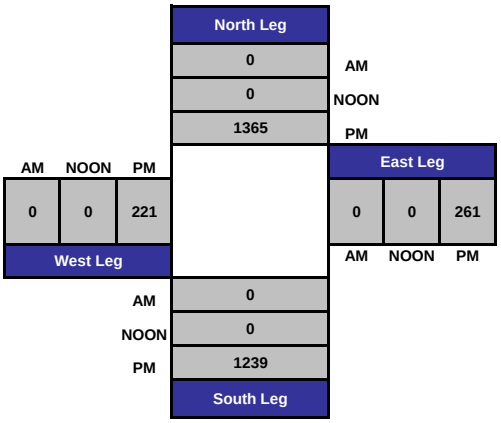


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-010
N/S Street: State St
E/W Street: I-10 WB Off-Ramp
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	2	0	1
3:15 PM	0	0	0	0	4	4	1	2
3:30 PM	0	0	0	0	0	8	1	1
3:45 PM	0	0	0	0	3	5	5	1
4:00 PM	0	0	0	0	3	2	0	2
4:15 PM	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	2	1	1
4:45 PM	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	1	1	3
5:15 PM	0	1	0	0	2	2	3	1
5:30 PM	0	0	0	0	1	4	4	0
5:45 PM	0	0	0	0	2	5	2	2
TOTALS	**0**	**1**	**0**	**0**	**15**	**36**	**19**	**14**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	3	1	0
4:00 PM	0	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	1	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	3	0
5:45 PM	0	0	0	0	0	0	0	2
TOTALS	**0**	**0**	**0**	**0**	**1**	**4**	**5**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-010
N/S Street: State St
E/W Street: I-10 WB Off-Ramp
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	3	0	0	1	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	3	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	3	0	0	2	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	2	0	0	0	0	0	0	0
TOTALS	**0**	**13**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-011 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	State St			State St			Pomeroy Ave			Pomeroy Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 1	WT 0	WR 1	TOTAL
3:00 PM	1	108	42	0	103	3	2		3	44	0	18	324
3:15 PM	3	114	38	1	107	0	0		6	42	0	15	326
3:30 PM	4	107	30	0	123	2	1		8	124	7	20	426
3:45 PM	1	110	30	0	104	3	0		8	81	4	25	366
4:00 PM	0	100	11	1	120	1	1		4	90	1	17	346
4:15 PM	3	104	16	1	79	3	0		2	41	2	26	277
4:30 PM	8	122	14	0	98	2	0		2	92	1	14	353
4:45 PM	10	127	23	0	85	8	2		4	70	3	15	347
5:00 PM	9	142	18	1	83	6	1		9	54	1	12	336
5:15 PM	5	155	34	0	91	3	0		2	50	2	22	364
5:30 PM	8	148	31	0	97	4	0		6	56	1	18	369
5:45 PM	12	152	22	0	66	2	1		3	27	3	12	300
TOTAL VOLUMES :	NL 64	NT 1489	NR 309	SL 4	ST 1156	SR 37	EL 8	ET 0	ER 57	WL 771	WT 25	WR 214	TOTAL 4134
APPROACH %'s :	3.44%	79.97%	16.60%	0.33%	96.57%	3.09%	12.31%	0.00%	87.69%	76.34%	2.48%	21.19%	
PEAK HR START TIME :	315 PM												TOTAL
PEAK HR VOL :	8	431	109	2	454	6	2	0	26	337	12	77	1464
PEAK HR FACTOR :		0.884			0.924			0.778			0.705		0.859

UTURNS

NB	SB	EB	WB
NB 0	SB 0	EB 0	WB 0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Pomeroy Ave , Los Angeles

Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-011

City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	315 PM

Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Peak Hour Summary

Southbound Approach (State St)

Lanes	0	2	0		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	6	454	2	510	PM

Eastbound Approach (Pomeroy Ave)

Lanes	AM	NOON	PM
	0	0	26
0	0	0	2
1	0	0	0
0	0	0	26

Westbound Approach

Lanes	AM	NOON	PM
1	0	0	77
0	0	0	12
1	0	0	337
	0	0	111

CONTROL: Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	817	8	431	109	PM
Lanes		0	2	0	Lanes

Total Ins & Outs

	AM	NOON	PM
North Leg	0	0	462
	0	0	510
East Leg	0	0	426
	0	0	111
West Leg	0	0	26
	0	0	28
South Leg	0	0	817
	0	0	548

Total Volume Per Leg

	AM	NOON	PM
North Leg	0	0	972
East Leg	0	0	537
West Leg	0	0	54
South Leg	0	0	1365

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-011
N/S Street: State St
E/W Street: Pomeroy Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	1	1	0	0	1	0	1	0
3:15 PM	2	0	0	0	1	7	2	2
3:30 PM	0	1	0	0	0	4	1	2
3:45 PM	0	2	0	0	3	3	0	1
4:00 PM	5	1	0	0	0	3	1	2
4:15 PM	0	0	0	1	0	1	1	0
4:30 PM	0	0	0	0	0	0	0	1
4:45 PM	2	0	0	0	0	1	1	0
5:00 PM	0	0	0	3	0	2	1	0
5:15 PM	1	0	0	0	2	2	3	1
5:30 PM	0	0	0	0	0	3	2	4
5:45 PM	2	0	0	0	0	2	1	0
TOTALS	**13**	**5**	**0**	**4**	**7**	**28**	**14**	**13**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-011
N/S Street: State St
E/W Street: Pomeroy Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	1	0	0	0	0	0	1	1	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	1	0	2	0	0	0	0
3:45 PM	0	3	0	0	1	0	0	0	0	0	1	0
4:00 PM	0	0	0	0	1	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	2	0	2	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	2	0	0	0	1	0	0	0
5:00 PM	0	2	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	1	0	0	0
5:30 PM	0	0	1	0	1	0	0	1	0	1	0	0
5:45 PM	0	0	0	0	2	0	0	0	0	0	0	0
TOTALS	**0**	**9**	**3**	**0**	**11**	**1**	**0**	**4**	**4**	**1**	**1**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-012 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	State St			State St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM	54	44	25	23	38	16	11	120	34	30	156	15	566
3:15 PM	61	42	22	14	36	23	12	105	49	28	134	23	549
3:30 PM	56	39	25	16	56	33	17	128	40	35	190	16	651
3:45 PM	68	39	20	19	39	15	14	120	30	28	182	14	588
4:00 PM	59	31	16	17	47	23	15	124	36	36	178	13	595
4:15 PM	80	31	14	18	23	26	14	152	38	17	153	18	584
4:30 PM	62	31	32	24	37	23	14	163	29	32	188	19	654
4:45 PM	72	45	22	14	34	31	13	149	30	24	198	11	643
5:00 PM	80	44	23	12	35	26	14	152	28	22	200	18	654
5:15 PM	75	58	35	15	27	24	9	160	32	37	193	12	677
5:30 PM	91	48	29	18	24	23	13	168	33	37	180	11	675
5:45 PM	99	31	27	10	22	18	13	147	26	20	170	19	602
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	857	483	290	200	418	281	159	1688	405	346	2122	189	7438
APPROACH %'s :	52.58%	29.63%	17.79%	22.25%	46.50%	31.26%	7.06%	74.96%	17.98%	13.02%	79.86%	7.11%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	318	195	109	59	120	104	49	629	123	120	771	52	2649
PEAK HR FACTOR :		0.926			0.896			0.936			0.974		0.978

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Marengo St , Los Angeles

Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-012

City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM

Peak Hour Summary

Southbound Approach (State St)

Lanes	0	2	0		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	104	120	59	296	PM

Eastbound Approach (Marengo St)

Lanes	AM	NOON	PM
	0	0	1193
1	0	0	49
2	0	0	629
0	0	0	123

Westbound Approach

Lanes	AM	NOON	PM
0	0	0	52
2	0	0	771
1	0	0	120
	0	0	797

CONTROL: Signalized

Northbound Approach

Lanes	0	2	0		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	363	318	195	109	PM

Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs

	North Leg			East Leg			South Leg			West Leg		
AM	0	0	AM	0	0	943	0	0	AM	0	0	1193
NOON	0	0	NOON	0	0	797	0	0	NOON	0	0	801
PM	283	296	PM	AM	NOON	PM	363	622	PM	AM	NOON	PM

Total Volume Per Leg

	North Leg		East Leg			South Leg		West Leg		
AM	0	AM	0	0	1740	0	AM	0	0	1994
NOON	0	NOON	AM	NOON	PM	0	NOON	AM	NOON	PM
PM	579	PM				985	PM			

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-012
N/S Street: State St
E/W Street: Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	6	1	10	14	25	19	5	0
3:15 PM	4	3	6	13	8	19	3	2
3:30 PM	6	4	11	19	16	14	3	4
3:45 PM	5	7	13	8	10	13	4	11
4:00 PM	6	10	10	13	8	17	2	10
4:15 PM	3	8	17	10	9	8	0	10
4:30 PM	1	10	5	4	5	15	3	10
4:45 PM	7	5	12	3	15	12	1	8
5:00 PM	16	8	11	7	10	16	4	9
5:15 PM	11	1	8	1	5	18	3	6
5:30 PM	2	6	5	8	5	8	1	4
5:45 PM	0	5	7	6	7	18	2	8
TOTALS	**67**	**68**	**115**	**106**	**123**	**177**	**31**	**82**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	1
4:00 PM	0	1	0	0	0	0	0	1
4:15 PM	0	0	1	3	1	4	0	0
4:30 PM	0	0	0	0	0	2	0	0
4:45 PM	0	0	0	0	0	4	0	0
5:00 PM	0	0	2	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**3**	**3**	**1**	**11**	**0**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-012
N/S Street: State St
E/W Street: Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	3	0	0	3	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	1	0	0	0	0	2	1	0	0	0
3:45 PM	3	0	0	0	0	0	0	0	0	0	1	0
4:00 PM	0	0	0	0	0	0	0	1	1	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	1	0	0	0	1	0	0	0	0	0	6	0
4:45 PM	0	0	0	0	0	0	0	3	1	0	2	0
5:00 PM	2	0	0	0	0	0	0	2	0	0	2	0
5:15 PM	0	0	1	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	3	0	0	3	0
5:45 PM	0	0	0	0	0	0	0	3	0	0	2	0
TOTALS	**6**	**0**	**2**	**0**	**1**	**0**	**0**	**17**	**3**	**0**	**22**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-008 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	I-5 NB Off-Ramp			I-5 NB Off-Ramp			Cesar E Chavez Ave			Cesar E Chavez Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 1	SL 0	ST 1	SR 0	EL 0	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
3:00 PM	71	0	43			1	1	134			149	0	399
3:15 PM	71	0	37			1	0	171			166	0	446
3:30 PM	54	0	31			1	0	162			162	1	411
3:45 PM	45	0	41			1	0	150			162	1	400
4:00 PM	37	1	37			0	0	142			153	0	370
4:15 PM	46	0	26			1	0	164			164	1	402
4:30 PM	59	0	26			0	0	189			167	0	441
4:45 PM	46	0	29			0	0	187			156	1	419
5:00 PM	39	0	28			3	0	185			156	1	412
5:15 PM	57	1	30			1	1	202			147	0	439
5:30 PM	42	0	29			2	0	210			157	0	440
5:45 PM	34	1	28			2	0	170			162	0	397
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	601	3	385	0	0	13	2	2066	0	0	1901	5	4976
APPROACH %'s :	60.77%	0.30%	38.93%	0.00%	0.00%	100.00%	0.10%	99.90%	0.00%	0.00%	99.74%	0.26%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	201	1	113	0	0	4	1	763	0	0	626	2	1711
PEAK HR FACTOR :		0.895			0.333			0.941			0.940		0.970

UTURNS	NB	SB	EB	WB
TOTAL	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

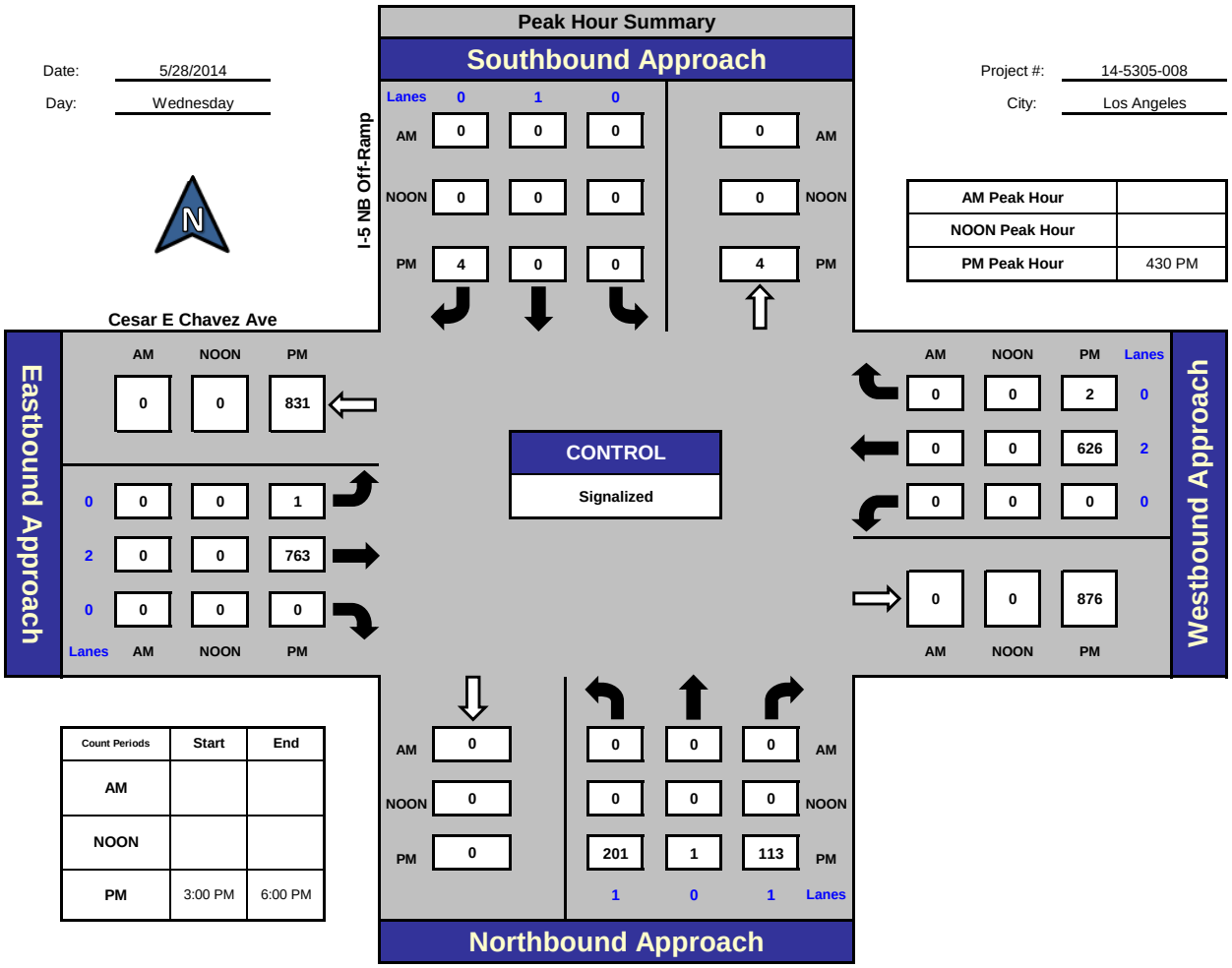
National Data & Surveying Services

I-5 NB Off-Ramp and Cesar E Chavez Ave , Los Angeles

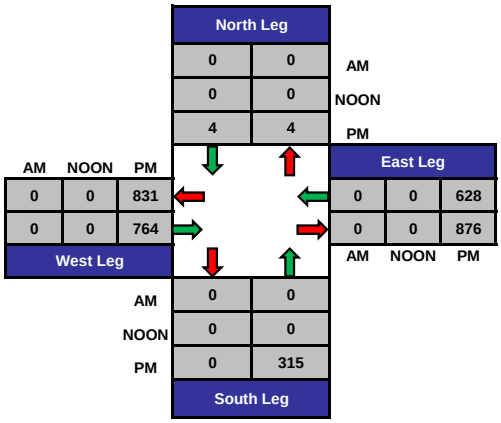
Date: 5/28/2014
Day: Wednesday

Project #: 14-5305-008
City: Los Angeles

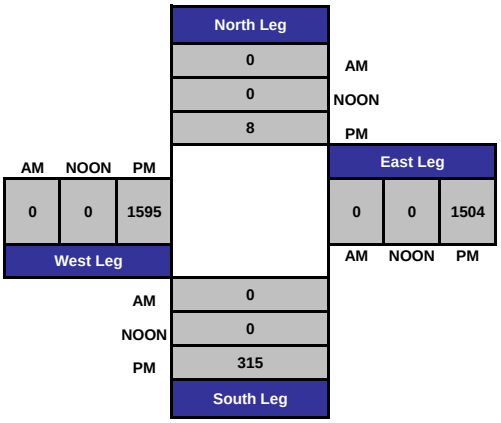
AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	430 PM



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-008
N/S Street: I-5 NB Off-Ramp
E/W Street: Cesar E Chavez Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	11	6	6	6	5	3	0	0
3:15 PM	7	7	5	12	1	1	0	0
3:30 PM	7	4	6	5	5	0	0	0
3:45 PM	4	4	3	10	0	0	0	0
4:00 PM	11	2	6	2	1	4	0	0
4:15 PM	4	5	8	3	5	1	0	0
4:30 PM	3	3	5	1	1	1	0	0
4:45 PM	4	4	3	1	0	2	0	0
5:00 PM	8	2	8	7	1	0	0	0
5:15 PM	6	0	8	2	2	2	0	0
5:30 PM	5	4	4	5	3	1	0	0
5:45 PM	7	5	8	4	2	3	0	0
TOTALS	**77**	**46**	**70**	**58**	**26**	**18**	**0**	**0**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	2	0	0	1	0	1	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	1	0	0	0	0
3:45 PM	0	0	0	2	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	3	1	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	0	0	0	0
TOTALS	**2**	**0**	**1**	**9**	**1**	**1**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-008
N/S Street: I-5 NB Off-Ramp
E/W Street: Cesar E Chavez Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	3	0	0	3	0
3:15 PM	0	0	0	0	0	0	0	2	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	2	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	1	3	0	0	2	0
5:00 PM	0	0	0	0	0	0	0	3	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	3	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	3	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**23**	**0**	**0**	**10**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5490_003 **Day:** THURSDAY

City: City of Los Angeles **Date:** 12/6/2012

PM

NS/EW Streets:	Brittania St			Brittania St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	1	0	0	0	0	2	0	0	2	0	
3:00 PM	22		34					125			161		342
3:15 PM	23		29					123			194		369
3:30 PM	32		77					141			256		506
3:45 PM	30		56					145			198		429
4:00 PM	25		64					155			182		426
4:15 PM	29		55					184			217		485
4:30 PM	47		71					159			195		472
4:45 PM	35		51					134			170		390
5:00 PM	28		48					133			211		420
5:15 PM	29		59					175			218		481
5:30 PM	31		64					166			214		475
5:45 PM	14		40					155			172		381
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	345	0	648	0	0	0	0	1795	0	0	2388	0	5176
APPROACH %'s :	34.74%	0.00%	65.26%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	330 PM												TOTAL
PEAK HR VOL :	116	0	252	0	0	0	0	625	0	0	853	0	1846
PEAK HR FACTOR :		0.844			0.000			0.849			0.833		0.912

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Brittania St and Marengo St , City of Los Angeles

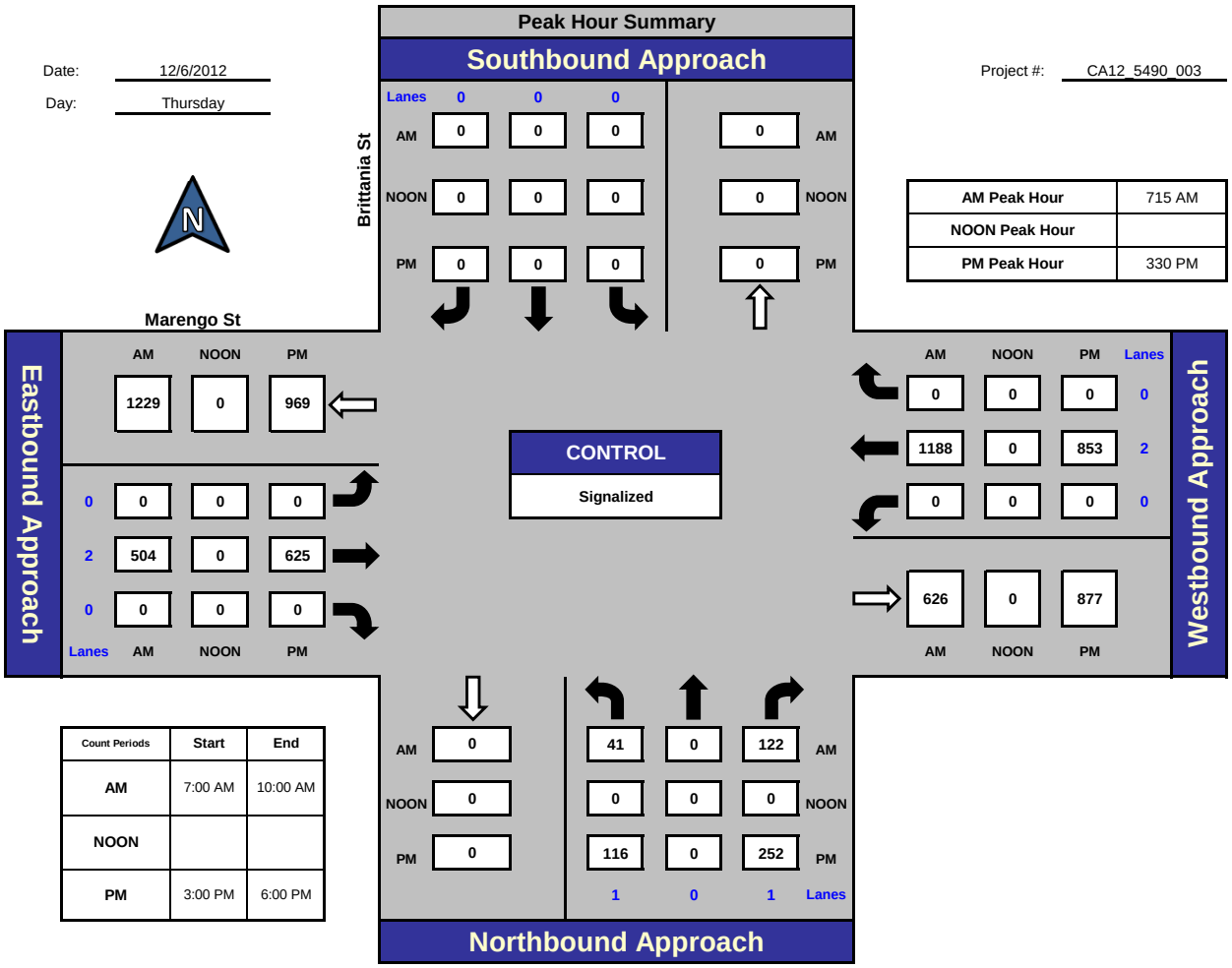
Date: 12/6/2012

Day: Thursday

Project #: CA12_5490_003

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	330 PM

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM



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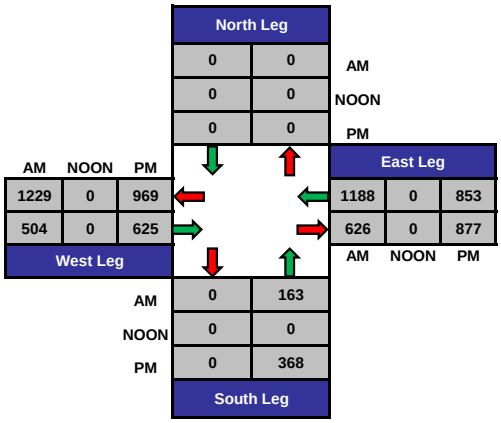
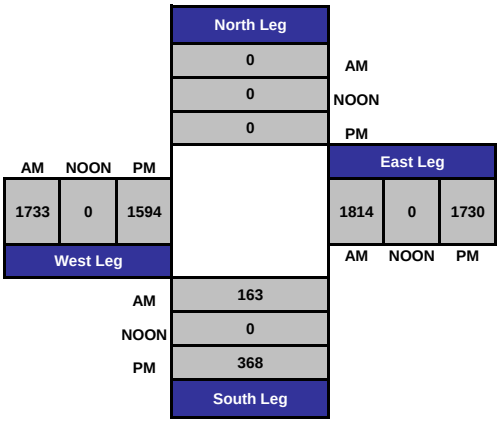


Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5490-003
N/S Street: Brittania St
E/W Street: Marengo St
DATE: 12/6/2012 DAY: Thursday
CITY: Los Angeles

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	57	22	7	4	0	0
7:15 AM	0	0	53	62	4	6	0	0
7:30 AM	0	0	47	121	12	5	0	0
7:45 AM	0	0	49	31	15	9	0	0
8:00 AM	0	0	36	20	8	11	0	0
8:15 AM	0	0	42	10	7	18	0	0
8:30 AM	0	0	45	18	4	3	0	0
8:45 AM	0	0	40	18	11	5	0	0
9:00 AM	0	0	37	23	7	15	0	0
9:15 AM	0	0	32	20	7	11	0	0
9:30 AM	0	0	31	22	18	4	0	0
9:45 AM	0	0	23	22	5	12	0	0
TOTALS	**0**	**0**	**492**	**389**	**105**	**103**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	5	0	1	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	2	0	1	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0
9:00 AM	0	1	1	0	1	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	4	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**13**	**1**	**1**	**12**	**0**	**1**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	32	49	20	12	0	0
3:15 PM	0	0	25	41	10	21	0	0
3:30 PM	3	0	40	119	19	18	0	0
3:45 PM	0	0	36	75	31	15	0	0
4:00 PM	0	0	27	84	13	14	0	0
4:15 PM	0	0	32	61	18	20	0	0
4:30 PM	0	0	16	82	19	13	0	0
4:45 PM	0	0	28	30	12	18	0	0
5:00 PM	1	0	26	61	8	14	0	0
5:15 PM	0	0	42	42	7	9	0	0
5:30 PM	0	0	29	58	15	4	0	0
5:45 PM	0	1	40	44	19	23	0	0
TOTALS	**4**	**1**	**373**	**746**	**191**	**181**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	3	0	0	1	0	0	0	0	0	0	0
4:00 PM	0	2	0	0	1	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	2	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	3	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	4	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**16**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-013 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Chicago St			Chicago St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0.5	ST 0.5	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM	12	0	26	14	0	27	16	153	7	8	156	8	427
3:15 PM	3	0	14	26	0	35	19	135	5	6	155	3	401
3:30 PM	7	0	8	58	0	61	13	193	5	4	176	7	532
3:45 PM	4	1	9	19	1	38	6	185	4	4	162	1	434
4:00 PM	3	1	3	20	0	47	4	196	4	4	150	1	433
4:15 PM	1	0	3	18	0	30	9	189	2	8	152	4	416
4:30 PM	2	0	5	19	1	49	11	254	3	4	170	1	519
4:45 PM	3	1	4	6	1	33	10	204	7	4	178	3	454
5:00 PM	4	0	4	21	0	40	8	205	3	3	200	2	490
5:15 PM	4	1	5	13	1	30	9	206	14	6	198	5	492
5:30 PM	3	1	3	14	0	42	9	225	17	18	184	4	520
5:45 PM	2	1	8	6	3	26	9	177	16	39	166	3	456
TOTAL VOLUMES :	NL 48	NT 6	NR 92	SL 234	ST 7	SR 458	EL 123	ET 2322	ER 87	WL 108	WT 2047	WR 42	TOTAL 5574
APPROACH %'s :	32.88%	4.11%	63.01%	33.48%	1.00%	65.52%	4.86%	91.71%	3.44%	4.92%	93.17%	1.91%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	13	3	20	54	4	138	35	813	50	66	748	14	1958
PEAK HR FACTOR :		0.818			0.803			0.894			0.990		0.941

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Chicago St and Marengo St , Los Angeles

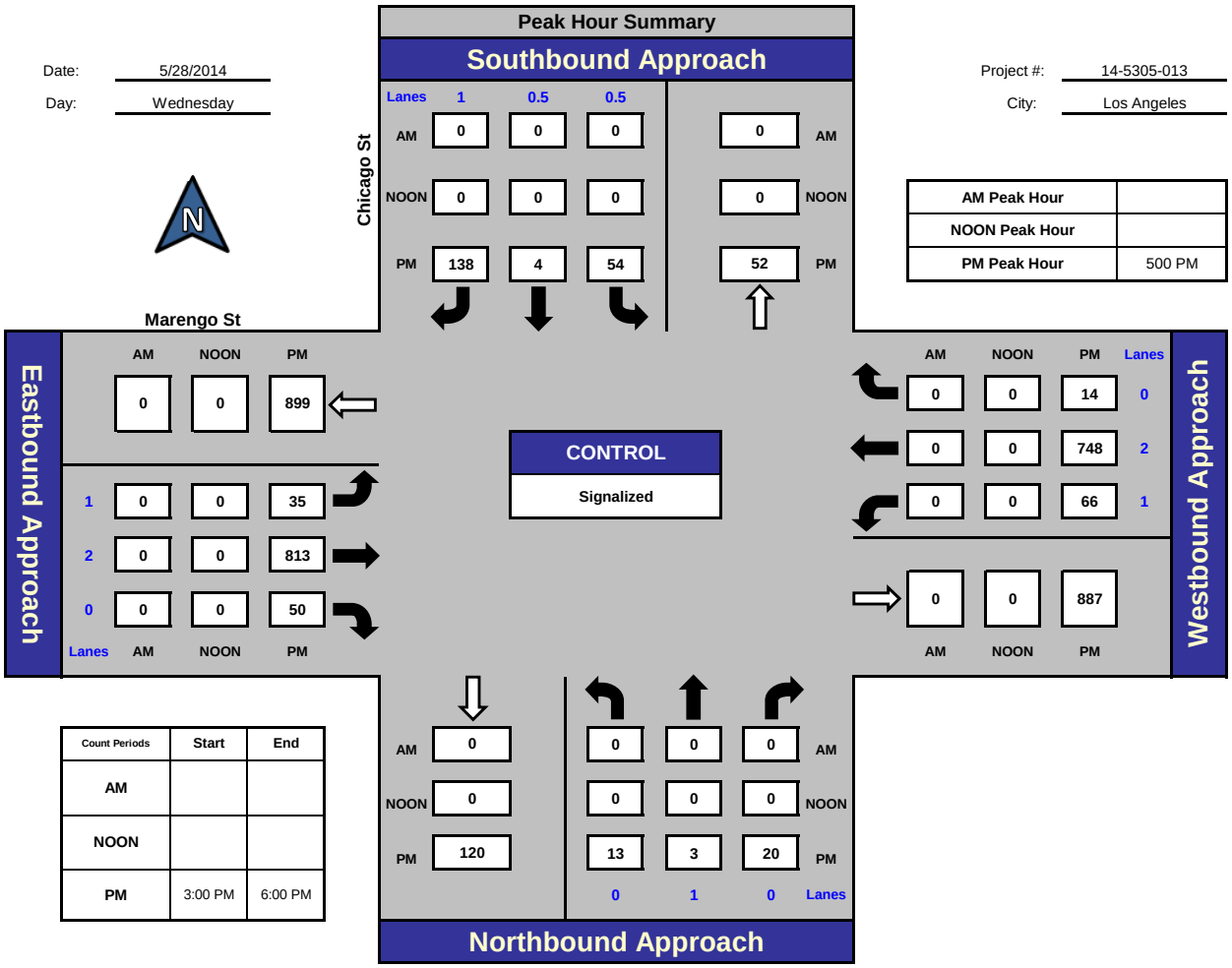
Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-013

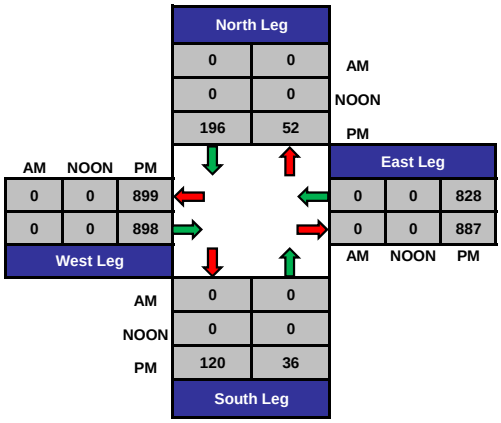
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM

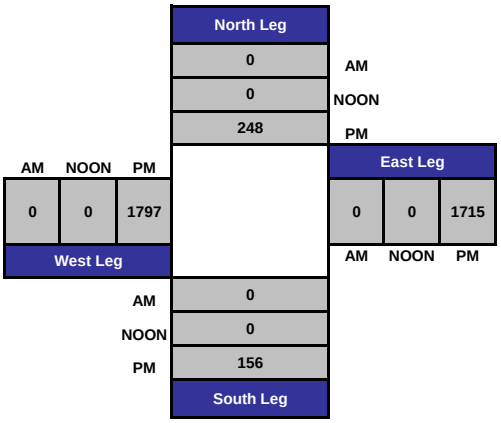


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-013
N/S Street: Chicago St
E/W Street: Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	2	1	7	8	1	2	0	2
3:15 PM	0	4	1	30	0	1	0	5
3:30 PM	3	6	4	19	2	2	3	1
3:45 PM	1	2	4	3	0	1	0	1
4:00 PM	2	3	3	6	0	1	3	3
4:15 PM	3	0	5	1	2	0	1	0
4:30 PM	2	3	4	0	1	0	2	2
4:45 PM	7	1	2	1	0	0	0	0
5:00 PM	2	1	2	1	1	0	0	1
5:15 PM	4	0	4	2	0	2	0	0
5:30 PM	1	3	2	4	0	0	0	2
5:45 PM	2	2	1	1	1	1	0	0
TOTALS	**29**	**26**	**39**	**76**	**8**	**10**	**9**	**17**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	15	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**1**	**15**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-013
N/S Street: Chicago St
E/W Street: Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	1	0	0	0	0	0	0	2	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	3	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	1	0	1	2	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0
4:45 PM	0	0	0	0	0	0	0	1	1	0	1	0
5:00 PM	0	0	0	1	0	0	0	3	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	3	1	0	0	0
5:45 PM	1	0	0	0	0	1	0	5	0	0	1	0
TOTALS	**2**	**0**	**0**	**1**	**0**	**1**	**0**	**18**	**2**	**1**	**11**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-014 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	San Pablo St			San Pablo St			Valley Blvd			Valley Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 2	SL 0	ST 0	SR 0	EL 0	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
3:00 PM	31		19					189	24	19	172		454
3:15 PM	23		32					187	35	17	163		457
3:30 PM	26		40					202	21	21	173		483
3:45 PM	23		23					280	18	14	169		527
4:00 PM	26		41					275	9	12	171		534
4:15 PM	27		31					272	16	14	189		549
4:30 PM	23		40					291	20	14	213		601
4:45 PM	30		35					274	18	7	199		563
5:00 PM	40		50					313	16	11	202		632
5:15 PM	37		53					303	16	12	239		660
5:30 PM	36		42					315	21	15	178		607
5:45 PM	19		30					250	11	15	180		505
TOTAL VOLUMES :	NL 341	NT 0	NR 436	SL 0	ST 0	SR 0	EL 0	ET 3151	ER 225	WL 171	WT 2248	WR 0	TOTAL 6572
APPROACH %'s :	43.89%	0.00%	56.11%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	93.34%	6.66%	7.07%	92.93%	0.00%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	143	0	180	0	0	0	0	1205	71	45	818	0	2462
PEAK HR FACTOR :		0.897			0.000			0.949			0.860		0.933

UTURNS	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

San Pablo St and Valley Blvd , Los Angeles

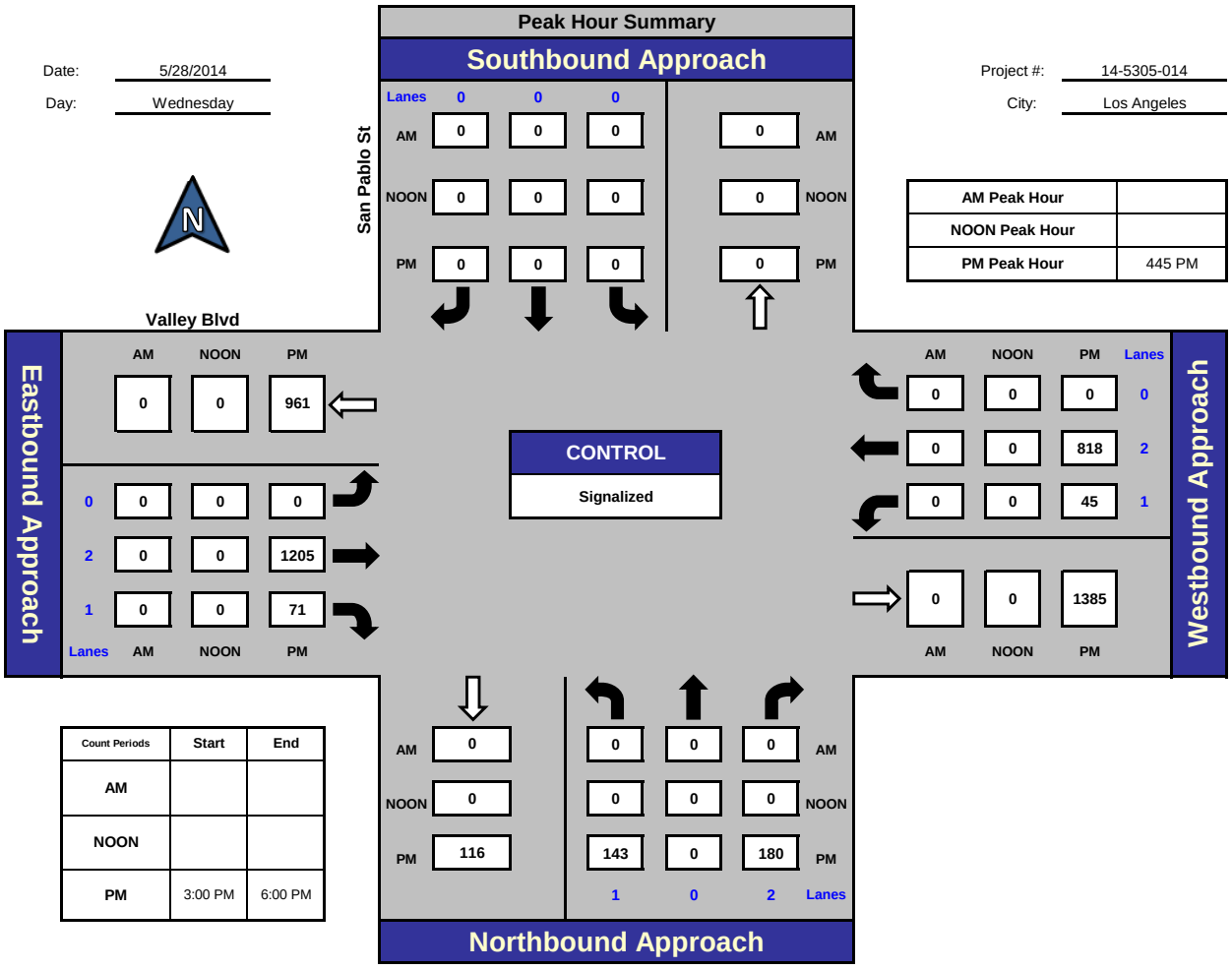
Date: 5/28/2014

Day: Wednesday

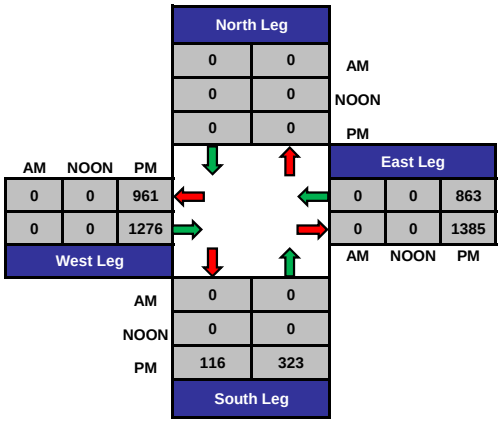
Project #: 14-5305-014

City: Los Angeles

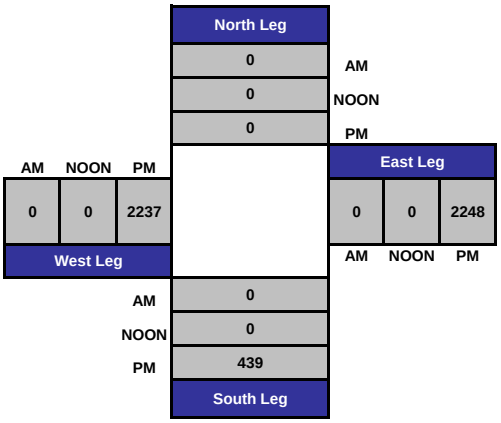
AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-014
N/S Street: San Pablo St
E/W Street: Valley Blvd
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	1	0	4	3
3:15 PM	0	0	1	1	1	0	4	2
3:30 PM	0	0	0	3	0	0	13	3
3:45 PM	0	0	0	2	0	0	9	5
4:00 PM	0	0	0	1	0	2	5	3
4:15 PM	0	0	0	0	0	0	6	3
4:30 PM	0	0	1	1	0	0	2	2
4:45 PM	0	0	0	0	0	0	9	4
5:00 PM	0	0	0	3	0	0	6	2
5:15 PM	0	0	0	1	0	0	7	1
5:30 PM	0	0	1	1	0	0	7	3
5:45 PM	0	0	0	0	1	0	10	0
TOTALS	**0**	**0**	**3**	**13**	**3**	**2**	**82**	**31**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:15 AM	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-014
N/S Street: San Pablo St
E/W Street: Valley Blvd
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	1	0	0	0	0	0	0	0	0	0	2	0
3:15 PM	0	0	0	0	0	0	0	1	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	1	0	0	1	0
3:45 PM	2	0	0	0	0	0	0	1	0	0	0	0
4:00 PM	1	0	0	0	0	0	0	3	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	1	0
4:45 PM	1	0	0	0	0	0	0	0	0	0	2	0
5:00 PM	1	0	0	0	0	0	0	0	0	0	2	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	2	0	0	1	0
TOTALS	**6**	**0**	**1**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**14**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-015 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Soto St			Soto St			I-10 EB Off-Ramp/Wabash Ave			I-10 EB Off-Ramp/Wabash Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 3	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 1	WT 0	WR 1	TOTAL
3:00 PM		198	8	28	149		69	48	13	12		58	583
3:15 PM		162	16	35	186		94	36	14	20		39	602
3:30 PM		202	18	38	196		102	44	14	27		57	698
3:45 PM		159	15	33	188		81	55	20	12		51	614
4:00 PM		196	19	29	151		91	49	17	15		38	605
4:15 PM		236	15	34	185		86	40	20	18		55	689
4:30 PM		230	23	32	174		102	54	15	19		52	701
4:45 PM		229	14	34	167		114	36	22	15		56	687
5:00 PM		226	11	26	166		128	69	12	20		51	709
5:15 PM		259	16	27	182		95	78	20	19		64	760
5:30 PM		231	25	33	177		136	50	17	30		65	764
5:45 PM		211	21	27	193		123	71	16	17		51	730
TOTAL VOLUMES :	NL 0	NT 2539	NR 201	SL 376	ST 2114	SR 0	EL 1221	ET 630	ER 200	WL 224	WT 0	WR 637	TOTAL 8142
APPROACH %'s :	0.00%	92.66%	7.34%	15.10%	84.90%	0.00%	59.53%	30.72%	9.75%	26.02%	0.00%	73.98%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	927	73	113	718	0	482	268	65	86	0	231	2963
PEAK HR FACTOR :		0.909			0.944			0.970			0.834		0.970

UTURNS				
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Soto St and I-10 EB Off-Ramp/Wabash Ave , Los Angeles

Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-015

City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach (Soto St)

Lanes	0	2	1		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	718	113	1640	PM

Eastbound Approach (I-10 EB Off-Ramp/Wabash Ave)

Lanes	AM	NOON	PM
	0	0	0
1.5	0	0	482
0.5	0	0	268
1	0	0	65

Westbound Approach

AM	NOON	PM	Lanes
0	0	231	1
0	0	0	0
0	0	86	1
0	0	454	

CONTROL: Signalized

Northbound Approach

AM	0	0	0	0
NOON	0	0	0	0
PM	869	0	927	73
Lanes		0	3	0

Count Periods	Start	End
AM		
NOON		
PM		

Total Ins & Outs

	North Leg	East Leg	South Leg	West Leg
AM	0	0	0	0
NOON	0	0	0	0
PM	831	317	1000	815

Total Volume Per Leg

	North Leg	East Leg	South Leg	West Leg
AM	0	0	0	0
NOON	0	0	0	0
PM	2471	771	1869	815

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-015
N/S Street: Soto St
E/W Street: I-10 EB Off-Ramp/Wabash Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	5	2	5	5	1	12
3:15 PM	8	12	2	1	9	11	3	16
3:30 PM	3	3	3	3	10	10	0	13
3:45 PM	6	14	0	3	4	12	3	8
4:00 PM	2	7	0	0	5	13	4	7
4:15 PM	2	1	5	3	4	9	2	9
4:30 PM	3	6	4	2	7	9	1	3
4:45 PM	4	2	1	0	3	4	1	4
5:00 PM	4	2	1	2	0	11	0	6
5:15 PM	4	1	1	1	1	6	3	7
5:30 PM	3	0	0	0	2	9	2	0
5:45 PM	2	5	3	1	4	9	2	7
TOTALS	**41**	**53**	**25**	**18**	**54**	**108**	**22**	**92**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	1	0	0	0
3:15 PM	0	2	0	0	0	2	0	0
3:30 PM	0	2	0	0	2	0	0	0
3:45 PM	0	2	0	0	1	0	0	0
4:00 PM	0	0	0	0	1	2	0	0
4:15 PM	0	0	2	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	2	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	2	0	0
TOTALS	**1**	**6**	**2**	**0**	**7**	**6**	**0**	**2**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-015
N/S Street: Soto St
E/W Street: I-10 EB Off-Ramp/Wabash Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	1	0	0	0	0	2	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	2	1	0	1	0	0	0	0	0	0	0
3:45 PM	0	1	1	0	4	0	0	0	0	0	0	1
4:00 PM	0	4	1	0	1	0	0	0	0	0	0	0
4:15 PM	0	4	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	3	0	2	2	0	0	0	0	0	0	0
5:30 PM	0	0	0	1	3	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	2	0	0	0	0	0	0	0
TOTALS	**0**	**17**	**3**	**4**	**16**	**0**	**0**	**0**	**0**	**3**	**0**	**1**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-016 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Soto St			Soto St			Marengo St			Marengo St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 2.5	NR 0	SL 1.5	ST 1.5	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
3:00 PM	77	214	34	128	122	35	13	99	58	4	51	13	848
3:15 PM	76	202	41	95	194	42	34	76	62	9	44	6	881
3:30 PM	65	213	40	137	163	60	28	158	79	12	51	8	1014
3:45 PM	85	197	54	113	166	51	34	108	66	8	46	8	936
4:00 PM	75	209	41	121	126	45	38	126	70	4	37	4	896
4:15 PM	83	225	53	119	163	38	39	96	73	5	36	8	938
4:30 PM	78	224	42	157	138	62	35	165	71	5	20	8	1005
4:45 PM	107	266	41	129	138	53	35	109	77	5	23	7	990
5:00 PM	79	259	36	140	107	63	34	124	69	6	61	8	986
5:15 PM	91	282	44	132	149	58	38	117	74	8	70	14	1077
5:30 PM	93	285	44	121	139	53	37	140	54	4	57	6	1033
5:45 PM	64	307	54	86	181	36	38	66	64	11	86	4	997
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	973	2883	524	1478	1786	596	403	1384	817	81	582	94	11601
APPROACH %'s :	22.21%	65.82%	11.96%	38.29%	46.27%	15.44%	15.48%	53.15%	31.37%	10.70%	76.88%	12.42%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	327	1133	178	479	576	210	147	447	261	29	274	32	4093
PEAK HR FACTOR :		0.964			0.933			0.925			0.829		0.950

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Soto St and Marengo St , Los Angeles

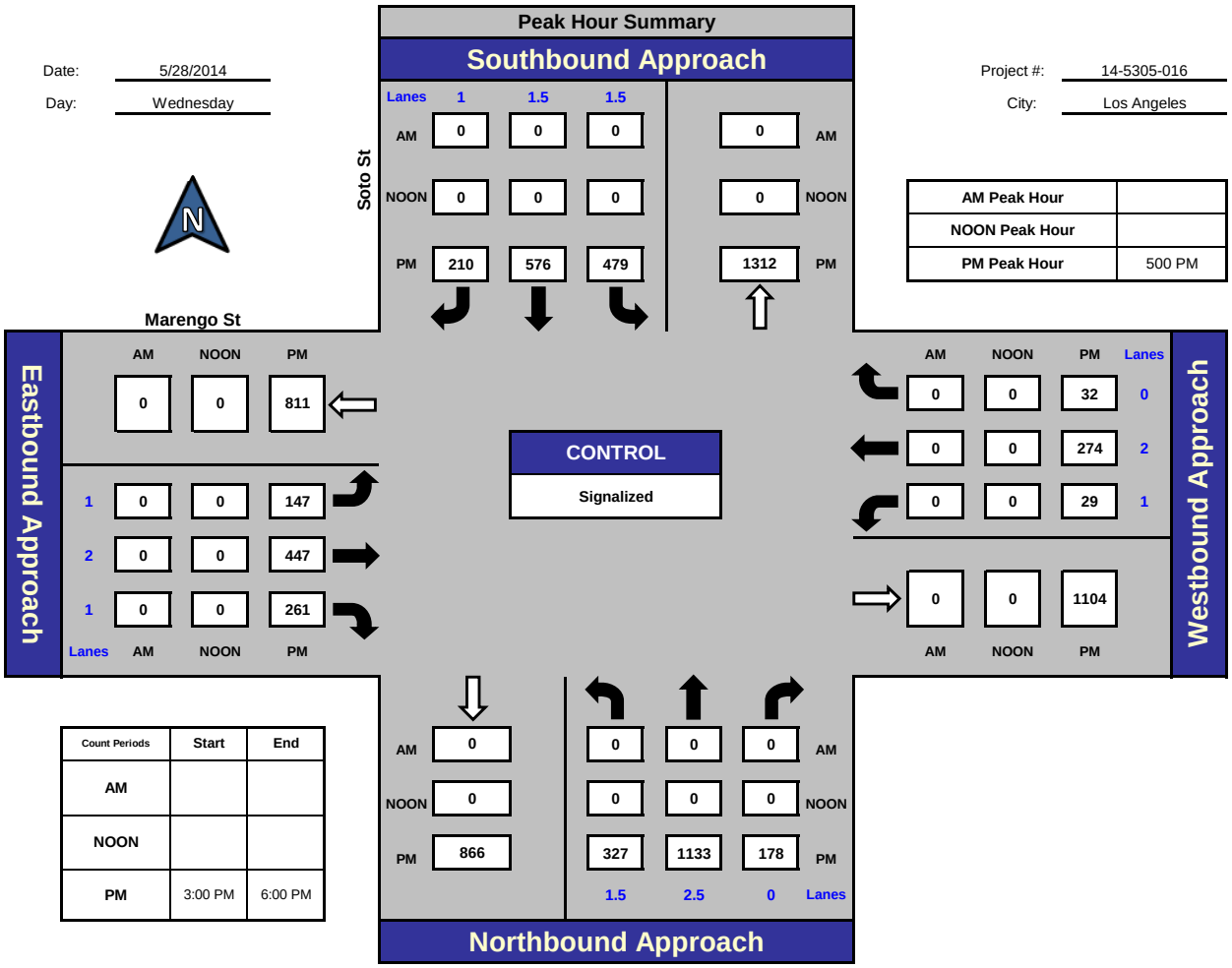
Date: 5/28/2014

Day: Wednesday

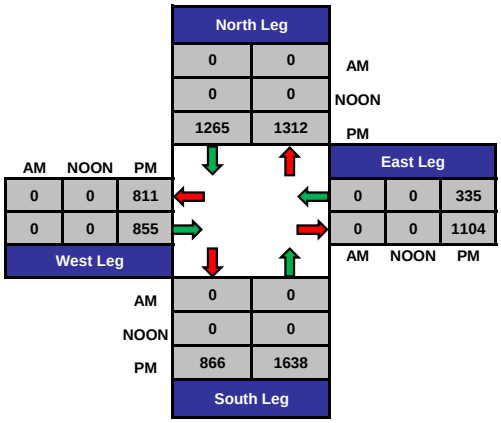
Project #: 14-5305-016

City: Los Angeles

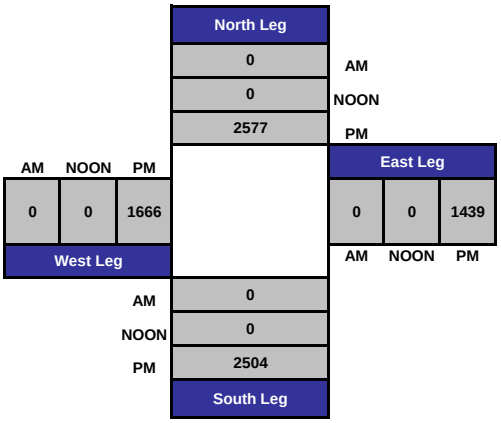
AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-016
N/S Street: Soto St
E/W Street: Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	2	1	3	0	7	4
3:15 PM	0	1	4	0	2	0	2	3
3:30 PM	1	0	3	1	0	2	1	4
3:45 PM	0	0	5	0	2	0	1	3
4:00 PM	0	0	1	0	3	1	0	4
4:15 PM	0	1	2	3	2	1	2	1
4:30 PM	0	0	2	1	0	3	3	4
4:45 PM	0	3	2	1	1	0	1	4
5:00 PM	0	1	1	1	0	0	1	2
5:15 PM	0	0	2	0	5	0	0	2
5:30 PM	0	0	3	0	0	1	0	2
5:45 PM	1	1	1	0	3	0	1	0
TOTALS	**2**	**7**	**28**	**8**	**21**	**8**	**19**	**33**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	2	0	2	0
3:15 PM	0	0	1	0	1	0	5	1
3:30 PM	0	0	1	0	0	0	0	2
3:45 PM	0	1	0	0	0	0	1	0
4:00 PM	0	0	0	2	0	1	0	0
4:15 PM	0	0	0	0	0	0	2	0
4:30 PM	0	0	0	0	0	1	0	0
4:45 PM	0	0	3	2	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	2
5:15 PM	0	1	2	0	1	0	0	1
5:30 PM	1	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**1**	**2**	**7**	**4**	**4**	**2**	**10**	**6**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-016
N/S Street: Soto St
E/W Street: Marengo St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	2	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	2	0
4:00 PM	1	0	0	0	1	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	1	0	0	0
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0
4:45 PM	0	1	0	0	0	1	0	0	1	0	0	0
5:00 PM	0	0	0	0	1	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	1	0	0	0
TOTALS	**1**	**3**	**0**	**0**	**3**	**3**	**0**	**4**	**4**	**0**	**2**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-017 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Soto St			Soto St			Charlotte St/I-10 WB Ramps			Charlotte St/I-10 WB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 0	ET 2	ER 0	WL 1.5	WT 0.5	WR 2	TOTAL
3:00 PM	21	196	29	69	167	12	4	26	47	67	50	72	760
3:15 PM	14	158	26	48	167	10	7	36	82	75	59	73	755
3:30 PM	11	222	25	65	226	7	6	35	71	69	45	65	847
3:45 PM	6	196	28	63	183	7	10	27	66	77	58	59	780
4:00 PM	8	226	23	51	183	9	2	22	52	71	51	69	767
4:15 PM	8	229	28	58	185	6	2	21	47	83	54	81	802
4:30 PM	14	234	28	68	202	3	4	26	69	89	63	80	880
4:45 PM	20	253	28	63	179	3	6	27	41	93	50	81	844
5:00 PM	11	267	29	62	163	6	5	24	57	95	55	87	861
5:15 PM	11	294	22	67	188	13	7	40	50	74	49	79	894
5:30 PM	12	304	17	70	190	6	12	19	41	94	54	93	912
5:45 PM	13	310	21	44	179	4	7	17	31	84	77	97	884
TOTAL VOLUMES :	NL 149	NT 2889	NR 304	SL 728	ST 2212	SR 86	EL 72	ET 320	ER 654	WL 971	WT 665	WR 936	TOTAL 9986
APPROACH %'s :	4.46%	86.45%	9.10%	24.06%	73.10%	2.84%	6.88%	30.59%	62.52%	37.75%	25.86%	36.39%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	47	1175	89	243	720	29	31	100	179	347	235	356	3551
PEAK HR FACTOR :		0.953			0.925			0.799			0.909		0.973

UTURNS				
NB	SB	EB	WB	
0	0	0	0	

CONTROL : Signalized

ITM Peak Hour Summary

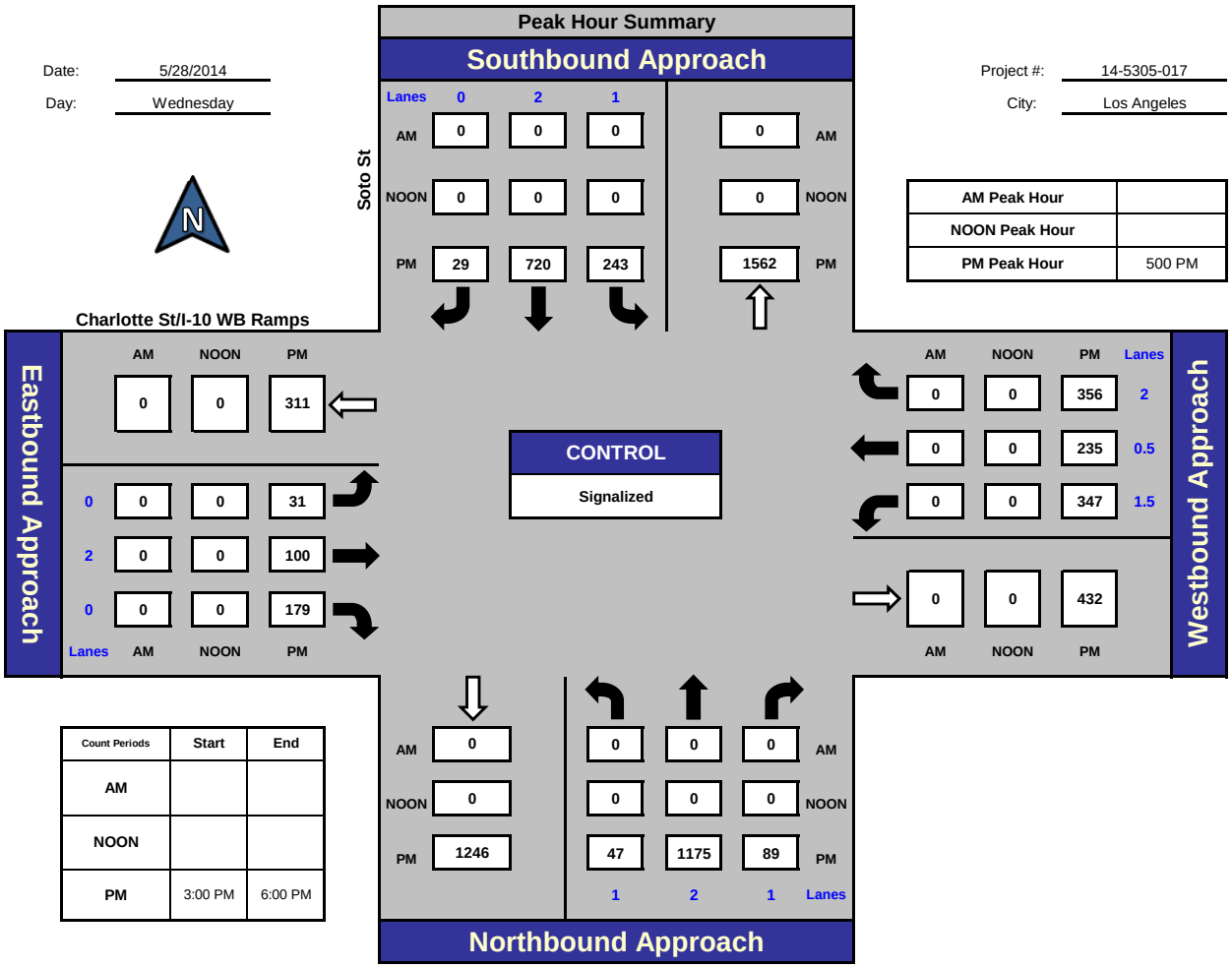
Prepared by:

National Data & Surveying Services

Soto St and Charlotte St/I-10 WB Ramps , Los Angeles

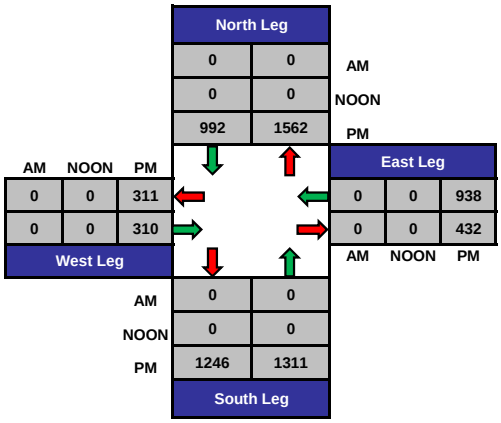
Date: 5/28/2014
Day: Wednesday
Project #: 14-5305-017
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM

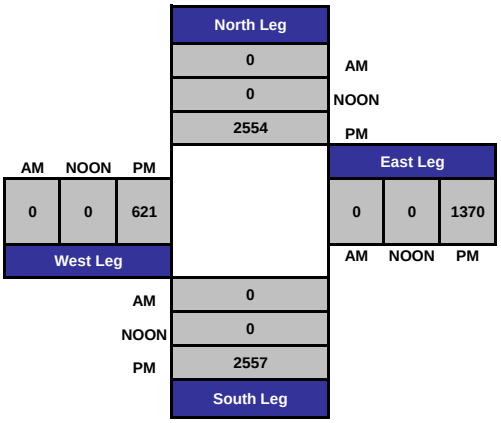


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-017
N/S Street: Soto St
E/W Street: Charlotte St/I-10 WB Ramps
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	1	0	2	2
3:15 PM	8	1	0	0	3	1	2	7
3:30 PM	8	2	0	0	3	1	5	4
3:45 PM	4	2	0	0	4	3	4	2
4:00 PM	5	1	0	0	0	0	7	3
4:15 PM	1	0	0	0	1	3	0	0
4:30 PM	8	3	0	0	2	0	4	4
4:45 PM	3	1	0	0	2	3	3	1
5:00 PM	6	2	0	0	2	0	6	5
5:15 PM	4	0	0	0	2	0	7	0
5:30 PM	2	2	0	0	0	0	1	1
5:45 PM	6	0	0	0	5	0	8	1
TOTALS	**55**	**14**	**0**	**0**	**25**	**11**	**49**	**30**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	2	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0
4:30 PM	1	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**0**	**0**	**2**	**1**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-017
N/S Street: Soto St
E/W Street: Charlotte St/I-10 WB Ramps
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	1	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	1	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**5**	**0**	**0**	**7**	**0**	**0**	**0**	**1**	**0**	**0**	**0**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-018 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	Soto St			Soto St			Alcazar St			Alcazar St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
3:00 PM	36	214	6	4	153	23	39	11	62	8	6	4	566
3:15 PM	30	215	4	6	150	26	38	17	74	12	9	7	588
3:30 PM	22	248	5	8	179	12	55	10	84	11	5	7	646
3:45 PM	18	232	6	6	177	11	55	19	71	10	9	8	622
4:00 PM	19	257	3	4	133	16	61	16	73	10	6	5	603
4:15 PM	19	243	12	5	151	13	46	18	69	12	10	11	609
4:30 PM	14	271	8	5	161	10	63	17	58	19	11	7	644
4:45 PM	20	293	9	7	174	13	49	16	60	12	8	8	669
5:00 PM	24	308	12	3	147	21	74	16	77	10	8	7	707
5:15 PM	20	324	8	7	164	18	59	17	79	9	7	7	719
5:30 PM	53	318	6	3	193	19	69	17	53	11	13	10	765
5:45 PM	30	334	7	8	166	20	63	9	49	10	9	3	708
TOTAL VOLUMES :	NL 305	NT 3257	NR 86	SL 66	ST 1948	SR 202	EL 671	ET 183	ER 809	WL 134	WT 101	WR 84	TOTAL 7846
APPROACH %'s :	8.36%	89.28%	2.36%	2.98%	87.91%	9.12%	40.35%	11.00%	48.65%	42.01%	31.66%	26.33%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	127	1284	33	21	670	78	265	59	258	40	37	27	2899
PEAK HR FACTOR :		0.958			0.894			0.871			0.765		0.947

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

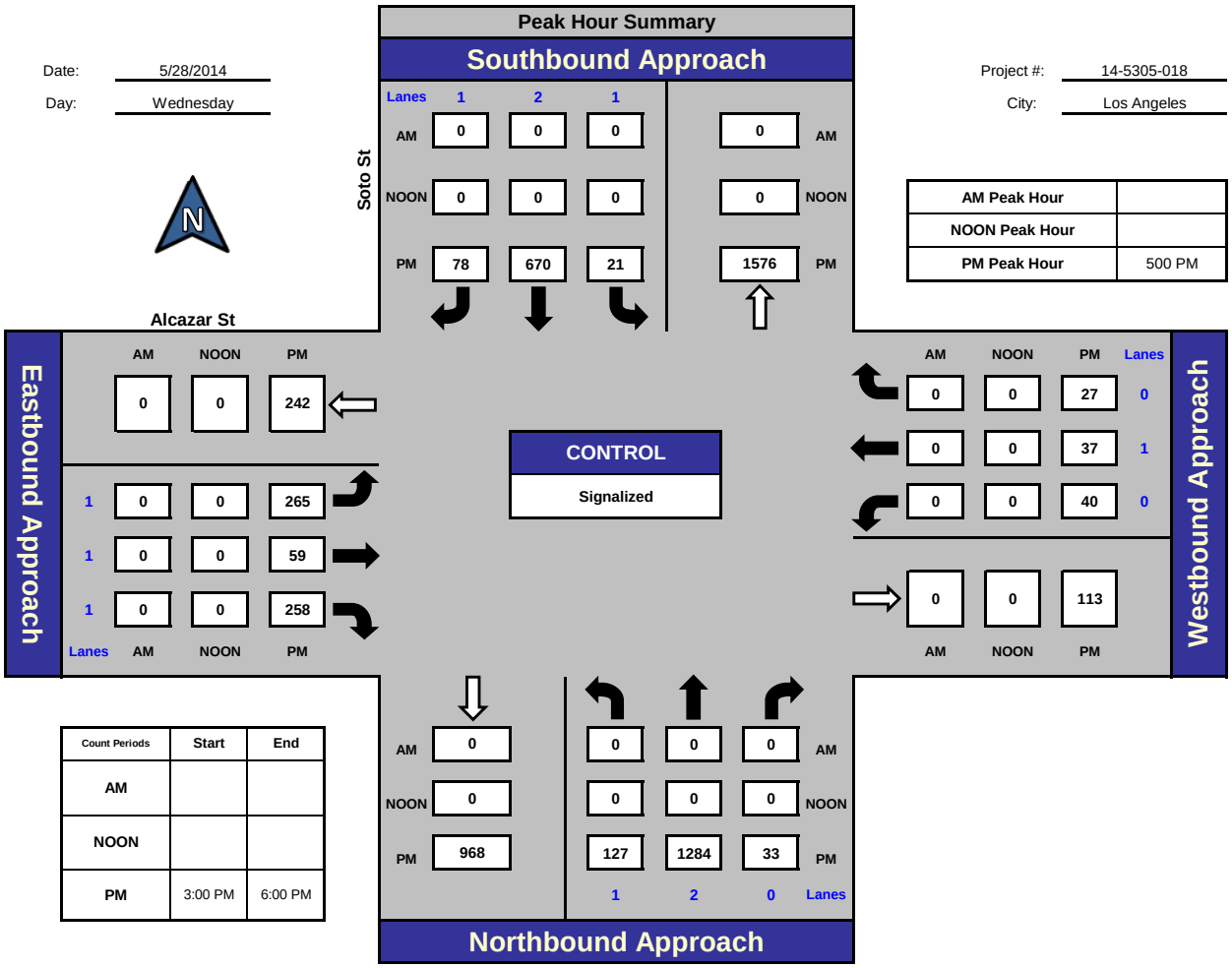
Prepared by:

National Data & Surveying Services

Soto St and Alcazar St , Los Angeles

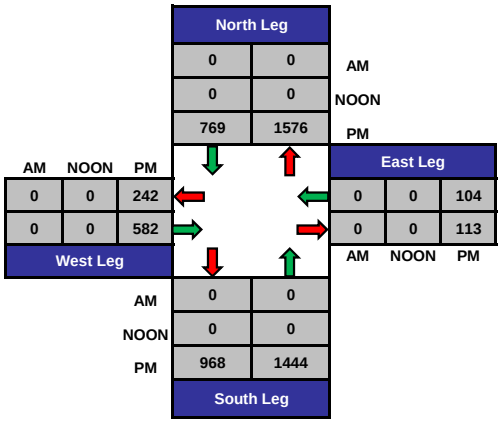
Date: 5/28/2014
Day: Wednesday
Project #: 14-5305-018
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	500 PM

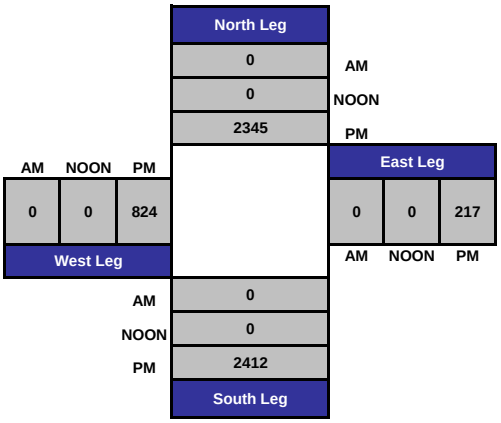


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-018
N/S Street: Soto St
E/W Street: Alcazar St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	1	5	2	1	1	1	4
3:15 PM	6	0	6	2	4	1	2	4
3:30 PM	2	0	4	4	3	2	3	0
3:45 PM	0	0	4	7	3	5	0	0
4:00 PM	1	0	1	4	2	1	0	1
4:15 PM	1	1	6	0	1	0	0	2
4:30 PM	1	0	2	2	3	1	3	1
4:45 PM	2	0	5	3	1	2	1	0
5:00 PM	1	0	8	2	1	3	4	4
5:15 PM	1	0	7	8	2	1	0	2
5:30 PM	0	1	3	5	2	1	0	0
5:45 PM	2	2	3	2	1	3	4	1
TOTALS	**17**	**5**	**54**	**41**	**24**	**21**	**18**	**19**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-018
N/S Street: Soto St
E/W Street: Alcazar St
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
3:30 PM	0	2	1	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**4**	**1**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5305-019 **Day:** Wednesday

City: Los Angeles **Date:** 5/28/2014

PM

NS/EW Streets:	State St			State St			Zonal Ave			Zonal Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 0	SR 0	EL 0	ET 2	ER 0	WL 0	WT 1	WR 0	TOTAL
3:00 PM	16	0	26	2	1	1	0	66	18	17	68	0	215
3:15 PM	8	1	34	2	1	0	0	58	11	30	85	1	231
3:30 PM	19	0	26	0	0	0	0	66	18	39	100	2	270
3:45 PM	20	0	18	0	0	1	0	62	12	27	90	0	230
4:00 PM	28	0	13	4	0	0	0	51	6	34	92	0	228
4:15 PM	22	0	19	1	0	0	1	49	15	20	86	1	214
4:30 PM	17	1	13	1	0	2	0	45	9	28	114	0	230
4:45 PM	27	0	19	2	0	3	0	27	7	36	119	0	240
5:00 PM	33	0	23	0	0	1	0	34	11	22	127	0	251
5:15 PM	39	0	13	0	0	1	0	34	10	23	124	1	245
5:30 PM	35	0	16	1	0	2	0	30	7	28	122	0	241
5:45 PM	24	0	11	0	0	3	0	34	6	18	115	0	211
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	288	2	231	13	2	14	1	556	130	322	1242	5	2806
APPROACH %'s :	55.28%	0.38%	44.34%	44.83%	6.90%	48.28%	0.15%	80.93%	18.92%	20.52%	79.16%	0.32%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	134	0	71	3	0	7	0	125	35	109	492	1	977
PEAK HR FACTOR :		0.915			0.500			0.889			0.971		0.973

UTURNS	NB	SB	EB	WB
	0	0	0	0

CONTROL : 1-Way Stop (NB)

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

State St and Zonal Ave , Los Angeles

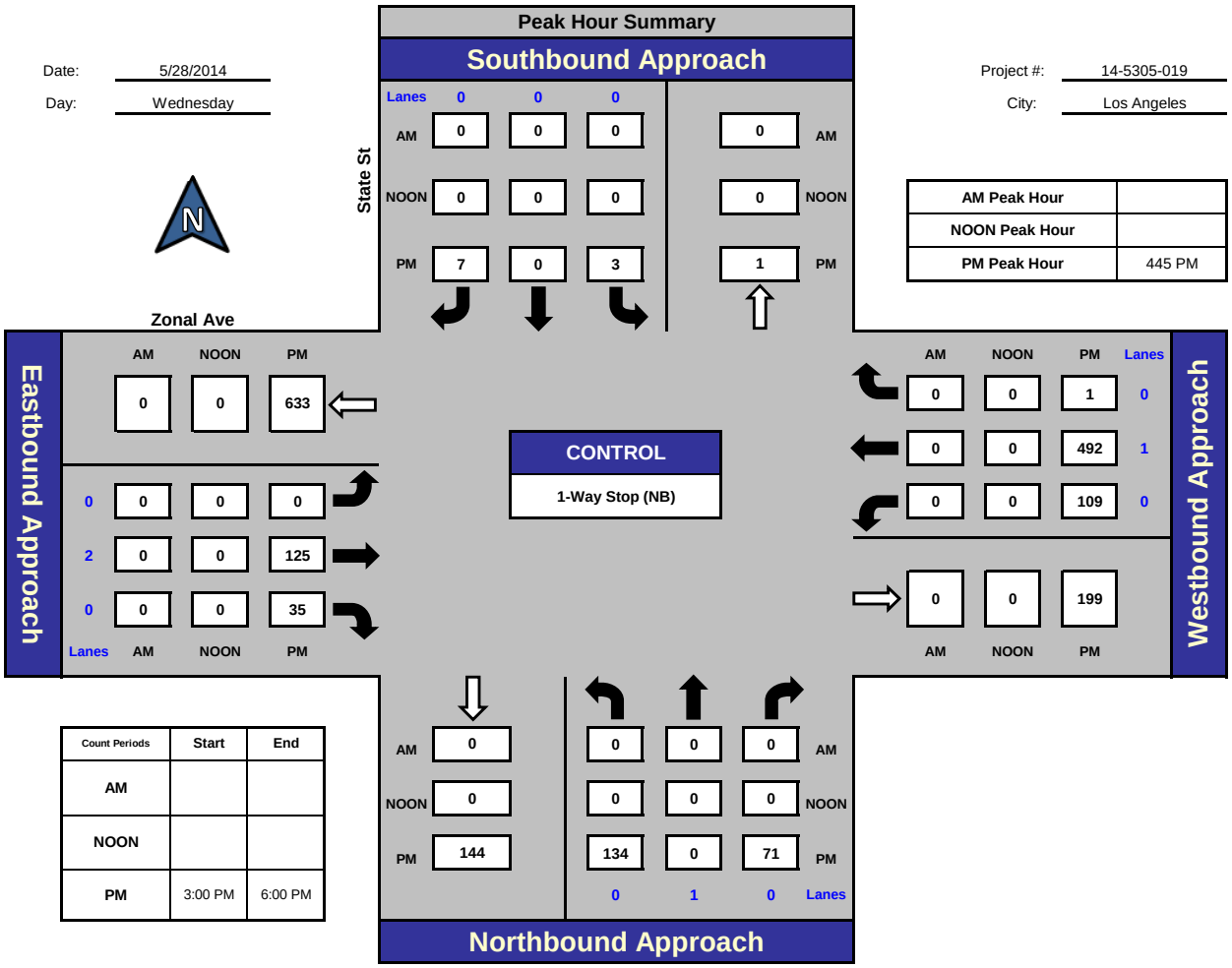
Date: 5/28/2014

Day: Wednesday

Project #: 14-5305-019

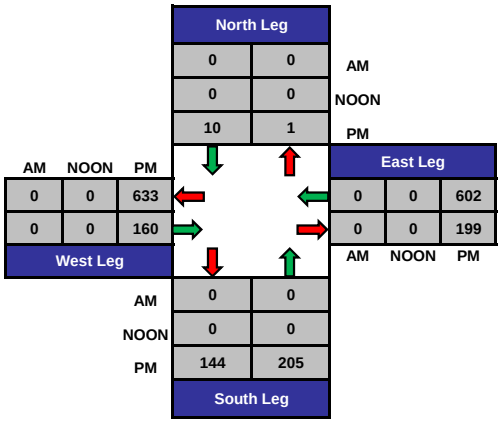
City: Los Angeles

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM

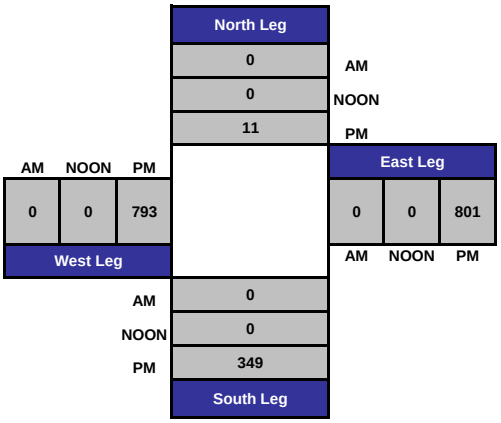


Count Periods	Start	End
AM		
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-019
N/S Street: State St
E/W Street: Zonal Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	4	3	1	1	0	0	0	0
3:15 PM	0	9	2	5	0	0	0	0
3:30 PM	2	8	0	5	1	1	0	0
3:45 PM	0	2	4	4	0	0	0	0
4:00 PM	1	9	0	1	0	0	0	0
4:15 PM	1	4	2	2	0	0	0	0
4:30 PM	3	6	1	3	0	0	0	0
4:45 PM	2	5	0	5	2	0	0	0
5:00 PM	1	4	0	8	0	0	0	1
5:15 PM	0	13	0	2	0	0	0	0
5:30 PM	0	10	2	0	0	0	0	0
5:45 PM	0	5	1	3	0	0	0	1
TOTALS	**14**	**78**	**13**	**39**	**3**	**1**	**0**	**2**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5305-019
N/S Street: State St
E/W Street: Zonal Ave
DATE: 5/28/2014 DAY: Wednesday
CITY: Los Angeles

N O O N

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	1	1	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	1	0
5:30 PM	1	0	1	0	0	0	0	1	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**2**	**2**	**7**	**0**

APPENDIX B
INTERSECTION LEVEL OF SERVICE WORKSHEETS

EXISTING YEAR (2014) CONDITIONS

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
1	North-South Street:	Daly St	East-West Street:	Main St
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	154	1	**154**	172	1	172
	Left-Through		0			0	
	Through	360	1	197	681	1	**364**
	Through-Right		1			1	
	Right	34	0	34	47	0	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	179	1	179	113	1	**113**
	Left-Through		0			0	
	Through	495	1	**419**	287	1	188
	Through-Right		1			1	
	Right	342	0	342	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	27	0	**27**	75	0	75
	Left-Through		1			1	
	Through	455	0	403	768	0	**551**
	Through-Right		1			1	
	Right	242	0	403	184	0	551
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	69	0	69	60	0	**60**
	Left-Through		1			1	
	Through	839	0	**637**	397	0	416
	Through-Right		1			1	
	Right	159	0	637	195	0	416
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	573		*North-South:*	477
			East-West:	664		*East-West:*	611
			SUM:	1237		*SUM:*	1088
	VOLUME/CAPACITY *(V/C)* RATIO:			0.825			0.725
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.755**			**0.655**
	LEVEL OF SERVICE (LOS):			**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
2	North-South Street:	I-5 SB Ramps/I-10 On-Ramp	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	528	1	434	273	1	246
	Left-Through		0			0	
	Through	3	0	**434**	22	0	**246**
	Through-Right		0			0	
	Right	337	0	0	196	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	742	2	252	1219	2	**418**
	Through-Right		1			1	
	Right	15	0	15	36	0	36
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	422	2	232	366	2	**201**
	Left-Through		0			0	
	Through	1467	2	**734**	795	2	398
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	434		*North-South:*	246
			East-West:	734		*East-West:*	619
			SUM:	1168		*SUM:*	865
	VOLUME/CAPACITY *(V/C)* RATIO:			0.820			0.607
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.750**			**0.537**
	LEVEL OF SERVICE (LOS):			**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
3	North-South Street:	Daly St/Marengo St	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
	No. of Phases			4				4	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB-- 3	EB-- 0	WB-- 0	NB-- 3	SB-- 3	EB-- 0	WB-- 0
	ATSAC-1 or ATSAC+ATCS-2?			1				1	
	Override Capacity			0				0	
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	195	1	**195**		102	1	102	
	Left-Through		0				0		
	Through	449	2	225		628	2	**314**	
	Through-Right		0				0		
	Right	209	1	11		168	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	39	1	39		21	1	**21**	
	Left-Through		0				0		
	Through	316	1	**230**		324	1	170	
	Through-Right		1				1		
	Right	373	1	0		186	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	77	1	**77**		219	1	219	
	Left-Through		0				0		
	Through	870	2	435		980	2	**490**	
	Through-Right		0				0		
	Right	293	1	196		350	1	299	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	198	1	198		399	1	**399**	
	Left-Through		0				0		
	Through	1391	2	**696**		860	2	430	
	Through-Right		0				0		
	Right	18	1	0		60	1	50	
	Left-Through-Right		0				0		
	Left-Right		0				0		
	CRITICAL VOLUMES		*North-South:*	425			*North-South:*	335	
			East-West:	773			*East-West:*	889	
			SUM:	1198			*SUM:*	1224	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.871				0.890	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.801**				**0.820**	
	LEVEL OF SERVICE (LOS):			**D**				**D**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
4	North-South Street:	Workman St	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	24	0	**24**	88	0	**88**
	Left-Through		0			0	
	Through	1	0	32	2	0	114
	Through-Right		0			0	
	Right	7	0	0	24	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	26	0	26	34	0	34
	Left-Through		0			0	
	Through	0	0	**50**	1	0	**69**
	Through-Right		0			0	
	Right	24	0	0	34	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	34	1	**34**	36	1	**36**
	Left-Through		0			0	
	Through	1052	1	541	1139	1	570
	Through-Right		1			1	
	Right	30	0	30	1	0	1
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	8	1	8	7	1	7
	Left-Through		0			0	
	Through	1647	1	**830**	1209	1	**613**
	Through-Right		1			1	
	Right	13	0	13	17	0	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	74		*North-South:*	157
			East-West:	864		*East-West:*	649
			SUM:	938		*SUM:*	806
	VOLUME/CAPACITY *(V/C)* RATIO:			0.625			0.537
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.555**			**0.467**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
5	North-South Street:	Sichel St	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	6	0	6	30	0	30
	Left-Through		0			0	
	Through	0	0	**17**	0	0	**90**
	Through-Right		0			0	
	Right	11	0	0	60	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	34	1	**34**	18	1	**18**
	Left-Through		0			0	
	Through	1036	2	518	1144	2	572
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1676	1	**856**	1190	1	**600**
	Through-Right		1			1	
	Right	36	0	36	10	0	10
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	17		*North-South:*	90
			East-West:	890		*East-West:*	618
			SUM:	907		*SUM:*	708
	VOLUME/CAPACITY *(V/C)* RATIO:			0.605			0.472
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.535**			**0.402**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
6	North-South Street:	Griffin Ave/Zonal Ave	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	107	1	**107**	205	1	205
	Left-Through		0			0	
	Through	135	1	135	301	1	**301**
	Through-Right		0			0	
	Right	55	1	0	169	1	159
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	94	1	94	35	1	**35**
	Left-Through		0			0	
	Through	221	1	221	67	1	67
	Through-Right		0			0	
	Right	270	1	**243**	100	1	42
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	54	1	**54**	117	1	**117**
	Left-Through		0			0	
	Through	721	2	361	1038	2	519
	Through-Right		0			0	
	Right	236	1	183	73	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	126	1	126	20	1	20
	Left-Through		0			0	
	Through	1289	2	**645**	848	2	**424**
	Through-Right		0			0	
	Right	69	1	22	73	1	56
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	350		*North-South:*	336
			East-West:	699		*East-West:*	541
			SUM:	1049		*SUM:*	877
	VOLUME/CAPACITY *(V/C)* RATIO:			0.699			0.585
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.629**			**0.515**
	LEVEL OF SERVICE (LOS):			**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
7	North-South Street:	Mission Rd	East-West Street:	Valley Blvd
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	401	2	201	799	2	**400**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	155	1	155	136	1	**136**
	Left-Through		0			0	
	Through	1298	2	**649**	638	2	319
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	220	1	121	259	1	142
	Left-Through		1			1	
	Through	516	0	**557**	709	0	**737**
	Through-Right		1			1	
	Right	41	0	41	28	0	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	649		*North-South:*	536
			East-West:	557		*East-West:*	737
			SUM:	1206		*SUM:*	1273
	VOLUME/CAPACITY *(V/C)* RATIO:			0.804			0.849
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.734**			**0.779**
	LEVEL OF SERVICE (LOS):			**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
8	North-South Street:	Mission Rd	East-West Street:	Main St
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	2	NB-- 0	SB--	2
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	16	1	**16**	48	1	48
	Left-Through		0			0	
	Through	597	2	299	965	2	**483**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1031	2	**516**	628	2	314
	Through-Right		0			0	
	Right	251	1	251	168	1	168
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	399	1	399	160	1	160
	Left-Through		0			0	
	Through	962	2	**481**	663	2	**332**
	Through-Right		0			0	
	Right	259	1	259	164	1	164
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	532		*North-South:*	483
			East-West:	481		*East-West:*	332
			SUM:	1013		*SUM:*	815
	VOLUME/CAPACITY *(V/C)* RATIO:			0.675			0.543
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.605**			**0.473**
	LEVEL OF SERVICE (LOS):			**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
9	North-South Street:	State St	East-West Street:	Cesar E. Chavez Ave
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	31	1	31	38	1	38
	Left-Through		0			0	
	Through	164	1	**164**	486	1	**486**
	Through-Right		0			0	
	Right	61	1	13	279	1	114
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	305	1	**305**	185	1	**185**
	Left-Through		0			0	
	Through	318	1	318	554	1	554
	Through-Right		0			0	
	Right	397	1	354	19	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	86	1	**86**	41	1	41
	Left-Through		0			0	
	Through	278	2	99	317	2	**151**
	Through-Right		1			1	
	Right	20	0	20	136	0	136
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	97	1	97	331	1	**331**
	Left-Through		0			0	
	Through	984	2	**492**	228	2	114
	Through-Right		0			0	
	Right	523	1	218	166	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		North-South:	469		North-South:	671
			East-West:	578		East-West:	482
			SUM:	1047		SUM:	1153
	VOLUME/CAPACITY (V/C) RATIO:			0.761			0.839
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.691**			**0.769**
	LEVEL OF SERVICE (LOS):			**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
10	North-South Street:	State St	East-West Street:	I-10 EB Ramps
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 2	SB--	0	NB-- 2	SB--	0
		EB-- 2	WB--	0	EB-- 2	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	561	1	384	472	1	**459**
	Through-Right		1			1	
	Right	207	0	207	446	0	446
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	163	0	163	115	0	**115**
	Left-Through		1			1	
	Through	895	1	**774**	398	1	398
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	220	0	**220**	175	0	175
	Left-Through		1			1	
	Through	138	0	198	296	0	471
	Through-Right		1			1	
	Right	60	0	0	496	0	**496**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	774		*North-South:*	574
			East-West:	220		*East-West:*	496
			SUM:	994		*SUM:*	1070
	VOLUME/CAPACITY *(V/C)* RATIO:			0.663			0.713
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.593**			**0.643**
	LEVEL OF SERVICE (LOS):			**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
11	North-South Street:	State St	East-West Street:	I-10 WB Off-Ramp
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	2	EB-- 0	WB--	2
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	776	2	**388**	462	2	231
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	571	2	286	626	2	**313**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	478	1	**478**	151	1	**151**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	324	1	324	110	1	110
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	388		*North-South:*	313
			East-West:	478		*East-West:*	151
			SUM:	866		*SUM:*	464
VOLUME/CAPACITY *(V/C)* RATIO:				0.577			0.309
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.507**			**0.239**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
12	North-South Street:	State St	East-West Street:	Pomeroy Ave
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 2	WB--	2	EB-- 2	WB--	2
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	659	1	**543**	439	1	**274**
	Through-Right		1			1	
	Right	427	0	427	109	0	109
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	392	1	201	469	1	238
	Through-Right		1			1	
	Right	9	0	9	6	0	6
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	2	2	0	2
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	28	0	**30**	26	0	**28**
	Left-Through-Right		0			0	
	Left-Right		1			1	
WESTBOUND	Left	248	1	**248**	337	1	**337**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	57	1	57	89	1	89
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	543		*North-South:*	274
			East-West:	278		*East-West:*	365
			SUM:	821		*SUM:*	639
	VOLUME/CAPACITY *(V/C)* RATIO:			0.576			0.448
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.506**			**0.378**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
13	North-South Street:	State St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	324	0	**324**	318	0	**318**
	Left-Through		1			1	
	Through	256	0	334	195	0	304
	Through-Right		1			1	
	Right	87	0	334	109	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	58	0	58	59	0	59
	Left-Through		1			1	
	Through	110	0	**147**	133	0	**178**
	Through-Right		1			1	
	Right	67	0	147	104	0	178
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	67	1	**67**	49	1	**49**
	Left-Through		0			0	
	Through	526	2	263	629	2	315
	Through-Right		0			0	
	Right	140	1	140	123	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	154	1	154	120	1	120
	Left-Through		0			0	
	Through	979	1	**537**	771	1	**412**
	Through-Right		1			1	
	Right	94	0	94	52	0	52
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	471		*North-South:*	496
			East-West:	604		*East-West:*	461
			SUM:	1075		*SUM:*	957
VOLUME/CAPACITY *(V/C)* RATIO:				0.782			0.696
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.712**			**0.626**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
14	North-South Street:	I-5 NB Off-Ramp	East-West Street:	Cesar E. Chavez Ave
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	470	1	**470**	201	1	**201**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	101	1	101	113	1	113
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	418	2	209	763	2	**382**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1321	2	**661**	626	2	313
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	470		*North-South:*	201
			East-West:	661		*East-West:*	382
			SUM:	1131		*SUM:*	583
VOLUME/CAPACITY *(V/C)* RATIO:				0.754			0.389
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.684**			**0.319**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
15	North-South Street:	Brittania St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	41	1	41	116	1	116
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	122	1	**122**	252	1	**252**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	504	2	252	625	2	313
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1188	2	**594**	853	2	**427**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	122		*North-South:*	252
			East-West:	594		*East-West:*	427
			SUM:	716		*SUM:*	679
VOLUME/CAPACITY *(V/C)* RATIO:				0.477			0.453
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.407**			**0.383**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
16	North-South Street:	Chicago St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	26	0	**26**	13	0	**13**
	Left-Through		1			1	
	Through	7	0	33	3	0	16
	Through-Right		0			0	
	Right	32	1	0	20	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	50	0	50	54	0	54
	Left-Through		1			1	
	Through	22	0	72	4	0	58
	Through-Right		0			0	
	Right	167	1	**131**	138	1	**121**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	73	1	**73**	35	1	35
	Left-Through		0			0	
	Through	447	2	224	813	2	**407**
	Through-Right		0			0	
	Right	77	1	77	50	1	50
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	127	1	127	66	1	**66**
	Left-Through		0			0	
	Through	1156	1	**605**	748	1	381
	Through-Right		1			1	
	Right	53	0	53	14	0	14
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	157		*North-South:*	134
			East-West:	678		*East-West:*	473
			SUM:	835		*SUM:*	607
VOLUME/CAPACITY *(V/C)* RATIO:				0.557			0.405
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.487**			**0.335**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
17	North-South Street:	San Pablo St	East-West Street:	Valley Blvd
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	68	1	**68**	154	1	**154**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	73	2	0	195	2	78
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	684	2	342	1205	2	**603**
	Through-Right		0			0	
	Right	125	1	91	76	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	190	1	190	58	1	**58**
	Left-Through		0			0	
	Through	1556	2	**778**	818	2	409
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	68		*North-South:*	154
			East-West:	778		*East-West:*	661
			SUM:	846		*SUM:*	815
VOLUME/CAPACITY *(V/C)* RATIO:				0.564			0.543
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.494**			**0.473**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
18	North-South Street:	Soto St	East-West Street:	I-10 EB Off-Ramp/Wabash Ave
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	573	2	198	927	2	**333**
	Through-Right		1			1	
	Right	22	0	22	73	0	73
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	115	1	115	113	1	**113**
	Left-Through		0			0	
	Through	943	2	**472**	750	2	375
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	621	1	**354**	504	1	**386**
	Left-Through		1			1	
	Through	86	0	354	268	0	386
	Through-Right		0			0	
	Right	62	1	62	65	1	65
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	177	1	177	86	1	86
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	246	1	**189**	231	1	**175**
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	472		*North-South:*	446
			East-West:	543		*East-West:*	561
			SUM:	1015		*SUM:*	1007
	VOLUME/CAPACITY *(V/C)* RATIO:			0.712			0.707
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.642**			**0.637**
	LEVEL OF SERVICE (LOS):			**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
19	North-South Street:	Soto St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 3	WB--	0	EB-- 3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	520	1	**459**	327	1	327
	Left-Through		1			1	
	Through	857	1	459	1155	1	**444**
	Through-Right		1			1	
	Right	80	0	58	178	0	178
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	454	1	**410**	496	1	**368**
	Left-Through		1			1	
	Through	777	1	410	608	1	368
	Through-Right		0			0	
	Right	433	1	401	210	1	137
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	64	1	**64**	147	1	**147**
	Left-Through		0			0	
	Through	224	2	112	447	2	224
	Through-Right		0			0	
	Right	253	1	0	261	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	45	1	45	29	1	29
	Left-Through		0			0	
	Through	528	1	**331**	274	1	**153**
	Through-Right		1			1	
	Right	134	0	134	32	0	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	869		*North-South:*	812
			East-West:	395		*East-West:*	300
			SUM:	1264		*SUM:*	1112
VOLUME/CAPACITY *(V/C)* RATIO:				0.887			0.780
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.817**			**0.710**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
20	North-South Street:	Soto St	East-West Street:	Charlotte St/I-10 WB Ramps
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
		EB-- 0	WB--	2	EB-- 0	WB--	2
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	150	1	150	60	1	60
	Left-Through		0			0	
	Through	810	2	**405**	1185	2	**593**
	Through-Right		0			0	
	Right	94	1	0	89	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	269	1	**269**	247	1	**247**
	Left-Through		0			0	
	Through	1043	2	522	743	2	372
	Through-Right		0			0	
	Right	55	1	33	29	1	14
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	44	0	44	31	0	31
	Left-Through		1			1	
	Through	51	0	**206**	100	0	131
	Through-Right		1			1	
	Right	185	0	206	205	0	**175**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	444	1	**417**	347	1	**294**
	Left-Through		1			1	
	Through	390	0	417	241	0	294
	Through-Right		0			0	
	Right	382	2	210	358	2	197
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	674		*North-South:*	840
			East-West:	623		*East-West:*	469
			SUM:	1297		*SUM:*	1309
	VOLUME/CAPACITY *(V/C)* RATIO:			0.943			0.952
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.873**			**0.882**
	LEVEL OF SERVICE (LOS):			**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
21	North-South Street:	Soto St	East-West Street:	Alcazar St
	Scenario:	Existing Year (2014)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0		NB-- 0	SB--	0	
		EB-- 3	WB--	0		EB-- 3	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?					1				1
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	303	1	**303**		138	1	138	
	Left-Through		0				0		
	Through	802	1	412		1284	1	**659**	
	Through-Right		1				1		
	Right	22	0	22		33	0	33	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	30	1	30		21	1	**21**	
	Left-Through		0				0		
	Through	969	2	**485**		670	2	335	
	Through-Right		0				0		
	Right	446	1	389		84	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	115	1	**115**		289	1	**289**	
	Left-Through		0				0		
	Through	37	1	37		59	1	59	
	Through-Right		0				0		
	Right	178	1	0		285	1	147	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	43	0	43		40	0	40	
	Left-Through		0				0		
	Through	92	0	**178**		37	0	**104**	
	Through-Right		0				0		
	Right	43	0	0		27	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	788			*North-South:*	680	
			East-West:	293			*East-West:*	393	
			SUM:	1081			*SUM:*	1073	
VOLUME/CAPACITY *(V/C)* RATIO:				0.759				0.753	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.689**				**0.683**	
LEVEL OF SERVICE (LOS):				**B**				**B**	

Version: 1i Beta; 8/4/2011

EXISTING YEAR (2014) PLUS PROJECT CONDITIONS

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
1	North-South Street:	Daly St	East-West Street:	Main St
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	155	1	**155**	172	1	172
	Left-Through		0			0	
	Through	368	1	201	699	1	**373**
	Through-Right		1			1	
	Right	34	0	34	47	0	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	180	1	180	113	1	**113**
	Left-Through		0			0	
	Through	532	1	**437**	297	1	193
	Through-Right		1			1	
	Right	342	0	342	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	27	0	**27**	75	0	75
	Left-Through		1			1	
	Through	480	0	446	777	0	**630**
	Through-Right		1			1	
	Right	249	0	446	183	0	630
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	69	0	69	60	0	**60**
	Left-Through		1			1	
	Through	846	0	**640**	417	0	425
	Through-Right		1			1	
	Right	158	0	640	192	0	425
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	592		*North-South:*	486
			East-West:	667		*East-West:*	690
			SUM:	1259		*SUM:*	1176
	VOLUME/CAPACITY *(V/C)* RATIO:			0.839			0.784
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.769**			**0.714**
	LEVEL OF SERVICE (LOS):			**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
2	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: I-5 SB Ramps/I-10 On-Ramp **East-West Street:** Mission Rd
Scenario: Existing Year (2014) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	550	1	445	278	1	248
	Left-Through		0			0	
	Through	3	0	**445**	22	0	**248**
	Through-Right		0			0	
	Right	337	0	0	196	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	758	2	258	1220	2	**419**
	Through-Right		1			1	
	Right	15	0	15	36	0	36
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	430	2	237	384	2	**211**
	Left-Through		0			0	
	Through	1474	2	**737**	795	2	398
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	445		*North-South:*	248
			East-West:	737		*East-West:*	630
			SUM:	1182		*SUM:*	878
VOLUME/CAPACITY *(V/C)* RATIO:				0.829			0.616
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.759**			**0.546**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
3	North-South Street:	Daly St/Marengo St	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
	No. of Phases				4				4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--		3	NB-- 3	SB--		3
		EB-- 0	WB--		0	EB-- 0	WB--		0
	ATSAC-1 or ATSAC+ATCS-2?				1				1
	Override Capacity				0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	194	1	**194**		86	1	86	
	Left-Through		0				0		
	Through	457	2	229		650	2	**325**	
	Through-Right		0				0		
	Right	144	1	0		146	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	24	1	24		14	1	**14**	
	Left-Through		0				0		
	Through	375	1	**249**		339	1	175	
	Through-Right		1				1		
	Right	373	1	0		186	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	77	1	**77**		219	1	219	
	Left-Through		0				0		
	Through	847	2	424		966	2	**483**	
	Through-Right		0				0		
	Right	353	1	256		370	1	327	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	197	1	197		331	1	**331**	
	Left-Through		0				0		
	Through	1408	2	**704**		894	2	447	
	Through-Right		0				0		
	Right	18	1	6		55	1	48	
	Left-Through-Right		0				0		
	Left-Right		0				0		
	CRITICAL VOLUMES		*North-South:*	443			*North-South:*	339	
			East-West:	781			*East-West:*	814	
			SUM:	1224			*SUM:*	1153	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.890				0.839	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.820**				**0.769**	
	LEVEL OF SERVICE (LOS):			**D**				**C**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
4	North-South Street:	Workman St	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	7	0	**7**	19	0	**19**
	Left-Through		0			0	
	Through	1	0	10	2	0	24
	Through-Right		0			0	
	Right	2	0	0	3	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	26	0	26	34	0	34
	Left-Through		0			0	
	Through	0	0	**50**	1	0	**69**
	Through-Right		0			0	
	Right	24	0	0	34	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	34	1	**34**	36	1	**36**
	Left-Through		0			0	
	Through	951	1	490	1096	1	549
	Through-Right		1			1	
	Right	28	0	28	1	0	1
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	3	1	3	6	1	6
	Left-Through		0			0	
	Through	1680	1	**847**	1239	1	**628**
	Through-Right		1			1	
	Right	13	0	13	17	0	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	57		*North-South:*	88
			East-West:	881		*East-West:*	664
			SUM:	938		*SUM:*	752
	VOLUME/CAPACITY *(V/C)* RATIO:			0.625			0.501
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.555**			**0.431**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
5	North-South Street:	Sichel St	East-West Street:	Mission Rd
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	6	0	6	29	0	29
	Left-Through		0			0	
	Through	0	0	**21**	0	0	**86**
	Through-Right		0			0	
	Right	15	0	0	57	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	67	1	**67**	0	1	**0**
	Left-Through		0			0	
	Through	897	2	449	1100	2	550
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1701	1	**874**	1222	1	**613**
	Through-Right		1			1	
	Right	46	0	46	4	0	4
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	21		*North-South:*	86
			East-West:	941		*East-West:*	613
			SUM:	962		*SUM:*	699
	VOLUME/CAPACITY *(V/C)* RATIO:			0.641			0.466
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.571**			**0.396**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Griffin Ave/Zonal Ave **East-West Street:** Mission Rd
Scenario: Existing Year (2014) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	140	1	**140**	280	1	280
	Left-Through		0			0	
	Through	163	1	163	396	1	**396**
	Through-Right		0			0	
	Right	74	1	0	233	1	217
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	97	1	97	33	1	**33**
	Left-Through		0			0	
	Through	290	1	**290**	87	1	87
	Through-Right		0			0	
	Right	267	1	259	99	1	52
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	16	1	**16**	95	1	95
	Left-Through		0			0	
	Through	728	2	364	1029	2	**515**
	Through-Right		0			0	
	Right	236	1	166	65	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	168	1	168	33	1	**33**
	Left-Through		0			0	
	Through	1269	2	**635**	802	2	401
	Through-Right		0			0	
	Right	51	1	3	27	1	11
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	430		*North-South:*	429
			East-West:	651		*East-West:*	548
			SUM:	1081		*SUM:*	977
VOLUME/CAPACITY *(V/C)* RATIO:				0.721			0.651
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.651**			**0.581**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
7	North-South Street:	Mission Rd	East-West Street:	Valley Blvd
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	419	2	210	861	2	**431**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	155	1	155	136	1	**136**
	Left-Through		0			0	
	Through	1319	2	**660**	641	2	321
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	219	1	120	255	1	140
	Left-Through		1			1	
	Through	515	0	**552**	704	0	**730**
	Through-Right		1			1	
	Right	37	0	37	26	0	26
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	660		*North-South:*	567
			East-West:	552		*East-West:*	730
			SUM:	1212		*SUM:*	1297
	VOLUME/CAPACITY *(V/C)* RATIO:			0.808			0.865
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.738**			**0.795**
	LEVEL OF SERVICE (LOS):			**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
8	North-South Street:	Mission Rd	East-West Street:	Main St
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
	No. of Phases			2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	2		NB-- 0	SB--	2	
		EB-- 0	WB--	0		EB-- 0	WB--	0	
	ATSAC-1 or ATSAC+ATCS-2?			1				1	
	Override Capacity			0				0	
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	16	1	**16**		48	1	48	
	Left-Through		0				0		
	Through	614	2	307		1023	2	**512**	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0	0		0	0	**0**	
	Left-Through		0				0		
	Through	1064	2	**532**		635	2	318	
	Through-Right		0				0		
	Right	251	1	251		168	1	168	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0	**0**		0	0	**0**	
	Left-Through		0				0		
	Through	0	0	0		0	0	0	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	387	1	387		156	1	156	
	Left-Through		0				0		
	Through	962	2	**481**		663	2	**332**	
	Through-Right		0				0		
	Right	252	1	252		128	1	128	
	Left-Through-Right		0				0		
	Left-Right		0				0		
	CRITICAL VOLUMES		*North-South:*	548			*North-South:*	512	
			East-West:	481			*East-West:*	332	
			SUM:	1029			*SUM:*	844	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.686				0.563	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.616**				**0.493**	
	LEVEL OF SERVICE (LOS):			**B**				**A**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
9	North-South Street:	State St	East-West Street:	Cesar E. Chavez Ave
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	31	1	31	38	1	38
	Left-Through		0			0	
	Through	175	1	**175**	488	1	**488**
	Through-Right		0			0	
	Right	61	1	13	279	1	114
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	322	1	**322**	235	1	**235**
	Left-Through		0			0	
	Through	321	1	321	561	1	561
	Through-Right		0			0	
	Right	403	1	348	44	1	20
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	110	1	**110**	49	1	49
	Left-Through		0			0	
	Through	276	2	99	309	2	**148**
	Through-Right		1			1	
	Right	20	0	20	136	0	136
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	97	1	97	331	1	**331**
	Left-Through		0			0	
	Through	974	2	**487**	226	2	113
	Through-Right		0			0	
	Right	587	1	265	182	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	497		*North-South:*	723
			East-West:	597		*East-West:*	479
			SUM:	1094		*SUM:*	1202
	VOLUME/CAPACITY *(V/C)* RATIO:			0.796			0.874
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.726**			**0.804**
	LEVEL OF SERVICE (LOS):			**C**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
10	North-South Street:	State St	East-West Street:	I-10 EB Ramps
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 2	SB--	0	NB-- 2	SB--	0
		EB-- 2	WB--	0	EB-- 2	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	660	1	434	499	1	**473**
	Through-Right		1			1	
	Right	207	0	207	446	0	446
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	176	0	176	145	0	**145**
	Left-Through		1			1	
	Through	921	1	**813**	480	1	480
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	253	0	**253**	182	0	182
	Left-Through		1			1	
	Through	138	0	198	296	0	478
	Through-Right		1			1	
	Right	60	0	0	496	0	**496**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	813		*North-South:*	618
			East-West:	253		*East-West:*	496
			SUM:	1066		*SUM:*	1114
	VOLUME/CAPACITY *(V/C)* RATIO:			0.711			0.743
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.641**			**0.673**
	LEVEL OF SERVICE (LOS):			**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
11	North-South Street:	State St	East-West Street:	I-10 WB Off-Ramp
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	2	EB-- 0	WB--	2
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	908	2	**454**	497	2	249
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	610	2	305	738	2	**369**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	478	1	**478**	151	1	**151**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	367	1	367	121	1	121
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	454		*North-South:*	369
			East-West:	478		*East-West:*	151
			SUM:	932		*SUM:*	520
VOLUME/CAPACITY *(V/C)* RATIO:				0.621			0.347
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.551**			**0.277**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: State St **East-West Street:** Pomeroy Ave
Scenario: Existing Year (2014) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 2	WB--	2	EB-- 2	WB--	2
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	819	1	**631**	476	1	**297**
	Through-Right		1			1	
	Right	443	0	443	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	437	1	223	582	1	294
	Through-Right		1			1	
	Right	9	0	9	6	0	6
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	2	2	0	2
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	28	0	**30**	26	0	**28**
	Left-Through-Right		0			0	
	Left-Right		1			1	
WESTBOUND	Left	252	1	**252**	358	1	**358**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	63	1	63	119	1	119
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	631		*North-South:*	297
			East-West:	282		*East-West:*	386
			SUM:	913		*SUM:*	683
VOLUME/CAPACITY *(V/C)* RATIO:				0.641			0.479
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.571**			**0.409**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
13	North-South Street:	State St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	300	0	**300**	330	0	**330**
	Left-Through		1			1	
	Through	462	0	416	261	0	360
	Through-Right		1			1	
	Right	70	0	416	99	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	106	0	106	270	0	270
	Left-Through		1			1	
	Through	169	0	**225**	372	0	**474**
	Through-Right		1			1	
	Right	68	0	225	102	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	68	1	**68**	53	1	**53**
	Left-Through		0			0	
	Through	506	2	253	569	2	285
	Through-Right		0			0	
	Right	133	1	133	83	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	146	1	146	34	1	34
	Left-Through		0			0	
	Through	1048	1	**608**	639	1	**359**
	Through-Right		1			1	
	Right	167	0	167	78	0	78
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	525		*North-South:*	804
			East-West:	676		*East-West:*	412
			SUM:	1201		*SUM:*	1216
	VOLUME/CAPACITY *(V/C)* RATIO:			0.873			0.884
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.803**			**0.814**
	LEVEL OF SERVICE (LOS):			**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
14	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: I-5 NB Off-Ramp **East-West Street:** Cesar E. Chavez Ave
Scenario: Existing Year (2014) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	508	1	**508**	210	1	**210**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	101	1	101	113	1	113
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	422	2	211	778	2	**389**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1337	2	**669**	631	2	316
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	508		*North-South:*	210
			East-West:	669		*East-West:*	389
			SUM:	1177		*SUM:*	599
VOLUME/CAPACITY *(V/C)* RATIO:				0.785			0.399
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.715**			**0.329**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
15	North-South Street:	Brittania St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	41	1	41	117	1	117
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	126	1	**126**	273	1	**273**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	495	2	248	755	2	**378**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1338	2	**669**	667	2	334
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	126		*North-South:*	273
			East-West:	669		*East-West:*	378
			SUM:	795		*SUM:*	651
VOLUME/CAPACITY *(V/C)* RATIO:				0.530			0.434
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.460**			**0.364**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
16	North-South Street:	Chicago St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			1			1
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	26	0	**26**	13	0	**13**
	Left-Through		1			1	
	Through	7	0	33	3	0	16
	Through-Right		0			0	
	Right	32	1	0	20	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	51	0	51	39	0	39
	Left-Through		1			1	
	Through	22	0	73	4	0	**43**
	Through-Right		0			0	
	Right	153	1	**139**	5	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	28	1	**28**	11	1	11
	Left-Through		0			0	
	Through	488	2	244	987	2	**494**
	Through-Right		0			0	
	Right	77	1	77	50	1	50
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	127	1	127	66	1	**66**
	Left-Through		0			0	
	Through	1320	1	**678**	695	1	350
	Through-Right		1			1	
	Right	36	0	36	5	0	5
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	165		*North-South:*	56
			East-West:	706		*East-West:*	560
			SUM:	871		*SUM:*	616
VOLUME/CAPACITY *(V/C)* RATIO:				0.581			0.411
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.511**			**0.341**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
17	North-South Street:	San Pablo St	East-West Street:	Valley Blvd
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	61	1	**61**	118	1	**118**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	85	2	0	227	2	90
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	681	2	341	1191	2	**596**
	Through-Right		0			0	
	Right	125	1	95	75	1	16
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	233	1	233	70	1	**70**
	Left-Through		0			0	
	Through	1544	2	**772**	814	2	407
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	61		*North-South:*	118
			East-West:	772		*East-West:*	666
			SUM:	833		*SUM:*	784
VOLUME/CAPACITY *(V/C)* RATIO:				0.555			0.523
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.485**			**0.453**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
18	North-South Street:	Soto St	East-West Street:	I-10 EB Off-Ramp/Wabash Ave
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	623	2	215	938	2	**337**
	Through-Right		1			1	
	Right	22	0	22	73	0	73
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	120	1	120	124	1	**124**
	Left-Through		0			0	
	Through	959	2	**480**	779	2	390
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	648	1	**367**	510	1	**389**
	Left-Through		1			1	
	Through	86	0	367	268	0	389
	Through-Right		0			0	
	Right	62	1	62	65	1	65
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	177	1	177	86	1	86
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	262	1	**202**	235	1	**173**
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	480		*North-South:*	461
			East-West:	569		*East-West:*	562
			SUM:	1049		*SUM:*	1023
	VOLUME/CAPACITY *(V/C)* RATIO:			0.736			0.718
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.666**			**0.648**
	LEVEL OF SERVICE (LOS):			**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
19	North-South Street:	Soto St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
No. of Phases				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1				1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0		
	EB-- 3	WB--	0		EB-- 3	WB--	0		
ATSAC-1 or ATSAC+ATCS-2?			1				1		
Override Capacity			0				0		

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	625	1	**490**	356	1	356
	Left-Through		1			1	
	Through	845	1	490	1148	1	**442**
	Through-Right		1			1	
	Right	80	0	58	178	0	178
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	456	1	411	490	1	**354**
	Left-Through		1			1	
	Through	777	1	411	571	1	354
	Through-Right		0			0	
	Right	485	1	**447**	227	1	127
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	76	1	**76**	200	1	**200**
	Left-Through		0			0	
	Through	232	2	116	475	2	238
	Through-Right		0			0	
	Right	275	1	0	338	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	45	1	45	29	1	29
	Left-Through		0			0	
	Through	540	1	**336**	277	1	**155**
	Through-Right		1			1	
	Right	132	0	132	32	0	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	937		*North-South:*	796
			East-West:	412		*East-West:*	355
			SUM:	1349		*SUM:*	1151
VOLUME/CAPACITY *(V/C)* RATIO:				0.947			0.808
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.877**			**0.738**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
20	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Charlotte St/I-10 WB Ramps
Scenario: Existing Year (2014) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
		EB-- 0	WB--	2	EB-- 0	WB--	2
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	137	1	137	53	1	53
	Left-Through		0			0	
	Through	816	2	**408**	1211	2	**606**
	Through-Right		0			0	
	Right	100	1	0	116	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	269	1	**269**	247	1	**247**
	Left-Through		0			0	
	Through	1063	2	532	749	2	375
	Through-Right		0			0	
	Right	52	1	30	27	1	15
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	44	0	44	24	0	24
	Left-Through		1			1	
	Through	53	0	**208**	93	0	117
	Through-Right		1			1	
	Right	186	0	208	162	0	**136**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	475	1	**433**	358	1	**298**
	Left-Through		1			1	
	Through	391	0	433	238	0	298
	Through-Right		0			0	
	Right	382	2	210	358	2	197
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	677		*North-South:*	853
			East-West:	641		*East-West:*	434
			SUM:	1318		*SUM:*	1287
	VOLUME/CAPACITY *(V/C)* RATIO:			0.959			0.936
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.889**			**0.866**
	LEVEL OF SERVICE (LOS):			**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
21	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Alcazar St
Scenario: Existing Year (2014) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 3	WB--	0	EB-- 3	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	303	1	**303**	138	1	138
	Left-Through		0			0	
	Through	807	1	415	1297	1	**668**
	Through-Right		1			1	
	Right	23	0	23	39	0	39
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	30	1	30	21	1	**21**
	Left-Through		0			0	
	Through	987	2	**494**	674	2	337
	Through-Right		0			0	
	Right	445	1	387	83	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	116	1	**116**	292	1	**292**
	Left-Through		0			0	
	Through	37	1	37	57	1	57
	Through-Right		0			0	
	Right	178	1	0	285	1	147
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	0	42	40	0	40
	Left-Through		0			0	
	Through	99	0	**184**	38	0	**105**
	Through-Right		0			0	
	Right	43	0	0	27	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	797		*North-South:*	689
			East-West:	300		*East-West:*	397
			SUM:	1097		*SUM:*	1086
	VOLUME/CAPACITY *(V/C)* RATIO:			0.770			0.762
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.700**			**0.692**
	LEVEL OF SERVICE (LOS):			**B**			**B**

Version: 1i Beta; 8/4/2011

EXISTING YEAR (2014) PLUS PROJECT CONDITIONS PLUS MITIGATION

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Daly St **East-West Street:** Main St
Scenario: Existing Year (2014) Plus Project Plus TDM Mitigation (-5% in Project Trips)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	155	1	**155**	170	1	170
	Left-Through		0			0	
	Through	367	1	201	696	1	**372**
	Through-Right		1			1	
	Right	34	0	34	47	0	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	179	1	179	113	1	**113**
	Left-Through		0			0	
	Through	528	1	**435**	296	1	192
	Through-Right		1			1	
	Right	342	0	342	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	27	0	**27**	75	0	75
	Left-Through		1			1	
	Through	478	0	444	776	0	**629**
	Through-Right		1			1	
	Right	247	0	444	182	0	629
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	69	0	69	60	0	**60**
	Left-Through		1			1	
	Through	846	0	**640**	416	0	424
	Through-Right		1			1	
	Right	158	0	640	192	0	424
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	590		*North-South:*	485
			East-West:	667		*East-West:*	689
			SUM:	1257		*SUM:*	1174
VOLUME/CAPACITY *(V/C)* RATIO:				0.838			0.783
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.768**			**0.713**
LEVEL OF SERVICE (LOS):				**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
9	North-South Street:	State St	East-West Street:	Cesar E. Chavez Ave
	Scenario:	Existing Year (2014) Plus Project Plus TDM Mitigation (-5% in Project Trips)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0		SB-- 0		NB-- 0		SB-- 0	
		EB-- 0		WB-- 3		EB-- 0		WB-- 3	
ATSAC-1 or ATSAC+ATCS-2?					1				1
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	31	1	31		38	1	38	
	Left-Through		0				0		
	Through	174	1	**174**		488	1	**488**	
	Through-Right		0				0		
	Right	61	1	13		279	1	114	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	321	1	**321**		229	1	**229**	
	Left-Through		0				0		
	Through	321	1	321		560	1	560	
	Through-Right		0				0		
	Right	403	1	349		43	1	19	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	109	1	**109**		49	1	49	
	Left-Through		0				0		
	Through	276	2	99		308	2	**148**	
	Through-Right		1				1		
	Right	20	0	20		136	0	136	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	97	1	97		331	1	**331**	
	Left-Through		0				0		
	Through	973	2	**487**		226	2	113	
	Through-Right		0				0		
	Right	581	1	260		180	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			North-South:	495			North-South:	717	
			East-West:	596			East-West:	479	
			SUM:	1091			SUM:	1196	
VOLUME/CAPACITY (V/C) RATIO:				0.793				0.870	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.723**				**0.800**	
LEVEL OF SERVICE (LOS):				**C**				**C**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
13	North-South Street:	State St	East-West Street:	Marengo St
	Scenario:	Existing Year (2014) Plus Project Plus Physical Mitigation		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	300	0	300	330	0	330
	Left-Through		1			1	
	Through	462	0	**416**	261	0	**360**
	Through-Right		1			1	
	Right	70	0	416	99	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	106	1	**106**	270	1	**270**
	Left-Through		0			0	
	Through	169	1	119	372	1	237
	Through-Right		1			1	
	Right	68	0	68	102	0	102
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	68	1	**68**	53	1	**53**
	Left-Through		0			0	
	Through	506	2	253	569	2	285
	Through-Right		0			0	
	Right	133	1	133	83	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	146	1	146	34	1	34
	Left-Through		0			0	
	Through	1048	2	**524**	639	2	**320**
	Through-Right		0			0	
	Right	167	1	114	78	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	522		*North-South:*	630
			East-West:	592		*East-West:*	373
			SUM:	1114		*SUM:*	1003
VOLUME/CAPACITY *(V/C)* RATIO:				0.810			0.729
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.740**			**0.659**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: State St **East-West Street:** Marengo St
Scenario: Existing Year (2014) Plus Project Plus TDM Mitigation (-5% in Project Trips)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1			1
Override Capacity				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	298	0	**298**	328	0	**328**
	Left-Through		1			1	
	Through	449	0	407	255	0	353
	Through-Right		1			1	
	Right	67	0	407	98	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	104	0	104	260	0	260
	Left-Through		1			1	
	Through	166	0	**222**	360	0	**462**
	Through-Right		1			1	
	Right	69	0	222	102	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	67	1	**67**	53	1	**53**
	Left-Through		0			0	
	Through	504	2	252	566	2	283
	Through-Right		0			0	
	Right	133	1	133	81	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	145	1	145	31	1	31
	Left-Through		0			0	
	Through	1039	1	**601**	635	1	**356**
	Through-Right		1			1	
	Right	163	0	163	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	520		*North-South:*	790
			East-West:	668		*East-West:*	409
			SUM:	1188		*SUM:*	1199
VOLUME/CAPACITY *(V/C)* RATIO:				0.864			0.872
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.794**			**0.802**
LEVEL OF SERVICE (LOS):				**C**			**D**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	
19	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Marengo St
Scenario: Existing Year (2014) Plus Project Plus TDM Mitigation (-5% in Project Trips)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

			AM			PM		
No. of Phases			3			3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB--	0	SB--	0	
	EB-- 3	WB--	0	EB--	3	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			1				1	
Override Capacity			0				0	

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	615	1	**486**	352	1	352
	Left-Through		1			1	
	Through	842	1	486	1147	1	**442**
	Through-Right		1			1	
	Right	80	0	58	178	0	178
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	456	1	411	489	1	**353**
	Left-Through		1			1	
	Through	776	1	411	569	1	353
	Through-Right		0			0	
	Right	482	1	**445**	226	1	128
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	74	1	**74**	196	1	**196**
	Left-Through		0			0	
	Through	231	2	116	472	2	236
	Through-Right		0			0	
	Right	272	1	0	331	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	45	1	45	29	1	29
	Left-Through		0			0	
	Through	539	1	**336**	277	1	**155**
	Through-Right		1			1	
	Right	132	0	132	32	0	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	931		*North-South:*	795
			East-West:	410		*East-West:*	351
			SUM:	1341		*SUM:*	1146
VOLUME/CAPACITY *(V/C)* RATIO:				0.941			0.804
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.871**			**0.734**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

CUMULATIVE BASE YEAR (2040) CONDITIONS

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Daly St **East-West Street:** Main St
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	165	1	**165**	184	1	184
	Left-Through		0			0	
	Through	389	1	213	736	1	**393**
	Through-Right		1			1	
	Right	36	0	36	50	0	50
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	229	1	229	128	1	**128**
	Left-Through		0			0	
	Through	537	1	**452**	312	1	203
	Through-Right		1			1	
	Right	366	0	366	94	0	94
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	29	0	**29**	80	0	80
	Left-Through		1			1	
	Through	517	0	475	828	0	**673**
	Through-Right		1			1	
	Right	259	0	475	197	0	673
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	74	0	74	64	0	**64**
	Left-Through		1			1	
	Through	899	0	**683**	443	0	518
	Through-Right		1			1	
	Right	170	0	683	209	0	518
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	617		*North-South:*	521
			East-West:	712		*East-West:*	737
			SUM:	1329		*SUM:*	1258
	VOLUME/CAPACITY *(V/C)* RATIO:			0.886			0.839
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.786**			**0.739**
	LEVEL OF SERVICE (LOS):			**C**			**C**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
2	North-South Street:	I-5 SB Ramps/I-10 On-Ramp	East-West Street:	Mission Rd
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	610	1	505	301	1	274
	Left-Through		0			0	
	Through	38	0	**505**	37	0	**274**
	Through-Right		0			0	
	Right	361	0	0	210	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	819	2	278	1316	2	**452**
	Through-Right		1			1	
	Right	16	0	16	39	0	39
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	460	2	253	427	2	**235**
	Left-Through		0			0	
	Through	1582	2	**791**	875	2	438
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	505		*North-South:*	274
			East-West:	791		*East-West:*	687
			SUM:	1296		*SUM:*	961
	VOLUME/CAPACITY *(V/C)* RATIO:			0.909			0.674
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.809**			**0.574**
	LEVEL OF SERVICE (LOS):			**D**			**A**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
3	North-South Street:	Daly St/Marengo St	East-West Street:	Mission Rd
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB-- 3		NB-- 3	SB-- 3	
	EB-- 0	WB-- 0		EB-- 0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	211	1	**211**	112	1	112
	Left-Through		0			0	
	Through	485	2	243	679	2	**340**
	Through-Right		0			0	
	Right	226	1	0	183	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	42	1	42	22	1	**22**
	Left-Through		0			0	
	Through	345	1	**248**	352	1	184
	Through-Right		1			1	
	Right	399	1	0	199	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	82	1	**82**	234	1	234
	Left-Through		0			0	
	Through	997	2	499	1066	2	**533**
	Through-Right		0			0	
	Right	318	1	213	378	1	322
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	227	1	227	482	1	**482**
	Left-Through		0			0	
	Through	1507	2	**754**	976	2	488
	Through-Right		0			0	
	Right	19	1	0	64	1	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	459		*North-South:*	362
			East-West:	836		*East-West:*	1015
			SUM:	1295		*SUM:*	1377
VOLUME/CAPACITY *(V/C)* RATIO:				0.942			1.001
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.842**			**0.901**
LEVEL OF SERVICE (LOS):				**D**			**E**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
4	North-South Street:	Workman St	East-West Street:	Mission Rd
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	26	0	**26**	94	0	**94**
	Left-Through		0			0	
	Through	1	0	34	2	0	122
	Through-Right		0			0	
	Right	7	0	0	26	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	28	0	28	36	0	36
	Left-Through		0			0	
	Through	0	0	**54**	1	0	**73**
	Through-Right		0			0	
	Right	26	0	0	36	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	36	1	**36**	39	1	**39**
	Left-Through		0			0	
	Through	1194	1	613	1240	1	621
	Through-Right		1			1	
	Right	32	0	32	1	0	1
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	9	1	9	7	1	7
	Left-Through		0			0	
	Through	1796	1	**905**	1405	1	**712**
	Through-Right		1			1	
	Right	14	0	14	18	0	18
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	80		*North-South:*	167
			East-West:	941		*East-West:*	751
			SUM:	1021		*SUM:*	918
	VOLUME/CAPACITY *(V/C)* RATIO:			0.681			0.612
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.581**			**0.512**
	LEVEL OF SERVICE (LOS):			**A**			**A**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
5	North-South Street:	Sichel St	East-West Street:	Mission Rd
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	6	0	6	32	0	32
	Left-Through		0			0	
	Through	0	0	**18**	0	0	**96**
	Through-Right		0			0	
	Right	12	0	0	64	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	36	1	**36**	19	1	**19**
	Left-Through		0			0	
	Through	1177	2	589	1245	2	623
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1827	1	**933**	1385	1	**698**
	Through-Right		1			1	
	Right	39	0	39	11	0	11
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	18		*North-South:*	96
			East-West:	969		*East-West:*	717
			SUM:	987		*SUM:*	813
	VOLUME/CAPACITY *(V/C)* RATIO:			0.658			0.542
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.558**			**0.442**
	LEVEL OF SERVICE (LOS):			**A**			**A**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
6	North-South Street:	Griffin Ave/Zonal Ave	East-West Street:	Mission Rd
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	115	1	**115**	219	1	219
	Left-Through		0			0	
	Through	144	1	144	322	1	**322**
	Through-Right		0			0	
	Right	59	1	0	181	1	171
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	101	1	101	37	1	**37**
	Left-Through		0			0	
	Through	237	1	237	72	1	72
	Through-Right		0			0	
	Right	289	1	**260**	107	1	45
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	58	1	**58**	125	1	**125**
	Left-Through		0			0	
	Through	840	2	420	1132	2	566
	Through-Right		0			0	
	Right	253	1	196	78	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	135	1	135	21	1	21
	Left-Through		0			0	
	Through	1412	2	**706**	1019	2	**510**
	Through-Right		0			0	
	Right	74	1	24	78	1	60
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	375		*North-South:*	359
			East-West:	764		*East-West:*	635
			SUM:	1139		*SUM:*	994
	VOLUME/CAPACITY *(V/C)* RATIO:			0.759			0.663
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.659**			**0.563**
	LEVEL OF SERVICE (LOS):			**B**			**A**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
7	North-South Street:	Mission Rd	East-West Street:	Valley Blvd
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	441	2	221	865	2	**433**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	174	1	174	153	1	**153**
	Left-Through		0			0	
	Through	1415	2	**708**	759	2	380
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	239	1	131	278	1	153
	Left-Through		1			1	
	Through	623	0	**667**	773	0	**803**
	Through-Right		1			1	
	Right	44	0	44	30	0	30
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	708		*North-South:*	586
			East-West:	667		*East-West:*	803
			SUM:	1375		*SUM:*	1389
	VOLUME/CAPACITY *(V/C)* RATIO:			0.917			0.926
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.817**			**0.826**
	LEVEL OF SERVICE (LOS):			**D**			**D**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
8	North-South Street:	Mission Rd	East-West Street:	Main St
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
	No. of Phases			2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	2		NB-- 0	SB--	2	
		EB-- 0	WB--	0		EB-- 0	WB--	0	
	ATSAC-1 or ATSAC+ATCS-2?			2				2	
	Override Capacity			0				0	
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	17	1	**17**		51	1	51	
	Left-Through		0				0		
	Through	655	2	328		1043	2	**522**	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0	0		0	0	**0**	
	Left-Through		0				0		
	Through	1122	2	**561**		692	2	346	
	Through-Right		0				0		
	Right	269	1	269		184	1	184	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0	**0**		0	0	**0**	
	Left-Through		0				0		
	Through	0	0	0		0	0	0	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	442	1	442		234	1	234	
	Left-Through		0				0		
	Through	1034	2	**517**		731	2	**366**	
	Through-Right		0				0		
	Right	282	1	282		185	1	185	
	Left-Through-Right		0				0		
	Left-Right		0				0		
	CRITICAL VOLUMES		*North-South:*	578			*North-South:*	522	
			East-West:	517			*East-West:*	366	
			SUM:	1095			*SUM:*	888	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.730				0.592	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.630**				**0.492**	
	LEVEL OF SERVICE (LOS):			**B**				**A**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
9	North-South Street:	State St	East-West Street:	Cesar E. Chavez Ave
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	33	1	33	41	1	41
	Left-Through		0			0	
	Through	186	1	**186**	555	1	**555**
	Through-Right		0			0	
	Right	71	1	8	332	1	149
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	331	1	**331**	206	1	**206**
	Left-Through		0			0	
	Through	365	1	365	608	1	608
	Through-Right		0			0	
	Right	435	1	387	34	1	11
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	96	1	**96**	47	1	47
	Left-Through		0			0	
	Through	307	2	109	347	2	**164**
	Through-Right		1			1	
	Right	21	0	21	146	0	146
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	127	1	127	366	1	**366**
	Left-Through		0			0	
	Through	1059	2	**530**	255	2	128
	Through-Right		0			0	
	Right	579	1	248	192	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	517		*North-South:*	761
			East-West:	626		*East-West:*	530
			SUM:	1143		*SUM:*	1291
	VOLUME/CAPACITY *(V/C)* RATIO:			0.831			0.939
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.731**			**0.839**
	LEVEL OF SERVICE (LOS):			**C**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
10	North-South Street:	State St	East-West Street:	I-10 EB Ramps
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 2	SB--	0	NB-- 2	SB--	0
		EB-- 2	WB--	0	EB-- 2	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	631	1	428	528	1	**511**
	Through-Right		1			1	
	Right	225	0	225	493	0	493
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	181	0	181	145	0	**145**
	Left-Through		1			1	
	Through	989	1	**857**	463	1	463
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	240	0	240	191	0	191
	Left-Through		1			1	
	Through	185	0	**245**	324	0	515
	Through-Right		1			1	
	Right	64	0	245	531	0	**531**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	857		*North-South:*	656
			East-West:	245		*East-West:*	531
			SUM:	1102		*SUM:*	1187
	VOLUME/CAPACITY *(V/C)* RATIO:			0.735			0.791
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.635**			**0.691**
	LEVEL OF SERVICE (LOS):			**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
11	North-South Street:	State St	East-West Street:	I-10 WB Off-Ramp
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	2	EB-- 0	WB--	2
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	866	2	**433**	521	2	261
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	630	2	315	712	2	**356**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	531	1	**531**	178	1	**178**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	352	1	352	122	1	122
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	433		*North-South:*	356
			East-West:	531		*East-West:*	178
			SUM:	964		*SUM:*	534
	VOLUME/CAPACITY *(V/C)* RATIO:			0.643			0.356
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.543**			**0.256**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: State St **East-West Street:** Pomeroy Ave
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 2	WB--	2	EB-- 2	WB--	2
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	746	1	**602**	501	1	**309**
	Through-Right		1			1	
	Right	457	0	457	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	450	1	230	584	1	295
	Through-Right		1			1	
	Right	10	0	10	6	0	6
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	2	2	0	2
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	30	0	**32**	28	0	**30**
	Left-Through-Right		0			0	
	Left-Right		1			1	
WESTBOUND	Left	265	1	**265**	361	1	**361**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	61	1	61	95	1	95
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	602		*North-South:*	309
			East-West:	297		*East-West:*	391
			SUM:	899		*SUM:*	700
VOLUME/CAPACITY *(V/C)* RATIO:				0.631			0.491
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.531**			**0.391**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
13	North-South Street:	State St	East-West Street:	Marengo St
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
	MOVEMENT	Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	355	0		**355**	353	0		**353**
	Left-Through		1				1		
	Through	289	0		369	225	0		342
	Through-Right		1				1		
	Right	93	0		369	117	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	62	0		62	63	0		63
	Left-Through		1				1		
	Through	126	0		**161**	148	0		**193**
	Through-Right		1				1		
	Right	72	0		161	111	0		193
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	72	1		**72**	52	1		52
	Left-Through		0				0		
	Through	567	2		284	684	2		**342**
	Through-Right		0				0		
	Right	164	1		164	142	1		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	194	1		194	193	1		**193**
	Left-Through		0				0		
	Through	1062	1		**582**	850	1		453
	Through-Right		1				1		
	Right	101	0		101	56	0		56
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				North-South:	516			North-South:	546
				East-West:	654			East-West:	535
				SUM:	1170			SUM:	1081
VOLUME/CAPACITY *(V/C)* RATIO:					0.851				0.786
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.751**				**0.686**
LEVEL OF SERVICE (LOS):					**C**				**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
14	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: I-5 NB Off-Ramp **East-West Street:** Cesar E. Chavez Ave
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	515	1	**515**	221	1	**221**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	108	1	108	121	1	121
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	464	2	232	849	2	**425**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1451	2	**726**	701	2	351
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	515		*North-South:*	221
			East-West:	726		*East-West:*	425
			SUM:	1241		*SUM:*	646
VOLUME/CAPACITY *(V/C)* RATIO:				0.827			0.431
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.727**			**0.331**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
15	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Brittania St **East-West Street:** Marengo St
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	44	1	44	124	1	124
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	131	1	**131**	270	1	**270**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	553	2	277	697	2	349
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1314	2	**657**	1003	2	**502**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	131		*North-South:*	270
			East-West:	657		*East-West:*	502
			SUM:	788		*SUM:*	772
VOLUME/CAPACITY *(V/C)* RATIO:				0.525			0.515
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.425**			**0.415**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
16	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Chicago St **East-West Street:** Marengo St
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	28	0	**28**	14	0	**14**
	Left-Through		1			1	
	Through	7	0	35	3	0	17
	Through-Right		0			0	
	Right	34	1	0	21	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	54	0	54	58	0	58
	Left-Through		1			1	
	Through	24	0	78	4	0	62
	Through-Right		0			0	
	Right	179	1	**140**	148	1	**130**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	78	1	**78**	37	1	37
	Left-Through		0			0	
	Through	492	2	246	898	2	**449**
	Through-Right		0			0	
	Right	82	1	82	54	1	54
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	136	1	136	71	1	**71**
	Left-Through		0			0	
	Through	1280	1	**669**	891	1	453
	Through-Right		1			1	
	Right	57	0	57	15	0	15
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	168		*North-South:*	144
			East-West:	747		*East-West:*	520
			SUM:	915		*SUM:*	664
VOLUME/CAPACITY *(V/C)* RATIO:				0.610			0.443
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.510**			**0.343**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
17	North-South Street:	San Pablo St	East-West Street:	Valley Blvd
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	93	1	**93**	253	1	**253**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	86	2	0	244	2	100
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	737	2	369	1296	2	**648**
	Through-Right		0			0	
	Right	217	1	171	99	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	240	1	240	69	1	**69**
	Left-Through		0			0	
	Through	1668	2	**834**	881	2	441
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	93		*North-South:*	253
			East-West:	834		*East-West:*	717
			SUM:	927		*SUM:*	970
	VOLUME/CAPACITY *(V/C)* RATIO:			0.618			0.647
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.518**			**0.547**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
18	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** I-10 EB Off-Ramp/Wabash Ave
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	677	2	234	1040	2	**373**
	Through-Right		1			1	
	Right	24	0	24	78	0	78
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	128	1	128	138	1	**138**
	Left-Through		0			0	
	Through	1054	2	**527**	897	2	449
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	721	1	**407**	550	1	**419**
	Left-Through		1			1	
	Through	92	0	407	287	0	419
	Through-Right		0			0	
	Right	66	1	66	70	1	70
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	189	1	189	92	1	92
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	277	1	**213**	257	1	**188**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	527		*North-South:*	511
			East-West:	620		*East-West:*	607
			SUM:	1147		*SUM:*	1118
VOLUME/CAPACITY *(V/C)* RATIO:				0.805			0.785
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.705**			**0.685**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
19	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Marengo St
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 3	WB--	0	EB-- 3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	573	1	**536**	362	1	362
	Left-Through		1			1	
	Through	1035	1	536	1293	1	**494**
	Through-Right		1			1	
	Right	86	0	62	190	0	190
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	498	1	**457**	584	1	**443**
	Left-Through		1			1	
	Through	874	1	457	745	1	443
	Through-Right		0			0	
	Right	480	1	445	282	1	201
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	71	1	**71**	162	1	**162**
	Left-Through		0			0	
	Through	243	2	122	483	2	242
	Through-Right		0			0	
	Right	278	1	0	296	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	48	1	48	31	1	31
	Left-Through		0			0	
	Through	571	1	**357**	297	1	**166**
	Through-Right		1			1	
	Right	143	0	143	34	0	34
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	993		*North-South:*	937
			East-West:	428		*East-West:*	328
			SUM:	1421		*SUM:*	1265
VOLUME/CAPACITY *(V/C)* RATIO:				0.997			0.888
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.897**			**0.788**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
20	North-South Street:	Soto St	East-West Street:	Charlotte St/I-10 WB Ramps
	Scenario:	Cumulative Base Year (2040)		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
		EB-- 0	WB--	2	EB-- 0	WB--	2
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	161	1	161	64	1	64
	Left-Through		0			0	
	Through	989	2	**495**	1330	2	**665**
	Through-Right		0			0	
	Right	101	1	0	95	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	288	1	**288**	264	1	**264**
	Left-Through		0			0	
	Through	1175	2	588	957	2	479
	Through-Right		0			0	
	Right	59	1	36	31	1	15
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	47	0	47	33	0	33
	Left-Through		1			1	
	Through	55	0	**225**	107	0	140
	Through-Right		1			1	
	Right	206	0	225	248	0	**216**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	479	1	**458**	382	1	**322**
	Left-Through		1			1	
	Through	436	0	458	262	0	322
	Through-Right		0			0	
	Right	465	2	256	394	2	217
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	783		*North-South:*	929
			East-West:	683		*East-West:*	538
			SUM:	1466		*SUM:*	1467
	VOLUME/CAPACITY *(V/C)* RATIO:			1.066			1.067
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.966**			**0.967**
	LEVEL OF SERVICE (LOS):			**E**			**E**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
21	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Alcazar St
Scenario: Cumulative Base Year (2040)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 3	WB--	0	EB-- 3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	428	1	**428**	174	1	174
	Left-Through		0			0	
	Through	885	1	455	1400	1	**718**
	Through-Right		1			1	
	Right	24	0	24	35	0	35
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	32	1	32	22	1	**22**
	Left-Through		0			0	
	Through	1057	2	**529**	749	2	375
	Through-Right		0			0	
	Right	533	1	466	101	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	135	1	**135**	362	1	**362**
	Left-Through		0			0	
	Through	40	1	40	63	1	63
	Through-Right		0			0	
	Right	210	1	0	386	1	212
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	46	0	46	43	0	43
	Left-Through		0			0	
	Through	98	0	**190**	40	0	**112**
	Through-Right		0			0	
	Right	46	0	0	29	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	957		*North-South:*	740
			East-West:	325		*East-West:*	474
			SUM:	1282		*SUM:*	1214
VOLUME/CAPACITY *(V/C)* RATIO:				0.900			0.852
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.800**			**0.752**
LEVEL OF SERVICE (LOS):				**C**			**C**

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CUMULATIVE YEAR (2040) PLUS PROJECT CONDITIONS

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Daly St **East-West Street:** Main St
Scenario: Cumulative Year (2040) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	166	1	**166**	183	1	183
	Left-Through		0			0	
	Through	396	1	216	754	1	**402**
	Through-Right		1			1	
	Right	36	0	36	50	0	50
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	230	1	230	128	1	**128**
	Left-Through		0			0	
	Through	574	1	**470**	322	1	208
	Through-Right		1			1	
	Right	366	0	366	94	0	94
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	29	0	**29**	80	0	80
	Left-Through		1			1	
	Through	543	0	492	837	0	**677**
	Through-Right		1			1	
	Right	266	0	492	196	0	677
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	74	0	74	64	0	**64**
	Left-Through		1			1	
	Through	907	0	**686**	462	0	526
	Through-Right		1			1	
	Right	169	0	686	206	0	526
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	636		*North-South:*	530
			East-West:	715		*East-West:*	741
			SUM:	1351		*SUM:*	1271
VOLUME/CAPACITY *(V/C)* RATIO:				0.901			0.847
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.801**			**0.747**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
2	North-South Street:	I-5 SB Ramps/I-10 On-Ramp	East-West Street:	Mission Rd
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	632	1	516	306	1	277
	Left-Through		0			0	
	Through	38	0	**516**	37	0	**277**
	Through-Right		0			0	
	Right	361	0	0	210	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	834	2	283	1317	2	**452**
	Through-Right		1			1	
	Right	16	0	16	39	0	39
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	468	2	257	446	2	**245**
	Left-Through		0			0	
	Through	1589	2	**795**	875	2	438
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	516		*North-South:*	277
			East-West:	795		*East-West:*	697
			SUM:	1311		*SUM:*	974
	VOLUME/CAPACITY *(V/C)* RATIO:			0.920			0.684
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.820**			**0.584**
	LEVEL OF SERVICE (LOS):			**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
3	North-South Street:	Daly St/Marengo St	East-West Street:	Mission Rd
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	3	NB-- 3	SB--	3
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	210	1	**210**	96	1	96
	Left-Through		0			0	
	Through	493	2	247	701	2	**351**
	Through-Right		0			0	
	Right	161	1	0	160	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	28	1	28	15	1	**15**
	Left-Through		0			0	
	Through	404	1	**268**	367	1	189
	Through-Right		1			1	
	Right	399	1	0	199	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	82	1	**82**	234	1	234
	Left-Through		0			0	
	Through	974	2	487	1052	2	**526**
	Through-Right		0			0	
	Right	378	1	273	398	1	350
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	227	1	227	414	1	**414**
	Left-Through		0			0	
	Through	1524	2	**762**	1010	2	505
	Through-Right		0			0	
	Right	19	1	5	59	1	52
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	478		*North-South:*	366
			East-West:	844		*East-West:*	940
			SUM:	1322		*SUM:*	1306
	VOLUME/CAPACITY *(V/C)* RATIO:			0.961			0.950
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.861**			**0.850**
	LEVEL OF SERVICE (LOS):			**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
4	North-South Street:	Workman St	East-West Street:	Mission Rd
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	9	0	**9**	25	0	**25**
	Left-Through		0			0	
	Through	1	0	12	2	0	33
	Through-Right		0			0	
	Right	2	0	0	6	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	28	0	28	36	0	36
	Left-Through		0			0	
	Through	0	0	**54**	1	0	**73**
	Through-Right		0			0	
	Right	26	0	0	36	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	36	1	**36**	39	1	**39**
	Left-Through		0			0	
	Through	1093	1	562	1197	1	599
	Through-Right		1			1	
	Right	30	0	30	1	0	1
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	4	1	4	6	1	6
	Left-Through		0			0	
	Through	1829	1	**922**	1435	1	**727**
	Through-Right		1			1	
	Right	14	0	14	18	0	18
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	63		*North-South:*	98
			East-West:	958		*East-West:*	766
			SUM:	1021		*SUM:*	864
	VOLUME/CAPACITY *(V/C)* RATIO:			0.681			0.576
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.581**			**0.476**
	LEVEL OF SERVICE (LOS):			**A**			**A**

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
5	North-South Street:	Sichel St	East-West Street:	Mission Rd
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	7	0	7	31	0	31
	Left-Through		0			0	
	Through	0	0	**22**	0	0	**92**
	Through-Right		0			0	
	Right	15	0	0	61	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	69	1	**69**	1	1	**1**
	Left-Through		0			0	
	Through	1038	2	519	1200	2	600
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1852	1	**951**	1417	1	**711**
	Through-Right		1			1	
	Right	49	0	49	5	0	5
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	22		*North-South:*	92
			East-West:	1020		*East-West:*	712
			SUM:	1042		*SUM:*	804
	VOLUME/CAPACITY *(V/C)* RATIO:			0.695			0.536
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.595**			**0.436**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
6	North-South Street:	Griffin Ave/Zonal Ave	East-West Street:	Mission Rd
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	147	1	**147**	294	1	294
	Left-Through		0			0	
	Through	172	1	172	417	1	**417**
	Through-Right		0			0	
	Right	77	1	0	245	1	228
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	104	1	104	35	1	**35**
	Left-Through		0			0	
	Through	306	1	**306**	92	1	92
	Through-Right		0			0	
	Right	285	1	275	106	1	55
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	20	1	**20**	103	1	103
	Left-Through		0			0	
	Through	847	2	424	1123	2	**562**
	Through-Right		0			0	
	Right	254	1	181	70	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	177	1	177	34	1	**34**
	Left-Through		0			0	
	Through	1392	2	**696**	973	2	487
	Through-Right		0			0	
	Right	55	1	3	32	1	15
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	453		*North-South:*	452
			East-West:	716		*East-West:*	596
			SUM:	1169		*SUM:*	1048
VOLUME/CAPACITY *(V/C)* RATIO:				0.779			0.699
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.679**			**0.599**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
7	North-South Street:	Mission Rd	East-West Street:	Valley Blvd
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	459	2	230	928	2	**464**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	174	1	174	153	1	**153**
	Left-Through		0			0	
	Through	1436	2	**718**	763	2	382
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	238	1	131	274	1	151
	Left-Through		1			1	
	Through	622	0	**662**	768	0	**796**
	Through-Right		1			1	
	Right	40	0	40	28	0	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	718		*North-South:*	617
			East-West:	662		*East-West:*	796
			SUM:	1380		*SUM:*	1413
	VOLUME/CAPACITY *(V/C)* RATIO:			0.920			0.942
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.820**			**0.842**
	LEVEL OF SERVICE (LOS):			**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
8	North-South Street:	Mission Rd	East-West Street:	Main St
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	2	NB-- 0	SB--	2
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	17	1	**17**	51	1	51
	Left-Through		0			0	
	Through	672	2	336	1102	2	**551**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1155	2	**578**	700	2	350
	Through-Right		0			0	
	Right	269	1	269	184	1	184
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	430	1	430	230	1	230
	Left-Through		0			0	
	Through	1034	2	**517**	731	2	**366**
	Through-Right		0			0	
	Right	275	1	275	149	1	149
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	595		*North-South:*	551
			East-West:	517		*East-West:*	366
			SUM:	1112		*SUM:*	917
	VOLUME/CAPACITY *(V/C)* RATIO:			0.741			0.611
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.641**			**0.511**
	LEVEL OF SERVICE (LOS):			**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
9	North-South Street:	State St	East-West Street:	Cesar E. Chavez Ave
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB-- 0		NB-- 0	SB-- 0	
	EB-- 0	WB-- 3		EB-- 0	WB-- 3	
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	33	1	33	41	1	41
	Left-Through		0			0	
	Through	197	1	**197**	558	1	**558**
	Through-Right		0			0	
	Right	71	1	8	332	1	149
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	348	1	**348**	256	1	**256**
	Left-Through		0			0	
	Through	368	1	368	615	1	615
	Through-Right		0			0	
	Right	441	1	381	59	1	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	120	1	**120**	55	1	55
	Left-Through		0			0	
	Through	305	2	109	338	2	**161**
	Through-Right		1			1	
	Right	21	0	21	146	0	146
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	127	1	127	366	1	**366**
	Left-Through		0			0	
	Through	1049	2	**525**	253	2	127
	Through-Right		0			0	
	Right	644	1	296	208	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	545		*North-South:*	814
			East-West:	645		*East-West:*	527
			SUM:	1190		*SUM:*	1341
VOLUME/CAPACITY *(V/C)* RATIO:				0.865			0.975
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.765**			**0.875**
LEVEL OF SERVICE (LOS):				**C**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: State St **East-West Street:** I-10 EB Ramps
Scenario: Cumulative Year (2040) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 2	SB--	0	NB-- 2	SB--	0
		EB-- 2	WB--	0	EB-- 2	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	730	1	478	555	1	**524**
	Through-Right		1			1	
	Right	225	0	225	493	0	493
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	194	0	194	175	0	**175**
	Left-Through		1			1	
	Through	1015	1	**896**	545	1	545
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	273	0	**273**	199	0	199
	Left-Through		1			1	
	Through	185	0	249	324	0	523
	Through-Right		1			1	
	Right	64	0	0	531	0	**531**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	896		*North-South:*	699
			East-West:	273		*East-West:*	531
			SUM:	1169		*SUM:*	1230
VOLUME/CAPACITY *(V/C)* RATIO:				0.779			0.820
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.679**			**0.720**
LEVEL OF SERVICE (LOS):				**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
11	North-South Street:	State St	East-West Street:	I-10 WB Off-Ramp
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	2	EB-- 0	WB--	2
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	998	2	**499**	556	2	278
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	669	2	335	824	2	**412**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	531	1	**531**	178	1	**178**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	396	1	396	132	1	132
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	499		*North-South:*	412
			East-West:	531		*East-West:*	178
			SUM:	1030		*SUM:*	590
VOLUME/CAPACITY *(V/C)* RATIO:				0.687			0.393
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.587**			**0.293**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:				
12	**PROJECT TITLE:**	LAC+USC Medical Center Master Plan EIR		
	North-South Street:	State St	**East-West Street:**	Pomeroy Ave
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	**Analyst:** Fehr & Peers	**Date:** Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 2	WB--	2	EB-- 2	WB--	2
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	906	1	**690**	538	1	332
	Through-Right		1			1	
	Right	473	0	473	125	0	125
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	495	1	253	697	1	**352**
	Through-Right		1			1	
	Right	10	0	10	6	0	6
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	2	2	0	2
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	30	0	**32**	28	0	**30**
	Left-Through-Right		0			0	
	Left-Right		1			1	
WESTBOUND	Left	269	1	**269**	382	1	**382**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	67	1	67	125	1	125
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	690		*North-South:*	352
			East-West:	301		*East-West:*	412
			SUM:	991		*SUM:*	764
	VOLUME/CAPACITY *(V/C)* RATIO:			0.695			0.536
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.595**			**0.436**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
13	North-South Street:	State St	East-West Street:	Marengo St
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM				PM			
	No. of Phases			4				4	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0	
		EB-- 0	WB--	0		EB-- 0	WB--	0	
	ATSAC-1 or ATSAC+ATCS-2?			2				2	
	Override Capacity			0				0	
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	331	0	**331**		365	0	**365**	
	Left-Through		1				1		
	Through	495	0	451		290	0	397	
	Through-Right		1				1		
	Right	76	0	451		107	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	110	0	110		274	0	274	
	Left-Through		1				1		
	Through	185	0	**239**		388	0	**497**	
	Through-Right		1				1		
	Right	73	0	239		109	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	73	1	**73**		56	1	**56**	
	Left-Through		0				0		
	Through	547	2	274		624	2	312	
	Through-Right		0				0		
	Right	157	1	157		102	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	186	1	186		106	1	106	
	Left-Through		0				0		
	Through	1131	1	**653**		718	1	**400**	
	Through-Right		1				1		
	Right	174	0	174		82	0	82	
	Left-Through-Right		0				0		
	Left-Right		0				0		
	CRITICAL VOLUMES		*North-South:*	570			*North-South:*	862	
			East-West:	726			*East-West:*	456	
			SUM:	1296			*SUM:*	1318	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.943				0.959	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.843**				**0.859**	
	LEVEL OF SERVICE (LOS):			**D**				**D**	

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Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
14	North-South Street:	I-5 NB Off-Ramp	East-West Street:	Cesar E. Chavez Ave
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	553	1	**553**	230	1	**230**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	108	1	108	121	1	121
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	468	2	234	864	2	**432**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1467	2	**734**	706	2	353
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	553		*North-South:*	230
			East-West:	734		*East-West:*	432
			SUM:	1287		*SUM:*	662
VOLUME/CAPACITY *(V/C)* RATIO:				0.858			0.441
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.758**			**0.341**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
15	North-South Street:	Brittania St	East-West Street:	Marengo St
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	44	1	44	125	1	125
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	135	1	**135**	291	1	**291**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	545	2	273	826	2	**413**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1464	2	**732**	817	2	409
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	135		*North-South:*	291
			East-West:	732		*East-West:*	413
			SUM:	867		*SUM:*	704
	VOLUME/CAPACITY *(V/C)* RATIO:			0.578			0.469
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.478**			**0.369**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
16	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Chicago St **East-West Street:** Marengo St
Scenario: Cumulative Year (2040) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	28	0	**28**	14	0	**14**
	Left-Through		1			1	
	Through	7	0	35	3	0	17
	Through-Right		0			0	
	Right	34	1	0	21	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	55	0	55	43	0	43
	Left-Through		1			1	
	Through	24	0	79	4	0	**47**
	Through-Right		0			0	
	Right	165	1	**149**	15	1	9
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	33	1	**33**	13	1	13
	Left-Through		0			0	
	Through	533	2	267	1072	2	**536**
	Through-Right		0			0	
	Right	82	1	82	54	1	54
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	136	1	136	71	1	**71**
	Left-Through		0			0	
	Through	1445	1	**743**	838	1	423
	Through-Right		1			1	
	Right	41	0	41	7	0	7
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	177		*North-South:*	61
			East-West:	776		*East-West:*	607
			SUM:	953		*SUM:*	668
VOLUME/CAPACITY *(V/C)* RATIO:				0.635			0.445
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.535**			**0.345**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
17	North-South Street:	San Pablo St	East-West Street:	Valley Blvd
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

	AM			PM		
No. of Phases			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	86	1	**86**	217	1	**217**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	98	2	0	276	2	113
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	734	2	367	1281	2	**641**
	Through-Right		0			0	
	Right	217	1	174	98	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	276	1	276	79	1	**79**
	Left-Through		0			0	
	Through	1656	2	**828**	877	2	439
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	86		*North-South:*	217
			East-West:	828		*East-West:*	720
			SUM:	914		*SUM:*	937
VOLUME/CAPACITY *(V/C)* RATIO:				0.609			0.625
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.509**			**0.525**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
18	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** I-10 EB Off-Ramp/Wabash Ave
Scenario: Cumulative Year (2040) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	727	2	250	1051	2	**376**
	Through-Right		1			1	
	Right	24	0	24	78	0	78
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	133	1	133	149	1	**149**
	Left-Through		0			0	
	Through	1070	2	**535**	926	2	463
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	748	1	**420**	557	1	**422**
	Left-Through		1			1	
	Through	92	0	420	287	0	422
	Through-Right		0			0	
	Right	66	1	66	70	1	70
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	189	1	189	92	1	92
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	293	1	**227**	261	1	**187**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	535		*North-South:*	525
			East-West:	647		*East-West:*	609
			SUM:	1182		*SUM:*	1134
VOLUME/CAPACITY *(V/C)* RATIO:				0.829			0.796
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.729**			**0.696**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
19	North-South Street:	Soto St	East-West Street:	Marengo St
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 3	WB--	0	EB-- 3	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	678	1	**567**	390	1	390
	Left-Through		1			1	
	Through	1023	1	567	1286	1	**492**
	Through-Right		1			1	
	Right	86	0	62	190	0	190
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	500	1	458	578	1	**429**
	Left-Through		1			1	
	Through	874	1	458	708	1	429
	Through-Right		0			0	
	Right	532	1	**491**	299	1	192
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	83	1	**83**	215	1	**215**
	Left-Through		0			0	
	Through	251	2	126	512	2	256
	Through-Right		0			0	
	Right	299	1	0	373	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	48	1	48	31	1	31
	Left-Through		0			0	
	Through	584	1	**363**	300	1	**167**
	Through-Right		1			1	
	Right	141	0	141	34	0	34
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	1058		*North-South:*	921
			East-West:	446		*East-West:*	382
			SUM:	1504		*SUM:*	1303
	VOLUME/CAPACITY *(V/C)* RATIO:			1.055			0.914
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.955**			**0.814**
	LEVEL OF SERVICE (LOS):			**E**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
20	North-South Street:	Soto St	East-West Street:	Charlotte St/I-10 WB Ramps
	Scenario:	Cumulative Year (2040) Plus Project		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
	No. of Phases			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
		EB-- 0	WB--	2	EB-- 0	WB--	2
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	148	1	148	57	1	57
	Left-Through		0			0	
	Through	995	2	**498**	1357	2	**679**
	Through-Right		0			0	
	Right	107	1	0	121	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	288	1	**288**	264	1	**264**
	Left-Through		0			0	
	Through	1195	2	598	963	2	482
	Through-Right		0			0	
	Right	45	1	24	24	1	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	43	0	43	15	0	15
	Left-Through		1			1	
	Through	57	0	**219**	99	0	114
	Through-Right		1			1	
	Right	208	0	219	205	0	**177**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	510	1	**474**	393	1	**326**
	Left-Through		1			1	
	Through	437	0	474	259	0	326
	Through-Right		0			0	
	Right	465	2	256	394	2	217
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	786		*North-South:*	943
			East-West:	693		*East-West:*	503
			SUM:	1479		*SUM:*	1446
	VOLUME/CAPACITY *(V/C)* RATIO:			1.076			1.052
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.976**			**0.952**
	LEVEL OF SERVICE (LOS):			**E**			**E**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
21	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Alcazar St
Scenario: Cumulative Year (2040) Plus Project
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 3	WB--	0	EB-- 3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	428	1	**428**	174	1	174
	Left-Through		0			0	
	Through	892	1	459	1420	1	**731**
	Through-Right		1			1	
	Right	25	0	25	41	0	41
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	32	1	32	22	1	**22**
	Left-Through		0			0	
	Through	1083	2	**542**	755	2	378
	Through-Right		0			0	
	Right	531	1	464	100	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	134	1	**134**	358	1	**358**
	Left-Through		0			0	
	Through	40	1	40	61	1	61
	Through-Right		0			0	
	Right	210	1	0	386	1	212
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	45	0	45	43	0	43
	Left-Through		0			0	
	Through	104	0	**195**	41	0	**113**
	Through-Right		0			0	
	Right	46	0	0	29	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	970		*North-South:*	753
			East-West:	329		*East-West:*	471
			SUM:	1299		*SUM:*	1224
VOLUME/CAPACITY *(V/C)* RATIO:				0.912			0.859
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.812**			**0.759**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

CUMULATIVE YEAR (2040) PLUS PROJECT CONDITIONS PLUS MITIGATION

Level of Service Worksheet
(Circular 212 Method)

I/S #: 9

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: State St **East-West Street:** Cesar E. Chavez Ave
Scenario: Cumulative Year (2040) Plus Project Plus TDM Mitigation (-5% in Project Trips)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	33	1	33	41	1	41
	Left-Through		0			0	
	Through	196	1	**196**	557	1	**557**
	Through-Right		0			0	
	Right	71	1	8	332	1	149
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	347	1	**347**	250	1	**250**
	Left-Through		0			0	
	Through	368	1	368	614	1	614
	Through-Right		0			0	
	Right	441	1	382	58	1	31
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	119	1	**119**	55	1	55
	Left-Through		0			0	
	Through	305	2	109	338	2	**161**
	Through-Right		1			1	
	Right	21	0	21	146	0	146
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	127	1	127	366	1	**366**
	Left-Through		0			0	
	Through	1048	2	**524**	253	2	127
	Through-Right		0			0	
	Right	637	1	290	206	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	

CRITICAL VOLUMES	North-South:	543	North-South:	807
	East-West:	643	East-West:	527
	SUM:	1186	SUM:	1334
VOLUME/CAPACITY (V/C) RATIO:		0.863		0.970
V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.763**		**0.870**
LEVEL OF SERVICE (LOS):		**C**		**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	LAC+USC Medical Center Master Plan EIR		
13	North-South Street:	State St	East-West Street:	Marengo St
	Scenario:	Cumulative Year (2040) Plus Project Plus Physical Mitigation		
	Count Date:	Jul-14	Analyst: Fehr & Peers	Date: Jul-14

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2	
Override Capacity			0			0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	331	0	331	365	0	365
	Left-Through		1			1	
	Through	495	0	**451**	290	0	**397**
	Through-Right		1			1	
	Right	76	0	451	107	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	110	1	**110**	274	1	**274**
	Left-Through		0			0	
	Through	185	1	129	388	1	249
	Through-Right		1			1	
	Right	73	0	73	109	0	109
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	73	1	**73**	56	1	56
	Left-Through		0			0	
	Through	547	2	274	624	2	**312**
	Through-Right		0			0	
	Right	157	1	157	102	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	186	1	186	106	1	**106**
	Left-Through		0			0	
	Through	1131	2	**566**	718	2	359
	Through-Right		0			0	
	Right	174	1	119	82	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	561		*North-South:*	671
			East-West:	639		*East-West:*	418
			SUM:	1200		*SUM:*	1089
VOLUME/CAPACITY *(V/C)* RATIO:				0.873			0.792
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.773**			**0.692**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: State St **East-West Street:** Marengo St
Scenario: Cumulative Year (2040) Plus Project Plus TDM Mitigation (-5% in Project Trips)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	329	0	**329**	363	0	**363**
	Left-Through		1			1	
	Through	482	0	442	285	0	391
	Through-Right		1			1	
	Right	73	0	442	106	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	108	0	108	264	0	264
	Left-Through		1			1	
	Through	182	0	**236**	375	0	**484**
	Through-Right		1			1	
	Right	74	0	236	109	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	72	1	**72**	56	1	**56**
	Left-Through		0			0	
	Through	545	2	273	621	2	311
	Through-Right		0			0	
	Right	157	1	157	100	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	185	1	185	104	1	104
	Left-Through		0			0	
	Through	1122	1	**646**	714	1	**398**
	Through-Right		1			1	
	Right	170	0	170	81	0	81
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	565		*North-South:*	847
			East-West:	718		*East-West:*	454
			SUM:	1283		*SUM:*	1301
VOLUME/CAPACITY *(V/C)* RATIO:				0.933			0.946
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.833**			**0.846**
LEVEL OF SERVICE (LOS):				**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
19	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Marengo St
Scenario: Cumulative Year (2040) Plus Project Plus TDM Mitigation (-5% in Project Trips)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 3	WB--	0	EB-- 3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	668	1	**563**	387	1	387
	Left-Through		1			1	
	Through	1020	1	563	1285	1	**492**
	Through-Right		1			1	
	Right	86	0	62	190	0	190
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	500	1	458	577	1	**428**
	Left-Through		1			1	
	Through	873	1	458	706	1	428
	Through-Right		0			0	
	Right	529	1	**489**	298	1	193
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	81	1	**81**	211	1	**211**
	Left-Through		0			0	
	Through	250	2	125	508	2	254
	Through-Right		0			0	
	Right	297	1	0	366	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	48	1	48	31	1	31
	Left-Through		0			0	
	Through	582	1	**362**	300	1	**167**
	Through-Right		1			1	
	Right	141	0	141	34	0	34
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1052		*North-South:*	920
			East-West:	443		*East-West:*	378
			SUM:	1495		*SUM:*	1298
VOLUME/CAPACITY *(V/C)* RATIO:				1.049			0.911
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.949**			**0.811**
LEVEL OF SERVICE (LOS):				**E**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
20	

PROJECT TITLE: LAC+USC Medical Center Master Plan EIR
North-South Street: Soto St **East-West Street:** Charlotte St/I-10 WB Ramps
Scenario: Cumulative Year (2040) Plus Project Plus TDM Mitigation (-5% in Project Trips)
Count Date: Jul-14 **Analyst:** Fehr & Peers **Date:** Jul-14

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 3	SB--	0	NB-- 3	SB--	0
		EB-- 0	WB--	2	EB-- 0	WB--	2
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	145	1	145	56	1	56
	Left-Through		0			0	
	Through	995	2	**498**	1355	2	**678**
	Through-Right		0			0	
	Right	107	1	0	120	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	288	1	**288**	264	1	**264**
	Left-Through		0			0	
	Through	1195	2	598	964	2	482
	Through-Right		0			0	
	Right	45	1	24	24	1	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	43	0	43	15	0	15
	Left-Through		1			1	
	Through	57	0	**218**	99	0	114
	Through-Right		1			1	
	Right	206	0	218	202	0	**174**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	508	1	**472**	392	1	**325**
	Left-Through		1			1	
	Through	435	0	472	258	0	325
	Through-Right		0			0	
	Right	465	2	256	394	2	217
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	786		*North-South:*	942
			East-West:	690		*East-West:*	499
			SUM:	1476		*SUM:*	1441
VOLUME/CAPACITY *(V/C)* RATIO:				1.073			1.048
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.973**			**0.948**
LEVEL OF SERVICE (LOS):				**E**			**E**

Version: 1i Beta; 8/4/2011

APPENDIX C
SIGNAL WARRANT WORKSHEETS

FEHR PEERS

Sheet No 1 of 2

Project LAC+USC Medical Master Plan
Scenario Existing Year (2014)
Peak Hour AM

Major Street Zonal Avenue
Minor Street State Street

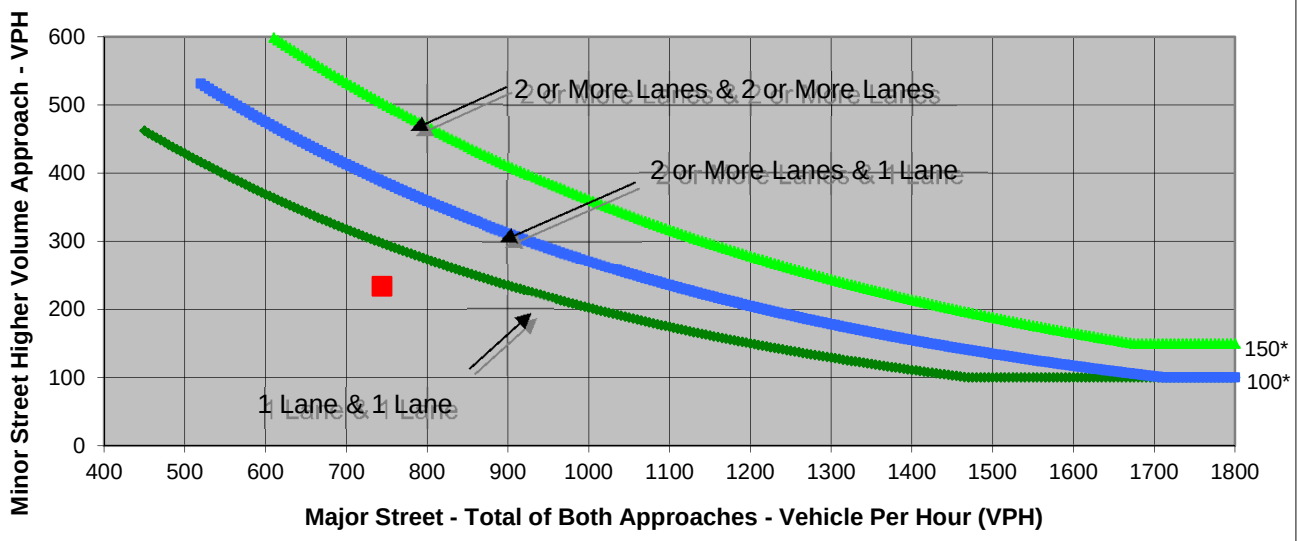
Turn Movement Volumes

	NB	SB	EB	WB
Left	56	0	0	52
Through	0	0	415	277
Right	178	0	0	0
Total	234	0	415	329

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**744**	**234**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project LAC+USC Medical Master Plan
Scenario Existing Year (2014)
Peak Hour PM

Major Street Zonal Avenue
Minor Street State Street

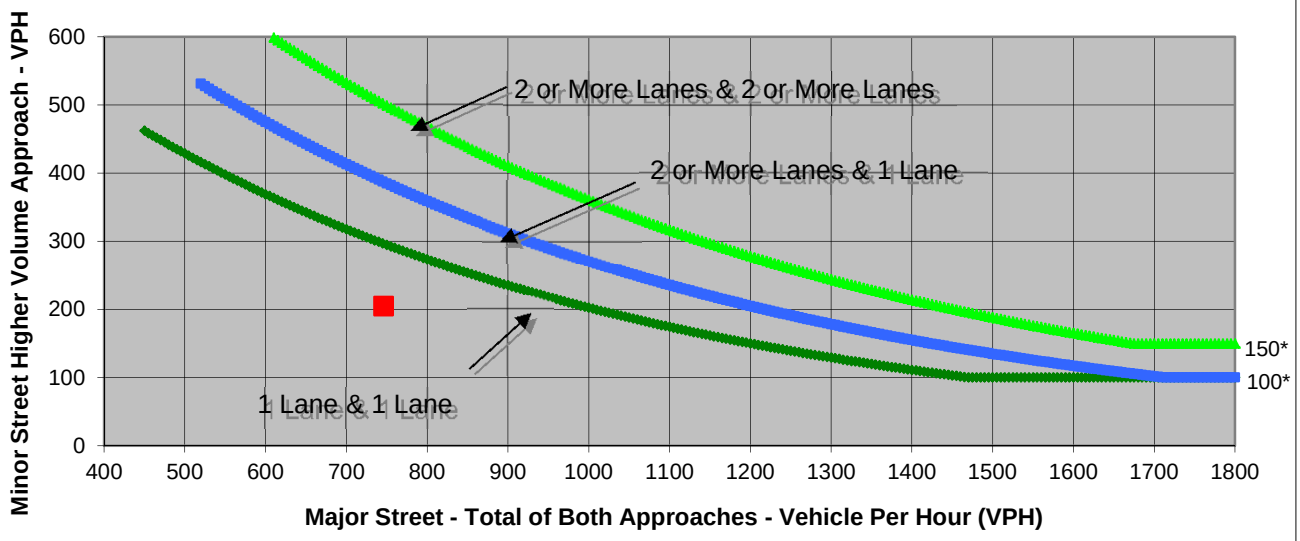
Turn Movement Volumes

	NB	SB	EB	WB
Left	134	0	0	122
Through	0	0	127	497
Right	71	0	0	0
Total	205	0	127	619

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**746**	**205**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project LAC+USC Medical Master Plan
Scenario Existing Year (2014) Plus Project
Peak Hour AM

Major Street Zonal Avenue
Minor Street State Street

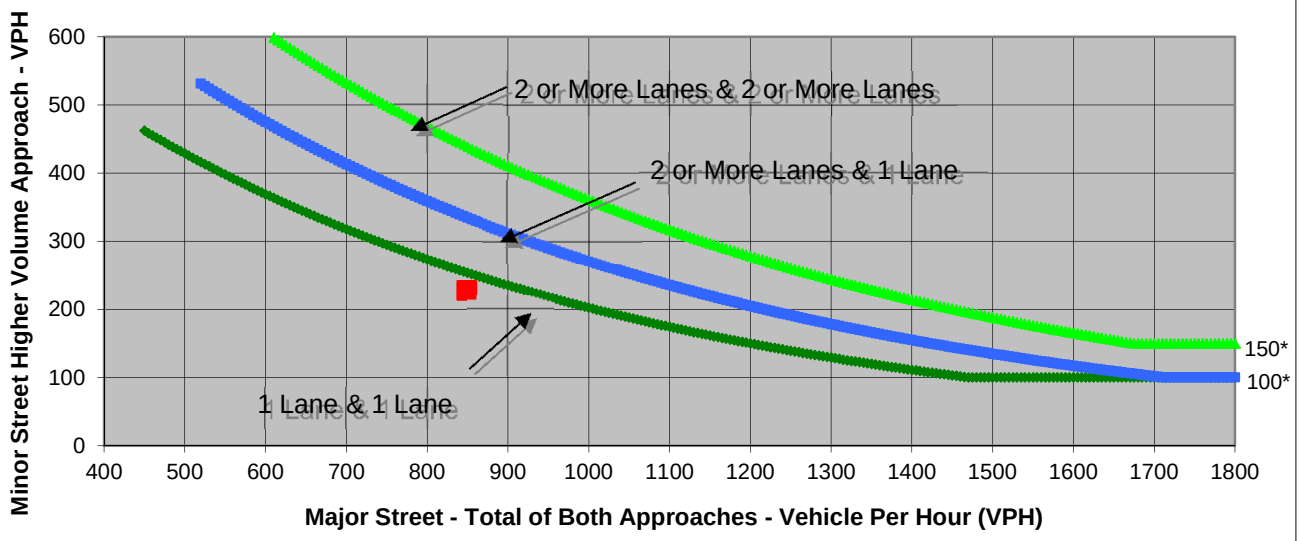
Turn Movement Volumes

	NB	SB	EB	WB
Left	74	0	0	102
Through	0	0	380	367
Right	154	0	0	0
Total	228	0	380	469

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**849**	**228**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project LAC+USC Medical Master Plan
Scenario Existing Year (2014) Plus Project
Peak Hour PM

Major Street Zonal Avenue
Minor Street State Street

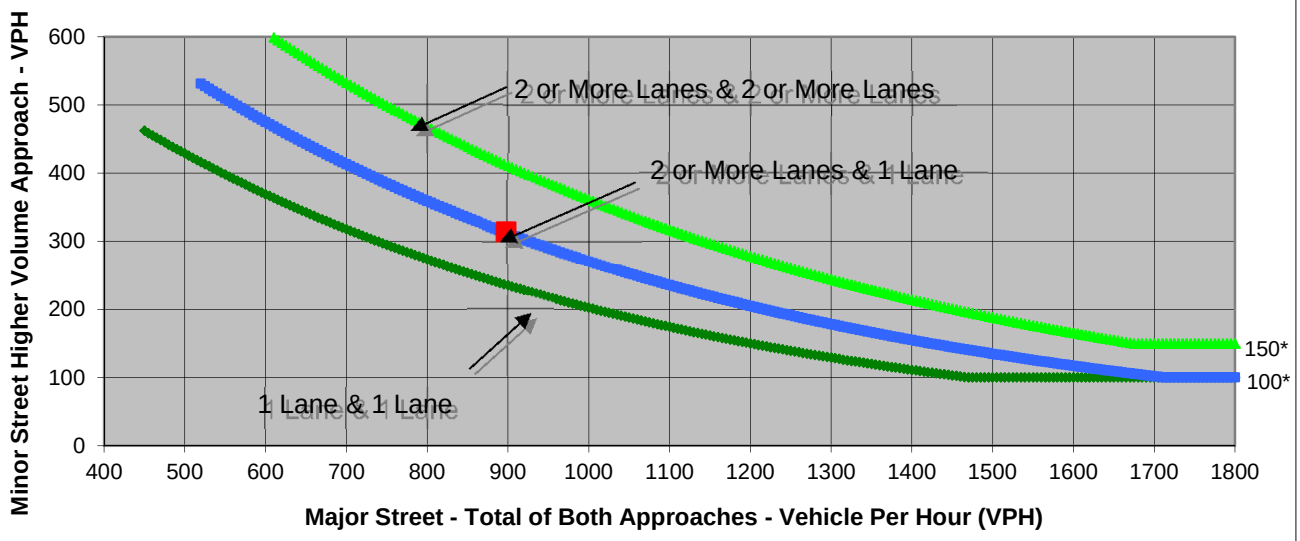
Turn Movement Volumes

	NB	SB	EB	WB
Left	215	0	0	144
Through	0	0	144	611
Right	99	0	0	0
Total	314	0	144	755

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**899**	**314**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project LAC+USC Medical Master Plan
Scenario Cumulative Base Year (2040)
Peak Hour AM

Major Street Zonal Avenue
Minor Street State Street

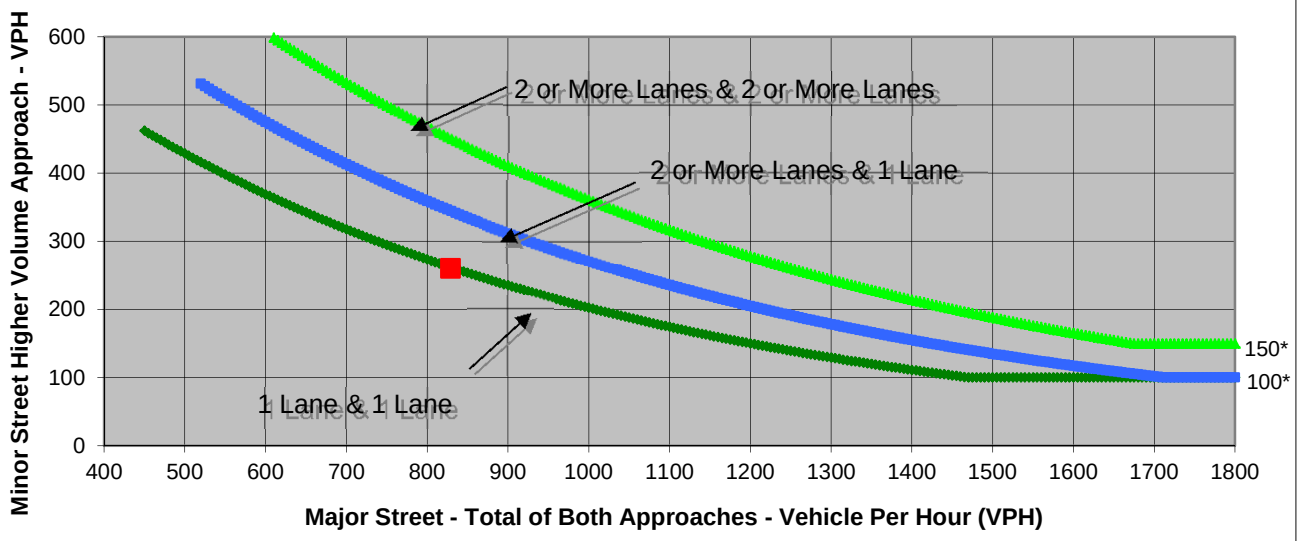
Turn Movement Volumes

	NB	SB	EB	WB
Left	60	0	0	56
Through	0	0	470	303
Right	200	0	0	0
Total	260	0	470	359

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**829**	**260**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project LAC+USC Medical Master Plan
Scenario Cumulative Base Year (2040)
Peak Hour PM

Major Street Zonal Avenue
Minor Street State Street

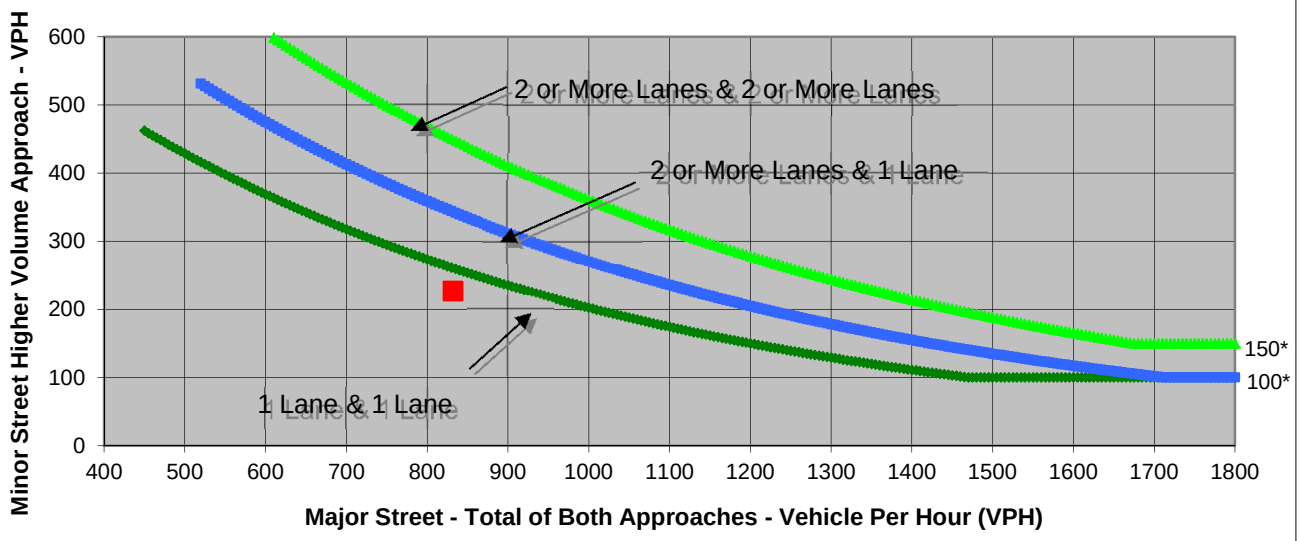
Turn Movement Volumes

	NB	SB	EB	WB
Left	143	0	0	131
Through	0	0	147	554
Right	84	0	0	0
Total	227	0	147	685

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**832**	**227**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project LAC+USC Medical Master Plan
Scenario Cumulative Year (2040) Plus Project
Peak Hour AM

Major Street Zonal Avenue
Minor Street State Street

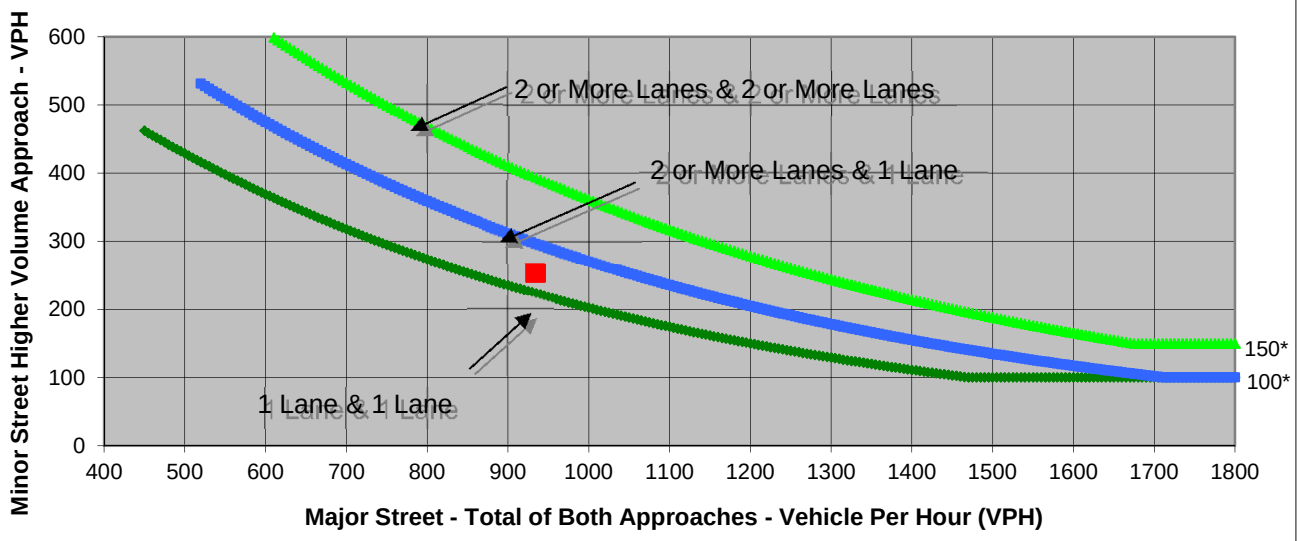
Turn Movement Volumes

	NB	SB	EB	WB
Left	78	0	0	106
Through	0	0	435	393
Right	176	0	0	0
Total	254	0	435	499

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**934**	**254**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project LAC+USC Medical Master Plan
Major Street Zonal Avenue
Scenario Cumulative Base Year (2040)
Minor Street State Street
Peak Hour PM

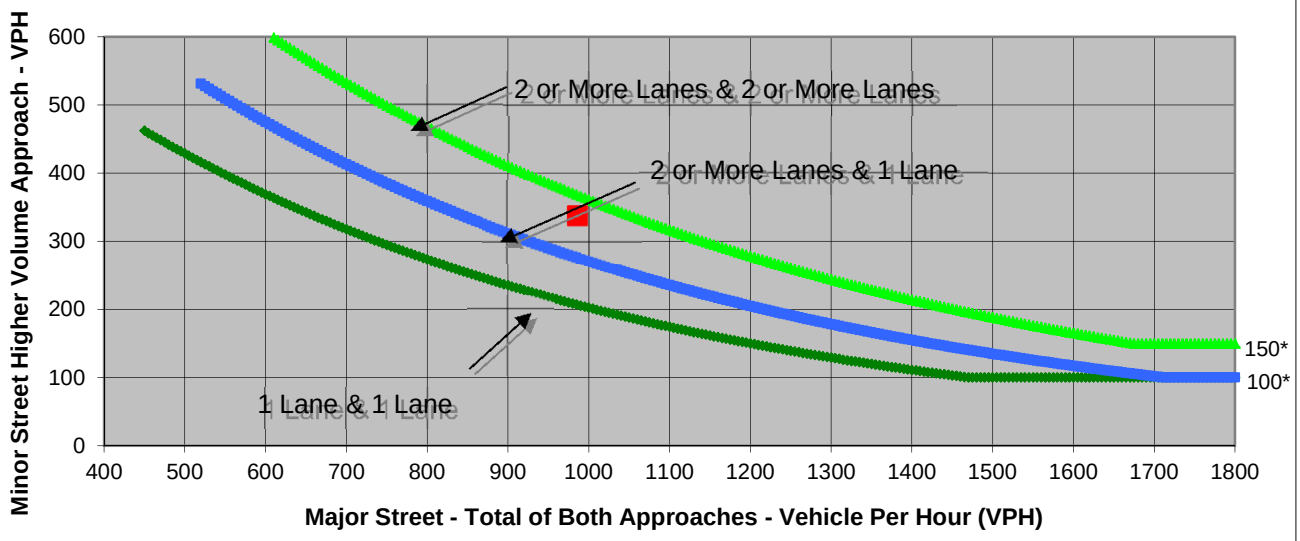
Turn Movement Volumes

	NB	SB	EB	WB
Left	225	0	0	153
Through	0	0	164	669
Right	112	0	0	0
Total	337	0	164	822

Major Street Direction

	North/South
x	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street Zonal Avenue	Minor Street State Street	Warrant Met
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**986**	**337**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

APPENDIX D
FREEWAY SCREENING ANALYSIS

FREEWAY SCREENING FOR LAC+USC MEDICAL CENTER MASTER PLAN PROJECT IN ACCORDANCE WITH SCREENING CRITERIA DESCRIBED IN SECTION 3 OF THE "AGREEMENT BETWEEN CITY OF LOS ANGELES AND CALTRANS DISTRICT 7 ON FREEWAY IMPACT ANALYSIS PROCEDURES", OCTOBER 2013

INTRODUCTION

Section 3.1 of the "Agreement Between City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures" dated October 2013 specifies the following:

> "City will require Project applicants to work with Caltrans and prepare a Freeway Impact Analysis, utilizing Caltrans' "Guide for the Preparation of Traffic Impact Studies" ("TIS Guide"), for land use proposals that meet any of the following criteria:
>
> - The project's peak hour trips would result in a 1-percent or more increase to the freeway mainline capacity of a freeway segment operating at level-of-service (LOS) E or F (based on an assumed capacity of 2,000 vehicles per hour per lane); or
> - The project's peak hour trips would result in a 2-percent or more increase to the freeway mainline capacity of a freeway segment operating at LOS D (based on an assumed capacity of 2,000 vehicles per hour per lane); or
> - The project's peak hour trips would result in a 1-percent or more increase to the capacity of a freeway off-ramp operating at LOS E or F (based on an assumed ramp capacity of 1,500 vehicles per hour per lane); or
> - The project's peak hour trips would result in a 2-percent or more increase to the capacity of a freeway off-ramp operating at LOS D (based on an assumed ramp capacity of 1,500 vehicles per hour per lane)."

The purpose of this analysis is to apply the above screening criteria to determine whether a Freeway Impact Analysis would be required for the LAC+USC Medical Center Master Plan project. The methodologies used to conduct the screening analysis for the project, and the results of the screening, are described below.

INITIAL STEPS

- Project trip generation estimates were prepared in accordance with the latest version of LADOT's Traffic Study Policies and Procedures as part of preparing the standard LADOT Traffic Study Memorandum of Understanding (MOU) for the project. The project trip generation estimates as accepted by LADOT and used for the screening analysis are shown in Table 1.

- A trip distribution pattern was developed for the project as part of preparing the LADOT Traffic Study MOU for the project. A select zone analysis was conducted using the City of Los Angeles travel demand model to assist in the development of the distribution pattern. In addition to a select zone analysis, LAC+USC-related employee and patient zip code data were also used to inform and refine the project's trip distribution pattern. Based on both the select zone analysis and zip code data, we determined that 6% of project trips may utilize the US 101/I-10 freeway to/from the west, 14% of project trips may utilize the I-10 freeway to/from the east, 5% of project trips may utilize the I-5 freeway to/from the north, and 15% may utilize the I-5 freeway to/from

the south (see Figure 1). The most direct routes for project traffic to access the freeway system is via the State Street interchanges for travel to/from the south, to/from the east, and to/from the west and via the Soto interchange for travel to/from the east. Based on this distribution and data available, the following freeway mainline segments and freeway off-ramps were determined to be the most likely elements of the freeway system to be utilized by project traffic and were selected for screening:

- Freeway Mainline Segments
  - US-101 northbound at Broadway
  - I-10 eastbound and westbound at Echandia Street
  - I-10 eastbound and westbound at Indiana Street
  - I-5 northbound at Main Street
  - I-5 southbound at Broadway
  - I-5 northbound at First Street
  - I-5 southbound at Cesar E. Chavez Avenue
- Freeway off-ramps
  - I-5 southbound off to Mission Road
  - I-10 eastbound off to State Street
  - I-10 westbound off to State Street
  - I-5 northbound off to Cesar E. Chavez Avenue
  - I-10 eastbound off to Soto Street
  - I-10 westbound off to Soto Street

FREEWAY MAINLINE SEGMENT SCREENING

- The freeway mainline segment screening analysis is shown on Table 2.

- For the most part, mainline volume and speed data were obtained from PeMS for the freeway mainline segments for the AM and PM peak periods for Tuesdays, Wednesdays, and Thursdays in April 2014, and the data was averaged across the days.

  For the freeway mainline segments at I-5 northbound at Main Street and I-5 northbound at First Street, annual average daily traffic data provided by mainline traffic census stations from PeMS were used to estimate averages of AM and PM peak period data for Tuesdays, Wednesdays, and Thursdays in April 2010 due to the lack of nearby mainline vehicle detector stations and current data at these locations. Additionally, their speed data were obtained from INRIX for Tuesdays, Wednesdays, and Thursdays in April 2014.

- Because volumes can become suppressed and volume-based measures can therefore break down under congested conditions, the existing freeway mainline segment LOS was estimated in two ways, based on volume and based on speed:

    - For volume-based, the number of mainline lanes (not including auxiliary lanes) was identified and segment capacity was determined using a capacity of 2,000 vehicles per hour per lane (vphpl). The existing hourly volume was divided by the capacity to determine volume/capacity (V/C) ratio. The existing LOS was then determined as follows:

V/C Ratio	LOS
<0.60	A
0.61-0.70	B
0.71-0.80	C
0.81-0.90	D
0.91-1.00	E
≥1.00	F

    - For speed-based, the existing LOS was determined as follows:

Speed	LOS
>50 mph	A/B/C
36-50 mph	D
≤35 mph	E/F

- The worst-case LOS (V/C-based versus speed-based) was then used to determine the appropriate screening threshold:

    - Threshold = ≥2% of segment capacity if worst-case LOS is D
    - Threshold = ≥1% of segment capacity if worst-case LOS is E or F

- The project-added trips to each freeway mainline segment were compared to the appropriate threshold. As shown on Table 2, the screening analysis determined that the screening threshold criteria would not be triggered at either of the seven freeway mainline segments. Furthermore, since the project traffic did not trigger the screening thresholds at the mainline segments most likely to be used by project traffic, there is no need to look at segments further away. Therefore, a Freeway Impact Analysis is not required.

FREEWAY RAMP SCREENING

- The freeway ramp screening analysis is shown on Table 3.

- Turning movement count data was obtained for the AM and PM peak periods for the freeway off-ramp termini intersections.

- Existing LOS was estimated using the Highway Capacity Manual (HCM) operational methodology for the signalized ramp termini intersections. The HCM worksheets attached to this document present the LOS calculations.

- From the HCM intersection analysis, the existing average vehicular delay and LOS was determined for the off-ramp approaches to the termini intersections. For each ramp, the LOS for the off-ramp approach was used to determine the appropriate screening threshold:

    - Threshold = $\geq$2% of assumed ramp capacity if approach LOS is D
    - Threshold = $\geq$1% of assumed ramp capacity if approach LOS is E or F

    Where the assumed ramp capacity = 1,500 vphpl multiplied by the number of approach lanes on the ramp approach to the intersection. In other words, the threshold is 30 vphpl at LOS D and 15 vphpl at LOS E or F, multiplied by the number of lanes on the ramp approach to the intersection.

- The project-added trips to each off-ramp were compared to the appropriate threshold. As shown on Table 3, the screening analysis determined that the screening threshold criteria would not be triggered at any of the six freeway ramps. Furthermore, since the project traffic did not trigger the screening thresholds at the ramps most likely to be used by project traffic, there is no need to look at ramps further away. Therefore, a Freeway Impact Analysis is not required.

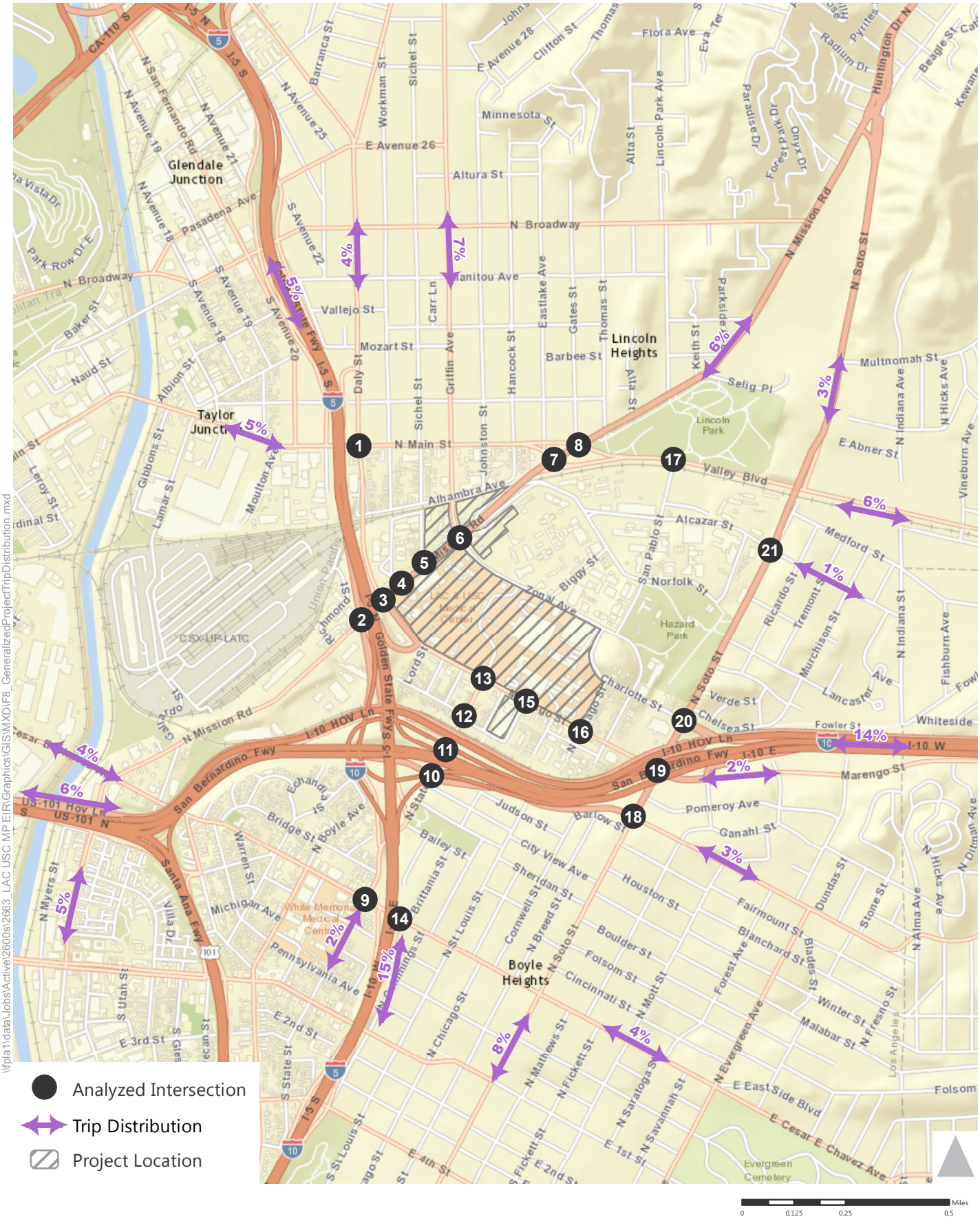


Figure 1

Generalized Project Trip Distribution

TABLE 1
PROPOSED PROJECT TRIP GENERATION - LAC + USC MEDICAL CENTER MASTER PLAN

Land Use	Size	Trip Generation Rates [a]									Estimated Trip Generation						
		ITE	Daily	AM Peak Hour			PM Peak Hour				Daily	AM Peak Hour			PM Peak Hour		
		Code	Rate	Rate	In	Out	Rate	In	Out			In	Out	Total	In	Out	Total
Hospital Addition	450 beds	610	12.94	1.32	72%	28%	1.42	33%	67%		5,823	428	166	594	211	428	639
Less: Internal Trips credit	*-15% [b]*	*Hospital*									*(873)*	*(64)*	*(25)*	*(89)*	*(32)*	*(64)*	*(96)*
Less: Transit credit	*-15% [c]*										*(743)*	*(55)*	*(21)*	*(76)*	*(27)*	*(54)*	*(81)*
Net External Vehicle Trips											4,207	309	120	429	152	310	462
Wellness-Oriented Community Meeting Space & Community-Serving Uses	85.000 ksf	495	33.82	2.05	66%	34%	2.74	49%	51%		2,875	115	59	174	114	119	233
Less: Internal Trips credit	*-15% [b]*	*Recreational Community*									*(431)*	*(17)*	*(9)*	*(26)*	*(17)*	*(18)*	*(35)*
Less: Transit credit	*-15% [c]*	*Center*									*(367)*	*(14)*	*(8)*	*(22)*	*(15)*	*(15)*	*(30)*
Driveway Trips											2,077	84	42	126	82	86	168
Less: Pass-By credit	*-20% [d]*										*(415)*	*(17)*	*(8)*	*(25)*	*(17)*	*(17)*	*(34)*
Net External Vehicle Trips											1,662	67	34	101	65	69	134
Wellness-Oriented Community Retail Space [e]	20.000 ksf	826	44.32	0.70	62%	38%	2.71	44%	56%		886	9	5	14	24	30	54
Less: Internal Trips credit	*-15% [b]*	*Specialty Retail*									*(133)*	*(1)*	*(1)*	*(2)*	*(4)*	*(4)*	*(8)*
Less: Transit credit	*-15% [c]*										*(113)*	*(1)*	*(1)*	*(2)*	*(3)*	*(4)*	*(7)*
Driveway Trips											640	7	3	10	17	22	39
Less: Pass-By credit	*-10% [d]*										*(64)*	*(1)*	*0*	*(1)*	*(2)*	*(2)*	*(4)*
Net External Vehicle Trips											576	6	3	9	15	20	35
New Utility Plant and Facilities [f]	40.000 ksf	170	[f]	0.80	90%	10%	0.76	45%	55%		124	29	3	32	14	16	30
Less: Internal Trips credit	*-15% [b]*	*Utilities*									*(19)*	*(5)*	*0*	*(5)*	*(2)*	*(3)*	*(5)*
Less: Transit credit	*-15% [c]*										*(16)*	*(4)*	*0*	*(4)*	*(2)*	*(2)*	*(4)*
Net External Vehicle Trips											89	20	3	23	10	11	21
Outpatient Clinics	200.000 ksf	720	36.13	2.39	79%	21%	3.57	28%	72%		7,226	378	100	478	200	514	714
Less: Internal Trips credit	*-15% [b]*	*Medical Office Building*									*(1,084)*	*(57)*	*(15)*	*(72)*	*(30)*	*(77)*	*(107)*
Less: Transit credit	*-15% [c]*										*(921)*	*(48)*	*(13)*	*(61)*	*(25)*	*(66)*	*(91)*
Net External Vehicle Trips											5,221	273	72	345	145	371	516
Professional/Administrative Offices	265.000 ksf	710	11.03	[g]	88%	12%	[g]	17%	83%		2,923	367	50	417	64	311	375
Less: Internal Trips credit	*-15% [b]*	*General Office Building*									*(438)*	*(55)*	*(8)*	*(63)*	*(10)*	*(46)*	*(56)*
Less: Transit credit	*-15% [c]*										*(373)*	*(47)*	*(6)*	*(53)*	*(8)*	*(40)*	*(48)*
Net External Vehicle Trips											2,112	265	36	301	46	225	271
Biotech Research and Development [h]	635.000 ksf	760	8.11	1.22	83%	17%	1.07	15%	85%		5,150	643	132	775	102	577	679
Less: Internal Trips credit	*-15% [b]*	*Research & Development*									*(773)*	*(96)*	*(20)*	*(116)*	*(15)*	*(87)*	*(102)*
Less: Transit credit	*-15% [c]*										*(657)*	*(82)*	*(17)*	*(99)*	*(13)*	*(74)*	*(87)*
Net External Vehicle Trips											3,720	465	95	560	74	416	490
DRIVEWAY TRIPS											18,066	1,423	371	1,794	526	1,441	1,967
EXTERNAL VEHICLE TRIPS											**17,587**	**1,405**	**363**	**1,768**	**507**	**1,422**	**1,929**
EXISTING TRIPS TO BE REMOVED [i]																	
General Office Space	197.288 ksf	710	11.03	[g]	88%	12%	[g]	17%	83%		*(2,176)*	*(290)*	*(40)*	*(330)*	*(51)*	*(248)*	*(299)*
Laboratory and Clinic Buildings	457.727 ksf	720	36.13	2.39	79%	21%	3.57	28%	72%		*(16,538)*	*(864)*	*(230)*	*(1,094)*	*(458)*	*(1,176)*	*(1,634)*
Carpenter's Mill [j]	31.000 ksf	120	1.50	0.51	88%	12%	0.68	12%	88%		*(47)*	*(14)*	*(2)*	*(16)*	*(3)*	*(18)*	*(21)*
Central Power Plant and Cooling Towers	20.938 ksf	170	[f]	0.80	90%	10%	0.76	45%	55%		*(66)*	*(15)*	*(2)*	*(17)*	*(7)*	*(9)*	*(16)*
Warehouse and Storage Trailers	15.756 ksf	150	3.56	0.30	79%	21%	0.32	25%	75%		*(56)*	*(4)*	*(1)*	*(5)*	*(1)*	*(4)*	*(5)*
Existing Trips To Be Removed											*(18,883)*	*(1,187)*	*(275)*	*(1,462)*	*(520)*	*(1,455)*	*(1,975)*
Less: Internal Trips credit	*-15% [b]*										*2,832*	*178*	*41*	*219*	*78*	*218*	*296*
Less: Transit credit	*-15% [c]*										*2,408*	*151*	*35*	*186*	*66*	*186*	*252*
TOTAL EXISTING VEHICLE TRIPS TO BE REMOVED											***(13,643)***	***(858)***	***(199)***	***(1,057)***	***(376)***	***(1,051)***	***(1,427)***
TOTAL NET EXTERNAL VEHICLE TRIPS											**3,944**	**547**	**164**	**711**	**131**	**371**	**502**

Notes:

[a] Source: *Trip Generation, 9th Edition* , Institute of Transportation Engineers (ITE), 2012.

[b] Internal capture represents the percentage of trips between the land uses that occur within the LAC+USC Medical Center. Due to the synergy between the land uses of the proposed Project, an internal trips credit has been applied to some of the proposed uses in order to provide conservative AM and PM peak hour project traffic volume forecasts, as well as daily project traffic volume forecast. A 15% internal capture trip reduction has been applied to all of the Project land use components.

[c] The transit credit is based on LADOT's Traffic Study Policies and Procedures, June 2013. The guidelines state that a 15% transit credit may be taken for projects within 1/4 mile of a transit station.

[d] The pass-by credit is based on Attachment I of LADOT's Traffic Study Policies and Procedures, June 2013.

[e] The ITE rates for the Specialty Retail Land Use 826 were used to estimate trip generation for the wellness-oriented community retail space. No information was provided for AM peak hour trip generation and so the AM peak hour trip rate was derived by applying the ratio between the Shopping Center Land Use 820 PM peak hour trip rate and the Specialty Retail Land Use 826 PM peak hour trip rate to the Shopping Center Land Use 820 AM peak hour trip rate. The AM directional distribution assumed is from the Shopping Center Land Use AM peak hour.

[f] The ITE rates for the Utilities Land Use 170 were used to estimate trip generation for the new utility plant, central power plant, and cooling towers. No information was provided for daily trip generation and so daily trips were estimated by doubling the summation of the AM and PM peak trips. The directional distribution for the trip generation per 1 KSF is unavailable for the AM peak hour, therefore the directional distribution for the trip generation per employee was assumed.

[g] ITE General Office trip generation equations used rather than the linear trip generation rate:

AM Peak Hour: Ln(T) = 0.80 * Ln(A) + 1.57, where T = trips, A = area in ksf

PM Peak Hour: T = 1.12 * A + 78.45, where T = trips, A = area in ksf

[h] The ITE rates for the Research & Development Center Land Use 760 were used to estimate trip generation for the biotech research land uses proposed.

[i] Trip generated by existing LAC+USC Medical Center uses to be removed.

[j] The ITE rates for the General Heavy Industrial Land Use 120 were used to estimate trip generation for the carpenter's mill. Both the AM and PM peak hour directional distribution were unavailable and so General Light Industrial Land Use 110 directional distribution for the AM and PM peak hour were used respectively.

TABLE 2
LAC + USC MEDICAL CENTER MASTER PLAN - FREEWAY IMPACT ANALYSIS - FREEWAY MAINLINE SCREENING

PROJECT TRIP GENERATION

	AM Peak Hour		PM Peak Hour		
	In	Out	In	Out	
Project Trip Generation	547	164	131	371	(see Table 1)

MAINLINE SCREENING

Threshold: 1% of capacity if LOS E or F, 2% of capacity if LOS D, using 2,000 vphpl capacity

Freeway Segment	% of Project	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
US-101 at Broadway		**SB**	**NB**	**SB**	**NB**
# of Lanes[1]		N/A	4	N/A	4
Capacity		N/A	8,000	N/A	8,000
Existing Volume[2]		N/A	5,489	N/A	5,341
V/C Ratio		N/A	0.69	N/A	0.67
LOS Based on V/C Ratio[3]		N/A	B	N/A	B
Speed (mph)		N/A	33	N/A	37
LOS Based on Speed[4]		N/A	**E/F**	N/A	**D**
Trigger %[5]		N/A	1%	N/A	2%
Trigger		N/A	80	N/A	160
Project Trips	6%	N/A	10	N/A	22
Exceed Trigger?		N/A	no	N/A	no
I-10 at Echandia St		**EB**	**WB**	**EB**	**WB**
# of Lanes[1]		3	3	3	3
Capacity		6,000	6,000	6,000	6,000
Existing Volume[2]		1,839	2,157	4,076	2,070
V/C Ratio		0.31	0.36	0.68	0.35
LOS Based on V/C Ratio[3]		A	A	B	A
Speed (mph)		68	14	61	67
LOS Based on Speed[4]		A/B/C	**E/F**	A/B/C	A/B/C
Trigger %[5]		n/a	1%	n/a	n/a
Trigger		n/a	60	n/a	n/a
Project Trips	6%	33	10	8	22
Exceed Trigger?		no	no	no	no
I-10 at Indiana St		**WB**	**EB**	**WB**	**EB**
# of Lanes[1]		6	6	6	6
Capacity		12,000	12,000	12,000	12,000
Existing Volume[2]		8,189	6,325	6,445	8,667
V/C Ratio		0.68	0.53	0.54	0.72
LOS Based on V/C Ratio[3]		B	A	A	C
Speed (mph)		45	65	66	43
LOS Based on Speed[4]		**D**	A/B/C	A/B/C	**D**
Trigger %[5]		2%	n/a	n/a	2%
Trigger		240	n/a	n/a	240
Project Trips	14%	77	23	18	52
Exceed Trigger?		no	no	no	no
I-5 at Main St		**SB**	**NB**	**SB**	**NB**
# of Lanes[1]		N/A	5	N/A	5
Capacity		N/A	10,000	N/A	10,000
Existing Volume[6]		N/A	7,158	N/A	7,646
V/C Ratio		N/A	0.72	N/A	0.76
LOS Based on V/C Ratio[3]		N/A	C	N/A	C
Speed (mph)[7]		N/A	31	N/A	25
LOS Based on Speed[4]		N/A	**E/F**	N/A	**E/F**
Trigger %[5]		N/A	1%	N/A	1%
Trigger		N/A	100	N/A	100
Project Trips	5%	N/A	8	N/A	19
Exceed Trigger?		N/A	no	N/A	no
I-5 at Broadway		**SB**	**NB**	**SB**	**NB**
# of Lanes[1]		4	N/A	4	N/A
Capacity		8,000	N/A	8,000	N/A
Existing Volume[2]		5,791	N/A	5,430	N/A
V/C Ratio		0.72	N/A	0.68	N/A
LOS Based on V/C Ratio[3]		C	N/A	B	N/A
Speed (mph)		52	N/A	51	N/A
LOS Based on Speed[4]		A/B/C	N/A	A/B/C	N/A
Trigger %[5]		n/a	N/A	n/a	N/A
Trigger		n/a	N/A	n/a	N/A
Project Trips	5%	27	N/A	7	N/A
Exceed Trigger?		no	N/A	no	N/A
I-5 at First St		**NB**	**SB**	**NB**	**SB**
# of Lanes[1]		5	N/A	5	N/A
Capacity		10,000	N/A	10,000	N/A
Existing Volume[6]		6,854	N/A	7,305	N/A
V/C Ratio		0.69	N/A	0.73	N/A
LOS Based on V/C Ratio[3]		B	N/A	C	N/A
Speed (mph)[7]		47	N/A	23	N/A
LOS Based on Speed[4]		**D**	N/A	**E/F**	N/A
Trigger %[5]		2%	N/A	1%	N/A
Trigger		200	N/A	100	N/A
Project Trips	15%	82	N/A	20	N/A
Exceed Trigger?		no	N/A	no	N/A
I-5 at Cesar E Chavez Ave		**NB**	**SB**	**NB**	**SB**
# of Lanes[1]		N/A	5	N/A	5
Capacity		N/A	10,000	N/A	10,000
Existing Volume[2]		N/A	6,719	N/A	5,857
V/C Ratio		N/A	0.67	N/A	0.59
LOS Based on V/C Ratio[3]		N/A	B	N/A	A
Speed (mph)		N/A	31	N/A	45
LOS Based on Speed[4]		N/A	**E/F**	N/A	**D**
Trigger %[5]		N/A	1%	N/A	2%
Trigger		N/A	100	N/A	200
Project Trips	15%	N/A	25	N/A	56
Exceed Trigger?		N/A	no	N/A	no

Notes:

[1] Number of lanes does not include auxiliary or HOV lanes.

[2] Mainline volume and speed source: Averages of AM and PM peak period data from PeMS for Tuesdays, Wednesdays and Thursdays in April 2014. Data from April 15, 2014 through April 17, 2014 was excluded due to the spring break vacation of LAUSD schools.

[3] LOS based on V/C as follows: F >= 1.00; E 0.91 to 1.00; D 0.81 to 0.90; C 0.71 to 0.80; B 0.61 to 0.70; A <0.60.

[4] LOS based on speed as follows: E/F <= 35 mph; D 36-50 mph; A/B/C >50 mph.

[5] Worst-case LOS (V/C-based versus speed-based, denoted by **orange for LOS D** and **red for LOS E or F**) used to determine screening threshold.

[6] Mainline volume source: Due to the lack of nearby mainline vehicle detector stations at this location, annual average daily traffic (AADT) data provided by mainline traffic census stations from PeMS were used to estimate averages of AM and PM peak period data for Tuesdays, Wednesdays, and Thursdays in April 2010 (latest AADT data).

[7] Speed source: Due to the lack of nearby PeMS-related mainline vehicle detector stations at this location, averages of AM and PM peak period speed data were obtained from INRIX for Tuesdays, Wednesdays and Thursdays in April 2014.

TABLE 3
LAC + USC MEDICAL CENTER MASTER PLAN - FREEWAY IMPACT ANALYSIS - FREEWAY RAMP SCREENING

PROJECT TRIP GENERATION

	AM Peak Hour		PM Peak Hour	
	In	**Out**	**In**	**Out**
Project Trip Generation	547	164	131	371

(see Table 1)

RAMP SCREENING

Threshold: 1% of capacity if ramp at LOS E or F, 2% if ramp at LOS D, using HCM intersection methodology at ramp terminus

Int. #	Freeway Ramps	Peak Hour	Existing Volume[1]	Off-Ramp Delay[2]	LOS[3]	Ramp Terminus # of Lanes	Ramp Terminus Trigger	% of Project	Project Trips	Exceed Trigger?
2	**I-5 SB Off-ramp**	AM	868	88.6	**F**	2	30	4%	22	no
	at Mission Rd	PM	491	36.1	**D**		60	4%	5	no
10	**I-10 EB Off-ramp**	AM	418	26.2	C	2	n/a	6%	33	no
	at State Street	PM	967	13.9	B		n/a	6%	8	no
11	**I-10 WB Off-ramp**	AM	802	12.3	B	2	n/a	8%	44	no
	at State Street	PM	261	16.6	B		n/a	8%	10	no
14	**I-5 NB Off-ramp**	AM	571	41.9	**D**	2	60	7%	38	no
	at Cesar E. Chavez Ave	PM	314	21.3	C		n/a	7%	9	no
18	**I-10 EB Off-ramp**	AM	769	39.4	**D**	3	90	5%	27	no
	at Soto Street	PM	837	41.4	**D**		90	5%	7	no
20	**I-10 WB Off-ramp**	AM	1,216	128.0	**F**	4	60	6%	33	no
	at Soto Street	PM	946	189.1	**F**		60	6%	8	no

Notes:

[1] Ramp volume source: May 2014 turning movment counts at ramp termini intersections

[2] Off-ramp delay determined using HCM LOS methodology at ramp termini intersection, with off-ramp approach reported

[3] Worst-case LOS (denoted by **orange for LOS D** and **red for LOS E or F**) used to determine screening threshold.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 I-5 SB Off Ramp & Mission Road

Cycle (sec):	130	Critical Vol./Cap.(X):	0.893
Loss Time (sec):	9	Average Delay (sec/veh):	49.9
Optimal Cycle:	180	Level Of Service:	D

Street Name:	I-5 SB Off Ramp						Mission Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	1! 0	0	0 0	2	1 0	2 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	528	3	337	0	742	15	422	1467	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	528	3	337	0	742	15	422	1467	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	564	3	360	0	793	16	451	1568	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	564	3	360	0	793	16	451	1568	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	564	3	360	0	793	16	451	1568	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.91	0.91	0.92	0.95	1.00
Lanes:	0.00	0.00	0.00	1.43	0.01	0.56	0.00	2.94	0.06	2.00	2.00	0.00
Final Sat.:	0	0	0	2338	8	908	0	5069	102	3502	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.24	0.40	0.40	0.00	0.16	0.16	0.13	0.43	0.00
Crit Moves:						****					****	
Green/Cycle:	0.00	0.00	0.00	0.37	0.37	0.37	0.00	0.15	0.15	0.41	0.56	0.00
Volume/Cap:	0.00	0.00	0.00	0.65	1.06	1.06	0.00	1.06	1.06	0.31	0.78	0.00
Delay/Veh:	0.0	0.0	0.0	34.6	88.6	88.6	0.0	105	105.3	26.2	24.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	34.6	88.6	88.6	0.0	105	105.3	26.2	24.6	0.0
LOS by Move:	A	A	A	C	F	F	A	F	F	C	C	A
HCM2kAvgQ:	0	0	0	13	35	35	0	18	18	6	27	0

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 State Street & I-10 EB Off-ramp

Cycle (sec):	65	Critical Vol./Cap.(X):	0.683
Loss Time (sec):	6	Average Delay (sec/veh):	9.5
Optimal Cycle:	38	Level Of Service:	A

Street Name:	State Street						I-10 EB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1 1	0	0 1	1 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	561	207	163	895	0	220	138	60	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	561	207	163	895	0	220	138	60	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	620	229	180	989	0	243	153	66	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	620	229	180	989	0	243	153	66	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	620	229	180	989	0	243	153	66	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	0.91	0.65	0.65	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.46	0.54	0.31	1.69	0.00	1.00	0.70	0.30	0.00	0.00	0.00
Final Sat.:	0	2527	932	383	2104	0	1626	1133	493	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.47	0.47	0.00	0.15	0.13	0.13	0.00	0.00	0.00
Crit Moves:					****		****					
Green/Cycle:	0.00	0.69	0.69	0.69	0.69	0.00	0.22	0.22	0.22	0.00	0.00	0.00
Volume/Cap:	0.00	0.36	0.36	0.68	0.68	0.00	0.68	0.61	0.61	0.00	0.00	0.00
Delay/Veh:	0.0	4.3	4.3	7.1	7.1	0.0	26.2	24.4	24.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	4.3	4.3	7.1	7.1	0.0	26.2	24.4	24.4	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	C	C	C	A	A	A
HCM2kAvgQ:	0	4	4	9	9	0	6	5	5	0	0	0

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 State Street & I-10 WB Off-ramp

Cycle (sec):	65	Critical Vol./Cap.(X):	0.577
Loss Time (sec):	6	Average Delay (sec/veh):	13.7
Optimal Cycle:	30	Level Of Service:	B

Street Name:	State Street						I-10 WB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	0	0	0 0 2	0	0	0 0 0	0	0	1 0 0	0	1
Volume Module:												
Base Vol:	0	776	0	0	571	0	0	0	0	478	0	324
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	776	0	0	571	0	0	0	0	478	0	324
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	847	0	0	623	0	0	0	0	522	0	354
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	847	0	0	623	0	0	0	0	522	0	354
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	847	0	0	623	0	0	0	0	522	0	354
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	0	0	3610	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.29	0.00	0.22
Crit Moves:		****								****		
Green/Cycle:	0.00	0.41	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Volume/Cap:	0.00	0.58	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.58	0.00	0.44
Delay/Veh:	0.0	15.5	0.0	0.0	14.0	0.0	0.0	0.0	0.0	12.3	0.0	10.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.5	0.0	0.0	14.0	0.0	0.0	0.0	0.0	12.3	0.0	10.7
LOS by Move:	A	B	A	A	B	A	A	A	A	B	A	B
HCM2kAvgQ:	0	8	0	0	5	0	0	0	0	8	0	5

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 I-5 NB Off-ramp & Cesar E. Chavez Avenue

Cycle (sec):	75	Critical Vol./Cap.(X):	0.764
Loss Time (sec):	6	Average Delay (sec/veh):	25.0
Optimal Cycle:	86	Level Of Service:	C

Street Name:	I-5 NB Off-ramp						Cesar E. Chavez Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0	0	0 0	0	0	2 0	0	0	2 0
Volume Module:												
Base Vol:	470	0	101	0	0	0	0	418	0	0	1321	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	470	0	101	0	0	0	0	418	0	0	1321	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	527	0	113	0	0	0	0	469	0	0	1482	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	527	0	113	0	0	0	0	469	0	0	1482	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	527	0	113	0	0	0	0	469	0	0	1482	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1805	0	1609	0	0	0	0	3610	0	0	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.29	0.00	0.07	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.41	0.00
Crit Moves:	****										****	
Green/Cycle:	0.32	0.00	0.32	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.60	0.00
Volume/Cap:	0.90	0.00	0.22	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.69	0.00
Delay/Veh:	41.9	0.0	18.7	0.0	0.0	0.0	0.0	51.0	0.0	0.0	11.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.9	0.0	18.7	0.0	0.0	0.0	0.0	51.0	0.0	0.0	11.3	0.0
LOS by Move:	D	A	B	A	A	A	A	D	A	A	B	A
HCM2kAvgQ:	16	0	2	0	0	0	0	9	0	0	13	0

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Soto Street & I-10 EB Off-ramp

Cycle (sec):	120	Critical Vol./Cap.(X):	0.677
Loss Time (sec):	9	Average Delay (sec/veh):	33.8
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Soto Street						I-10 EB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	1	0	1 0	2	0 0	1 1	0	0 1	1 0	0	0 1
Volume Module:												
Base Vol:	0	573	22	115	943	0	621	86	62	177	0	246
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	573	22	115	943	0	621	86	62	177	0	246
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
PHF Volume:	0	580	22	116	954	0	628	87	63	179	0	249
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	580	22	116	954	0	628	87	63	179	0	249
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	580	22	116	954	0	628	87	63	179	0	249
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.90	0.90	0.35	0.95	1.00	0.96	0.96	0.84	0.95	1.00	0.79
Lanes:	0.00	2.89	0.11	1.00	2.00	0.00	1.76	0.24	1.00	1.00	0.00	1.00
Final Sat.:	0	4965	191	663	3610	0	3198	443	1600	1805	0	1502
Capacity Analysis Module:												
Vol/Sat:	0.00	0.12	0.12	0.18	0.26	0.00	0.20	0.20	0.04	0.10	0.00	0.17
Crit Moves:					****			****				****
Green/Cycle:	0.00	0.39	0.39	0.39	0.39	0.00	0.29	0.29	0.29	0.24	0.00	0.24
Volume/Cap:	0.00	0.30	0.30	0.45	0.68	0.00	0.68	0.68	0.14	0.41	0.00	0.68
Delay/Veh:	0.0	25.3	25.3	28.3	31.7	0.0	39.4	39.4	31.6	38.6	0.0	46.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	25.3	25.3	28.3	31.7	0.0	39.4	39.4	31.6	38.6	0.0	46.0
LOS by Move:	A	C	C	C	C	A	D	D	C	D	A	D
HCM2kAvgQ:	0	5	5	4	16	0	12	12	2	6	0	9

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Soto Street & I-10 WB Off-ramp

Cycle (sec):	110	Critical Vol./Cap.(X):	1.155
Loss Time (sec):	12	Average Delay (sec/veh):	64.5
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Soto Street						I-10 WB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 1	0	1 1	0 0	2
Volume Module:												
Base Vol:	150	810	94	269	1043	55	44	51	185	444	390	382
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	150	810	94	269	1043	55	44	51	185	444	390	382
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	158	852	99	283	1098	58	46	54	195	467	410	402
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	852	99	283	1098	58	46	54	195	467	410	402
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	158	852	99	283	1098	58	46	54	195	467	410	402
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.83	0.26	0.95	0.79	0.85	0.85	0.85	0.97	0.97	0.67
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.46	0.54	1.00	1.06	0.94	2.00
Final Sat.:	1805	3610	1582	485	3610	1497	747	866	1610	1970	1731	2538
Capacity Analysis Module:												
Vol/Sat:	0.09	0.24	0.06	0.58	0.30	0.04	0.06	0.06	0.12	0.24	0.24	0.16
Crit Moves:	****			****					****		****	
Green/Cycle:	0.08	0.58	0.79	0.51	0.51	0.51	0.10	0.10	0.10	0.21	0.21	0.21
Volume/Cap:	1.16	0.41	0.08	1.15	0.60	0.08	0.59	0.59	1.15	1.15	1.15	0.77
Delay/Veh:	175.6	12.8	2.7	133.0	19.9	14.1	48.9	48.9	154.0	128.0	128	48.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	175.6	12.8	2.7	133.0	19.9	14.1	48.9	48.9	154.0	128.0	128	48.3
LOS by Move:	F	B	A	F	B	B	D	D	F	F	F	D
HCM2kAvgQ:	11	8	1	17	14	1	4	4	13	25	25	9

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 I-5 SB Off Ramp & Mission Road

Cycle (sec):	130	Critical Vol./Cap.(X):	0.624
Loss Time (sec):	9	Average Delay (sec/veh):	30.0
Optimal Cycle:	44	Level Of Service:	C

Street Name:	I-5 SB Off Ramp						Mission Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	1! 0		0 0	2	1 0	2 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	273	22	196	0	1219	36	366	795	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	273	22	196	0	1219	36	366	795	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	0	0	281	23	202	0	1255	37	377	818	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	281	23	202	0	1255	37	377	818	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	281	23	202	0	1255	37	377	818	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.91	0.91	0.92	0.95	1.00
Lanes:	0.00	0.00	0.00	1.39	0.06	0.55	0.00	2.91	0.09	2.00	2.00	0.00
Final Sat.:	0	0	0	2268	102	905	0	5018	148	3502	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.22	0.22	0.00	0.25	0.25	0.11	0.23	0.00
Crit Moves:						****		****		****		
Green/Cycle:	0.00	0.00	0.00	0.36	0.36	0.36	0.00	0.40	0.40	0.17	0.57	0.00
Volume/Cap:	0.00	0.00	0.00	0.35	0.62	0.62	0.00	0.62	0.62	0.62	0.40	0.00
Delay/Veh:	0.0	0.0	0.0	30.8	36.1	36.1	0.0	31.7	31.7	51.9	15.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	30.8	36.1	36.1	0.0	31.7	31.7	51.9	15.4	0.0
LOS by Move:	A	A	A	C	D	D	A	C	C	D	B	A
HCM2kAvgQ:	0	0	0	6	12	12	0	15	15	8	9	0

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 State Street & I-10 EB Off-ramp

Cycle (sec):	60	Critical Vol./Cap.(X):	0.700
Loss Time (sec):	6	Average Delay (sec/veh):	14.6
Optimal Cycle:	39	Level Of Service:	B

Street Name:	State Street						I-10 EB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1 1	0	0 1	1 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	472	446	115	398	0	175	296	496	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	472	446	115	398	0	175	296	496	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	510	482	124	430	0	189	320	536	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	510	482	124	430	0	189	320	536	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	510	482	124	430	0	189	320	536	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.88	0.87	0.56	0.56	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Lanes:	0.00	1.02	0.98	0.45	1.55	0.00	0.37	0.63	1.00	0.00	0.00	0.00
Final Sat.:	0	1709	1615	480	1661	0	602	1019	1620	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.30	0.26	0.26	0.00	0.31	0.31	0.33	0.00	0.00	0.00
Crit Moves:		****							****			
Green/Cycle:	0.00	0.43	0.43	0.43	0.43	0.00	0.47	0.47	0.47	0.00	0.00	0.00
Volume/Cap:	0.00	0.70	0.70	0.61	0.61	0.00	0.66	0.66	0.70	0.00	0.00	0.00
Delay/Veh:	0.0	15.6	15.6	14.5	14.5	0.0	13.2	13.2	13.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.6	15.6	14.5	14.5	0.0	13.2	13.2	13.9	0.0	0.0	0.0
LOS by Move:	A	B	B	B	B	A	B	B	B	A	A	A
HCM2kAvgQ:	0	9	9	5	5	0	9	9	10	0	0	0

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 State Street & I-10 WB Off-ramp

Cycle (sec):	60	Critical Vol./Cap.(X):	0.330
Loss Time (sec):	6	Average Delay (sec/veh):	7.9
Optimal Cycle:	20	Level Of Service:	A

Street Name:	State Street						I-10 WB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	0	0	0 0 2	0	0	0 0 0	0	0	1 0	0	0 1
Volume Module:												
Base Vol:	0	462	0	0	626	0	0	0	0	151	0	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	462	0	0	626	0	0	0	0	151	0	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	0	534	0	0	724	0	0	0	0	175	0	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	534	0	0	724	0	0	0	0	175	0	127
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	534	0	0	724	0	0	0	0	175	0	127
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	0	0	3610	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.10	0.00	0.08
Crit Moves:					****					****		
Green/Cycle:	0.00	0.61	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.29	0.00	0.29
Volume/Cap:	0.00	0.24	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.33	0.00	0.27
Delay/Veh:	0.0	5.5	0.0	0.0	5.9	0.0	0.0	0.0	0.0	17.0	0.0	16.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	5.5	0.0	0.0	5.9	0.0	0.0	0.0	0.0	17.0	0.0	16.6
LOS by Move:	A	A	A	A	A	A	A	A	A	B	A	B
HCM2kAvgQ:	0	2	0	0	4	0	0	0	0	3	0	2

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 I-5 NB Off-ramp & Cesar E. Chavez Avenue

Cycle (sec):	80	Critical Vol./Cap.(X):	0.360
Loss Time (sec):	6	Average Delay (sec/veh):	10.3
Optimal Cycle:	22	Level Of Service:	B

Street Name:	I-5 NB Off-ramp						Cesar E. Chavez Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0	0	0 0	0	0	2 0	0	0	2 0
Volume Module:												
Base Vol:	201	0	113	0	0	0	0	763	0	0	626	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	0	113	0	0	0	0	763	0	0	626	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	207	0	116	0	0	0	0	787	0	0	645	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	0	116	0	0	0	0	787	0	0	645	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	207	0	116	0	0	0	0	787	0	0	645	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.84	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1805	0	1598	0	0	0	0	3610	0	0	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.07	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.18	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.32	0.00	0.32	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.61	0.00
Volume/Cap:	0.36	0.00	0.23	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.30	0.00
Delay/Veh:	21.3	0.0	20.2	0.0	0.0	0.0	0.0	8.0	0.0	0.0	7.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.3	0.0	20.2	0.0	0.0	0.0	0.0	8.0	0.0	0.0	7.6	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	4	0	2	0	0	0	0	5	0	0	4	0

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Soto Street & I-10 EB Off-ramp

Cycle (sec):	120	Critical Vol./Cap.(X):	0.744
Loss Time (sec):	9	Average Delay (sec/veh):	33.1
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Soto Street						I-10 EB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	1	0	1 0 2	0	0	1 1 0	0	1	1 0 0	0	1
Volume Module:												
Base Vol:	0	927	73	113	750	0	504	268	65	86	0	231
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	927	73	113	750	0	504	268	65	86	0	231
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	956	75	117	774	0	520	276	67	89	0	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	956	75	117	774	0	520	276	67	89	0	238
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	956	75	117	774	0	520	276	67	89	0	238
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.90	0.89	0.20	0.95	1.00	0.97	0.97	0.83	0.95	1.00	0.79
Lanes:	0.00	2.78	0.22	1.00	2.00	0.00	1.31	0.69	1.00	1.00	0.00	1.00
Final Sat.:	0	4753	374	372	3610	0	2401	1277	1572	1805	0	1499
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.31	0.21	0.00	0.22	0.22	0.04	0.05	0.00	0.16
Crit Moves:				****				****				****
Green/Cycle:	0.00	0.42	0.42	0.42	0.42	0.00	0.29	0.29	0.29	0.21	0.00	0.21
Volume/Cap:	0.00	0.48	0.48	0.74	0.51	0.00	0.74	0.74	0.15	0.23	0.00	0.74
Delay/Veh:	0.0	25.4	25.4	46.8	25.9	0.0	41.4	41.4	31.7	39.3	0.0	53.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	25.4	25.4	46.8	25.9	0.0	41.4	41.4	31.7	39.3	0.0	53.2
LOS by Move:	A	C	C	D	C	A	D	D	C	D	A	D
HCM2kAvgQ:	0	10	10	5	11	0	15	15	2	3	0	10

Note: Queue reported is the number of cars per lane.

LAC+USC Medical Center Master Plan
Freeway Ramp Screening

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Soto Street & I-10 WB Off-ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	1.275
Loss Time (sec):	12	Average Delay (sec/veh):	73.3
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Soto Street						I-10 WB Off-ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:		Ovl			Include			Include			Include	
Min. Green:	4	4	4	4	4	4	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 1	0	1 1	0 0	2
Volume Module:												
Base Vol:	60	1185	89	247	743	29	31	100	205	347	241	358
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	1185	89	247	743	29	31	100	205	347	241	358
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	62	1217	91	254	763	30	32	103	211	356	248	368
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1217	91	254	763	30	32	103	211	356	248	368
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	1217	91	254	763	30	32	103	211	356	248	368
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.83	0.17	0.95	0.82	0.86	0.86	0.84	0.97	0.97	0.74
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.24	0.76	1.00	1.18	0.82	2.00
Final Sat.:	1805	3610	1574	320	3610	1551	386	1246	1596	2177	1512	2802
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.06	0.79	0.21	0.02	0.08	0.08	0.13	0.16	0.16	0.13
Crit Moves:	****			****					****	****		
Green/Cycle:	0.04	0.65	0.78	0.61	0.61	0.61	0.10	0.10	0.10	0.13	0.13	0.13
Volume/Cap:	0.85	0.52	0.07	1.30	0.35	0.03	0.81	0.81	1.29	1.29	1.29	1.03
Delay/Veh:	106.6	9.4	2.6	185.4	9.7	7.7	54.6	54.6	200.4	189.1	189	100.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	106.6	9.4	2.6	185.4	9.7	7.7	54.6	54.6	200.4	189.1	189	100.2
LOS by Move:	F	A	A	F	A	A	D	D	F	F	F	F
HCM2kAvgQ:	4	10	1	17	6	0	6	6	15	20	20	11

Note: Queue reported is the number of cars per lane.

Appendix H
Transportation Energy Calculations for LAC+USC Master Plan

Transportation Energy Calculations for LAC/USC Master Plan

Energy Factors

Transport Mode	Energy Intensity (BTUs per vehicle mile)	Energy Intensity (BTUs per passenger mile)
Passenger Vehicles (Cars)	5,214	3,364
Light Trucks	6,900	3,750
Buses (Transit – Natural Gas or Diesel)	37,718	4,240
Transit Rail (Light and Heavy)	68,217	2,513
Source: Oak Ridge National Laboratory 2013. *Transportation Energy Data Book*. Edition 32, Chapter 2, Energy.		

Transportation Energy Calculations

EXISTING

Total VMT from CalEEMod: 45,958,539

Fleet Mix from CalEEMod for Existing 2014

Type	*% of fleet*	BTU Intensity (per VMT)	Total BTU			
LDA	0.535275	5,214	128,266,782,606			
LDT1	0.058759	6,900	18,633,296,772			
LDT2	0.178478	6,900	56,597,858,053			
MDV	0.127034	37,718	220,208,887,880			
LHD1	0.038632	37,718	66,967,187,970			
LHD2	0.006246	37,718	10,827,217,231			
MHD	0.015618	37,718	27,073,243,470			
HHD	0.028471	37,718	49,353,458,498			
OBUS	0.002426	37,718	4,205,384,086			
UBUS	0.003171	37,718	5,496,814,896			
MCY	0.003696	5,214	885,664,431			
SBUS	0.000547	37,718	948,204,903			
MH	0.001645	37,718	2,851,548,566			
	1		592,315,549,363	BTU/yr	1,622,782,327	BTU/day
			592,315,549.36	kBTU/yr	1,622,782	kBTU/day

BUILDOUT 2040

Total VMT from CalEEMod 47,470,242

Fleet Mix from CalEEMod for Buildout (2040; really 2035)			
Type	*% of fleet*	BTU Intensity (per VMT)	Total BTU
LDA	0.491908	5,214	121,752,071,254
LDT1	0.059855	6,900	19,605,186,211
LDT2	0.185077	6,900	60,620,984,853
MDV	0.131229	37,718	234,963,239,509
LHD1	0.04494	37,718	80,464,287,494
LHD2	0.007356	37,718	13,170,789,916
MHD	0.019164	37,718	34,312,808,312
HHD	0.046757	37,718	83,717,594,356
OBUS	0.003019	37,718	5,405,466,932
UBUS	0.003347	37,718	5,992,745,221
MCY	0.004084	5,214	1,010,830,194
SBUS	0.000506	37,718	905,984,189
MH	0.00276	37,718	4,941,731,942

Foonote: the 2040 analysis BTU/mile factor is based on existing year energy and will likely be lower due to improvements in state and federal improvements in fuel economy over time. Therefore, the 2040 analysis is likely conservative and the proejct increment is likely exaggerated.

	1	666,863,720,382	BTU/yr	1,827,023,891	BTU/day
		666,863,720.38	kBTU/yr	1,827,024	kBTU/yr

INCREMENT	74,548,171,019	BTU/yr	204,241,564	BTU/day
	74,548,171	kBTU/yr	204,242	kBTU/yr

Transportation Energy Calculations for LAC/USC Master Plan

Energy Factors

Transport Mode	Energy Intensity (BTUs per vehicle mile)	Energy Intensity (BTUs per passenger mile)
Passenger Vehicles (Cars)	5,214	3,364
Light Trucks	6,900	3,750
Buses (Transit – Natural Gas or Diesel)	37,718	4,240
Transit Rail (Light and Heavy)	68,217	2,513
Source: Oak Ridge National Laboratory 2013. *Transportation Energy Data Book*. Edition 32, Chapter 2, Energy.		

Transportation Energy Calculations

EXISTING

Total VMT from CalEEMod: 45,958,539

Fleet Mix from CalEEMod for Existing 2014

Type	*% of fleet*	BTU Intensity (per VMT)	Total BTU			
LDA	0.535275	5,214	128,266,782,606			
LDT1	0.058759	6,900	18,633,296,772			
LDT2	0.178478	6,900	56,597,858,053			
MDV	0.127034	37,718	220,208,887,880			
LHD1	0.038632	37,718	66,967,187,970			
LHD2	0.006246	37,718	10,827,217,231			
MHD	0.015618	37,718	27,073,243,470			
HHD	0.028471	37,718	49,353,458,498			
OBUS	0.002426	37,718	4,205,384,086			
UBUS	0.003171	37,718	5,496,814,896			
MCY	0.003696	5,214	885,664,431			
SBUS	0.000547	37,718	948,204,903			
MH	0.001645	37,718	2,851,548,566			
	1		592,315,549,363	BTU/yr	1,622,782,327	BTU/day
			592,315,549.36	kBTU/yr	1,622,782	kBTU/day

BUILDOUT 2040

Total VMT from CalEEMod 47,470,242

Fleet Mix from CalEEMod for Buildout (2040; really 2035)			
Type	*% of fleet*	BTU Intensity (per VMT)	Total BTU
LDA	0.491908	5,214	121,752,071,254
LDT1	0.059855	6,900	19,605,186,211
LDT2	0.185077	6,900	60,620,984,853
MDV	0.131229	37,718	234,963,239,509
LHD1	0.04494	37,718	80,464,287,494
LHD2	0.007356	37,718	13,170,789,916
MHD	0.019164	37,718	34,312,808,312
HHD	0.046757	37,718	83,717,594,356
OBUS	0.003019	37,718	5,405,466,932
UBUS	0.003347	37,718	5,992,745,221
MCY	0.004084	5,214	1,010,830,194
SBUS	0.000506	37,718	905,984,189
MH	0.00276	37,718	4,941,731,942

Foonote: the 2040 analysis BTU/mile factor is based on existing year energy and will likely be lower due to improvements in state and federal improvements in fuel economy over time. Therefore, the 2040 analysis is likely conservative and the proejct increment is likely exaggerated.

	1	666,863,720,382	BTU/yr	1,827,023,891	BTU/day
		666,863,720.38	kBTU/yr	1,827,024	kBTU/yr

INCREMENT	74,548,171,019	BTU/yr	204,241,564	BTU/day
	74,548,171	kBTU/yr	204,242	kBTU/yr

This file contains a description for each vehicle category in EMFAC2011. It describes which module is used to calculate each category as well as how the categories are grouped into the EMFAC2007 and Other categorization schemes. For more information contact msei@arb.ca.gov.

EMFAC2011 Veh & Tech	EMFAC2011 Vehicle	Description	Source	EMFAC2007 Vehicle	EMFAC2007 Vehicle Code	Truck / Non-Truck Category	Truck 1 / Truck 2 / Non-Truck Category
LDA - DSL	LDA	Passenger Cars	EMFAC2011-LDV	LDA	PC	Non-Trucks	Non-Trucks
LDA - GAS			EMFAC2011-LDV			Non-Trucks	Non-Trucks
LDT1 - DSL	LDT1	Light-Duty Trucks (0-3750 lbs)	EMFAC2011-LDV	LDT1	T1	Non-Trucks	Non-Trucks
LDT1 - GAS			EMFAC2011-LDV			Non-Trucks	Non-Trucks
LDT2 - DSL	LDT2	Light-Duty Trucks (3751-5750 lbs)	EMFAC2011-LDV	LDT2	T2	Non-Trucks	Non-Trucks
LDT2 - GAS			EMFAC2011-LDV			Non-Trucks	Non-Trucks
LHD1 - DSL	LHD1	Light-Heavy-Duty Trucks (8501-10000 lbs)	EMFAC2011-LDV	LHDT1	T4	Trucks	Truck 1
LHD1 - GAS			EMFAC2011-LDV			Trucks	Truck 1
LHD2 - DSL	LHD2	Light-Heavy-Duty Trucks (10001-14000 lbs)	EMFAC2011-LDV	LHDT2	T5	Trucks	Truck 1
LHD2 - GAS			EMFAC2011-LDV			Trucks	Truck 1
MCY - GAS	MCY	Motorcycles	EMFAC2011-LDV	MCY	MC	Non-Trucks	Non-Trucks
MDV - DSL	MDV	Medium-Duty Trucks (5751-8500 lbs)	EMFAC2011-LDV	MDV	T3	Non-Trucks	Non-Trucks
MDV - GAS			EMFAC2011-LDV			Non-Trucks	Non-Trucks
MH - DSL	MH	Motor Homes	EMFAC2011-LDV	MH	MH	Non-Trucks	Non-Trucks
MH - GAS			EMFAC2011-LDV			Non-Trucks	Non-Trucks
T6 Ag - DSL	T6 Ag	Medium-Heavy Duty Diesel Agriculture Truck	EMFAC2011-HD	MHDT	T6	Trucks	Truck 2
T6 CAIRP heavy - DSL	T6 CAIRP heavy	Medium-Heavy Duty Diesel CA International Registration Plan Truck with GVWR>26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 CAIRP small - DSL	T6 CAIRP small	Medium-Heavy Duty Diesel CA International Registration Plan Truck with GVWR<=26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 instate construction heavy - DSL	T6 instate construction heavy	Medium-Heavy Duty Diesel instate construction Truck with GVWR>26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 instate construction small - DSL	T6 instate construction small	Medium-Heavy Duty Diesel instate construction Truck with GVWR<=26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 instate heavy - DSL	T6 instate heavy	Medium-Heavy Duty Diesel instate Truck with GVWR>26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 instate small - DSL	T6 instate small	Medium-Heavy Duty Diesel instate Truck with GVWR<=26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 OOS heavy - DSL	T6 OOS heavy	Medium-Heavy Duty Diesel Out-of-state Truck with GVWR>26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 OOS small - DSL	T6 OOS small	Medium-Heavy Duty Diesel Out-of-state Truck with GVWR<=26000 lbs	EMFAC2011-HD			Trucks	Truck 2
T6 Public - DSL	T6 Public	Medium-Heavy Duty Diesel Public Fleet Truck	EMFAC2011-HD			Trucks	Truck 2
T6 utility - DSL	T6 utility	Medium-Heavy Duty Diesel Utility Fleet Truck	EMFAC2011-HD			Trucks	Truck 2
T6TS - GAS	T6TS	Medium-Heavy Duty Gasoline Truck	EMFAC2011-LDV			Trucks	Truck 2
T7 Ag - DSL	T7 Ag	Heavy-Heavy Duty Diesel Agriculture Truck	EMFAC2011-HD	HHDT	T7	Trucks	Truck 2
T7 CAIRP - DSL	T7 CAIRP	Heavy-Heavy Duty Diesel CA International Registration Plan Truck	EMFAC2011-HD			Trucks	Truck 2
T7 CAIRP construction - DSL	T7 CAIRP construction	Heavy-Heavy Duty Diesel CA International Registration Plan Construction Truck	EMFAC2011-HD			Trucks	Truck 2
T7 NNOOS - DSL	T7 NNOOS	Heavy-Heavy Duty Diesel Non-Neighboring Out-of-state Truck	EMFAC2011-HD			Trucks	Truck 2
T7 NOOS - DSL	T7 NOOS	Heavy-Heavy Duty Diesel Neighboring Out-of-state Truck	EMFAC2011-HD			Trucks	Truck 2
T7 other port - DSL	T7 other port	Heavy-Heavy Duty Diesel Drayage Truck at Other Facilities	EMFAC2011-HD			Trucks	Truck 2
T7 POAK - DSL	T7 POAK	Heavy-Heavy Duty Diesel Drayage Truck in Bay Area	EMFAC2011-HD			Trucks	Truck 2
T7 POLA - DSL	T7 POLA	Heavy-Heavy Duty Diesel Drayage Truck near South Coast	EMFAC2011-HD			Trucks	Truck 2

EMFAC2011 Veh & Tech	EMFAC2011 Vehicle	Description	Source	EMFAC2007 Vehicle	EMFAC2007 Vehicle Code	Truck / Non-Truck Category	Truck 1 / Truck 2 / Non-Truck Category
T7 Public - DSL	T7 Public	Heavy-Heavy Duty Diesel Public Fleet Truck	EMFAC2011-HD			Trucks	Truck 2
T7 Single - DSL	T7 Single	Heavy-Heavy Duty Diesel Single Unit Truck	EMFAC2011-HD			Trucks	Truck 2
T7 single construction - DSL	T7 single construction	Heavy-Heavy Duty Diesel Single Unit Construction Truck	EMFAC2011-HD			Trucks	Truck 2
T7 SWCV - DSL	T7 SWCV	Heavy-Heavy Duty Diesel Solid Waste Collection Truck	EMFAC2011-HD			Trucks	Truck 2
T7 tractor - DSL	T7 tractor	Heavy-Heavy Duty Diesel Tractor Truck	EMFAC2011-HD			Trucks	Truck 2
T7 tractor construction - DSL	T7 tractor construction	Heavy-Heavy Duty Diesel Tractor Construction Truck	EMFAC2011-HD			Trucks	Truck 2
T7 utility - DSL	T7 utility	Heavy-Heavy Duty Diesel Utility Fleet Truck	EMFAC2011-HD			Trucks	Truck 2
T7IS - GAS	T7IS	Heavy-Heavy Duty Gasoline Truck	EMFAC2011-LDV			Trucks	Truck 2
PTO - DSL	PTO	Power Take Off	EMFAC2011-HD			Trucks	Truck 2
SBUS - DSL	SBUS	School Buses	EMFAC2011-HD	SBUS	SB	Non-Trucks	Non-Trucks
SBUS - GAS			EMFAC2011-LDV			Non-Trucks	Non-Trucks
UBUS - DSL	UBUS	Urban Buses	EMFAC2011-LDV	UBUS	UB	Non-Trucks	Non-Trucks
UBUS - GAS			EMFAC2011-LDV			Non-Trucks	Non-Trucks
Motor Coach - DSL	Motor Coach	Motor Coach	EMFAC2011-HD	OBUS	OB	Non-Trucks	Non-Trucks
OBUS - GAS	OBUS	Other Buses	EMFAC2011-LDV			Non-Trucks	Non-Trucks
All Other Buses - DSL	All Other Buses	All Other Buses	EMFAC2011-HD			Non-Trucks	Non-Trucks